Title: The Meaning of constructions : the Cognitive denial of the lexicon-syntax division

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Citation style: Szcześniak Konrad. (2014). The Meaning of constructions : the Cognitive denial of the lexicon-syntax division. Katowice : Wydawnictwo Uniwersytetu Śląskiego

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KONRAD SZCZEŚNIAK

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NR 3221

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1. Introduction

New approaches to language description, especially cognitive linguistic theories, have taken a radically revisionist position toward Generative models and other, by now "traditional" grammars. Many fundamental assumptions about language structure have been questioned, revised or rejected entirely in frameworks like Construction Grammar (Goldberg, 1995), Simpler Syntax (Culicover & Jackendoff, 2005), or Lexical Functional Grammar (Bresnan, 2001). New models and theories of language structure find themselves contesting at least some of the following generative assumptions:

1. *The syntactocentric view of language.* Doubt has been cast on the role of syntax as the only component responsible for imposing structure on sentences.
2. *The innateness of UG.* The question of how much linguistic complexity is innately determined and how much has to be learned has been an ongoing question whose intractability is comparable to the more general nature vs. nurture debate. Recently the pendulum has swung toward the learning extreme, with construction grammarians stressing the numbers of constructions that make up the knowledge of language.
3. *The universal nature of language.* An inevitable consequence of questioning innateness is an increased emphasis on cross-linguistic diversity. Stressing diversity over similarity (or vice versa) is, much like self--serving manipulation of statistics, a function of how linguistic data are interpreted, but currently, more effort seems to go into demonstrating uniqueness.
4. *Underlying levels of syntax.* Deep structure analyses have been replaced by monostratal approaches, which purport to account for sentence structure more straightforwardly, without the need for invoking hidden abstract levels of representation.

5. *Derivations.* Related to the above abandonment of deep structure is the need to replace derivational operations with constraints which allow correct syntactic configurations and rule out others.
6. *The division between the lexicon and syntax.* Rather than being separate, lexical and function forms have been argued to occupy a continuum with a large transitional midsection of elements that exhibit both lexical and syntactic properties.
7. *Modularity.* Not only are the lexicon and syntax unlikely to be disjoint sets, but more generally, it has been argued that genetically determined modules dedicated to culture-dependent skills like reading are implausible.
8. *The division between core and periphery.* The success of the Standard Theory was conditional on confining focus to the core phenomena and ignoring idiosyncratic idioms relegated to periphery. Recently, as the number of idiosyncratic constructions being uncovered grew, it has become obvious that periphery has become a much too large a refuse heap—an elephant in the room that can no longer be dismissed as unimportant to linguistic analysis.

Among reasons behind these mistaken assumptions is that in the early days of Generative Grammar, research could not benefit from tools like automated corpora, which make it possible to confront theorizing with evidence (Stefanowitsch, 2006). Nowadays, analyses of corpus data are used, among other things, to illustrate the magnitude of periphery or the blurred division between the lexicon and syntax.

However, corpus data are rarely marshaled to question the new post-generative views, even fairly implausible ones, such as the belief in highly semanticized closed-class constructions (Szcześniak, 2013). The objective of this contribution is to attempt to reconcile current and traditional Generative Grammar models. While the generative assumptions about language may have been simplistic, it is unlikely that they are all wrong. Rejecting them prematurely may be throwing out the baby with the bathwater. Half a century after the beginning of the generative tradition seems like a good moment to take stock and consider the opposing views, evaluate their relative merits and shortcomings, and find common ground. This study of grammatical constructions like the *x's way*, incredulity construction, or the *into*-gerund construction addresses the following questions:
— Is it possible to reconcile the lexicon-syntax continuum with the traditional division view?
— Are traditional views of closed-class function forms as desemanticized elements valid? (Talmy, 2000a)
— Can peripheral phenomena (like meaningful idiomatic constructions) be accounted for by assuming the division of the lexicon and syntax?

The present study will attempt to answer the above questions by focusing mainly on one contested issue, namely that of the division between syntax and the lexicon. It is against the backdrop of the syntax-lexicon continuum that we will consider the semantic content and formal characteristics of grammatical constructions. Just like increased reliance on corpus data helped revisit generative views on language, here too, previously unavailable data on the use of grammatical constructions will be provided to question some of the more recent cognitive views on the semantic capacity of closed-class forms and the division between the modules of the lexicon and syntax.

1.1. Traditional Distinction

It has traditionally been assumed that language naturally segregates its forms into two major superclasses, one containing lexical categories like nouns and adjectives, that is, forms with rich lexical meanings, and the other including grammatical categories like articles, pronouns or conjunctions, classes that do not so much have meanings as functions or relational content. The belief in the division is justified by a long list of distinguishing features that set the two classes apart, which will be discussed below. For example, the very names that the two classes are known by, open- and closed-class forms, reflect the observation that the former readily accept new members, while the latter tend to resist new additions. In consequence, open-class forms are orders of magnitude more numerous, numbering in the tens or even hundreds of thousands of items, than closed-class forms whose numbers do not exceed a few hundred.

The distinction has classical origins and follows straightforwardly from the intuitive sense that the lexicon is separate from grammar. This is evident in Panini's distinction into the lexicon *dhātupāṭha* and grammar *kātantra*. In Europe, Aristotle divided language forms into those that can have their own independent meaning and those whose meaning can only be realized in conjunction with other forms. Given this semantic dependence on conjoining, Aristotle referred to function words as σύνδεσμος (*syndesmos*) "conjunctions," by which he understood a large category including not only conjunctions, but also pronouns and articles (Arens, 1984, p. 129). The lexicon-grammar divide is a partition considered as something of an axiom held since the first ancient studies of language, and unquestioned until around the 1980s. Thus, the distinction has

a venerable tradition continued in the work on grammaticization, one of whose major insights is that grammatical items can be traced back to lexical words. In the twentieth century, the division into open-class and closed-class forms has figured explicitly or implicitly in analyses of many different questions in the linguistic literature. Henry Sweet (1913, p. 31) saw it in qualitative terms in his observation that "grammar deals with the general facts of language, lexicology with the special facts." Similarly, Jespersen (1924, p. 32) noted that "[w]hen we come to consider the best way in which to arrange linguistic facts, we are at once confronted with the very important division between grammar and dictionary (lexicology)." The division is even more evident in Bloomfield's (1933, p. 274) dismissive pronouncement that the lexicon is "an appendix of the grammar, a list of basic irregularities." Chomsky used this view to justify his decision to focus on syntax and disregard the lexicon as a locus of idiosyncrasies not worthy of generalizations. The distinction is also at the heart of the Words and Rules Theory (Pinker & Prince, 1991; Pinker, 1999), which assumed that rules and lexical items are processed by two qualitatively different mechanisms, namely a pattern-based mechanism processing rules and a mechanism for handling lexical items as idiosyncratic forms.

1.2. Rejection

Recently, however, the worth of the distinction has been put in question. The first signs of problems with the distinction were noted already in the early years of Generative Grammar research when Chomsky realized that idioms were not easily captured by the generative model, the solution being to put aside "phenomena that result from historical accident, dialect mixture, personal idiosyncrasies, and the like" in the hope that they would be explained later (Chomsky, 1995, p. 20). Then Fillmore's work on idioms led to the recognition that despite their phrasal form, they are irreducible units of language not explained by other more abstract principles, and they cannot be characterized in a level-independent way. Fillmore, Kay and O'Connor (1988) observed that they are therefore in many ways akin to individual morphemes and in others to large freely composable phrases accounted for by general rules of syntax. The problem that idioms pose is that they cannot be placed on either side of the lexicon-grammar divide. The sense of fuzziness is further aggravated by the fact that idioms themselves are not a homogenous group; they come in varying degrees of schematicity, some being strongly substantive and

others fairly schematic and open to be filled with lexical material. Such a varied set of lexico-syntactic forms sprawls astride the division, which can be taken as an argument for questioning its purpose or even very existence. One indication of the fuzziness problem is that some categories are treated differently by different scholars. For example, prepositions are considered closed-class items by some (e.g., Talmy, 2001; Tyler & Evans, 2003; Langacker, 2008), others place them between open and closed-class categories (Zelinsky-Wibbelt, 1993; Saint-Dizier, 2006). This is no doubt due to the transitional status of prepositions which cannot be grouped unequivocally with either of the two.

This has made it reasonable enough to either downplay or openly reject the notion of a lexico-syntactic division, a decision made by scholars representing many models of grammar. Among the main assumptions of Hudson's Word Grammar is the claim that "[n]o distinction is assumed (or found) between 'rules' and 'lexical items.'" (Holmes & Hudson, 2005, p. 243). The distinction is also suspended in HPSG (Pollard & Sag, 1994), where lexical items come with detailed information on both their semantic and syntactic properties. Culicover & Jackendoff (2005, p. 26) claim that "the traditional distinction between lexicon and grammar is mistaken." In another work, Jackendoff also refers to the lexicon grammar distinction as a "fundamental mistake" (Jackendoff, 2007, p. 53). The fuzziness of the lexicon-syntax divide is taken as an example of a more general tendency for mental components to transition smoothly rather than exhibit sharp divisions; a position assumed in Lewandowska--Tomaszczyk's (2007) analysis of polysemy, which "as understood in cognitive terms, is an exponent of the absence of clear boundaries between semantics and pragmatics (as it is an exponent of the absence of clear boundaries between lexicon and syntax…)" (2007, p. 154). The boundary is also questioned in Goldberg's Construction Grammar (1995; 2006) and Langacker's Cognitive Grammar (2008). The objections put forth by cognitive scholars can be summed up as the belief that the distinction is at odds with the symbolic thesis, which treats syntactic constructions as inherently meaningful. Briefly, because the distinction presupposes semantic austerity of closed-class forms, including syntactic patterns which clearly and unequivocally do have meanings, it does not seem an exaggeration to conclude that observing the distinction may be an obstacle for research focusing on the meaning content of constructions. In light of that, it seems only reasonable to ignore the distinction. Thus, the cognitive linguistic skepticism of the separation of lexicon and grammar has been motivated by the very view of language which is now seen in its entirety to consist of meaning-form pairings. In short, suspending the restriction against meanings in closed-class forms meant

getting a major obstacle out of the way of theorizing about "the detailed semantics and distribution of particular words, grammatical morphemes, and cross-linguistically unusual phrasal patterns" (Goldberg, 2006, p. 5). It is evident enough that the distinction is a non-banal issue. It is unlikely to be a mere illusion that persisted until the end of the twentieth century. As will be demonstrated below, there is an overwhelming amount of evidence in favor of postulating a qualitative division that organizes language forms. Yet at the same time, rather paradoxically, the strong sense of separation does not translate into a binary distinction by a sharp line. The more one reviews intermediate cases of forms that seem to fall where the division should lie, the more the distinction turns out to be a disappointingly facile dichotomy.

Incidentally, it is rather obvious why the two domains are separated by a blurred intermediate district, and not a sharp on-off distinction. The indistinct division is a direct consequence of grammaticization, which is itself characterized by gradual and not discrete stages. The division is fuzzy because that is the only way an item can cross over: dramatic changes cannot happen overnight as one-fell-swoop transformations; they have to be gradual. Many forms located in the middle are elements in transit (it is not mere speculation to predict that transitional forms like *concerning* or *notwithstanding* will continue their progress toward becoming full-fledged prepositions and will at some point approach the closed-class extreme). Furthermore, a form in transition is often found to exhibit a considerable synchronic distribution of meanings: a case in point is the verb *can,* which retains a range of meanings, some of which more lexical than other, more grammaticized ones (Bybee & Pagliuca, 1987; Bybee, 2010). A glance at the definitions of *can* in any dictionary shows a range of meanings at various stages of grammaticization, from the lexical 'knowledge, skill' to more grammatical 'general possibility' meanings. The coexistence of such varied meanings within a single verb is itself an indication of the inherently fuzzy nature of the lexicon-syntax system. The fuzziness is a synchronic reflection of diachronic developments.

The difficulty in finding a division is in fact a restatement of the difficulty in determining the point at which lexical items turn into grammatical forms. As Bybee and others (1994, p. 10) observe, "[o]ne problem in identifying the properties of lexical items that are candidates for grammaticization is the problem of determining at exactly what point we can say that grammaticization has begun." Of course, one cannot determine any such point exactly, except perhaps arbitrarily. Still, this does not make it impossible to talk about grammaticization, its directionality, irreversibility and end product that is qualitatively different from the original material.

Apart from blunt observations that the distinction is misguided, a widely adopted solution has been to approach it as a continuum, a view proposed by Langacker (1987; 2008), Gentner and Boroditsky (2001) or Evans and Green (2006). As Langacker puts it:

> There is no meaningful distinction between grammar and lexicon. Lexicon, morphology, and syntax form a continuum of symbolic structures, which differ along various parameters but can be divided into separate components only arbitrarily. (1987, 3)

1.3. Meaning

This may seem like a reasonable move, accounting for the fuzziness of the boundary, but it does not really do it justice in practice. Proposals by many scholars to preserve the distinction in gradient form are merely verbal declarations, and in reality the continuum compromise provides a justification to ignore the distinction altogether, the thinking being that since all language forms are symbolic in nature (Langacker, 2008), then closed-class forms may have any kind of meaning. This is either an implicit assumption in many constructionist analyses of syntactic patterns or is an open assertion, as in Kay and Michaelis (2012, p. 2278), who propose that "[p]robably any kind of meaning that occurs can be the semantic contribution of a construction." Similarly, Wierzbicka (2006) claims that there exist "[l]inks between culture and grammar" and that "grammatical categories of a language also encode meaning" (p. 171), which she demonstrates by means of many items, among which an "extremely rich and elaborate system of expressive derivation applicable to proper names (specifically, names of persons)" (p. 171) (to be discussed below here). To take another example, in a study of future constructions, Hilpert (2008) signals that they "are viewed as linguistic forms that are endowed with rich meanings that include, but may well go beyond, future time reference" (p. 1).

What is striking about the above views is that they seem to rest on the assumption that constructions located toward the closed-class end of the continuum have meanings whose degree of specificity may in principle be comparable to what is observed in open-class forms. This extreme claim is endorsed by Goldberg (2006) who points out that the concern with meanings of constructions is a hallmark of constructionist approaches:

> the hypothesis behind this methodology is that an account of the rich semantic/pragmatic and complex formal constraints on these patterns readily extends to more general, simple, or regular patterns. (Goldberg 2006, p. 5)

In the same vein, the presumption of semantic equality throughout the continuum is also present in Croft's declaration that "[t]he *only* difference is that constructions are complex, made up of words and phrases, while words are syntactically simple" (Croft, 2007, pp. 470—471, my emphasis).

I am not the first to voice skepticism about the cognitive insistence on postulating detailed meanings in schematic constructions. For example, Ward (1994) takes issue with Lakoff's (1977) characterization of the "prototype of transitivity." What he criticizes is precisely the overfine detail proposed by Lakoff:

> Lakoff's (1977) prototype for transitivity includes the provisions that the agent be looking at the patient and that he perceive a change in the patient. This is plausible as an experiential prototype (gestalt), and if it turns out that language indeed refers to such information, then some sophisticated matching of constructions to meanings may well be needed. However, Lakoff did not show that these provisions are necessary for explaining language use, and so, in the absence of evidence to the contrary, I conjecture that matching can be done by independently scoring across each of the dimensions involved.

What is particularly interesting about this example is that transitivity is probably among the most grammatical categories conceivable, the most removed from the open-class part of the continuum, and could therefore be expected to exhibit only sparse abstract meanings. And yet, even in such cases, cognitive characterizations cast them as involving concrete semantic elements such as "the agent is looking at the patient, the change in the patient is perceptible, and the agent perceives the change" (Lakoff, 1987, p. 55).

This is not to say that the entire cognitive linguistic community has abandoned the lexicon-syntax distinction. Talmy's (2000a) influential Conceptual Structuring System presupposes a strict divide between the lexical and grammatical subsystems and proposes that the former is responsible for the *content* of a sentence's cognitive representation, while the latter determines its *structure*. Bowerman (1996) stresses the sparseness of meanings conveyed by closed-class items as follows:

> In searching for the ultimate elements from which the meanings of closed-class spatial words such as the set of English prepositions are

composed, researchers have been struck by the relative sparseness of what can be important. Among the things that can play a role are notions like verticality, horizontality, place, region, inclusion, contact, support, gravity, attachment, dimensionality (point, line, plane or volume), distance, movement, and path … . Among things that never seem to play a role are, for example, the color, exact size or shape, or smell of the figure and ground objects … . (p. 422)

Sullivan (2013, p. 125) observes that a "combination of open-class items … can express any conceptual metaphor" while "the literal meanings of closed-class items … are limited to simple spatial, force-dynamic and image-schematic meanings." Boas (2010) points out that Goldberg's (1995) own analysis is actually predicated on there being "at least two distinct categories of linguistic information that interact with each other, namely lexical entries and argument structure constructions." He goes on to observe that this "suggests a *de facto* separation between syntax and the lexicon, despite her claim that 'the lexicon is not neatly differentiated from the rest of grammar'" (Boas, 2010, p. 57). Similarly, Van Valin (2007, p. 236) points out problems with Goldberg's (2006) decision to fuse the lexicon with syntax and to equalize all language forms, as expressed in the manifesto "all levels of grammatical analysis involve constructions: learned pairings of form with semantic or discourse function, including morphemes or words, idioms, partially lexically filled and fully general phrasal patterns" (Goldberg, 2006, p. 5). As Van Valin argues, the claim that everything is a construction has little content, whether theoretical and empirical. Moreover, if constructions are merely learned form--meaning pairings, they can only be language-specific. This position is quite inconsistent with and has no way of accounting for cross-linguistic generalisations.[1]

1.4. Against Rejecting Too Soon

This study will seek to demonstrate that the lexicon-syntactic divide may have been dismissed too soon. Even if the boundary is inherently and irreparably fuzzy and no practical way of demarcating the two magisteria can be found, this is no reason to abandon the distinction. It is one thing to establish the fuzziness of the boundary, and quite another to conclude

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[1] In fact, Goldberg goes so far as to claim that except for cognitive generalizations, there are no cross-linguistic generalisations.

that it means the absence of that boundary. To take this tack is to commit the continuum fallacy, which involves arguing that if two extremes are connected by small intermediate differences and if at no step can one indicate a decisive difference, then the extremes are the same. To use an analogy, inability to specify at what temperature cold turns to hot should not lead to the conclusion that cold is really the same as hot. But this is more or less what happens when the fuzziness of the distinction is taken as a justification of viewing all language forms as constructions and granting them equal semantic potential.

One could even suspect that the revisionist atmosphere surrounding discussions of the lexicon of syntax may be an artifact of the emphasis on fuzziness as a crucial feature of the most fundamental concepts in linguistics such as degree of grammaticalness (Chomsky, 1961) or prototype (Ross, 1972; Rosch, 1975a; 1975b). Applications of prototype and its inherent fuzziness are not limited to analyses of conceptual categories within semantics (Geeraerts, 1989), but are also invoked in studies in phonology (Jaeger, 1980) or syntax (Ross, 1973; Kalisz, 1981). Indeed, the use of prototypes as a linguistic tool is so widespread that Wierzbicka (1996) and Posner (1986) warn against its overuse. Posner admits that linguists were "enamored of the prototype idea" (1986, p. 55) because of its promise of explanatory power. Wierzbicka remarks that prototype has been "treated as an excuse for intellectual laziness and sloppiness," and goes on to attempt the prediction that "if [fuzzy prototype] is treated as a magical key to open all doors without effort, the chances are that it will cause more harm than good" (1996, p. 167). One could explain away any exception, anomaly or contradiction as a case of fuzziness; constructions could also be treated as family resemblance structures with no necessary conditions for natural usage, and this way no violated constraint will be a problem, but this would effectively make it unnecessary to attempt to describe construction. The prototype idea and the family resemblance structure both presuppose that constructions involve a high degree of inherent imprecision, which is a plausible hypothesis, but a hypothesis nonetheless. I believe that prototype and family resemblance should be invoked only as a last resort, when no other descriptions are capable of capturing the nature of a construction with some precision.

Here, in the context of the lexicon and syntax too, the case of fuzziness is probably being overplayed. Put more simply, I believe that a fuzzy distinction is better than none at all. The insight from the distinction that closed-class forms have functions rather than meanings is still valid; that is, although closed-class forms can easily be demonstrated to carry meanings, these can and should be expected to be constrained. At the moment, many constructionist studies of syntactic patterns such as the

way construction (*YouTube your way to fame*) or the incredulity construction (*Him pilot spacecraft?!*) postulate meanings that are implausibly rich. Some care should be taken to verify the observed semantic and pragmatic effects against what closed-class forms are normally capable of conveying. As I will show below, many such fantastically colorful effects can be explained as contextual interpretations of far more basic meanings that a construction has. However, this is not to say that no multi-word pattern can convey contentful meanings. Obviously, intermediate forms that share properties of lexical and function forms can be expected to contribute richer semantic content than a completely abstract function form could.

This suggests that it should be possible to predict the degree of semantic complexity of a language form. Just how rich a meaning of a construction is, depends on the degree to which it is substantive. While completely abstract forms are spare in meaning, the closer an item is to the lexical end of the continuum (that is, the more it is filled with lexical material) the richer its meaning. One corollary of this is that richer meanings found to occur in a syntactic pattern should be traceable to the lexical material embedded in the pattern. That is, if a construction is claimed to convey an open-class-style contentful meaning, it should be possible to point out a lexical item that is part of the construction and is responsible for that meaning.

To sum up, the present study will attempt to demonstrate the following four main points:
1. The lexicon-syntactic divide may have been dismissed too soon;
2. The meanings of syntactic constructions as presented in the literature are too rich;
3. The only exceptions to (2) are relatively contentful meanings that are normally associated with closed-class forms (e.g. possession, path or goal). These are found in many function forms in many languages.
4. Just how rich a meaning of a construction is, depends on the degree to which it is substantive.

1.5. Construction Grammar

The present study will focus on a number of examples of grammatical patterns analyzed within the framework of Construction Grammar (henceforth CxG). In line with CxG's tradition, it will follow the symbolic

thesis and the claim, held by many and put forth explicitly by Fried and Östman (2004, p. 24), that "a grammar is composed of conventional associations of form and meaning," following Goldberg's (1995) definition of constructions as pairings of form and meaning, or "learned pairings of form with semantic or discourse function" (Goldberg, 2006, p. 5). As will be shown in the discussion of each case reviewed in chapters 3—5, the constructions in question cannot be accounted for by general rules of syntax, and are therefore consistent with Croft's characterization of constructions as "pairings of form and meaning that are at least partially arbitrary" (Croft, 2001, p. 18). In this sense, patterns like the *way* construction or the "time" *away* construction are real (as opposed to being some sort of special instances of more general rules) and must be stored as entries in the mental lexicon. The semantic effects that will be presented below are strong enough to justify a constructional approach. The CxG framework provides an explicit structure for analyzing such constructions that would be difficult, if not impossible, to capture in terms of general syntactic principles.

However, although this analysis fully subscribes to the view that syntactic patterns can carry specific and evident meanings, it will be argued that the meanings of syntactic constructions are constrained in very specific ways. Central in this contribution is the proposal that the meanings postulated for many constructions were implausibly rich and in some cases these elaborate effects can be shown to be contextual inferences rather than a construction's inherent content. The present study will therefore attempt to separate the construction's real meaning from that meaning's pragmatic consequences of conversational principles. One of the welcome aspects of this approach is that it makes it possible to analyze the semantic effects of constructions without suspending the lexicon-grammar distinction, which presupposes a degree of semantic austerity for function forms.

Because most CxG analyses question the division between syntax and the lexicon, I will first review arguments against a modular organization of language put forth by cognitive linguists and construction grammarians. I will attempt to demonstrate that modularity in general and the lexicon-syntax division in particular do not have to be incompatible with the framework of CxG.

1.6. Dimensions of Constructions

In this section, Taylor's (2002; 2004) approach to constructions will be reviewed. His views on the dimensions along which constructions vary will serve to introduce the working definition of "construction" used in the present study. Taylor identifies four dimensions: schematicity, productivity, idiomaticity, and entrenchment.

1.6.1. Schematicity

Schematicity is the property of more general constructions whose use involves incorporation of variable items. Schematic constructions are those which, unlike fully specified structures, comprise empty slots. Schematic constructions can have more than one instantiation. For example, the expressions *(from) door to door, (from) cover to cover, (from) mouth to mouth* and other similar cases are related both by a common semantic pattern and the same syntactic frame. The commonality present in all of them is captured by the schematic formula [(from) X to X]. Otherwise, fully specified structures like *once-over* in the sense of 'a quick look or appraisal' are non-schematic. The components of the structure are not subject to replacement to produce related instantiations of the construction.

1.6.2. Productivity

A related but separate property of constructions, productivity is the degree to which a schematic construction can yield new instantiations. While some very general constructions are almost completely productive (like the transitive construction), others are restricted. For example, Taylor shows that even very schematic constructions, such as [X by X], are limited in terms of their productivity. The [X by X] construction is realized in some established instantiations like *day by day, one by one, page by page, step by step*, or *piece by piece*, but the [X by X] schema does not always yield acceptable instantiations: *several by several* or *spend one's inheritance, cheque by cheque* (Taylor, 2004, p. 62).

1.6.3. Idiomaticity

Idiomaticity is perhaps the most obvious property of constructions and, indeed, it is invoked as a defining criterion by Goldberg (1995). A construction is idiomatic to the extent that its meaning is non-predictable. Goldberg restricts her definition of constructions to those structures whose properties are not "strictly predictable from knowledge of other constructions existing in the grammar" (p. 4). A structure like *come to grips with* is idiomatic because its non-transparent sense of 'begin to deal with or understand' cannot be predicted from the parts of the expression or from the general schema [V to N with]. By contrast, expressions such as *come to an agreement* are considerably more transparent, and ones like *come to a party* are even more so. It is a question of some interest whether expressions like *come to a party* should be considered idiomatic at all. I daresay that even such obviously transparent examples retain a degree of idiomaticity at least in the sense that the choice of words is formulaic here. Speakers of English seem to follow a schema along the lines of [come to N_{EVENT}], yielding examples like *come to a meeting, dinner, the inauguration ceremony*, etc. Alternatives like *come on a party*, *move to a party* or *visit a party* would either sound odd or would require a special context to justify them.

It should also be born in mind that full predictability is rarer than one thinks. Many patterns may seem completely transparent, but that is often a result of familiarity. Philip (2011, p. 24) discusses the impression of transparency created by the collocation *fish and chips*, and notes that the meaning most speakers know is not in fact conveyed precisely by the component parts. That is, the name does not refer to any kind of fish (but typically to cod, haddock or plaice), and it refers to fish that has been deep-fried.

The dimension of idiomaticity overlaps somewhat with Makkai's (1972) terminology. Highly idiomatic constructions are what he refers to as "idioms of decoding," while many predictable constructions are "idioms of encoding." The latter include formulaic patterns that a person learning the language may not have come across, but can be expected to understand readily when exposed to them. Makkai gives the example of the use of the preposition *at* in expressing speed in English (e.g. *I drove at 50 miles per hour*), which will be predictable enough to someone without a prior knowledge of this use, but it is idiomatic given that this sense can be and is expressed by means of different prepositions in other European languages, like *avec* in French or *mit* in German (pp. 24—25).

1.6.4. Entrenchment

Entrenchment is the degree to which a construction is established and represented in a speaker's knowledge of grammar. At first glance, it may seem that it is practically the same thing as idiomaticity. Indeed, Goldberg affirmed that "[i]t is clear that knowledge about language must be learned and stored as such whenever it is not predictable from other facts" (Goldberg, 2006, p. 64). However, the two are separate properties. Goldberg admits that "patterns are also stored if they are sufficiently frequent, even when they are fully regular instances of other constructions, and thus predictable" (p. 64). Taylor gives the example of *have a nice day*, which is highly entrenched despite not being very idiomatic—its meaning can be predicted from the senses of its individual components and from the semantics of the imperative construction. Similarly, it is likely that for most speakers, the expression *game over* is entrenched, even though a speaker unfamiliar with it could predict its meaning based on the meanings of the two component parts alone. The need for entrenchment comes from conventionality. Even when an expression is predictable by virtue of being a regular instance of a more general construction, the exact wording has to be stored as a standard collocation preferable to possibilities like *live a nice day* or *game finished*—these may not be unacceptable, but are decidedly unusual and unidiomatic.

1.7. Definitions of "Construction"

Before we proceed, a review of various positions on constructions will be presented. This will serve as a starting point to propose an approach to constructions (in section 2.8 below) adopted in the following chapters.

As was pointed out above, within the framework of CxG, all concrete units of language are considered grammatical constructions. In Goldberg's (1995) words,

> According to Construction Grammar, a distinct construction is defined to exist if one or more of its properties are not strictly predictable from knowledge of other constructions existing in the grammar: C is a CONSTRUCTION iff$_{\text{def}}$ C is a form-meaning pair $<F_i, S_i>$ such that some aspect of F_i or some aspect of S_i is not strictly predictable from C's component parts or from other previously established constructions. (p. 4)

This definition can be traced back to Lakoff's (1987) view which he characterizes as an "enriched version" of the traditional sense of construction as

> a configuration of syntactic elements (like *clause, noun, preposition, gerund,* etc.) paired with a meaning and/or use associated with that syntactic configuration. (p. 467)

The similarities are evident also in how the two formalize the definition. Lakoff specifies the two sides of the pairing as elements F and M, "where F is a set of conditions on syntactic and phonological form and M is a set of conditions on meaning and use" (p. 467). One important difference is that while Lakoff limits his definition to syntactically complex patterns, under Goldberg's interpretation, the term 'construction' can apply equally aptly to single lexical units (*watermelon, require,* etc.) on the one hand, and to larger, more general syntactic configurations (resultative construction) on the other. Goldberg's definition is thus more inclusive, as she expands the store of constructions to include all language forms that are paired with meaning.

Taylor's (2004) definition represents an even more radical move:

> A construction is a linguistic structure that is internally complex, that is, a structure that can be analyzed into component parts. (p. 51)

This definition includes all those entities that Goldberg regards as constructions, but includes also non-idiosyncratic, predictable linguistic structures, as long as they are "analysable into component parts" (Taylor, 2002, p. 567). The two authors differ in their approach to the question of learnability of constructions. Goldberg is interested only in those elements that have to be learned because of their unpredictability, while Taylor's "criterion for identifying a construction concerns only an expression's internal structure, irrespective of the schematicity with which the construction is specified, and also irrespective of whether the properties of the construction are predictable (or, conversely, idiosyncratic)" (p. 567). Taylor's approach coincides with Goldberg's as regards the first two dimensions discussed in sections 1.6.1 and 1.6.2: both recognize that a construction may or may not allow unspecified variable slots to be filled with lexical material (schematicity) and that schematic constructions can have varying degrees of productivity, some allowing a wide range of creations and others being more restricted.[2] However, for Goldberg, only idiomatic and

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[2] For example, Taylor shows that even a highly schematic construction, such as X by X (*one by one, day by day, page by page*) is not very productive, and some theoretical creations (e.g. *several by several*) are not possible (Taylor, 2004, p. 62).

entrenched entities (sections 1.6.3 and 1.6.4 above) count as constructions, while on Taylor's definition, non-idiomatic and non-entrenched entities are considered constructions despite not necessarily being represented in a speaker's mental grammar. As an illustration, he proposes that "[t]he sentence you are now reading is a construction, in that it can be broken down into its component words and phrases" (Taylor, 2012, p. 124).

At first glance, there is a sense that such non-idiosyncratic and non--entrenched entities go beyond the bounds of the constructicon. Most authors would not consider them constructions, for example, novel non--entrenched instances like *obese cat* are termed as "constructs" by Sullivan (2013, p. 13) if only because doing so would make constructions an unlimited set including both established forms and potential structures that need not be listed in the mental lexicon. As a consequence, referring to each internally analysable entity as a construction would hinder the description of a language user's knowledge as opposed to her ability to comprehend novel structures. This is another way of saying that a radically all-embracing approach would blur the distinction between Chomsky's E-language, that is "external language" as it occurs in the world (with its non-entrenched uses), and I-language, or the "internal language" as represented and *entrenched* in the mind. On the other hand, a possible defense can be raised by pointing out that the distinction between entrenched constructions and those about to enter the lexicon is also blurred, and hence all of them should be included. After all, entrenchment is a "gradual process of cognitive routinisation" (Langlotz, 2006), and this is so in at least two senses. First, any stretch of language appearing with sufficient frequency could in principle become part of the language. Second, at the level of an individual speaker, an expression enters the lexicon gradually through increasing degrees of neuronal association, and it would be arbitrary to insist that at some specific point that expression suddenly becomes entrenched—excluding any entities before that point could only be done arbitrarily. Further blurring the distinction is the fact that the status of the linguistic material in question will differ from speaker to speaker. Some may have come across it but hardly registered it, while for others it may be partly or fully entrenched.

Should nonce expressions like *thirty nine buttercups*, *to photograph a dumbbell* or *new variety of high-fiber apple* be considered constructions? They are each non-schematic, non-productive, non-idiomatic and non--entrenched (none yielded any results in a Google search). If Taylor's dimensions can be treated as features in a prototype model, they would each be the least prototypical examples of constructions, if they are constructions at all. It seems counterintuitive to think of the above examples as constructions—if they are, is there anything that is *not* a construction?

The concept of "construction" becomes so all inclusive that it is nearly meaningless. What is striking here is that the reason why fully predictable structures should be regarded as constructions is the same as why fully lexical ones are regarded on a par with syntactic entities as constructions on Goldberg's definition—the division between the extremes of each continuum is equally blurred.

If one can be skeptical about including predictable and non-entrenched entities under the category "constructions" solely on the grounds that a fuzzy boundary between entrenched and non-entrenched is insufficient to exclude the non-entrenched, one should reserve an equivalent degree of skepticism in relation to squaring lexical items with syntactic patterns under one umbrella term. As I will argue in the following section, a line should be drawn somewhere, even if only arbitrarily. Fuzzy boundaries, whether they occur between lexical and syntactic entities or between the predictable and the idiosyncratic should not be taken as an excuse to extend definitions indefinitely.

1.8. Terminological Note

Goldberg's definition of constructions quoted in the above section includes all established language forms ranging from traditional syntactic constructions to small lexical items. This is no doubt a bold move honoring the undeniable similarities that single lexical items share with larger patterns, the main one of which is that all of them are pairings of form and meaning that are not fully predictable, and therefore must be learned and stored. However, while I will not devote this study to questioning Goldberg's definition of "construction," I will limit my analysis to syntactic patterns larger than single lexical items or even multi-word expressions. These may be entirely substantive phrases such as *walk the plank, chew the fat* or numerous other examples of what Nunberg and others (1994) term "idiomatic phrases" (e.g. *saw logs*) or the more syntactically flexible "idiomatically combining expressions." While these allow a degree of decomposition and some of their parts can be modified by adjectives or relative clauses (Nunberg et al., 1994, p. 500), there are reasons to consider them as units on a par with single lexical items that belong in the lexicon. What distinguishes them most sharply from syntactic patterns is that if indeed there are empty slots in idiomatic phrases and idiomatically combining expressions, they are entirely optional; idioms do not leave empty slots to be obligatorily filled—a use of an idiom such as (11b) is perfectly

acceptable. By contrast, empty slots in syntactic patterns must be filled or else are ungrammatical (12b).

(11) a. We must leave no <u>legal</u> stone unturned.
     b. We must leave no _____ stone unturned.

(12) a. We <u>danced</u> the evening away.
     b. *We _____ the evening away.

Whenever it is relevant, I will attempt to preserve the distinction by using the terms "single lexical items" when referring to single substantive items and fixed idiomatic expressions on the one hand, and "syntactic patterns" when referring to larger at least partially abstract forms on the other.

A drastic leveling of all language forms under one label amounts to deciding that everything in a language is a "form," "pattern," or any other noncommittal designation, analogically to biologists suddenly referring to everything as "life forms" while, at the same time, downplaying traditional taxonomic distinctions. To disregard the traditional distinctions is to forego categorizing and the advantages that flow from it. One important purpose of categorizing is that it renders it possible to make valuable inferences about members of categories. In the case of open- and closed-class forms, one can predict properties of constructions that have not been observed yet or properties eclipsed by observations of questionable accuracy. In other words, relying on categorization may help avoid postulating inaccurate properties for closed-class items.

Of course, opponents of categorizing could argue, as they do, that the categories closed- and open-class forms or lexical and grammatical items cannot serve as bases for inferences, because they are very imprecise and are not separated by a clear division. But this is true of all categories. No truly discrete categories exist[3] (that is, ones that do not transition into neighboring categories), but even imprecise idealizations are still useful enough.

Thus, despite an evident concern to treat all constructions equally as capable of exhibiting rich non-banal properties that should be studied regardless of the kind of language pattern they represent, this egalitarian approach may conceal peculiarities of constructions distinguishing one kind of linguistic patterns from another. I believe that equating them obscures the fact that constructions in the traditional sense (i.e. as templates of variables with some substantive slots) have meanings that differ from the kinds of meanings one can find in open-class items. If their meanings

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[3] Richard Dawkins observes that even categories such as "animal species" which are habitually taken for granted as inherently discrete are illusions, as many species have been found to have intermediate forms (Dawkins, 2004, p. 17).

can be more contentful, it is by virtue of fixed lexical material embedded in the constructions. It is through the fixed lexical material that the meaning of a construction can be enriched. I do not take issue with the idea that grammatical constructions are characterized by varying degrees of semantic content, but as a rule of thumb, the more lexically specified a construction, the more contentful the meaning it can carry.

Referring to all items of a language as constructions is motivated by the difficulty of drawing a sharp distinction between what is and is not a construction in the traditional sense. Larger patterns are not demarcated sharply from single lexical items but transition smoothly into them, as Table 1 illustrates.

Table 1. The syntax-lexicon continuum (Croft & Cruse 2004, p. 255)

Construction type	Traditional name	Examples
Complex and (mostly) schematic	**syntax**	[SBJ *be*-TNS V-*en by* OBL]
Complex, substantive verb	**subcategorization frame**	[SBJ *consume* OBJ]
Complex and (mostly) substantive	**idiom**	[*kick*-TNS *the bucket*]
Complex but bound	**morphology**	[NOUN-*s*], [VERB-TNS]
Atomic and schematic	**syntactic category**	[DEM], [ADJ]
Atomic and substantive	**word/lexicon**	[*this*], [*green*]

However, the distinction is not as blurred as the transition from closed- to open-class items, although the two distinctions do correlate in that schematic grammatical constructions lie toward the closed-class end of the continuum. One useful diagnostic of a construction is based on the traditional notion of a construction as a way of combining parts into larger groupings. Thus, a construction should be at least partially amenable to integration. In other words, what makes a unit a construction is its ability to productively form new expressions by means of open variables, as is the case of the *x's way* construction (*He conned/faked/aced his way to Harvard*) or the time *away* construction (*We danced/schmoozed/drank the night away*). The term grammatical construction should be reserved to grammatical complexes with at least one slot left unfilled. This study will look at examples of grammatical constructions as they are defined by Bybee (2010, p. 25), who states that "most or all constructions are partially schematic—that is, they have positions that can be filled by a variety of words or phrases." They are closed-class in nature.[4]

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[4] This is not to say that closed-classedness is a redundant construct, duplicating the idea of construction. Some constructions are more closed-class than others, which tend strongly toward the open-class territory. Also, many single lexical items such as pronouns are closed-class.

Single lexical units, compounds (*hot-dog*, *lowdown*) and fixed phrases (such as *over-egg the cake*) clearly do not meet this criterion.[5] Similar assumptions seem to be implicit in Croft's (2007) approach to constructions. Although he equates larger syntactic patterns with single lexical words under the label "construction," he also views syntactic constructions as "grammatical structures larger than just a single word" (p. 465) and refers to a construction in the traditional sense as "a pairing of a *complex* grammatical structure with its meaning" (p. 463, my emphasis).

Viewed this way, constructions belong to the closed-class system, which also includes elements like function words and bound morphemes responsible for inflection. This is what Table 2 illustrates: the continuum championed by most cognitive linguists is presented here as containing entities varying along two dimensions. First, they range from being substantive to schematic, but stretched between these extremes are entities of two kinds: the atomic and the complex. Thus, toward the fully schematic extreme (which coincides with the closed-class end of the continuum) are

Table 2. A two-dimensional syntax-lexicon continuum

	Atomic	Complex
Fully schematic	Syntactic categories [DEM], [ADJ]	Syntactic patterns [SBJ V OBJ]
↑	Function morphemes (bound) [NOUN-*s*], [VERB-TNS]	Syntactic patterns [SBJ *be*-TNS V-*en by* OBL] [(*as*) ADJ *as* DET N]
	Function morphemes (free) [*the*], [*which*]	Idioms [*kick*-TNS *the bucket*]
↓	Lexical-function (prepositions) [*along*], [*aboard*]	Phrases, compounds [*hot dog*]
Fully substantive	Simplex lexical words [*require*], [*green*]	Complex lexical words [*requirement*], [*greenish*]

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[5] Note that transitive verbs do not belong under this classification, even though they carry an open slot for an object, and thus combine with objects to form collocations or completely novel combinations. For example, the verb *treat* can participate in a potentially infinite number of combinations which, apart from collocations (*treat a patient*, *treat sewage*, etc.), also include freer combinations as in "the paper treats abstract understanding/the viability of economy." Despite this rampant combinatoriness, the verb *treat* is not a construction. What is responsible for the combinations is the transitive construction V+NP which incorporates lexical items. The transitive pattern is a construction in the sense that it is a productive pattern that can incorporate smaller lexical entries.

both complex entities such as schematic grammatical constructions (e.g. the passive construction) and atomic elements such as function words or syntactic categories. These have all been traditionally been classified as closed-class forms.

There are a considerable number of properties that closed-class forms have in common and these will be reviewed in the next chapter. These commonalities suggest that despite the inherent fuzziness, the distinction between the lexicon with its lexical items and fixed phrases, and syntax with its constructions and other closed-class forms is real enough to be observed, and it may be misguided to treat the contents of these two components on equal terms.

1.9. Overview

The next chapter will look at the question of the lexicon-syntax distinction. It will focus on the reasons why it has been suspended in recent theorizing, and will then go on to review a number of characteristics of open- and closed-class forms that set the two systems apart. Chapter 3 will concentrate on a number of constructions reported in recent constructionist literature that purportedly exhibit striking elaborate semantic effects. Because the rich meanings of these constructions pose a challenge to the main thesis of this study, they will each be analyzed in some detail in order to establish that the effects in questions are not stable components of these constructions' semantic content.

Then in Chapters 4 and 5, two large constructions—the Manner of Obtainment Construction and the *x's way* construction—will be analyzed so as to demonstrate how their semantic content is the product of blending event schemas. In Chapter 6, some examples of schematic patterns will be shown to exhibit what at first glance may appear to be fairly exotic semantic effects. However, these will be argued to be instances of more general metonymic processes, not independent meanings developed individually by each of the constructions in question. The significance of the difference is that metonymic processes are far from being detailed contentful meanings; instead, they are firmly in the universal inventory upon which constructions can draw freely enough. In Chapter 7, we will revisit the question of the lexicon-syntax continuum. In light of the findings from the preceding chapters, a revised model of the constructicon will be attempted.

2. The Lexicon-Grammar Distinction

2.1. Modularity

Part of the reason why the distinction into closed and open class forms has been questioned so strongly is that it became tainted by association with modularity. Indeed, the much debated division between the lexicon and syntax can be viewed a specific instance of the more general view of language and mind assuming their modular organization. One of the hallmarks of cognitive linguistics is its sweeping renunciation of language as an autonomous cognitive faculty and of the notion that the mind is divided into separate components, each governed by its own principles and functioning independently of others (Kardela, 2014; Dirven & Ruiz de Mendoza Ibáñez, 2010, p. 14). Indeed, as Kardela (2014, p. 2) observes, Cognitive Grammar "can be best characterized in opposition to Noam Chomsky's Generative Grammar (TG), a modular approach to language." Dividing language forms into disparate categories carries the implication that they should be handled by different modules. "The non-modular character of CxG involves specifically the treatment of form and meaning as part of each grammatical element, that is, rule or construction, rather than in separate components of the grammar" (Kay, 1995, p. 171).

CxG has developed in response to, among other things, the claims of linguistic modularity as propounded by Chomsky and later Fodor (1983), who argued for the semi-autonomy of mental units specializing in the processing of separate kinds of input. Cognitive linguists have questioned the nativist notion that the faculty of language should be independent of other modules of the mind.[1]

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[1] Popular in the early days of Generative Grammar, the idea of linguistic uniqueness was recently questioned even by Chomsky himself (Hauser et al., 2002), who admits that

As Langacker (2008) puts it:

> [I]t is hard to fathom why our species would have evolved an autonomous grammatical system independent of conceptual and phonological content. Is it not more reasonable to suppose that grammar, rather than being separate and distinct, is merely the abstract commonality inherent in sets of symbolically complex expressions? (Langacker, 2008, p. 6)

In this spirit, CxG is defined by what it is not—namely, it is not a model assuming a modular organization of language. "Construction Grammar (CxG) is a *non-modular, generative, non-derivational, monostratal, unification-based* grammatical approach, which aims at *full coverage* of the facts of any language under study without loss of *linguistic generalizations*, within or across languages" (Kay, 1995, p. 171, original emphasis).

This is perhaps because it is easy to get the impression that some important insights derived from CxG research are inconsistent with some logical consequences of modularity. Specifically, the fuzzy division between the lexicon and syntax may be taken as evidence against the existence of two separate modules responsible for the two components. However, this is an unfortunate result of reading of evidence, and as will be argued shortly, there is no real inconsistency.

Another problem with a strictly modular view is that it insists that the lexicon and syntax exhibit a strict division of labor in the composition of a sentence, where syntax deals with the ordering of lexical items, while these contribute meaning. This otherwise unsurprising traditional view of what the lexicon and syntax are entails the uncompromising logical consequence that the meaning of a sentence is an exclusive responsibility of lexical items and, apart from assembling the meaning pieces, syntax has no real say in the formation of its semantic content. That is, the meaning of a sentence should be entirely traceable to the individual words found in that sentence, and no part of it can be observed as coming from syntax. The notion that the meaning of a sentence is the sum of the meanings of individual words has a long standing tradition and thus it is not an innovation flowing from Generative Grammar. Captured by the Principle of Compositionality, it is also associated with Gottlob Frege, who formulated it as an idea in logic. However, while the semantic neutrality of syntax is implicit in the traditional conception

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the faculty of language shares its properties not only with the remaining cognitive faculties, but also with non-human animals, with recursion probably being the only property of language that is uniquely human.

of compositionality of sentential meaning, Generative Grammar turns this corollary into a working assumption, evident in Katz & Postal's (1964) proposal of paraphrastic transformations, or in other words, the restriction that only meaning-preserving transformations be admitted. Jackendoff disapprovingly refers to this stance as the *syntactically transparent semantic composition* (Jackendoff, 1997a, p. 48). According to the strong syntactic transparency view, grammatical constructions should not have meanings, a prediction clearly falsified by the growing body of research on syntactic patterns with evident semantic and pragmatic effects.

Yet another objectionable consequence of the modular view of language is that it does not recognize idiosyncrasy in structures larger than a word. Generative Grammar models separate the lexical and syntactic components, each of which is concerned, respectively, with idiosyncratic meanings and general word order rules. Any problematic configurations of words remain within the domain of syntax and should be accounted for by general syntactic rules. In other words, constructions do not exist. In Chomsky's words:

> Things like traditional constructions, say relative clauses, are just taxonomic artifacts. They're like 'large mammal'. A large mammal is a real thing, but it has no meaning in the sciences. It's just something that results from a lot of different things interacting. The same seems to be true of the passive: it's not a real thing; it's just a taxonomic phenomenon. (Olson & Faigley, 1991, pp. 31—32)

Thus, what counts as standard unexceptionable patterns in traditional grammar and used to be accommodated by the earliest versions of Generative Grammar, is now viewed as nothing short of a syntactic illusion. Even more problematic than relative clauses or the passive voice are idioms (*tickle the ivories*) and non-canonical uses (*drink the night away*). These are swept under the rug of periphery reserved for "phenomena that result from historical accident, dialect mixture, personal idiosyncrasies, etc." (Chomsky & Lasnik, 1993, p. 510). Chomsky's rationale for this is that such is the common practice in research endeavors:

> Throughout the history of the serious sciences many problems in explaining facts were put aside, in the hope that they would be explained some day. … The great success of physics is due in part to the willingness to restrict attention to the facts that seem crucial for the theory, without taking into account even evident facts … sometimes even when they appear inconsistent with it. (Chomsky, 1998, p. 108)

As Jackendoff notes, this approach to exceptional cases is indeed reasonable, but it carries the presumed commitment of getting back to them at some point, the problem being that any hope of eventually capturing them within the framework of Generative Grammar is still nowhere in sight, despite two decades of intensive research. Meanwhile instead, the number of what Culicover (1999) calls syntactic-nut phenomena uncovered by linguists, has increased well beyond a point where it would still be justifiable to consider them peripheral. As Culicover and Jackendoff (2005, p. 25) put it, "'periphery' tends to become a tempting dumping ground for any irregularity one's theory cannot at the moment explain."

Reservations about modularity also stem from the belief that modules must be innate, which raises the problem of how such complex specialization can possibly be coded in the genome. This is associated with the broader skepticism about the plausibility of genetic determinism of language in general, especially in the face of linguistic diversity belying strong claims of a copious and finely tuned Universal Grammar.[2] However, this problem subsides if it is supposed that modules do not necessarily have to be hardwired, but evolve to become specialized

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[2] More generally still, recent developments in cognitive linguistics have brought a sense of veritable dishonor of Universal Grammar itself and the associated ambition to analyze the diversity of grammar into a small set of parameters. As Jackendoff (2002b, p. 190) remarks, "research has uncovered many phenomena across languages whose differentiation from each other would require parameters of such niggling specificity that they are hardly plausible as universal possibilities." It is worth noting that this is not the first time that skepticism has been voiced regarding the notion of universal properties of languages. In the opening pages of his discussion of the generative approach to language structure, Chomsky (1986, p. 2) recalls that the universalist ideas that are the essence of Generative Grammar have a long history dating back to medieval times. Roger Bacon is credited as being among the pioneers of universal views such as the claim that "with respect to its structure, grammar is one and the same in all languages, though it does vary accidentally." Chomsky goes on to point out that in the first half of the twentieth century, such views were met with scornful disapproval by structuralists who now had access to "a much richer variety of languages than were known to earlier scholars, languages that appeared to violate many of the allegedly *a priori* conceptions of the earlier rationalist tradition." The point flowing from looking back at these vicissitudes is that views on linguistic diversity and commonality are inevitably impressionistic to some degree. The structuralist rejection of attempts to find common attributes in languages was a result of a temporary disbelief that the diversity they had encountered, could be subsumed under any general principles. Later successes by generative grammarians testify to the possibility of sorting out even the most mind-boggling data. It is justified to expect history to repeat itself and the nativist views to be vindicated at some point in the future when it is appreciated that the linguistic diversity that spurred alternate approaches emphasizing "abundance of the stimulus" can after all be accommodated within generative frameworks.

subsystems in charge of their respective domains in response to environmental stimuli.[3]

Nevertheless, the rejection of modularity poses a paradox, because despite the undeniable fact that insights from CxG may be hard to reconcile with what is known about modularity, it is hard to dismiss modularity completely and CxG research cannot proceed in denial of some facts about modularity that pertain to constructions. The following discussion will focus on some criteria for modularity identified by Fodor. His list includes nine criteria, but here only those characteristics of modularity relevant to constructions will be discussed. The point of the following review is simply to demonstrate that modularity cannot be plain misguided.

2.1.1. Domain specific processing

Modular systems are dedicated to specific kinds of data, and no other. Fodor (1983) illustrated this point with the example of phonetic feature detectors which specialize in registering the presence of features like nasalization, voicing or aspiration. As far as we know, these phonetic feature detectors probably have no use elsewhere. Similarly, it seems the interpretation of function forms such as the neuter dative singular suffix is performed by a modular system that, given the unique nature of grammatical markers, applies only to this restricted domain and to nothing else.

Here, a note of caution should be sounded. Compelling though they seem, such examples do not provide absolute support to the idea that modules responsible for the processing of one kind of information cannot be involved in the processing of other kinds too. As Grodzinsky (2006, p. 467) notes, there are "relatively clear signs that specific linguistic rules have an identifiable brain locus," but adds that "there seem to be some findings to suggest that non-linguistic, potentially motor functions are represented in the same region as well."

One way or another, it seems that the requirement that a module be involved in the processing of one kind of information may be too

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[3] Coltheart (1999) argues that modularity of mental processing could just as well arise as a result of the combination of learning and innate knowledge. In other words, the modules do not have to be specified down to the most minute detail of their complex architectures. In any case, doubts about the plausibility of the genetic design of modularity should not *a priori* preclude the possibility of its existence.

stringent. Of course, if it could be demonstrated that that is the case, this would serve as a very convincing, perhaps even undeniable indication of domain specialization. However, what is really crucial is not whether a given module performs exclusively one task or two, but whether a given kind of information can be processed by modules other than those specifically designed for it. The answer to the latter question should be quite obviously in the negative. For example, visual information cannot be analyzed by just any given area in the brain. Although cases of functional takeover have been documented, where victims of strokes to one area in the brain can regain the affected abilities thanks to the brain's ability to rewire another area to take over the lost function, the processing is not as nimble. Also, the brain does not do this except when necessary. Otherwise, modules specialize in their domain-specific functions.

2.1.2. Speed

Perhaps the most readily appreciable appeal of the modular view lies in its attempt to account for the reflexive nature of language processing. Linguistic data are handled by fast-acting mechanisms which manage to accomplish this complex task in real time. This would be beyond the powers of a general purpose mechanism, and instead, language data must be processed by highly specialized domain-specific modules, which are also referred to as dedicated computational devices, working in parallel. This organization makes it possible to handle language data online in a reflex fashion.

2.1.3. Limited central access

Such efficiency is accomplished by keeping the operation of the modules closed to conscious supervision. Fodor argues that modularity allows only limited central access to its functioning, which means that in practice the perceiver cannot fully reflect upon it consciously. He illustrates this property with an example from speech perception, namely the observation that listeners do not attend to subphonemic properties of speech. Thus, listeners are unaware of features like aspiration, vowel shortening or voicing. Even if one pays deliberate attention to these features, it is

hard to follow and register all the features that are processed below the threshold of conscious perception. As Jackendoff (1997a) argues, in many cases, even understanding the logic behind certain processes does not help us "catch ourselves in the act" of perceiving them. For example, "we can't be aware of the frequency analysis our auditory system performs on an incoming sound wave; we just hear a sound" (Jackendoff, 1997a, p. 181). Most importantly though, even if one is trained to consciously attend to the features in question, it is certainly not by means of conscious attention that these features are assembled into the intended interpretation that is submitted to higher levels of language processing. One may merely witness the features while they are computed to yield a meaningful representation.

The above remarks on the inscrutability of mental operations provide [indirect] evidence in support of the traditional distinction between syntax and the lexicon, contested by adherents of Construction Grammar. The argumentation is predicated on the premise that the peripheral system responsible for perception is separate from the central processes (of conscious experience, thinking, inference, etc.). To take one example, in speech perception, information is relayed from the periphery, which picks it up as sound waves, to the central processing system which interprets the meanings of the utterances heard. It is an obvious and uncontroversial assumption that the two ends cannot be connected directly, because, as the above discussion should have made it clear, raw stimuli do not lend themselves to processing by conscious attention. They arrive in the central system pre-processed by the intermediate interfaces responsible for the translation of the input into comprehensible meanings. This much is straightforward enough and arouses little controversy. Fodor's claim is that the way between the periphery and the central system is not a homogenous conduit, but exhibits multiple levels of encoding. The relay of information between these two ends proceeds through interfaces of increasing levels of cognitive structure, where the gist is the highest-level representation, the sound wave the lowest one, and details of syntax and other linguistic information are situated in the intermediate levels. Fodor (1983, p. 56) suggests a general rule that "*access* goes from top down (the further you get from transducer outputs, the more accessible the representations recovered are to central cognitive systems that presumably mediate conscious report)."

Fodor does not specify how the intermediate levels are arranged, but it is tempting to suppose that lexical information and details of syntax occupy different levels; that is, lexical information is probably higher than the function items. This may be hard to demonstrate beyond doubt, but one can come up with observations showing that something of that

nature is going on. For example, it is easier to recall specific words than their syntactic ordering. Without looking back at the previous paragraph, when asked which of the following phrases was used—*relay of information*, *transfer of information*, *informational relay* or *informational transfer*—it should be easy to eliminate the phrases with *transfer*, because the lexical difference between *transfer* and *relay* is more salient than the morpho--syntactic difference between *informational* and *of information*.[4]

Concerning function forms, they are not only hard to recover, but often plain overlooked. Psycholinguistic experiments have shown that while reading, eye movements behave differently, in that the eyes do not fixate on closed-class forms as often as on content words (Field, 2003, p. 74). This phenomenon is demonstrated by the following lines.

Elizabeth II
becomes
queen of
of the United Kingdom

Most people reading the above do not notice that there are two prepositions "of." In more technical terms, the eye movements, referred to as saccades, which span several characters, proceed over function words. This suggests that the processing of closed-class forms does not receive the attention normally reserved for content words. For the sake of fairness, one should address the more prosaic possibility that fixations do not occur on content words, but on the longer sequences of characters. However, if the "II" were replaced with "XV," the inconsistency would be more apparent. Thus, it seems a justified conclusion that "the skipping of so many function words suggests that this class of items may be recognized in a highly automatized way and accorded less attention than content words" (Field, 2003, p. 74).

A similar effect obtains when people are asked to count all the instances of the letter "f" in the sentence

FINISHED FILES ARE THE
RESULT OF YEARS OF SCIENTIFIC
STUDY COMBINED WITH THE
EXPERIENCE OF YEARS

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[4] Psycholinguistic research suggests that top-down processing requires parallel processing of various modes of information, where the output of one modules prompts the processing to go back and renegotiate the interpretation of information from a previous step. This, however, does not rule out a hierarchical organization of modules.

(Again, most people see only three "f's," because they do not count the prepositions). These effects suggest that open-class forms are open in one more sense—that is, they are open to conscious experience, while closed-class items seem more hidden from awareness. Lexical items are also much easier to define than function words. Examples of desinences, such as the dative case which seem to have semantic meanings turn out to be elusive upon closer inspection. On the other hand, lexical items are for the most part, quite straightforward, and if they do present any difficulty, it is for meanings that are inherently hard to grasp. Thus, closed-class items differ in so many ways from lexical items that there is reason to believe that the two types are handled differently by separate modules.

2.1.4. Fixed neural architecture and specific patterns of breakdown

Modular processes rely on a fixed architecture of brain areas, each specializing in different tasks. For example, the motor control circuits are located in the cerebellum. Damage to the cerebellum normally results in a loss of equilibrium or other motor dysfunctions, while other cognitive functions remain intact. Similarly, language is known to be located in two fixed areas, the Wernicke's area and the Broca's area. Damage to these areas usually results in language disorders, although it should be stressed that at the current stage of our knowledge, the exact patterns of breakdown are hard to predict. Most typically, damage to the Broca's area is associated with agrammatism, a condition involving difficulty using and comprehending function forms and syntactic patterns, while being perfectly able to use and comprehend content words. On the other hand, a lesioned Wernicke's area leaves a patient suffering from the so called jargon aphasia, a condition where a person can produce syntactically well-formed sentences, but displays such an erratic command of content words that the resulting speech is incomprehensible. These facts suggest that content words (or at least some aspects of content words) are stored differently from and probably also separately from function words.

Further support for a divided neural organization of lexical and function items comes from Kemmerer (2006). He offers evidence suggesting that separate brain subsystems are involved in computing two types of spatial relations. The right hemisphere is predominantly responsible for precise metric specifications of distance, orientation or size, as in *On the map, the two towns are 15 centimeters apart*. In contrast, rough topological

descriptions involving binary oppositions like *above/below, in/out, here/there*, as in *On the map, town A is below town B*, are handled by the left hemisphere. The two hemispheres seem to specialize in two distinct kinds of spatial descriptions, one dealing with detailed Euclidean reference and the other with relative descriptions, which rely more strongly on language-specific markers.

At this point, it is worth clarifying in what sense the binary oppositions realized by prepositions are language-specific and the precise Euclidean terms are independent of language. The difference between them is that precise specifications expressed by means of units like "centimeters" are universal and their values are identical across languages. By contrast, spatial oppositions expressed by prepositions exhibit more or less pronounced variation from language to language. Even closely related languages like Polish and English organize their spatial relations differently. For example, while English contrasts *in/out* and *on/off*, Polish has one equivalent *z* for both *out* and *off*. More dramatic differences can be found. A well-known example is the Korean contrast between tight--fit (*kitta*) and loose-fit (*nehta*) containment relations which cross-cut the English *in/on*. For Korean, the kind of containment of a figure relative to the ground is more relevant than whether an object is on the surface (English *on*) or inside something (English *in*).

It therefore makes sense that the more language-specific forms are processed primarily by areas located the left hemisphere, while Euclidean specifications are processed by the right hemisphere, given that it is known to be responsible for spatial awareness.

2.2. Conclusions

The issue of modularity will certainly remain a subject of debate for quite some time. Although it is currently rather unfashionable, it certainly does not seem an absurd proposition to be consigned to history; there are too many arguments in its favor to reject it outright. The present study of grammatical constructions is meant to contribute some arguments in favor of discrete distinctions between modules, showing that the cognitive skepticism toward all things modular may be too strong.

But before any serious attempts can be made to settle the issue, it is first necessary to define what is meant by a nonmodular outlook or nonautonomy of grammar. One serious problem with the current critique of modularity is that it is not exactly clear what the alternative really

means. One pitfall is to think about the issue in absolute terms, as if modularity is either a fact of life or a false impression. It is easy to see why this way of thinking is wrong: The latter possibility, a complete rejection of modularity (i.e. no specialization, everything performed by a general-purpose mechanism), does not make much sense, so it cannot be what the opponents of modularity have in mind. This is evident in the language chosen by cognitive linguists, who often talk about strong or moderate versions of modularity, implying that it is not an all-or-nothing proposition; it is more reasonable to think of the presence or absence of modularity as a matter of degree. If the new cognitive approach is defined as a reaction to a strongly modular view, it would therefore be the exact opposite to the untenable position that language is entirely autonomous and independent of other more general cognitive systems (such as perception, memory or categorization). But just as no one would seriously argue for modularity in its purest most uncompromising form, so too it would be hard to entertain the opposite possibility that language is a completely undifferentiated part of a larger monolithic unit. Clearly, the faculty of language must be demarcated one way or another from the rest of the mind, for it is simply hard to imagine it as being truly one with the universe of the mind. But by the same token, despite the demarcation, language cannot be an island either, cut off from the rest, a perfectly self-contained unit unaffected by any other components and never drawing on other abilities.

The real question therefore is what degree of separation there is between language and the other facets of cognition.[5] Langacker (2008) suggests that there is no definite boundary between linguistic and extralinguistic knowledge. He argues that "the linguistic and the extralinguistic form a gradation rather than being sharply distinct" (2008, p. 37). According to Langacker, any boundaries posited to hold between linguistic meaning and pragmatic inference are not observed by linguists but imposed, dictated by received wisdom. Freed from traditional theoretical preconceptions, Langacker suggests, careful and objective observation should reveal the fuzziness of the traditional distinctions.

I wish to present a third option, and a rather paradoxical position, namely that it is possible to reconcile the fuzzy with the discrete. The observed blur characterizing boundaries does not have to preclude strict separation. This seemingly self-contradictory juxtaposition is possible not only in the banal sense that a fuzzy boundary is better than no bound-

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[5] And if modularity in general is any measure of its particular instances, one can also ask, by extension, what degree of separation there is between syntax and the lexicon.

ary at all, but really in the bold sense that a blurred boundary conceals a strict division. Indistinctness of boundaries is an effect observed when two components operate in parallel and both contribute input processed by elements that access them at the same time. This idea will be described in more detail in section 2.4 and in the Final Remarks section.

Finally, it is important to mention a non-sequitur. Part of the motivation behind the non-modular approach as well as the lexicon-syntax continuum was the need to analyze syntax as being grounded in meaning, in line with the symbolic view of language and account for the semantic and functional constraints on grammatical structure. However, viewing grammatical structure as being conditioned by semantic and functional considerations does not entail that syntax and the lexicon (or extralinguistic abilities) should be combined and inseparable.

The above characteristics setting apart closed- and open-class forms are rather straightforward consequences of and consistent with insights concerning modularity. What follows is a rather lengthy list of further differences between the two types of forms suggesting that they constitute qualitatively distinct categories. The following discussion is meant to demonstrate the significant degree to which lexical items differ from function words.

2.3. Differences Between the Two Classes

There are two reasons for a comprehensive review of closed-class properties. First, quite simply, the differences are relevant to the discussion of constructions. The properties, especially those of function words, listed in the review will be shown to hold for schematic constructions. Because grammatical constructions do not form a uniform group, with some of them being positioned toward the closed-class end of the continuum and others bearing some properties of lexical items, it is necessary to construct a gauge for establishing the degree to which a construction is capable of conveying lexical meaning. Without that gauge, hypothesizing meanings for given constructions runs the risk of mere speculation.

Secondly, because one of the major claims of the present contribution will consist in demonstrating that the meanings of grammatical constructions are not free from the constraints of the distinction, it will be necessary to demonstrate that the distinction is a real linguistic construct, rather than a terminological illusion. The following discussion should substantiate this point.

2.3.1. Openness to additions

As their name suggests, open-class forms are freely open to new additions, and their numbers are truly staggering compared to the puny number of function forms. While the typical examples of the latter count in the dozens, a number which can grow to hundreds if one includes transitional forms with lexical properties, the truly open-class forms have the potential of being infinitely numerous. Unabridged dictionaries list hundreds of thousands of entries, but do not include many technical terms (my Webster's lists only eight aldehydes out of thousands extant) or obscure slang terms. Neither do they list examples like *JFK, Big Apple, Pink Floyd* or *Savannah, Georgia*, which can safely be said to be part of most native speakers' lexicons. To appreciate the capacity of the lexicon, one does not even need to wonder at the rapid development of science and technology yielding untold numbers of technical terms. It is enough to note the infinite combinatorial nature of organic compounds, each of which can be given a unique name, showing that the capacity of the lexicon is also infinite. Of course, the capacity of the memory is not, so the combinatorial capacity of the lexicon cannot be exploited fully, but the point is that in its free flexibility, the lexicon clearly differs from the set of closed-class forms. These are not admitted into the store of function words except in an imperceptibly slow process of grammaticization, which normally takes centuries to occur. The difference between the rates of admission for lexical items and functors is so enormous that one can safely say it is not a difference of degree, but of quality. Comparing the instantaneous process of coining new lexical items and the prolonged process of grammaticization brings to mind the dynamic world of animals and the world of plants, which for all practical purposes seems static by comparison.

Theoretically, of course, new function words can be coined, and attempts at inventing pronouns—specifically, candidates for a gender-free third person singular epicene pronoun—have been made. As is well known, however, such attempts have failed (Baron, 1981). To gain genuine currency, a function word needs not only a long time to enter the scene, but also a degree of imperceptibility. New function words can enter a language through unconscious acquisition, where an existing word is reanalyzed, as in the case of verbs becoming prepositions (e.g. *concerning*) or a lexical verb becoming an auxiliary verb. Speakers simply resist using intentionally decreed coinages of function words. It is as if function words have an aura of exclusivity about them that makes coining them feel like forging money.

The process whereby a lexical item is re-analyzed and gradually transforms into a function form—referred to variously as either grammaticalization or grammaticization—has been studied widely in recent years, with changes being accounted for in terms of lexical re-analysis (Givón, 1975; Agheyisi, 1986), generalized invited inference (Traugott & Dasher, 2002), invited inference (Heine & Kuteva, 2005), or context induced reinterpretation (Heine et al., 1991). What is important to mention here is that grammaticization seems to be the only way for grammatical forms (which will often be referred to below as "grams") to emerge in a language. This has led many researchers to observe that grammaticization is characterized by unidirectionality (Heine et al., 1991; Bybee et al., 1994; Haspelmath, 1999), which manifests itself grammaticization proceeding only from lexical items to grams, but not vice versa. The phenomenon of unidirectionality has been approached as a challenge eluding a simple explanation: Why does there not seem to be grammaticization in reverse? Why do at least some lexical items not originate from grams? One possible answer is that grammaticization, whether it proceeds forward or backward, is a slow long process, and it is only undergone by those forms that have no other alternative, that is, grammatical forms. Lexical items do not have to take the arduous route, because they can be entered in the lexicon more easily, through instantaneous coining. Further, lexical items are coined in response to a need, in the course of a more or less deliberate effort, while grammaticization is a process, where speakers are not even aware that new grammatical structures are being created. Whatever the underlying causes, unidirectionality is a fact of language functioning which can also be taken as an illustration of qualitative differences between open- and closed-class forms.

Thus, because the two kinds of language forms are created by two different processes, the contents of the two stores differ dramatically. Neologisms are routinely found in the lexicon, while almost never in the set of closed-class forms. Adult native speakers are not likely to come across a new closed-class form they have not been familiar with before. While encountering a neologism does not leave a language user feeling very surprised, probably no speaker can be confronted with a previously unseen grammatical pattern, determiner, or pronoun, (unless it is an archaic or a regional one like the Scots *ane* (*one*).

This is because function forms are as a rule at least relatively common (the twenty most frequent words in English are all functors), so by the time a person becomes a competent speaker, this person will have heard them all. Not so with lexical forms. These include forms ranging from fairly frequent words like *house* and *girl* to extremely infrequent ones like *flother* (obsolete for 'snowflake') or *bandore* ('a lute-like string-instrument').

Open-class forms include countless examples of words that appear sporadically and only in some bodies of text. They also feature nonce words like *affluence-schmaffluence* (only one appearance online, accessed April 4, 2012) coined so easily and naturally that one can often fail to recognize them for what they are: unquestionably novel items that would perhaps be impossible among closed-class forms (**Schme United States*).

2.3.2. Substitution

One consequence of the abundance of open-class forms is that any word may have a large number of synonyms with various shades of meaning. This is not true of closed-class forms, where there are few if any possibilities for substitution. In the sentence *The spelunkers rappelled down the crevasse*, the markers *the, -s, -ed*, and perhaps *down* cannot be replaced by synonymous forms, because no such forms exist (though they can be replaced by other grammatical markers with different functions). There are no plural suffixes that could substitute the *-s*, no past markers other than *-ed* that could attach to *rappel,* and although the definite article can be replaced by *these* or *those*, the resulting difference—between a presupposed definiteness and emphatic definiteness—is rather significant. On the other hand, the open-class form *spelunker* can be replaced by *caver, potholer,* or *speleologist.* Similarly, the idea conveyed by the lexical item *crevasse* can also be conveyed by *fissure, crack, rift* or *cleft.*

Lexical forms tend to have numerous synonyms; grammatical forms have few or none. Therefore, as the following Markov model table illustrates (Table 3), lexical forms lend themselves to paradigmatic substitutability more openly than the function markers.

Table 3. Substitutability of open-class and closed-class forms

The	spelunkers	-s	rappel	-ed	down	the	crevasse.
These	cavers	-Ø	plough	-Ø	up	a	hole.
Those	potholers		plummet			that	abyss.
	speleologists		jump			this	pit.
			look				cliff.
			smile				etc.
			etc.				

This difference in substitutability is a direct consequence of grammaticization pressures. While a lexical item needs only the slightest nuance of meaning to be justified as a new addition to the lexical store in a language,

grammatical items are admitted on condition that they are general enough to apply in many uses. This is in some contradiction to Hopper's principle of specialization which states that "at one stage a variety of forms with different semantic nuances may be possible" (Hopper, 1991, p. 22), but Hopper adds that "as grammaticization takes place, this variety of formal choices narrows and the smaller number of forms selected assume more general grammatical meanings." A distinction between definiteness and indefiniteness is enough to become grammaticalized, but one between a conflict and a quarrel is obviously not. Even the concept of a conflict alone is too endemic to specific contexts to become subject to grammaticization processes. This point will be addressed in section (2.3.5).

2.3.3. Obligatoriness

Following Boas's (1938, p. 132) observation that "grammar … determines those aspects of each experience that must be expressed," it has been accepted that grammatical and lexical meanings contrast in this respect. Whether a grammatical meaning is relevant to the message or not, the speaker is forced to express it. For example, in general statements such as *The lion hunts at night*, the use of the present tense is obligatory even though the sentence does not describe events that are confined to the present. What is being described is not the temporal placement of the proposition, but an atemporal fact. Still, English does not permit, even in such cases, verbs in finite clauses to appear without tense inflections.

Sometimes, a grammatical meaning is manifested overtly, as in the case of the *-s* ending in the present tense inflection of the third person singular, but it can also be realized without overt marking, as in the singular number in *lion* in the example above. However, when a grammatical meaning is realized overtly, its formal marking is obligatory. This is especially true of inflectional markers. Bybee and others (1994, p. 8) observe that when a form has come to be used obligatorily in all contexts, whether its use is redundant or not, its absence becomes meaningful. Cases where an expected grammatical form is missing are interpreted as signaling a meaning other than ordinary.

What is interesting is that grammatical forms without a clear meaning are obligatory too. In the sentence *I want to go to the zoo later*, the preposition *to* cannot be omitted as freely as the adverb *later*. Also, the first use of the preposition is more fixed than the second one, which is more semantically contentful and which can be replaced with a number

of options, such as *through* or *toward*. The fact that a preposition can have lexical and functional uses is not inconsistent with my insistence on the division between lexical and function forms. This peculiarity is captured in a revised model of language organization presented in Final Remarks.

2.3.4. Propositional content vs. the scaffolding meaning

Talmy (2000a) notes that grammatical forms tend to have very spare semantic content, a property that sets them apart distinctly enough from lexical items. This is a widely recognized regularity, and many authors admit that while lexical words have meanings, function words carry "simple meanings" (Givón, 1993, p. 77) and their main purpose is to signal grammatical functions. The meanings of lexical items are not only rich and varied, but are also responsible for most of the propositional content of a sentence. In the sentence *The spelunkers rappelled down the crevasse*, the essentials and the minutia of the entire scene are conveyed by lexical items. On the other hand, the function markers here provide a conceptual scaffolding that does not affect the propositional content of the sentence.

   The following is a closer look at how the semantic content of a sentence is divided between lexical and grammatical items. The illustration below is based on Talmy's discussion (2000a, p. 33) of the conceptual system. In sentence (1), the content is divided between closed-class forms listed in (A) and lexical items (B).

(1) Spelunkers rappelled down the crevasse.
(A) -er
     -s
     -ed
     the
     down

(B) spelunker — caver, person exploring natural, non-commercial caves;
        hobby rather than occupation;
        special equipment, training, climbing, crawling involved.
     rappel — move down a vertical face using a double rope;
        rope secured above and tied around the body;
        rope let out gradually during descent.
     crevasse — fissure in glacial ice; dozens of meters deep and up to
        several hundred meters long; the fissure is wide enough to hold
        a person.

The information conveyed by the open class forms is considerably more detailed than anything that can be conveyed by function words. In fact, they specify the bulk of the propositional content making up the cognitive representation (CR) of the scene. On the other hand, closed-class forms contribute "the main delineations of the scene organization and of the communicative setting of the CR evoked by the sentence" (2000a, p. 34).

These lexical-grammatical differences can be made more evident by manipulating elements of one class and keeping the other constant.

(2) Would the spelunkers rappel down a crevasse?

The general structure is now different, and instead of a report of an event, there is a hypothetical scenario. However, the scene depicted is still one located on a glacier with the cave exploration enthusiasts facing the challenge of descending into a fissure in ice. An additional observation is that if the original sentence in past tense (1) were to be illustrated with video footage, the scene presented would probably remain the same for the question (2)—that is, the elements of the temporal setup and the communicative properties of a sentence (namely, is it a declarative or a question?) are so abstract that they cannot be unambiguously rendered through a visual medium.

The effect is very different if open class forms are changed, the closed--class forms being left intact. For example, take *The rioters broke through the police cordon*. The temporal organization is the same, so the activity could take the same amount of time, the number of agents could be the same, and essentially all the schematic aspects of the abstract organization of the two scenes could be identical. Yet, this time, the depiction shifts away from the Arctic wilderness to a city setting, and the activity would look entirely different if featured in a video recording.

2.3.5. Generality

Part of the reason why the above differences occur between lexical and grammatical items is because function words are precisely dedicated to expressing elements of meaning that can recur across multiple situations. The wealth of information specified in the open class elements is too great and the minutia too rare to figure in all everyday situations or discussions. On the other hand, elements such as tense can be applied to any activity. As Cruse (1986, p. 5) explains, "[b]ecause grammatical elements typically need to have the capacity to combine normally with semantically very

various roots, their meanings tend to be of a very general sort: the notion of past tense, for instance, can combine without anomaly virtually any conceivable verbal notion." As a result, closed-class items occur much more frequently than open-class items. Among the most frequent words, the first ten[6] are closed-class forms or forms toward the closed-class end of the continuum.

This semantic characteristic of grammatical forms is consistent with common views regarding the direction of grammaticization, which is assumed to result in the semantic generalization of lexical items evolving into grams. One way for a form to become more general in its applicability is to undergo "bleaching" (Meillet, 1912; Givón, 1975), a process variously referred to as "desemanticization," "semantic depletion" (Weinreich, 1963) or "erosion" (Lehmann, 1982). Meillet described this process as a "loss of expressivity" through semantic weakening ("affaiblissement"). In the course of this semantic reduction, part of a form's original meaning contribution is devolved to the accompanying sentential context. Heine and Reh define grammaticization as "an evolution whereby linguistic units lose in semantic complexity, pragmatic significance, syntactic freedom, and phonetic substance" (Heine & Reh, 1984, p. 15). Thus, as a result of its original content being eroded, the interpretation of a gram is dependent on the meaning of constructions it attaches to. The flip side of generality, then, is that the reduced meaning of a grammatical form is insufficient to appear independently. A gram requires other lexical or grammatical material to justify its presence, a characteristic related to conceptual autonomy, discussed below.

However, before grammaticization begins, a lexical form has to be general enough to even be available for reanalysis as a potential gram. Across languages, high frequency verbs like *go, have, come*, or *be* are known to undergo grammaticization and the accompanying bleaching, which are developments not usually shared by verbs like *tiptoe, harbor, creep up*, or *subsist*. This point is explored in some detail in section 3.8 on the grammaticization of past tense grams in Slavic languages.

2.3.6. Conceptual autonomy

The two kinds of language forms also differ in terms of autonomy. Open-class forms are generally conceptually autonomous (Langacker, 2008); that is, they convey concepts that can function semantically on their

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[6] According to Sinclair (1991, p. 143), these are, starting from the most frequent one, *the, of, and, to, a, in, that, I, it,* and *was.*

own (hence they are also described as being autosemantic). By contrast, grammatical functors are conceptually dependent or synsemantic—their existence is justified insofar as they complement open class forms and they do not make much sense without conceptualizing the open-class meanings that they attach to. For example, the category of plurality presupposes and obligatorily invokes the conception of concrete units, objects or persons. Of course, one can entertain plurality in the abstract, but it can only be made sense of when it is manifested in concrete instances.

2.3.7. Formal reduction

An element whose use depends on the presence of another more independent item also tends to become formally attached to that item. Grammaticization leads to increased phonological dependence on surrounding lexical items so that an item may start as a free form, but soon its position becomes more fixed until it eventually attaches to a lexical item. The highest stage is a complete disappearance whereby a formerly reduced affix becomes a zero morpheme. This unfailing regularity is illustrated by the case of the past tense grams in Slavic languages, discussed in section 3.8.

The correlation between the length of a word and its status, where the longer words tend to be lexical words, is a reflection of a mechanism whereby increased frequency of use results in the shortening of a form for reasons of economy. Of course, this does not mean that only grammatical forms will undergo shortening, as lexical words are also among the most frequently used words, and they too are therefore subject to the same principle of least effort. This insight was pointed out by Zipf (1965) and is referred to after his name as Zipf's Law, which states that the more frequent a word is, the shorter it tends to be. However, the fact remains that grammatical words are among the shortest forms and Zipf's statistical observation has also been invoked to account for structural changes resulting from grammaticalization (Wiemer & Bisang, 2004; Pustet, 2004).

2.3.8. Cognitive dominance vs. linguistic dominance

Gentner and Boroditsky (2001) elaborate on this notion and note that the distinction into autonomous and dependent forms is continuous in

nature—that is, language forms come in varying degrees of autonomy. They argue that the concepts that form the basis of synsemantic forms are provided by language, while the content of autosemantic forms is largely non-linguistic. Meanings of concrete nouns come pre-individuated and are merely given labels by language; language provides very little structuring of these concepts, and there is consequently relatively little cross-linguistic variation in how languages refer to persons, animals, or concrete objects. Languages simply tend to apply denotational labels to concepts that are pre-carved by the outside world. On the other hand, there is rather serious variation in how languages organize spatial relations, the specificity of deictic anchoring, definiteness and other information conveyed by means of synsemantic elements. One startling consequence of departmentalizing language forms as a function of cross-linguistic variation is that some items traditionally and intuitively accepted as open-class forms turn out to exhibit properties of synsemantic forms. For example, Gentner and Boroditsky note that the meanings of verbs exhibit cross-linguistic variation. Verbal meanings name event schemas and are therefore very schematic. Because elements of experience do not come as conveniently pre-packaged as concrete objects, languages have a say in structuring the relevant concepts, and there are significant differ-ences in how they demarcate the portions of experience conveyed by specific verbs.

For example, the English *go* refers to general translocation and is neutral about the means of motion. By contrast, Polish does not seem to have a general-purpose verb expressing translocation without speci-fying whether it occurs on foot or by mechanized means. One possible candidate, *(prze-)dostać się*, does convey the neutrality of the means, but it cannot be used as a translational equivalent in all situations where *go* would occur, because it is more telic than *go* and focuses on the goal of motion, not motion itself. It is therefore more like the English *reach* or *get.* Another well-known example is the case of the pair *borrow* and *lend*, which in some languages are fused into one verb. Thus, in Portuguese, the verb *emprestar* can be used referring to either direction, depending on the prepositional phrase that follows it—one can "emprestar" to or from someone. The same is true of the Polish *pożyczać*. One could speculate that perhaps most verbs can be shown to emphasize unique configurations of features that are not copied exactly by their translational equivalents in other languages.[7]

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[7] This should not be taken to suggest that languages differ infinitely in how they partition experience into verbal portions. To take the case of *borrow* and *lend*, there are clear cross-linguistic patterns involving converse pairs, with languages either separating the two concepts as two verbs or collapsing them under one verb. The collapsing itself

It is curious to note that this coincides with Kemmerer's observation, outlined in section 2.1.4, about differential processing of two types of spatial relations. Recall that precise spatial delineations expressed by lexical items are handled by areas in the right hemisphere, while topological descriptions realized by closed-class forms are primarily mediated by the left hemisphere. Forms whose meanings are free from the constraints of particular languages and those that are dictated by a given language's closed-class system are managed differently.

Gentner and Boroditsky's analysis lends further support to the transitional nature of the distinction. They conclude that grammatical categories form a continuum with verbs being located closer to the synsemantic end than do nouns. The view of grammatical categories being located on a continuum is reminiscent of Ross's (1972) *squish* hierarchy, where he too envisions categories as cardinal points, with adjectives being between nouns and verbs. However, what should be obvious enough is that however fuzzy the middle of the continuum is, its ends are qualitatively different. Sufficiently numerous imperceptible differences of degree eventually lead to conspicuous differences of kind.

At this point, it is perhaps necessary to reiterate that I do not contest the continuum view in the sense of denying the fuzzy boundary between the two magisteria. The fuzziness is probably an inescapable consequence of setting up any dichotomy and of any attempt at categorization. It is also a reflection of prototypicality, which, as a central feature of human cognition, affects the way language organizes its major subsystems. The fuzziness is also a very real and necessary part of the design of language itself—without the possibility of a no man's land between the two extremes, grammaticization could not take place, and therefore no closed-class forms would exist in the first place. What I am contesting is what I think is the non-sequitur decision to treat the fuzzy boundary as a non-existent one. This continuum fallacy causes one to miss the fact that quantitative change leads to qualitative change; the two are not mutually exclusive. It is possible to have two concepts that are separated by so many imperceptible differences of degree that they become differences of kind.

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may be something of a universal pattern: even when a language separates two converse concepts, speakers may still collapse them under one verb, as is the case with the verbs *infer* and *imply* in English, where the former is often used with the meaning of the latter. Additionally, there are further crosslinguistic similarities. The presence of a verb expressing a unidirectional activity that presupposes the active involvement of the recipient entails the presence of the opposite direction verb. So if there are verbs like *sell*, *give*, or *teach*, they are accompanied by *buy*, *take*, and *learn*.

2.3.9. Formal characteristics

Closed-class elements also tend to be unique in form. One well--known fact is that in English, closed-class elements tend to be un-stressed and only take contrastive stress. They also differ in terms of the repertoire of sounds they select. This was first observed by Jakob-son who pointed out that "affixes, particularly inflectional suffixes, in the languages where they exist, habitually differ from the other morphemes by a restricted and selected use of phonemes and their combinations" (Jakobson, 1990, p. 414). This is perhaps a result of pho-nological reduction in the course of grammaticization, which simplifies the phonological structure of a word, by reducing its length, complexity of clusters and eliminating the more marked sounds. Skalička (1979) further observed that this is especially true of inflectional languages, where closed-class forms tend to be more uniform than in agglutinating languages.

Unfortunately, these are hypotheses based on anecdotal evidence from languages that happen to support the claims but not from languages that contradict them. Bybee (2005) questions the universality of these hypoth-eses, and her analysis of twenty three maximally unrelated languages suggests that languages do employ marked segments in affixes. She con-cludes that the hypothesis that "languages use a more restricted number of phonemes in affixes than would be expected by chance, is only sup-ported in small minority of the languages of the sample" (2005, p. 191). However, it should be noted that Bybee considered both inflectional and derivational forms. Her samples include forms like the Inuit affixes *juma* ('want to') or *katag* ('be fed up with') which are contentful enough to be considered toward the lexical end of the continuum.

If one confines the focus to strictly closed-class items, the fact remains that languages show a preference for recycling the same sounds in many affixes and excluding many sounds. In English, the segment /z/ appears in the plural, third person singular and genitive. This is quite contrary to what one would expect if language were driven solely by the need of maximum clarity and disambiguation, as then more diversification would occur. Although Polish closed-class morphemes feature highly marked segments like nasal vowels, some segments like /r/ or /p/ do not appear at all.

To take another example, the distribution of the initial dental frica-tive *th-* is organized along the division line, with the voiceless *th-* being reserved for lexical words (*thaw, theft, think, thorn, thud*) and the voiced *th-* being restricted to function words (*than, the, then, there, they, this*, etc.)

No lexical word in English begins with a voiced *th-*, and there is only one exception among function words, namely the voiceless *th-* in *through.*

Another interesting formal peculiarity exhibited by closed-class forms is their behavior in verb phrases in Romance languages. For example, in Portuguese, negation triggers object-verb inversion:

(3) (Eu) não a vejo.
     (I) not her see.
     'I don't see her.'

But this inversion only affects pronouns. Nouns and proper names remain in their original position following the verb:

(4) (Eu) não vejo a rapariga / Ana.
     (I) not see the girl / Ana.
     'I don't see the girl / Ana.'

In Brazilian Portuguese, this inversion occurs without negation, and here too, it only concerns pronouns.

(5) a. Te amo.
         You love-$_{1SG}$
         'I love you.'
     b. Eu a amo.
         I her love-$_{1SG}$
         'I love her.'

The above are therefore not absolute universals, but tendencies, and probably not very strong ones. Yet such tendencies can be taken as an indication that the two extremes on the lexicon-grammar continuum are qualitatively different.

2.3.10. Corrigibility

Mistakes in deviant sentences tend to be easy fixes, if the anomaly involves the wrong closed-class items. This is a straightforward consequence of low substitutability of closed-class forms. In the sentence *I want <u>of</u> go to <u>a</u> zoo<u>s</u>,* the preposition *of* is used instead of *to,* which is the only possible insertion in its slot, so its absence is rather conspicuous.

Similarly, the use of the indefinite article is incompatible with the plural suffix. Sentences where function forms are used incorrectly are comprehensible and corrigible (Matthews, 1981, p. 20). Unlike lexically anomalous uses, "an ungrammatical utterance, according to this criterion, is one that a native speaker can not only recognize as unacceptable, but can also correct" (Lyons, 1977, pp. 379—380).

By contrast, if mistakes involve open-class items, as in *Flavors complained down to earth*, correcting them is so challenging that one does not know where to begin. Often it is impossible to diagnose a problem in a sentence like this without knowing what the speaker's intentions were.

2.3.11. Minimal free forms

Another interesting difference is made evident by Bloomfield's (1926) test for what counts as a word, namely his observation that a word is a minimal free form capable of standing alone as a complete utterance. Although the test is not foolproof (words like *my* or *of* cannot stand alone as an utterance), when words fail the criterion, it is grammatical markers, but rarely lexical words.

This is because grammatical words are synsemantic: the use of the preposition *of* is rendered meaningful and justified by the presence of a lexical head that it complements.

2.3.12. Exchange vs. shift errors

Lexical and grammatical items also behave differently in speech errors. They differ in their relative likelihoods of occurring in exchange errors and shift errors. An exchange error, a special kind of an anticipation error, is the replacement of a word by a word intended to appear further in a sentence, with the two words swapping places (e.g. *many rivers in the fish*). A shift error is the migration of a word to another position in a sentence (e.g. *act outed* for *acted out*).

In general, open-class items occur often in exchange errors (6a), but rarely in shift errors (7b), whereas closed-class items occur rarely in exchange errors (6b), but often in shift errors (7a). What is particularly interesting about example (6a) is that it involves a swapping of lexical

items that belong to different categories. It is also important to note that inflectional affixes pattern like closed-class items. Thus, in (6a) the endings are stranded, remaining in their original positions instead of moving with their content word hosts (6c).

(6) a. He's never *week*ed two *work*s. (*Exchange error*)
    b. NOT: He's never works two week*ed*.
    c. NOT: He's never *weeks* two *worked*.

(7) a. This was the best *act-out*ed scene. (*Shift error*)
    b. NOT: This was *scene* the best acted out.

2.3.13. Agrammatism

The above makes sense in light of evidence from agrammatic patients. Speakers with lesions to the Broca's area have considerable difficulty using function markers, particularly free grammatical morphemes, which are typically omitted, but also bound grammatical morphemes, which are often misselected (Grodzinsky, 1984). Further, while agrammatic patients seem to have unimpaired access to content morphemes, their comprehension is evidently disrupted when faced with sentences contrasting in terms of the positioning of function morphemes (*She gave her dog the food* and *She gave her the dog food*). Moreover, Geschwind (1974) noted that agrammatic patients experience difficulty even repeating function words. He used this observation as a basis of a short screening task for agrammatism. When agrammatic patients are asked to repeat the sentence *No ifs, ands, or buts*, they are unable to repeat the sentence, and also find themselves incapable of using the words included in it correctly.

   Of course, indications of selective impairment should be taken with circumspection. They cannot be taken as direct evidence that the components responsible for lexical and function morphemes are dissociated in the brain. Segalowitz and Lane (2000, p. 337) warn that the currently available technology is too crude to demonstrate that the distinction between open and closed class forms is neatly reflected in the brain. Also, Grodzinsky himself (1984, p. 112) objects to drawing a facile distinction between lexical and grammatical morphemes by "'artificially' lumping determiners, prepositions and auxiliaries." However, there is still good reason to suspect that "distinct neural struc-

tures are involved in the access and use of elements of the two classes" (Rizzi, 2004, p. 440).

One problem complicating a simple view of the distinction is that a function marker can behave differently depending on its status in the sentence. Agrammatic patients are more likely to use the preposition *for* if its use is semantically determined (as in 'flower *for* Rita') than if it is subcategorized by the verb, with no semantically motivated choice (as in 'Rita hoped *for* flowers'), in which case, they will most likely omit it. This could create the confusing impression that there is no single representation of the preposition *for* or that it is stored in multiple locations in the brain. In other words, some uses suggest that it is a function word while others place it in the lexical set, which seems to put into question the validity of the lexicon-grammar distinction.

One way to resolve this problem is to assume that an entry in the lexicon can have access to both grammatical and semantic information, as is illustrated in Figure 1 (p. 63). Then agrammatism would involve the obstruction of access to grammatical information. If a given context requires access to the semantic component, a preposition is used properly, but agrammatic patients will have difficulty producing sentences like 'Rita hoped *for* flowers' which require access to the grammatical component. In agrammatism, function forms are not expunged from memory; instead they are cut off from the grammatical component. And the more grammatical information a language form contains, the more its use will be compromised.

2.3.14. Universal presence

The list of characteristics suggesting qualitative differences between open- and closed-class forms could be closed with the observation that the distinction—which is being dismissed by cognitive linguists—receives indirect corroboration from crosslinguistic comparison. For example, as Wierzbicka (1996, p. 36) notes, there are no languages free of pronouns. If the division had no innate biological origin, one could expect at least some languages to develop without closed-class forms, placing the entire conceptual scaffolding of scene organization on the open-class lexical system.

2.3.15. Declarative and procedural memory

It has also been argued that the lexicon and syntax differ in terms of operation and memory use. Pinker and Ullman (2002) offer experimental data to show that the lexicon is dedicated to storage, while syntax is primarily a computational system involving the generation of forms based on rules.

They go on to argue that the two components are separate kinds of memory. The lexicon is a subdivision of declarative memory, which is involved in the storage of facts, events and arbitrary relations. On the other hand, processing grammatical information relies on the procedural system, which is associated with learning skills, especially those involving sequences and motor control (like playing sports). The two systems can be conveniently referred to as the "what" (declarative) and the "how" memory (procedural). They have even been shown to be located in different sites in the brain. Declarative memory is known to be subserved by the medial-temporal lobe structures, in particular the hippocampus. Procedural memory, by contrast, depends on the operation of the basal ganglia, including Broca's area where they project (Ullman, 2006).

What needs to be underscored in this context is that tasks involving the processing of grammatical forms (like the generation of past tense forms of regular verbs) have been observed to activate regions in the brain other than those activated while processing lexical information (like retrieving past tense forms of irregular verbs). All this points to a different psychological status of the lexicon and syntax, putting into question the wholesale rejection of the lexicon-syntax division.

2.3.16. Conscious attention

Talmy (2007) argues that closed-class forms are backgrounded, and as a result less available to conscious report than open-class forms. This is consistent with the results of a series of experimental studies demonstrating that language users do not attend directly to the surface form of sentences, involving details of grammatical structures used. Subjects were found to retain the gist more than any information about the morpho-syntactic form of an utterance they have been exposed to (Sachs, 1967; Bransford & Franks, 1971). The results of the experiments were inter-

preted as showing that details of syntax are only retained under special circumstances, such as awareness of a subsequent test (Johnson-Laird & Stevenson, 1970; Johnson-Laird et al., 1974) or when something about the form of the utterance is highly salient (Murphy & Shapiro, 1994). Although these findings refer to both syntactic and lexical information, the latter is more likely to be recalled than the former. This does not of course mean that these details are ignored completely, but that unlike lexical forms, grammatical items are much less likely to be registered consciously.

2.4. A New Model of the Lexicon and Syntax

2.4.1. Why Construction Grammar

The observations reported above suggest that the traditional levels of linguistic analysis do seem separate, but at the same time there is a sense that the separation is not as neat or definitive as has often been assumed. Below a number of findings will be mentioned that will no doubt aggravate the sense of contradiction, even though the review below is not intended to be as exhaustive as the discussion of evidence in favor of separability of components. Instead, only a number of facts will be reported that should make it clear that the traditional view of modularity was oversimple.

This apparent contradiction calls for a revised model of the organization of language, which should be able to capture the fact that lexical items seem separate from grammatical forms, but at the same time, the boundary between them does not seem perfectly discontinuous. The revised model proposed here is based on the view of the lexicon assumed within the framework of Construction Grammar. Therefore, first, a brief characterization of CxG is in order, which will also serve to highlight reasons why traditional modularity has been questioned by cognitive linguists.

Construction Grammar is a model of grammar explaining linguistic competence in terms of the knowledge of constructions, that is, pairings of form and meaning that are building blocks of sentences. Rather than viewing sentences as being products of general rules of grammar establishing skeletons to be fleshed out with lexical items, Construction Grammar assumes that it is lexical items that come with inbuilt rules that define the form of a sentence. The interesting part is that a lexical

item can be not only a single word, but also a larger phrasal unit. In this new sense, such all-size lexical units are referred to as constructions. In a fairly controversial move, Goldberg applies the term "construction" indiscriminately to all language forms, from traditionally understood single lexical morphemes, both bound like *un-* and *-ness* and free like *aardvark* and *zygote*, through partially open phrases like *no* V*-ing* (e.g. *no jaywalking, no loitering*) to very general rules like transitivity V *Obj.*

The present study assumes the constructionist framework for the same two reasons that prompt construction grammarians to embrace the continuum view. Because I adopt both the constructionist framework and the lexicon-syntax continuum (with the proviso that the continuum view does not contradict the lexicon-syntax division), the reasons in question are discussed below.

First, closed-class forms have meanings, and second, open-class items exhibit unique syntactic properties. Thus, apart from the widely acknowledged symbolic nature of syntactic constructions, constructionists point out that many words do not conform to the general rules of syntax and instead bring in their own idiosyncratic stipulations. A very compelling argumentation can be found in Culicover and Jackendoff (2005), who focus on words that tend to appear in "the wrong places." Their arguments and reasoning (as well as examples it is illustrated with) are briefly summarized here.

While most intensifiers precede adjectives and adverbs, the adverb *enough* behaves in the opposite way—it can only follow adjectives and adverbs.

(8) very/somewhat/remarkably/*enough nice.

The same is true of quantifiers *galore* and *aplenty*.

(9) many/numerous/*galore/*aplenty balloons galore/aplenty. (Culicover & Jackendoff 2005, 27, ex. 14)

If it is assumed that syntax provides frames with pre-specified positions of most words, and some exceptional words do not follow these specifications, then one must stipulate separate rules for such words. If it is assumed that these stipulations are made in syntax, this poses an economy problem, because there would have to be untold numbers of such addenda to syntax, as there are many other words that go in "the wrong places." For example, in place names, the word *mountain* follows the name, while *mount* precedes it:

(10) a. Blair, Camelback, Mammoth, Sugarloaf **Mountain**.
     b. **Mount** Everest, Washington, Athos, Rysy, Diablo.

If they are stipulated in the lexicon, this would represent a major violation of the lexicon-syntax divide which insists that syntactic rules should reside in syntax.

Further, a traditional lexicon with orderly single-word units comes at a price in the form of unpredictable licensing properties of lexical items. For example, verbs like *sob* are primarily intransitive verbs, and yet they can appear in expressions like *sob one's heart out* or *sob one's way in.* In such phrases, the verb takes unlicensed arguments; that is, arguments that are not featured in the common argument structures associated with it and cannot be accounted for by any general rules of syntax. One solution has been to postulate secondary licensing properties turning such verbs into transitive verbs, but there are two problems with this solution. One, this kind of transitivity is severely selective: one can "sob one's heart out," but not "sob a movie" or "sob a day." Each such secondary licensing appendix would have to be exhaustively detailed and suspect in terms of its economy appeal. Two, such additional licensing properties would have to be multiplied for each similar verb. This second problem would seriously exacerbate the first: detailed stipulations would have to be scattered all over the lexicon. And of course, unlicensed arguments do not end at *one's heart out*. There also phrases like *up a storm*, as in *dance up a storm*, or *one's tush off*, as in *run one's tush off,* and so on, each with slightly different collocational properties. To account for each such phrase, a new licensing rule would have to be appended to each and every verb that can take it. This would mean that a verb would have to contain an impracticably long list of unlicensed phrases. To put it another way, the burden would be on the verb to predict what phrases, existing or potential, can appear in its presence. Such anticipatory powers on the part of the verb do not seem very plausible.

The problem here is that there is no good traditional alternative. One possibility, placing these rules in the syntax, is also not very satisfactory: Just like in the case of rules for positions of words that appear in the wrong places, to postulate them in the syntax component would represent an economy problem, as it would force syntax to admit a host of increasingly less general rules, which in turn obviously makes syntax look more like the lexicon.

The constructionist alternative adopted here is to postulate larger construction entries like V *up a storm* in the lexicon, where V is an open slot to be filled with a verb. This makes it possible to avoid the problem of the unlicensed arguments in expressions like *cook/talk/sing/dance up a storm*.

Instead of multiplying additional licensing properties for each individual verb, one can include a construction that is instructed to take activity verbs. Postulating a multi-word construction entry with an empty slot for a verb has an intuitive advantage over granting extra licensing powers to countless verbs so as to allow them to take phrases like *up a storm*. It is an obvious improvement over what simply feels like putting the cart before the horse: in examples like *talk up a storm*, it is the verb *cook* that is incorporated into the construction; it is certainly not the case that the phrase *up a storm* complements the verb *talk*.[8]

The above observations do cast the lexicon in a new, less attractive light, because in lieu of a traditional elegant store of single lexical items, a profuse motley collection is proposed, containing items that seem to have nothing in common, all dumped together in one place. Still, having a lexicon composed of such apparently multifarious all-size items seems like a fair price for a model of language organization with entirely predictable licensing properties. Better yet, this all-inclusive lexicon does not have to mean a disorderly lexicon without a lexical-syntactic divide. Below an alternative account is given of how such a lexicon could be organized while preserving the lexicon-grammar distinction. Because the present model of the lexicon draws upon constructionist views of the lexicon, the discussion will begin with a summary of how the lexicon is envisaged by constructionists.

In the constructionist model of the organization of linguistic knowledge, the lexicon is not separate from the syntax component, but the two interlock, as is illustrated in the following diagram, taken from Croft (2001, p. 15).

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[8] Incidentally, one could reasonably argue at this point that each time a verb appears with strange unlicensed arguments can be a signal that we are dealing with a multi-word construction. Similarly, whenever words are used in ways that violate general rules of grammar, that too is a sign that a separate construction is at work. For example, the familiar use of *by* prepositional phrases followed by nouns without an article as in *by car, by plane,* or *by boat*, seems to be a manifestation of an idiomatic construction dedicated to expressing means of transport, quite distinct from regular prepositional phrases like *by a car*. The two constructions (regular form and the specific means construction) are distinct enough and are not synonymous: one cannot say *go by a car,* or *be hit by car*.
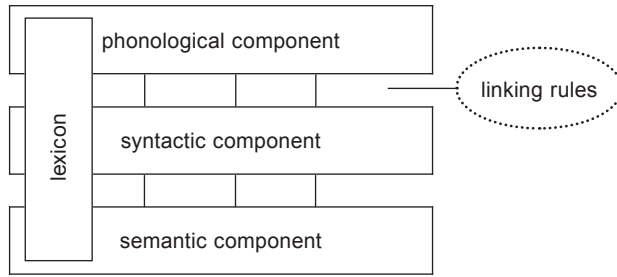
Figure 1. The lexicon cross-cutting the three traditional components

This diagram does not represent a very radical departure from the traditional componential model, according to which the lexicon equips words with their syntactic properties. For example, the theory of Government and Binding held that the lexicon specified the *θ-roles* of those lexical items that act as heads of constructions (Chomsky, 1982). In other words, the lexicon specified argument structures of some lexical items, and under the Projection Principle, this in turn affected the syntactic form of the derived phrases. Still, under this view, the syntactic properties permitted in the lexicon were quite spare and all they were supposed to do was to ensure that the word would conform with the general rules of syntax.

The constructionist view goes further in terms of the amount of grammatical information the lexicon can specify. Words come pre-equipped with information about where they can appear in the sentence (e.g. *galore*, *mount*, *mountain* above). Further, apart from single orthographic words and compounds, the lexicon also embraces items larger than words. Also included in the lexicon are idiomatic expressions of varying degrees of schematicity, ranging from fully specific idioms such as *walk the plank* (with all its positions filled with lexical material) through partially filled expressions like *up a storm* or V *with one's eyes closed* to highly schematic patterns such as the resultative construction. (This inclusion of items going far beyond traditional lexical items is reflected in Goldberg's portmanteau "constructicon," a term she uses to refer to the store of all linguistic constructions or in Kay's "phrasicon"). Also included in the lexicon are very general syntactic patterns that would normally be considered as elements belonging to the syntactic component. Such an enlarged all-embracing constructicon (Figure 2) could be represented by the following diagram.
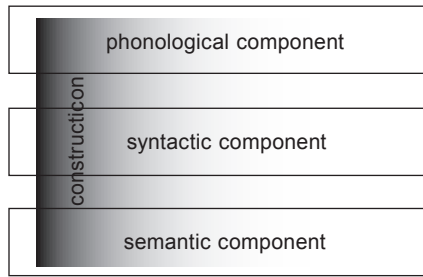
Figure 2. An all-embracing constructicon

I do not argue against a broad constructicon. A speaker must learn (rather than compute) all existing language forms. All aforementioned items, whether smaller or larger than a word, have to be stored in the lexicon—if they are too arbitrary to be interpreted by combining their component parts, they must therefore be learned and stored somewhere. Relegating them to some extralexical periphery makes little sense, because there are simply too many of them. They may number in the thousands or tens of thousands if one admits that a speaker knows at least a part of phrasal idioms listed in an average-sized dictionary of idioms, is also familiar with collocations like *sleep tight* or *answer the phone*, and can recognize names like *New York*, *The Marriott Hotel* or *The Sex Pistols*. There should be little doubt that the lexicon is larger and more heterogeneous than has traditionally been supposed.

This model also manages to sidestep a paradox posed by modularity. One unwelcome inconsistency pointed out by Jackendoff (1997a, p. 48) is that theoretically, syntax should be kept separate from semantics. In reality though, lexical items (traditionally semantic beings) contain syntactic information and syntactic rules also deal with semantics. In other words, semantics is duplicated by syntax and syntax is duplicated by semantics. This problem subsides in a model where lexical items cross-cut the modules and rely on them for different kinds of information. The modules remain separate and they no longer encroach on each other's domains.

However, I take issue with the idea that the qualitative differences between the contents of the constructicon should be glossed over so nonchalantly. To call, as Goldberg does, all forms of language "constructions" and to assume that they are all equally capable of conveying meaning is to ignore dozens of observations of striking differences between closed- and open-class forms. This would moreover be tantamount to settling for a large lexicon as a vapid shopping-list collection of items with no clear internal structure. There should be no denying that the diverse regions of the lexicon behave differently and their differences should somehow be accounted for in the structure of the hyper-lexicon.

2.5. Pragmatic Strengthening

Before I proceed to demonstrate that the case for enriched semantic content has been exaggerated in the constructionist literature, it is necessary to mention that there is theoretically one possible source of such fortified meanings in closed-class forms, but one that, upon closer reflection, fails to yield the kinds of rich meanings that are postulated by construction grammarians.

Specifically, in studies on grammaticization, it has been pointed out that before bleaching sets in, the first stages of a lexical item's transition to gram status are marked by a process that has been argued to be the opposite of desemanticization—"pragmatic strengthening" (Hopper & Traugott, 2003; Traugott, 1988). As a result of this process, conversational implicatures that accompany uses of grammaticizing items eventually turn into entailments. For example, the adverb *hwilum* 'at times' became the temporal connective *while*, which subsequently acquired the concessive function (Traugott, 1988, p. 407). This was possible when the connective *while* was used to juxtapose two events standing in some logical opposition to each other. When enough such uses occur, the logical contrast goes from being a tentative accompanying conjecture to a fairly stable association, indeed part of the sense of the conjunction.

The most likely scenario entertained by many researchers is that of reinterpretations occurring in so called bridging contexts. According to Heine and Kuteva (2005, p. 58) "a use pattern can emerge with its own context-induced meaning" where an implicature becomes permanently associated with the use in question under favorable contextual conditions. More strikingly, "a contextual sense may become lexicalized to the point where it need no longer be supported by a given context" (Evans & Wilkins, 2000). This is in line with Grice's views on the relationship between pragmatics and semantics, Grice (1989, p. 39) himself admitted that "it may not be impossible for what starts life, so to speak, as a conversational implicature to become conventionalized."

Because pragmatic strengthening seems to provide an open door to the theoretically impossible meanings becoming in fact possible at some future point, any claim that rules out excessive semantic capabilities in schematic constructions should contend with this challenge. However, pragmatic strengthening does not provide a means for endowing syntactic constructions with overly expansive meanings. Studies on pragmatic strengthening report only two kinds of meanings that can emerge as a result of pragmatic strengthening. First, an item can acquire meanings that are otherwise familiar examples of grammatical meanings, such as

tense reference. It has been pointed out that volitional verbs tend to take on future tense meanings. This is the case of the English *wyllan* ('want/wish') becoming the future tense auxiliary *will* (Bybee et al., 1994) or the Serbian and Croatian *hteti/htjeti* ('want') becoming the future tense marker (Corbett & Browne, 2009), as in the following example, where the verb clearly expresses future rather than intention.

(12) *Hoću   li dugo   čekati*?
     Want_{1SG} if long   wait?
     'Will I wait a long time?'

Second, an item may acquire non-truth-conditional functions involved in construal operations, as is the case of the concessive *while* (Traugott, 1988), causal *since* (Molencki, 2007), concessive *albeit* (Sorva, 2007), or the scalar *even* expressing a 'reversal of expectations' (Traugott, 1988). These are markers that convey the speaker's attitude or perception of the proposition. Traugott sums up the tendency by observing that "[m]eanings tend to become increasingly situated in the speaker's subjective belief-state/attitude toward the situation." They can include "the speaker belief in the truth or probability of the proposition" or "some surprise factor on the speaker's part" (1988, p. 410).

　Recall that these two kinds of meanings are precisely those that are commonly found in grammatical forms. In other words, the effects of pragmatic strengthening are hardly surprising. They represent meanings that can be predicted based on what we already know about the semantic content of grams discussed in section 2.3.4. The sense of predictability is further enhanced by the cross-linguistic recurrence of the same pragmatic-strengthening motifs, whose range is by no means unlimited. As Bybee (2010, p. 171) notes, "inferences that are preferred in context are often very similar across cultures." For example, the evolution of future tense forms mentioned above is found to have occurred in other non-related languages too. Future tense originating from lexical items with volitional meanings has also evolved in Syrian Arabic, where the verbal noun *bi-wuddi* ('I want/desire') has developed into the *b*-prefix marking the future (Jarad, 2013).

　What the studies on pragmatic strengthening do not report are rich truth-conditional (non-construal) meanings like the 'difficulty' reading proposed for the *way* construction (questioned in Chapter 5) or the 'manipulation/mental coercion' reading ascribed to the *into*-gerund construction (see Chapter 3), much less their cross-linguistic attestations. Indeed, authors who champion pragmatic strengthening confine its scope to grammatical meanings. For example, Brinton and Traugott (2005,

p. 68) state that "content is not enriched, but is 'bleached' (it gradually becomes backgrounded as grammatical meanings are enriched)." Thus, if pragmatic strengthening is incapable of infusing grammatical forms with richer meanings, there do not seem to exist any theoretical reasons to suppose that such meanings are in fact possible.

2.6. Persistence

Another theoretical source of rich meaning in grams is what Hopper refers to as persistence. This is the ability of a gram to retain a trace of the original meaning, despite the bleaching it has undergone. In Hopper's words:

> When a form undergoes grammaticalization from a lexical to a gram-matical function, some traces of its original lexical meanings tend to adhere to it, and *details of its lexical history may be reflected* in constraints on its grammatical distribution. (Hopper, 1991, p. 22)

For example, while both *shall* and *will* have become future markers, they are not exactly interchangeable: *will* is more appropriate where the future action is volitional and *shall* where it is a result of an obligation. Bybee and Pagliuca (1987) argue that these meanings are semantic remainders left behind by the original forms, and one could assume that grams can retain a memory of those original meanings:

> We claim that the contemporary modal nuances of *shall* and *will* are direct continuations of their lexical meanings—those of *shall* are related to obligation and those of *will* are related to desire. (Bybee & Pagliuca, 1987, p. 115)

The question of exactly how a gram retains a hidden trace of the original meaning remains unclear. One possibility is that persistence is a matter of a gram's collocational preferences. This possibility is suggested by Hilpert (2008) who says:

> If an auxiliary has grammaticalized out of a verb of obligation, we expect it to co-occur with main verbs that semantically relate to this lexical source, even several centuries after the initiation of the gramma-ticalization process. (p. 5)

However, whatever its exact nature, a gram's semantic memory is probably not capable of retaining the kinds of contentful meanings attributed to grammatical constructions for two reasons. First, as in the case of pragmatic strengthening, the meanings observed to survive bleaching are precisely those that are normally found in closed-class forms. Second, meanings proposed in the constructionist literature are not found in the original forms of the constructions. Take the 'mental manipulation' sense attributed to the *into*-gerund construction (*Jill's mom talked her out of marrying Billy Bob*). There is no element in the pattern [V OBJ into/out of V-ing] that could originally have served to express the idea of manipulation, let alone dishonesty or coercion. The same holds for other meanings analyzed in the following chapters.

2.7. Concluding Remarks

The lexicon-grammar distinction, however fuzzy, should not be dismissed as irrelevant to Construction Grammar analysis. The old-fashioned principle remains that closed-class forms are severely constrained in terms of the kinds of meanings they are allowed to convey. While fully specified open-class forms carry rich fine-grained meanings, closed-class forms and variables that have to be filled by lexical items cannot go beyond the spare structural categories provided by the grammatically specifiable inventory.

The decision to disregard the regularity may have seemed like a convenient and reasonable move in the study of grammatical constructions which, after all, clearly can be shown to convey various types of meaning. While the distinction has not been challenged in the case of classic examples of open- and closed-class forms—no one would seriously argue that the meanings of articles are just as contentful as the meanings of nouns— these classic cases represent only two extremes of a long continuum. The territory between the two extremes harbors interesting phenomena that defy the conventional binary understanding of words and rules. This has been especially true in Construction Grammar, where many examples of grammatical constructions are partially filled idioms and lie between the two extremes. In fact, continued insistence on a strict separation between open- and closed-class forms may strike one as stubborn and reactionary, especially in light of unequivocal evidence that closed class forms are capable of sustaining semantic content. Expecting closed-class forms to be devoid of meaning seemed to stand in the way of understanding and

analyzing form-meaning pairings freely. Suspending the distinction has made it possible to ascribe meanings to grammatical constructions.

But in the long run, this decision, however commonsensical or defensible, may turn out to be an expedience of the moment. It is interesting to note that the suspension of the divide seems conveniently vague. On the one hand, the continuum view does away with the issue of a strict divide, but authors retain the right to invoke the qualitative differences associated with the two poles. For example, Langacker (2008, p. 263) positions grounding elements "toward the grammatical pole of the lexicon/grammar continuum," and Goldberg (1995, p. 29) appeals to it when she observes that "constructions *are* closed-class elements so they are predicted to have the semantics of closed-class elements." This much may seem like a reasonable compromise position proposing a smooth transition between formerly distinct components but also upholding differences between them. In reality, the continuum view is rather inconsistent and hard to pin down. On some occasions the two poles are treated differently, while on others the blurry divide is extended all along the continuum in order to deemphasize the differences between the extremes. While construction grammarians are reluctant to admit to an all-out rejection of the division, claiming as they do, that there is a qualitative distinction, in reality they operate in complete disregard of its consequences. Levinson (2003, pp. 30—31) takes issue with Landau & Jackendoff's (1993) observation that closed-class spatial expressions should refer only to "the very gross geometry of the coarsest level of representation" (1993, p. 227) and quotes spatial relators from Native American languages exemplifying fine distinctions that are quite unusual for closed-class elements (about which more in the opening section of the next chapter). Similarly, Goldberg argues that "English has some dramatic instances in which basic argument structure constructions convey contentful meaning" (2006, p. 7). Upon closer inspection, it turns out that Levinson's relators are not typical closed-class forms and are more reminiscent of derivational morphemes, and the meanings of Goldberg's constructions are not as contentful as they first seem, which will be demonstrated in the following parts of this study.

There are thus two problems with the continuum view. First, in practice deemphasizing the distinction is *de facto* tantamount to equating the two extremes on the grounds that they are connected by imperceptibly small intermediate differences, a conclusion evident in attributing contentful semantics to closed-class forms. This reasoning is a familiar logical error known as the fallacy of the continuum, under which one may make the mistake of concluding that there is no distinction between opposites like rich/poor or cold/hot, because no strict division between

the two poles can ever be pointed out. Second, applying a classless all-
-encompassing label "construction" to all language forms while at the
same time making a token concession to the lexicon-syntax distinction is
nothing but attempting to have it both ways.

Additionally, the distinction can actually prove to be a useful tool,
when it is appreciated that the swathe of the continuum between the
extremes cannot conceivably be an autonomous region of language gov-
erned by its own requirements. Grammatical constructions located in the
middle of the continuum are combinations of items of both lexical and
grammatical forms, and it should come as no surprise that they evince
qualities of both too.

It stands to reason to expect that meaning is contributed by the con-
struction's lexical portion (it is unlikely to originate from the construction's
variables). What this means in practice is that when an open-class-style
meaning is observed in a construction, it should be possible to trace that
meaning to a specific lexical portion of the construction, whether as its
literal or metaphorical interpretation. Incidentally, this would be one way
of ensuring that the meaning is in fact paired with the form in question,
and is not merely a semantic illusion. In situations where two competing
meanings are postulated for a construction, priority should be given to
the one that is clearly motivated by the construction's form.

In the following chapter, we will examine a number of grammatical
constructions and show that they carry less semantic or pragmatic con-
tent than is claimed in the constructionist literature. In sum, the follow-
ing chapters will seek to demonstrate that the lexicon-syntax division is
real and the meanings with which language forms are paired depend on
which side of the division a given form happens to be.

3. Oversemanticized Constructions

3.1. Implausible Meanings

In what follows, a number of closed-class constructions will be analyzed and shown to be less descriptive than they are made out to look in the literature. The general theme recurring throughout the discussion will be the insistence that closed-class items do not in reality behave any differently or any more astoundingly than they have been recognized traditionally, despite recent observations to the contrary.

Of course, it is rather easy to understand the excitement behind the discovery (or perhaps the acknowledgement) that many schematic constructions have interesting effects. After years of generative transformational denial of any semantic activity in syntax, it is very refreshing to be able to openly point out that constructions do in fact serve to convey certain meanings. The freedom to look closely at the meanings of constructions made it possible to uncover some truly non-banal effects, an unexpected and stirring development comparable to the possibility entertained in the 1960s and 1970s that chimpanzees can talk (!).

Here, we will look in some detail at a range of closed-class forms to show that the excitement surrounding the semantic capabilities of grammar is probably as premature as in the case of the hype generated by observations of the exploits courtesy of talking chimpanzees. We will review the closed-class range starting from so called small words: single bound morphemes and prepositions.

3.2. Spatial Prepositions

Traditionally, such elements have been considered to be devoid of detailed meaning. When they do inevitably convey content, as in the case of spatial prepositions, their meanings are believed to be sketchy delineations of geographic directions or relations. For example, Talmy (2000a, p. 25) shows that closed-class items serve to describe the location or motion of objects in terms of topological, but not Euclidean reference. Descriptions conveyed by means of grammatical elements are magnitude neutral, so that prepositions *from* and *to* are indifferent to the actual sizes of the referents named in a sentence (1a—b).

(1) a. Small molecules can pass *from cell to cell.*
     b. Cosmic rays propagate *from galaxy to galaxy.*

Similarly, Landau and Jackendoff (1993) studied spatial prepositions used in descriptions of figures within grounds. They focused on scenes, where a ground (so called geon) has specific 2-D or 3-D geometry. For example, in *Water flows through pipes*, the ground *pipes* is a geon with a specified three-dimensional geometry, distinct from amorphous grounds such as *air* or *water*. As they note, "what proves surprising is how sparsely both the figure and the reference objects appear to be represented." The preposition *through* is neutral as to the form of the ground; it is equally appropriate in phrases like *through the air* (unspecified shape ground), *through the meadow* (2-D plane ground), and *through pipes* (3-D ground). They point out the absence of prepositions "with a figure or reference object that must be analyzed in terms of a particular geon." There seem to be no prepositions that require grounds with specific spatial configurations.[1] Thus, there exist no prepositions like *betwaft*, only to be used with reference objects featuring a protruding part, as in (2a) and being ungrammatical in (2b), making sentences like (b) below anomalous.

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[1] Talmy concedes that some prepositions have certain specifications as to the internal composition of a 3-D ground. For example, he claims (2000a, pp. 194—195) that unlike *in*, *inside* cannot convey "liquid immersion" locations, because *inside* requires referent grounds with hollow interiors. Thus, it is natural to say *The ball is in the water*, but not *The ball is inside the water*. However, even this observed effect is probably too rigid. Uses of *inside* with non-hollow interior grounds are easy to find in examples like *nuts inside jelly*, *particles inside the brick*, or *sun's rays inside the water*.

(2) a. The bug crawled betwaft my face.
    "The bug crawled down the junction between my nose and the main body of my face" (Landau & Jackendoff, ex. 5a).
  b. *The bug crawled betwaft the thread.

Landau and Jackendoff give a number of other prepositions impossible due to the degree of their specificity, but their predictions are questioned by Levinson (2004). He observes that one of their hypothetical examples, *sprough* ('through a cigar-shaped object') is actually found in the North-western California language Karuk, where the spatial affix *-vara* has precisely this meaning ('in through a tubular space'). Levinson concludes that "[t]he whole set of claims is based on woeful ignorance of the cross--linguistic facts" (2003, p. 63).

Although Levinson's observation seems to invalidate the whole line of reasoning behind Landau and Jackendoff's prediction, there are some weak points in the counterexample he provides. First of all, the Karuk word does not have "precisely" the same meaning as *sprough*. *-Vara* means 'in through a tubular space,' while *sprough* 'through a cigar shaped object.' Tapering toward the ends, a cigar is more like a spindle, and not a tube. Therefore, the Karuk directional affix *-vara* is slightly less specific than *sprough*. Secondly, even if one admits, as one should, that the meaning of *-vara* is rather detailed, a look at the system of directional morphemes in Karuk reveals that the forms used to describe motion through space are not exactly typical closed-class items. Karuk has a much larger number of directional morphemes than are found in English (Macaulay, 2005). For *-vara* to really be a problem, it would have to be part of a relatively small set of forms, most of which conveying rather general configurations. Of course, the more detailed specifications linguistic forms convey, the more such forms must be present, which *per force* makes them less and less closed-class.

It is necessary to admit, at this point, that prepositions represent a group of forms whose meanings are considerably more complex than would be typical of strictly closed-class forms. After all, they do convey information going beyond simple grammatical functions. Also, as many studies demonstrate, their meanings form large systems of multiple meanings, as in the case of the preposition *over* (Lakoff, 1987). The specifics of prepositional semantics are also evident from contrasts like *over* vs. *above* (Tyler & Evans, 2003). However, prepositions are *not* strictly closed--class forms. They are transitional forms, and as was noted in section 1.2, they are variously considered open-class forms by some scholars and closed-class by others. It is no wonder then that they will demonstrate properties of both classes and their meanings will not be limited to the barest minimum.

(Incidentally, the mere fact of a group of words belonging to prepositions, particles or any category considered closed-class in English, does not necessarily make these words closed-class in some other language any more than being a verb in some language makes a word an open-class item just because verbs are open-class in English. In some languages, there are very few verbs and new ones cannot be added, which shows that in these languages, verbs are closed-class forms. One of the most remarkable examples is the Australian Aboriginal language Jingulu with only three verbs (Pensalfini, 2014), which are bound light verbs with meanings 'do,' 'come,' and 'go').

3.3. Diminutive Morphology

Also open to the idea that small closed-class morphemes can carry exotic meanings is Wierzbicka, who gives the example of Russian with its "extremely rich and elaborate system of expressive derivation applicable to proper names (names of persons)" (2006, p. 171). She observes that the English system is limited, allowing only derivations such as *Johnny* for *John*, while in Russian *Ivan* has a large number of derivations including *Vanja, Vanečka, Vanjuša, Vanjuška,* or *Vanjušečka*. Again, at first blush, the news is rather sensational. Here are fine shades of endearment conveyed by not only one but a series of morphemes which seem to be very close to the closed-class end of the continuum—they are conceptually dependent grams, they are *not* minimal free forms, and most obviously they are not open to additions. These examples are adduced in support of the notion that there are "[l]inks between culture and grammar" and that "grammatical categories of a language also encode meaning" (p. 171). What Wierzbicka does not mention is that the elaborate system that generates a series of diminutive names in Russian is not limited to names of persons. Diminutive morphology is a rather commonplace phenomenon found in language after language (and those languages that have elaborate sets of diminutive morphemes also tend to apply them to names). In Russian, the suffixes *-uša* and **-uška** *(-уша, -ушка,* in Wierzbicka's examples *Vanjuša* and *Vanjuška)* are found equally easily in general nominal word formation, in words like *izbuša and izbuška (избуша, избушка*), both diminutive forms of *izba (изба* 'hut'). It is natural for many nouns in Russian to come with a series of diminutives like *реченька,* for *reka (река* 'river'), which also features a form containing the suffix **-uška** *(речушка),* or the suffix *-čka (-чка)* in *rečka (речка)* found in Wierzbicka's example *Vanječka*. Also, com-

binations of diminutive suffixes like *uš-ečka* (*уш-ечка*) (as in Wierzbicka's example *Vanjušečka*) can be found in nouns like *starušečka (старушечка) or babušečka (бабушечка)* both meaning 'old woman,' derived from *stara* (*стара* 'old') and *baba* (баба 'grandmother'), respectively.

Thus, the above advantage of Russian over English is not because affectionate forms of names are somehow incompatible with Anglo tradition, but simply because English has a modest diminutive morphology. English does have quite a few diminutive suffixes (*-en* in *kitten*, *-let* in *starlet*, *-ock* in *bullock*, *-ling* in *duckling*), however, they are far from being fully productive.[2]

In this connection, one could also cite the case of Portuguese as an example of a system of diminutives with strange meanings. In Portuguese, diminutives are applied to participles, as in *cansadinho* for *cansado* (tired). But *-inho* is not an exotic participle-specific suffix; Portuguese is merely an example of a language allowing a general suffix to be applied to a category other than noun, which is typical for most languages.

Incidentally, one should admit that diminutives in themselves are something of a minor challenge to semantic austerity of grammatical forms. Although the endearment uses listed above may be derivative from more general diminution 'smaller size' readings, it is undeniable that the notion of a smaller size is a fairly graphic meaning for a gram to begin with. Two points should be mentioned here. First, perception and framing of size is, to some degree at least, a matter of non-propositional meaning, which is perfectly consistent with the description of the semantic content of grammatical forms. Second, diminutive morphemes are not completely non-lexical. They are derivational morphemes, and hence their semantic contribution can by all means be greater than in the case of desinence grams. What also brings diminutive morphemes closer to the fuzzy boundary between the lexicon and syntax is their substitutability (see section 2.3.2), typical of lexical items. The fact that one can practically freely choose between *Vanja*, *Vanečka*, *Vanjuša*, *Vanjuška*, and *Vanjušečka* suggests the morphemes in question retain strong lexical features.

Thus, it is worth questioning the very choice of the examples used by Wierzbicka. The case of Russian diminutives is supposed to demonstrate the ability of grammar to contribute meaning, but it is debatable whether diminutive suffixes are strictly grammatical closed-class forms. Unlike

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[2] The number of words in which *-ling* appears is small enough to list here: *change — changeling, dear — darling, duck — duckling, earth — earthling, find — foundling, goose — gosling, gray — grayling, hire — hireling, prince — princeling, sap — sapling, suck — suckling, under — underling, weak — weakling*. The suffix is probably no longer productive. It cannot be added to nouns to create diminutive forms *dogling, *carling, *houseling.

plurals or past tense forms (products of clearly closed-class processes), many forms obtained through diminutive suffixation are listed in dictionaries as independent entries, and although they are related to their source words, they intuitively seem to be independent lexical items, whether they are established units or potential creations.

More generally, derivational morphology should be considered an area located toward the lexical end of the continuum. Derivational morphemes show nuanced effects, which become especially evident when two closely synonymous morphemes are contrasted. An interesting example of such fine distinctions is analyzed by Górska (2001), who focuses on pairs of *-less/-free* privative adjectives (eg. *sugarless*, *sugar-free*). She shows that the contrasts produced follow fairly consistent schemas. Briefly, one effect is that the meanings of derivations convey presupposed expectations, such that *sugarless* suggests a negative situation (that is, sugar is absent when sugar would be desirable), while *sugar-free* modifying nouns like *chewing gum* indicates a welcome property. Such effects in open-class forms are, of course, natural and they are not questioned here. However, because this study focuses mainly on meanings in closed-class forms, semantic effects obtained by means of open-class forms will not be pursued here further.

3.4. The *Into*-Gerund Construction

According to Wierzbicka (1998, p. 125), this construction expresses causative activities where an agent (the causer) exerts mental manipulation of another participant (the causee), as in example (3).

(3) a. Joe sweet-talked her into coming back.
　　 b. That jerk swindled them into working for him for peanuts.
　　 c. Government officials bully them into paying bribes.

In each sentence (3a—c), the subject is the causer and the object of the verb is the causee performing an activity specified by the root verb in gerund form. Wierzbicka argues that the causee is not in full control of what he or she is manipulated into doing. Similarly, Baicchi (2011) views the semantic contribution of the construction as being consistent with a scenario of a 'mental manipulative act.' Still more detailed is a characterization offered by Hunston and Francis (2000), who observe that "verbs that occur with this pattern usually indicate some kind of forcefulness or

even coercion." Wierzbicka represents the meaning of the construction by means of the following formula (Wierzbicka, 2006, p. 179).

> *Person X* verb-*ed person Y into doing Z.* =
> a. X wanted Y to do Z.
> b. Y didn't want to do Z.
> c. X didn't say to Y: "I want you to do Z."
> d. X thought about it like this: "if I say this, Y will not do Z."
> e. Because of this X did something else.
> f. Because of this after this Y did Z.
> g. Y didn't do it because Y wanted to do it.
> h. Y did it because X wanted Y to do it.

Detailed analyses of corpus data seem to corroborate the coercive manipulation view. Gries and Stefanowitsch (2004, p. 229) point out that verbs used in the *into*-gerund causative pattern form groups "based on frame-semantic knowledge of varying degrees of culture-specificity," such as commercial transaction verbs associated with "the trickery frame." They provide examples like *mislead into buying, lure into purchasing, dupe into paying* or *con into paying*. From examples like these, "a cultural model emerges of the buyer as a passive participant in the commercial transaction, exploited (and relatively easily so) by others for their own gain" (Gries & Stefanowitsch, 2004, p. 232).

Implicit in the manipulation scenario is a sense of duplicity or at least mischief. Wierzbicka explains this effect in terms of "the causee's action [being] 'triggered' by the causer's will, not by the causee's own will" (p. 179). In other words, the causee does what the causer says, but is in conflict with his or her own intentions. Also, as is evident from points (c—e) above, the causer strives to keep his or her motives secret. This characterization of the *into*-gerund construction leads Wierzbicka to conclude that one cannot use this construction in sentences like **I'll talk you into signing this* (p. 180) because letting the causee in on one's plans defeats the purpose of using the construction, which serves to suggest that the causer's wishes should be concealed. Indeed, a review of many available uses of this construction confirms this impression and may lead one to conclude that the meaning of the *into*-gerund construction is exceptionally contentful for a closed-class form. However, uses of the construction abound, where no sense of contrivance is present.

(4) a. Something happened recently that scared me into rethinking my stand on life. http://www.tumblr.com/tagged/be-careful?before=1328860926 (accessed September 11, 2012).

b. The album should excite and intrigue me into wondering how awesome a live performance of the songs would be. http://papalreviews.wordpress.com/tag/of-montreal/ (accessed June 2, 2012).

c. The legend spooked me into seeing and hearing things. http://www.yourghoststories.com/real-ghost-story.php?story=13467 (accessed September 11, 2012).

d. Our sense of adventure lulled us into taking these trips. http://www.gothamcenter.org/discussions/viewtopic.php?id=8963 (accessed September 11, 2012).

While the above examples could be dismissed as sloppy usage typical of non-standard varieties of English, such uses are also present in standard English, as the following quotations from published authors illustrate.

(5) a. … a challenge that *provoked her into rethinking* some fundamental assumptions (Allan Douglass Coleman, *The Digital Evolution*, 171).

b. Turner hypothesized that the sacred objects and experiences to which the initiates were subjected *provoked them into reconsidering* the world, its nature, and relations (Nigel Rapport, *Social and Cultural Anthropology: The Key Concepts*, 232).

c. For example, a poor person who sells a kidney to a rich patient may argue that poverty *coerced him into selling*. The rich patient may equally argue that kidney failure *coerced him into purchasing* (Mark J. Cherry, *Kidney For Sale By Owner*, 31).

d. Indeed, a meeting of "the wise men" (as they were named then) toward the end of Lyndon Johnson's time was one of the factors which *shocked him into changing* course in the war.

In these examples, it would be difficult to entertain a sense of manipulation, because the external causes of the actions are not animate, and therefore their actions are not intentional to begin with. These cases put into question the characterization contained in at least points (a) and (d) of Wierzbicka's formula referring to the causer's intentions and secrecy. Even if the causer is understood metaphorically (by personification, where inanimate forces are imagined to possess attributes of animate causers), it would still be an exaggeration to suppose that there was any secrecy going on in any of the situations presented in examples (4a—d) or (5a—d).

Instead, what these sentences show is that the construction makes it possible to express causative events, where the causation is in some way not very typical. This itself is probably not an entailment of the

construction, but an inference drawn based on Levinson's (2000) Manner Heuristic "What is said in an abnormal way isn't normal." That is, because normal causation can be expressed in more default ways, the use of the *into*-gerund construction suggests that there is something abnormal about causation here. Further, the unusual causation may but does not have to trigger readings of dishonest manipulation.

To return to Wierzbicka's example of an impossible use of the construction (*I'll talk you into signing this*), one can question the validity of her rather stark judgment that the sentence is odd. Even if the construction did serve to signal secrecy of the causer's intentions, it would still be possible for that causer to warn someone that one way or another, it is possible to talk him or her into signing something, and one's methods are so stealthily effective that they can be advertised ahead of time without the risk of compromising them. In fact, a quick online search yields great numbers of uses of this sentence type with various verbs like *I'll talk you into switching from Windows to Apple* or *I'll talk you into buying good beer.*

3.5. The Incredulity Response Construction

Another closed-class form which has been credited with considerable semantic content by constructionist grammarians is the incredulity construction first described by Akmajian (1984). It is exemplified in the following sentences:

(6) a. Her be a socialist?
     b. What, me worry? (Lambrecht, 1990, ex. 1a)
     c. Him, a flame thrower?
     d. Them understand stock trading?

This construction has been claimed to exhibit very idiosyncratic structure and meaning, which, according to the advocates of the constructionist approach to syntax, is ideal evidence of the fuzziness of the lexicon—grammar divide. Lambrecht argues that "it is impossible to draw a dividing line on principled grounds between 'highly marked' (or 'idiomatic') patterns and 'unmarked' (or 'regular') patterns. The existence and structure of MMs (mad magazine sentences—my note) constitute good evidence in favor of a 'constructionist' approach to syntax …" (Lambrecht, 1990, p. 226).

True, it should be admitted that the incredulity construction is a fully schematic pattern. It comes with no pre-embedded lexical inclusions, and it merely specifies slots for a subject followed by a predicate. It usually takes the form of a question or exclamation with a rather peculiar syntax, where the subject is in the accusative case and the verb is in non-finite form. Some authors (e.g. Goldberg, 2006; Huhmann, 2008) adduce the example of this construction as evidence of unusual semantic content expressed by grammatical constructions. Kay (1995, p. 124) states that "pragmatic forces or effects resulting from utterances of such expressions are conveyed according to conventions of language rather than by a process of conversational reasoning and so must be accounted for by the grammar."

At first blush, the incredulity construction does appear to live up to its name. Its fairly unusual content involves an emphatic emotional reaction to the proposition conveyed by the predicate. In the examples above, the speaker can easily be imagined being skeptical of the notion that a female mentioned in the conversation (6a) may be a socialist or that some persons should turn out to be stock traders (6d). Without much doubt, a schematic construction indicating, through its form alone, the speaker's emotional stance does strike one as a very contentful closed--class item. However, a moment's reflection on other uses of this construction should make it clear that its semantic or pragmatic import is not as clear as it might seem at first, and Kay's claims notwithstanding, the effects in question do in fact follow from a process of conversational reasoning.

Claims about incredulity being the construction's meaning contribution should appear less convincing if one considers other possible functions it might have. Quite simply, the incredulity reading cannot be the construction's content if it gives way to other interpretations. One of such alternate uses of the construction can be the expression of amusement, as in example (7) below.

(7) Her be a weight-lifter?

Unlike incredulity, amusement does not have to involve a rejection of the proposition. Additionally, the scenario is rather different in that amusement is more detached and cool, while incredulity much more invested.

While I should admit the possibility that the two readings might turn out to be variations on the same theme, there are more serious deviations from the classic incredulity reading. In the examples (8a and 8b), the speaker cannot conceal surprise or even awe, which is an effect much

more distinct from incredulity, because awe presupposes an admission of the proposition.[3] The speaker does not question the facts, but expresses admiration.

(8) a. Him be a doctor? I'll be damned! Gee…
     b. Joan wash the dishes? (I'm impressed!)

Then there is yet another way of using the construction, namely to express protest, as in (9a—b).

(9) a. Me steal your money! (How dare you?!)
     b. My father knock over a gas station?!

What makes these examples distinct from more typical incredulity interpretations discussed in the literature is that in protest-type sentences like (9a), it would be hard to argue that the speaker expresses skepticism. In this case, there does occur a rejection of the proposition, but it is certainly not the case that the speaker makes a self-discovery and reacts with disbelief. If at all, the disbelief could be directed at the thought that someone could even entertain the proposition presupposed in the sentence. But this kind of disbelief would not be a common element in all possible instances of the construction either. It would certainly not be present in situations where a speaker betrays curiosity, as in *Her know Obama? How do you know?* Here, the speaker could be imagined as being open-minded, amenable to both options, therefore there is rather little room for disbelief.

To sum up, apart from the incredulity reading, we have observed that the construction seems capable of expressing other quite distinct readings, which include amusement, awe, protest, and a hint of curiosity. What should be clear from the above discussion is that while the proposed readings could be accepted as plausible reactions to the facts mentioned in each case, in reality, the interpretations could almost as freely be swapped among the sentences, so that (7) could be taken to convey awe and (9), instead of voicing protest, could also be an expression of

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[3] This difference between awe and incredulity could in theory be played down by arguing that awe may involve initial incredulity or a potential for incredulity at an apparently implausible proposition, but this reasoning would lead to the suspect conclusion that incredulity should be present in all instances where a surprising proposition is conveyed, even in declarative sentences. For example, in the sentences *He really is a doctor* and *They really do sing arias*, there is emphasis on the veracity of the facts mentioned, but it would be awkward to argue that something about these sentences serves to entail incredulity.

amused sarcasm. It seems that the exact reading depends on things like intonation, background knowledge and the like. Further, the reading of incredulity, or any other reading suggested above for that matter, is too fine-grained. If these distinct effects can occur in different contexts, they are rather unlikely to be each specified in such exact detail by the construction; it is more likely that they are epiphenomena of a more general semantic property of the construction.

An alternative account of the construction's meaning contribution would be to hypothesize that its function is to highlight the incongruousness of two pieces of information (e.g. the person in the subject and the worrying in *Me worry?*) embedded in the proposition. By focusing on the apparent or actual conflict between such two facts, the construction allows the speaker to express incredulity, awe, amusement, surprise, and probably a number of other emotional states (such as Schadenfreude: *Him end up in prison. Who would have thought!*), each of which could be inferred based on the propositional content of the utterance, the speaker's intonation, facial expression and perhaps situational context.

What arguments can be offered in favor of postulating such sparer meaning contribution? A review of the construction's form in languages other than English shows a number of striking similarities, which consist in a general tendency to overtly separate the subject from the predicate. As was shown above, in English, this is done by putting the subject in the accusative case and the verb in infinitive form. This could be interpreted as an iconic device that signals a degree of incongruousness between the contents conveyed by the subject and the predicate.

In German, the construction either dispenses of a verb (if the verb is *be*) or takes the infinitive, which parallels the English preference for a non-finite verb. Although the German counterpart of the construction takes the subject in the nominative case, unlike the English accusative, it separates the predicate from the subject by means of the conjunction *und* as it is illustrated below.

(10) a. Du und Arzt?
          You and doctor?
          'You be a doctor?'
      b. Ich und arbeiten?
          I and work?
          'Me work?'

The same form is used in Polish and Estonian, where a nominative subject is separated from the predicate by means of a conjunction.

(11) a. Ty i lekarz? (Polish)
          You and doctor?
          'You be a doctor?'
      b. Tema ja arst? (Estonian)
          He and doctor?
          'Him be a doctor?'

It should also be noted that a similar pattern is available in English, where a verb other than *be* can be omitted and the subject can be joined with the object complement by means of the conjunction *and*, as in *My father … and a shikse?* (Philip Roth, *Portnoy's Complaint*).

In still other languages, the verb is either absent (12a) or is in infinitive form (12b—c), but unlike in German or Polish, a conjunction is not inserted between the subject and the predicate.

(12) a. Sen, doktor? (Turkish)
          He, doctor?
          'Him be a doctor?'
      b. Lui, un astronauta? (Italian)
          He, an astronaut?
          'Him be an astronaut?'
      c. Ela acordar cedo? (Portuguese)
          She wake up early?
          'Her wake up early?'

What all these examples have in common is that by disrupting the flow from the subject to the predicate, the form of the construction hints at an unusual relationship between the information contained in these two parts. This serves to indicate that there is a sense of processing conflict between the two parts of the proposition, and this can be taken as a starting point for the pragmatic calculation of the speaker's intention, which apart from the alleged incredulity and skepticism, can also be a number of other quite unrelated reactions.

Another way to look at it is that the construction involves the use of grammatical forms used in ways other than expected. Recall from section 2.3.3 that grammatical markers used in all contexts become obligatory, and even if they are redundant, their absence is interpreted as signaling a special meaning. This makes it obligatory for sentences to feature finite verbs signaling tense, and when a non-finite verb is used where a specific tense is expected (inferable from context), it can be interpreted that something about the use of the tense in question is problematic. For example, if a statement in past tense like *Clare gave birth to a baby* triggers

an incredulity form utterance like *Her have a baby? (She's a feminist!),* here, this tenseless reaction can be interpreted as an expression of the judgment that for Clare to give birth in recent past seems unusual.

3.6. The Moral Evaluation Construction

At first blush, the construction to which we turn now also appears to be an example of a schematic construction with an unusually colorful meaning. The construction, which we could refer to as the moral evaluation construction, appears to serve to express subjective moral judgment of people's behavior. The following examples (13a—g) show that it is used to convey fairly strong opinions of the actions expressed in the subordinate clause.

(13) a. *It's so kind and considerate of you* to worry about me.
      b. *It was crass of her* to offer her boyfriend's mother to pay for dinner.
      c. At that particular moment I thought *it was foul of him to* come around bothering me just as I was starting to build up a cosy bit of self-indulgence (Louis-Ferdinand Celine & Ralph Manheim, *Journey to the End of the Night*, p. 384).
      d. She told herself, that *it was very naughty and very wicked of her*, to have forgotten the words uttered by Marius (Victor Hugo, translated by Isabel F. Hapgood, *Les Miserables*).
      e. Forgive me, Colonel, *it was thoughtless of me to* interrupt you, but it is a matter of grave importance (Steven Griffiths, *Nimrod Rising*).
      f. I told him flatly that I was against it, that *it was horrible of him to even* consider it (David Handler, *The Man Who Died Laughing*).
      g. Jessie thought that *it was evil of her* to rub in his face constantly the reasons why she had decided to break off their engagement to become engaged to another (Torrance Stephens, *Fast and Gamin'*).

Compounding the impression that the construction deals with moral judgments is the fact that the evaluation of the behavior in question must be either clearly negative or positive. It is rather hard to find uses of the construction describing morally neutral behavior:

(14) ? It was allowed of him to leave the house.

Further, it is not enough for sentences built around this construction to convey positive or negative statements; the evaluative statements seem to have to be of a moral nature. It is interesting to note that the construction's resistance to non-judgmental adjectives also holds for other languages. Thus, translations of (16a) are unacceptable in French, Portuguese and Polish (16b—d).

(15) *It was quick of him to arrive on time.

(16) a. *It was unqualified of Rita to butcher the pronunciation so badly.
      b. *C'était inadequat de la part de Rita de massacrer la prononciation comme ça.
      c. Foi bem inábil da parte da Rita que ela massacrou a pronúncia assim tão mal.
      d. *(To) nieumiejętne ze strony Rity, że tak bardzo kaleczyła wymowę.

Similarly, in German, the construction seems to be constrained in terms of similar semantic requirements—the adjective used should describe a personal opinion about the decency of an action. Any other kind of evaluation is odd, as in these examples suggested by Gabriele Knappe (p.c.):

(17) a. *Es war schnell von ihm rechtzeitig anzukommen.
          'It was quick of him to arrive on time.'
      b. *Es war sehr preiswert vom Architekten, Fertigteile einzuplanen.
          'It was inexpensive of the architects to plan for ready-made parts.'

However, there is an important difference between the construction in English and its counterparts in Polish and French. In English, the construction is an almost fully general pattern, with the expletive "it," the copula and the preposition "of" (all of them function forms) being the only elements pre-specified in the construction, while the French and Polish equivalents contain the lexical material "de la part de" and "ze strony" ('on the part of') respectively. It appears that this has interesting consequences in that being partially lexically filled makes the Polish and French constructions more contentful than the English construction. Although there is a clear tendency for the English construction to convey moral judgments, there also remains some room for non-moral evaluations.

(18) a. *It was strange of him* to lock the door.
      b. *It was necessary of him* to win the game.

    c. *It was unbelievable of her* to miss the Paris trip just because her mom was bugging her. http://babysittersclub.proboards.com (accessed September 12, 2012)

    d. *It was extraordinary of her to* allow grief to numb her this way, but then she grieved for a rather extraordinary man. (Deborah Nicholas, *Silent Sonata*, p. 12)

    e. The very last person in the world he wanted to see at this moment was Emma, and indeed *it was extraordinary of her to* call at such a time in the morning. (Charity Blackstock, *Miss Philadelphia Smith*, p. 239)

    f. I don't think *it was hasty of you to* decide to get married. (Margaret Pearce, *Cindy Jones*)

    g. *It was rare—not unheard of, but rare—of him* to burn a pot or let a dish go cold … . (Nora Roberts, *Tears of the Moon*, p. 20)

Although it is quite clear that the construction is not entirely flexible as to the kind of judgment it serves to convey, it is not confined to moral evaluations as it seemed at first glance. Thus, it is rather safe to conclude that the construction does not come with content too rich for a closed-class form.

Still, the choice of adjectives *is* constrained in English. While some non-judgmental adjectives are possible, many other theoretically attractive ones (like *unskilled* or *quick*) are not. The constraint, however, seems to have less to do with syntax than with common sense reading of sentences built on the construction. That is, the adjective is followed by an *of*-prepositional phrase with a specific person referent, a phrase whose form suggests a particular enough interpretation: the person is construed as a source of the property named in the adjective. It is to be expected that the adjective should describe an attribute of the action that is somehow within that referent's control or one that is closely associated with that person's character. Assessments like "quick," "stressful," and "unacquainted" are neither intrinsically connected with control or intentionality nor do they say much about the person's character. On the other hand, non-judgmental adjectives that do appear in the construction (*surprising, rare*, etc.) have to do with a person's behavior viewed as an extension of his or her character. From this perspective, *quick* and *unskilled* seem rather accidental, more pertinent to the result of the action than to the person's character and behavior.

3.7. Instrumental NP Construction

Another example of a schematic construction that seems to convey a fairly specific and detailed kind of content is what might initially be called the phrase of means of transportation construction. Its form can be described by means of the following formula:

by NP (means of transportation)

It is commonly found in comitative specifications of means of transportation, as in (19):

(19) travel by car/bike/boat/plane/taxi/train/foot, etc.

Apart from these now familiar examples, the construction can also accommodate many somewhat archaic conceptions of transport.

(20) a. The couple traveled by horse.
      b. Mormon pioneers came by wagon.
      c. Go west by handcart.
      d. Cicero was traveling by litter.
      e. … the military victor who paraded by chariot in a great procession. (Jasiah Osgood, *Claudius Caesar: Image and Power in the Early Roman Empire*)
      f. Mary traveled by donkey to Bethlehem.
      g. See Scotland by steam train.

The preposition *by* is followed by a noun in the singular expressing a means of transportation—an instrumental noun phrase. It is important to point out that the noun phrase lacks an article. It is thus a construction containing familiar pieces unfamiliarly arranged (Makkai, 1972), a telltale sign that we are dealing with a grammatical construction governed by special constraints.

First, the omission of the article is only possible when the comitative transportation meaning is involved, not just when any cause of an event is mentioned. One cannot use this zero-article construction in sentences such as **He got hit by bus* or **The farmer got rich by horse*. Schlesinger (2006, p. 82) goes further and claims that the construction does not serve to express just any means of transport. He argues that the "*by*-phrase is limited to a small number of commonly used means of transport," and therefore one cannot say **She came home by parachute*. This would suggest

that the construction is indeed dedicated to specifically typical transport-
-related means, not accidental means that only happened to be used by
an unrepresentative sample of individuals.

This, however, is not exactly accurate, as it turns out that the phrase
by parachute is actually used in precisely such contexts. For example,
the phrase is used in collocations such as *land by parachute* or *descend
by parachute*. Indeed, a quick look at Google Books yields thousands of
instances of the phrase *by parachute* used in contexts describing transpor-
tation. There is even a book titled *By Parachute to Warsaw*. Similarly, one
can easily find uses ranging from not very common but familiar means
of transport like *The ambassador was whisked by helicopter to the base camp*
through more unusual ones, for example *travel by hot-air balloon* to rather
bizarre cases, such as *commute to work by skateboard*. Thus, it is fairly safe
to say that the construction can express any means of transport, common
or otherwise.

The NP does not necessarily need to name a vehicle, but the environ-
ment where the transportation is taking place:

(21) travel by sea/by air/by land/by road.

Further, the phrase does not only serve to express means of transportation,
but is also regularly found in descriptions of means of communication:

(22) communication by e-mail/letter/telex/(regular) mail/fax/satellite/phone
      /radio, etc.

A related pattern serves to express the means of causing death. Do the
following instances in (23) exemplify the same comitative construction or
are they merely examples of a construction that is similar to the comita-
tive means of transport construction? The absence of the article and the
singular form of the noun suggest that the examples below are part of
a larger family of constructions that specify an instrument associated
with the direct causation or enablement of the activity. In the collocations
below, all the nouns are either countable (and therefore require an article)
or, like *poison* or *fire,* are at least capable of taking an article.

(23) be killed/executed/put to death by bullet/knife/duel/poison/electric
      chair/firing squad/gallows/lethal injection/dagger/guillotine/fire/shark
      bite.

What the three patterns (transport, communication and death colloca-
tions) share is their relative openness to new additions, regardless of how

atypical (e.g. *by skateboard* or *by shark bite*). Why should these three patterns not be considered three distinct constructions? It seems any activity that can be performed by means of a range of different methods can also be expressed by the same by-zero-article-singular pattern. The following are additional groups of collocations that have to do with feeding (usually patients or babies) (24), giving birth, farming and washing. It is simply quite beyond belief that a language should have separate dedicated constructions for such activities, each one identical in form to the next.

(24) feed by spoon/bottle/breast/drip/cup/D-tube.

(25) born by caesarean section/vaginal delivery/breech delivery/vacuum extraction.

(26) far/sow/reap/harvest by tractor/hand/combine/horse.

(27) wash by hand/machine/soap.

One is therefore left with a fairly large, schematic construction with a general semantic contribution, rather than a group of high-precision dedicated constructions with specific semantic content.

3.8. The Time *Away* Construction

The time *away* construction has attracted considerable attention from various researchers interested in the semantics, syntax and selectional properties of this pattern (Jackendoff, 1997b; 2002b; Verhagen, 2002b; 2002; McIntyre, 2003). What they all agree with is the following characterization:

> This construction shares many general properties with the resultative construction … and the *way*-construction, … however, … it is a distinct member of a family of constructions to which all three belong. (Jackendoff, 1997b, p. 534)

Indeed, most uses of the construction confirm this impression.

(28) a. I feel like a rude houseguest, sleeping half the morning away. (Nancy Kay, *Deadly Triad*)
     b. I relax the whole day away in a hammock and at the buffet. (Taylor Cole, *Take It Off*)

    c. She was determined to party the night away regardless of the consequences. (Frank Lafountaine, *The Omak Lake Monster*)

These examples follow a pattern captured in the following formulae:

(29) a. [$_{VP}$ V NP [$_{Prt}$ *away*]]
    b. '*waste* [$_{Time}$ NP] *heedlessly* V-*ing*'

At this point, the construction looks as though it is dedicated to the expression of a rather narrow semantic contribution: that of losing possession of entire time intervals. Whereas these two elements—the deep verb LOSE and the notion of time—are familiar semantic elements known to be carried by grams, and therefore non-problematic to the hypothesis that meanings of constructions should not be too contentful, the semantic contribution is probably broader than is claimed in the constructionist literature. The V OBJ *away* frame can accommodate a wide range of non--temporal themes, as in *kiss the sorrow away* or *sleep your wrinkles away,* which would suggest that the semantics of the construction is more general than it appears at first blush.[4]

There do not seem to hold any syntactic properties that would set these two patterns apart. For example, Jackendoff (2002a, p. 82) notes that the time *away* construction exhibits the peculiarity of allowing the NP to undergo *tough*-movement (30a), whereas this would be impossible for NP time adjuncts.

(30) a. A morning like this is hard for even me to sleep away.
    b. *A morning like this is hard for even me to sleep.

This is also possible in the case of non-temporal uses of the pattern:

(31) A fortune like that would be hard to drink away.

Similarly, both patterns (temporal and non-temporal) allow movement of the particle before the NP:

(32) The men danced away the whole evening with elegant ladies.
    I tried very hard to drink away the pain.

---

[4] However, as Bogusław Bierwiaczonek noted in his review, the construction does not allow sentences like *I jumped my purse away* or *I talked my girlfriend away.* Concrete themes are probably avoided in abstract readings, and possible reasons behind this dispreference are specified in section 5.9 on the *way* construction.

In conclusion, the time *away* construction seems to be at best a special case of a more general construction with a semantic contribution along the lines of '*lose possession of* [NP] by V-*ing*.'

3.9. Past Tense Markers in Slavic Languages

As was signaled in section 1.2, questions of impoverished meanings and the blurred division between the lexicon and syntax are inextricably associated with grammaticization. Semantic reduction is a simple result of grammaticization, a process that would be impossible without a blurred division, as the only viable way for lexical items to be eased into syntax is through a gradual transition, not across a sharp on-off divide. Whatever the exact neurolinguistic modular reality of such a blurred borderline, it seems that a precondition for grammaticization to take place is the existence of a tolerant midway store capable of accommodating forms that evince both half-lexical and half-syntactic characteristics. However, as the discussion below should clarify, this midway store may not have to be excessively flexible or tolerant. One point that should be clear throughout the discussion here is that the meaning undergoes bleaching fairly early on in the grammaticization process, and the subsequent solidification of a form's gram status may progress well after the semantic reduction has taken place. In other words, bleaching is not contingent on a gram's reaching the apogee of the grammaticization process. On their way to becoming grams, forms show early signs of reduced semantic typical of syntax. There may be little conflict for the blurred division to handle, contrary to claims by cognitive linguists who argue that constructions, whether those located near the extreme or the middle of the continuum, convey strikingly rich meanings.

One clear example illustrating this early bleaching is the case of *can* in English. Long before it became a modal verb, complete with a weak form /kən/, it had acquired general ability meanings. Bybee (2010, pp. 168—169) shows its evolution from being a lexical verb *cunnan* meaning 'know,' through gradually more general meanings 'have sufficient knowledge (to say),' 'know how to,' 'have inherent ability' all the way to the "root possibility" meaning expressing favorable conditions outside the agent. At least the first few of these meanings were present in uses of the verb when it was still a lexical verb. It was the generality of meaning that propelled grammaticization.

What follows is an analysis serving to illustrate how grammaticization inescapably results in the simplification of the semantic content of lexical forms that enter the domain of syntax. This can be observed in the evolution of the past tense constructions in Slavic languages. In many of them, past tense involves the use of participial verb stems accompanied by function markers. For example in Polish, the participial stem *robił/robili* ('done') is followed by a closed-class suffix corresponding to the person:

(33)   robił-em/robił-eś/robili-śmy.
       do$_{part}$-1SG /do$_{part}$-2SG /do$_{part}$-1PL
       'I did'/'you did'/'we did.'

Characterized by bleached semantic content that does not go beyond a purely syntactic function, this closed-class form derives from the verb meaning 'to be' (*biti, být*, and *być* in Croatian, Czech, and Polish, respectively), an originally free lexical morpheme associated with expression of identity, existence, and position. The case of Slavic past tense constructions is thus a quintessential demonstration of how grammaticization erodes lexical meaning. What is particularly interesting in our present considerations is that this particular demonstration is replicated in more than one language, as the evolution of the copula-turned-gram progresses in the same way in the three languages in question. Although the languages are related, and the grammaticization of the past tense construction may have been set in motion before the languages split apart, the process has continued until present time, which is well after the split. This means that the changes described below have been occurring, for all intents and purposes, independently of each other. In each case though, the developments and results are predictably consistent with the spirit of the modular division of the lexicon and syntax: the grams undergo gradual phonological as well as semantic reduction, and they depend more and more on the accompanying material for interpretation and use.

The present comparison of Croatian, Czech, and Polish reveals that the past tense marker is in transit, with each language being found at different stages of evolution. In Croatian, *biti* is, from the grammatical point of view, the main verb, it is inflected by person and tense (here, *sam* is the first person singular, present tense form), and it accompanies the lexical verb, which is in non-finite form:

(34) Dosao **sam**, vidio **sam**, osvojio **sam**.[5]
    Come be$_{1SG,}$ seen be$_{1SG}$, conquered be$_{1SG}$
    'I came, I saw, I conquered.'

The past tense gram *biti* ('to be') seems to be at relatively early stages of fusion with the lexical verb. Just like the English perfective *have* is formally equivalent to the possessive *have*, the Croatian past tense gram *biti* is completely identical with the identity expressing lexical *biti* (Table 4):

Table 4. The Croatian copula in grammatical and lexical use

	Past tense gram *biti*		Lexical verb *biti*	
1SG	Vidio **sam**.	'I saw.'	Student **sam**.	'I am a student.'
2SG	Vidio **si**.	'You saw.'	Hrvat **si**.	'You are Croatian.'
3SG	Vidio **je**.	'He saw.'	Sretna **je**.	'She is happy.'
1PL	Vidjeli **smo**.	'We saw.'	Studenti **smo**.	'We are students.'
2PL	Vidjeli **ste**.	'You saw.'	Hrvati **ste**.	'You are Croatians.'
3PL	Vidjeli **su**.	'They saw.'	Sretni **su**.	'They are happy.'

As the above examples illustrate, the gram is separate from the lexical verb, and depending on the construction, it can follow (35a) or precede it (35b):

(35) a. Vidio **sam** film.
      Seen be$_{1SG}$ film.
      'I saw the movie.'
   b. Ja **sam** vidio film.
      I be$_{1SG}$ seen film.
      'I saw the movie.'

In Croatian, the gram *biti* retains a relatively high degree of autonomy, evident not only in its word order freedom, but also in the fact that negation is marked on the gram (*sam*, 'I am'), as in (36). This means that *biti* is still visible as a verb, not a dependent suffix:

(36) Ni**sam** vidio ovaj film.
    NEG-be$_{1SG}$ seen this film.
    'I didn't see the movie.'

---

[5] Caesar's famous line is traditionally translated into Croatian by means of an older past tense construction *dođoh, vidjeh, pobijedih.*

In Czech, the evolution is visibly more advanced, and negation is marked on the lexical verb, not on the gram 'to be' (*jsem*). So, unlike in Croatian, here it is actually perceived as a dependent, partly incorporated morpheme (or on its way to becoming one), although it is spelled separately from the lexical verb.

(37) Neviděl **jsem** tento film.
     Neg-seen be$_{1SG}$ this film.
     'I didn't see the movie.'

Still more advanced is the grammaticization in Polish, where the gram is well on its way to complete univerbation, as it is fused with the lexical material almost entirely. In the following example, the first person singular form of *być* is reduced to a mere *-em*, a considerable reduction relative to the form of the lexical verb *jestem*.

(38) Widziałe**m** ten film.
     Seen-be$_{1SG}$ this film.
     'I saw the movie.'

The reduction is evident in the paradigm for the verb *być*, and it is especially obvious when Polish is compared to Croatian and Czech (Table 5). The left side of each column shows the tonic forms of lexical uses and on the right are the corresponding past-tense suffixes. The column for Croatian shows that the forms are identical. Similarly in Czech, the forms are the same, except that in the third person for both singular and plural, there is no corresponding clitic form. Polish represents the least recognizable correspondences. Although the correspondences are clear enough when the forms are juxtaposed, they are entirely obscure to speakers unacquainted with the history of the past tense suffixes.

Table 5. Copula correspondences in Croatian, Czech, and Polish

	Croatian		Czech		Polish	
	tonic	*clitic*	*tonic*	*clitic*	*tonic*	*suffix*
1SG	sam	sam	jsem	jsem	jestem	-(e)m
2SG	si	si	jsi	jsi	jesteś	-(e)ś
3SG	je	je	je	Ø	jest	Ø
1PL	smo	smo	jsme	jsme	jesteśmy	-(i)śmy
2PL	ste	ste	jste	jste	jesteście	-(i)ście
3PL	su	su	jsou	Ø	są	Ø

It should be mentioned here that the fusion with the verb may not be complete, as the gram is also free to attach to other words in a sentence. In the sentences below, it attaches to a pronoun (39a), to an adverb (39b), or even a conjunction (39c).

(39) a. Ja**m** nie wiedział.
        I-be$_{1SG}$ not known.
        'I didn't know.'
     b. Zawsze**m** to wiedział.
        Always-be$_{1SG}$ it known.
        'I always knew it.'
     c. …bo**m** to wiedział.
        because-be$_{1SG}$ it known.
        '…because I knew it.'

Uses where the suffix attaches to elements other than the verb are revealing. They represent a transitional stage, where the suffix is not likely to fuse with them permanently, a prediction that can be deduced from their stress. Non-verb hosts to the suffix do not accommodate it in their stress pattern. In (40), the adverbs *nigdy* and *wczoraj* retain their original stress on the first syllable; stress does not move onto the subsequent syllable, which would be required if *nigdyśmy* or *wczorajem* were perceived as single words, in accordance with the Polish stress pattern. Put another way, the gram *-em* is not fully part of this adverb-suffix fusion. By contrast, verbal stems adjust their stress to the suffix in standard Polish (*wiedz'ieli* > *wiedziel'iśmy*).

(40) a. N'igdy-śmy tego nie myśleli.
        Never-be$_{1PL}$ that not thought.
        'We never thought that.' (Andersen, 1987, p. 31)
     b. Wcz'oraj-em prz'yszedł.
        Yesterday-be$_{1SG}$ arrived.
        'I arrived yesterday.' (Andersen, 1987, p. 33)

However, one could venture that these adverb-copula fusions represent a former stage of the gram's evolution. Although forms (39a—c) can still be heard in Modern Polish, they are rather rare and they have a distinctly archaic ring about them. It is clear that the evolution is directed toward the gram blending fully with the verbal stem.

Another indication of a more advanced stage in the gram's evolution in Polish and Czech is that in these two languages the morph has disappeared in the third person (41a—b), while it is still visible in Croatian (41c).

This is consistent with the general tendency of grams being reduced at the end of the grammaticization process.

(41) a. Petr viděl Ø film. (Czech)
        Peter seen film.
        'Peter saw the movie.'
    b. Piotr widział-Ø film. (Polish)
        Peter seen film.
        'Peter saw the movie.'
    c. Petar **je** vidio film. (Croatian)
        Peter be$_{3SG}$ seen film.
        'Peter saw the movie.'

Of course, although it is absent today, it was historically present in the third person. In the following examples from 15th-century Czech, the gram *být* is present in the archaic Czech forms *jest* for the singular and *sú* for the plural (Bohdana Najderová, p.c.):

(42) a. Abraham umřel **jest**.
        'Abraham died.' (Jan Hus, *Česká nedělní postila*)
    b. … řekli **sú**, že jest ukraden.
        'They said that it was stolen.' (Jan Hus, *Sebrané spisy české*)

Similarly, in Polish the third person gram used to accompany participial verbs. In the following example, the form *jest* is the same as in Old Czech.

(43) Zszedł **jest** w boleniu żywot moj.
    'My life passed in pain.' (Klemensiewicz et al., 1966, p. 17)

One possible reason why this happens is that the meaning of the gram is so diffused that it is implicit when absent. As was mentioned in section 2.3.5, due to its semantic generality, a gram relies on other lexical or grammatical material to be interpretable. Put another way, a gram farms out more and more of its meaning to the neighboring material so that at some point the imbalance of semantic division of labor is such that the gram is no longer necessary.

In the case of the third person marker, it is recoverable by reference to the verb's subject and the verbal tense marking evident in its past participial form. It is not only in the third person that the gram is omitted. Such an option is available in more colloquial registers of Polish, where the gram can be dropped for any person, as in (44), where it is recoverable based on the use of the pronoun.

(44) Józiu, a Londyn ty widział?
     Joe, and London you seen-Ø?
     'Joe, and have you seen London?'

This option has been available in Polish for a long time. In older variants, the copula auxiliary was often omitted, as in the following sentence.

(45) Jako ja przy tem był.
     As I at it been Ø.
     'As I witnessed it.' (Klemensiewicz et al., 1966, p. 37)

This erosion has taken place in other Slavic languages. In Russian, the copula has disappeared, and where the auxiliary *be* was used with the past participle, it is now entirely absent, so that the verbal stem lacks reference to person:

(46) a. Jazъ esmь čitalъ. (Old Russian)
        I be$_{1SG}$ read.
        'I have read'.
     b. Ja čitál. (Modern Russian)
        I Ø read.
        'I have read.' (Comrie, 2009, p. 284)

A very similar development was responsible for the emergence of the impersonal verb forms in Polish like *skradziono* ('stolen') or *pokazano* ('shown'). These differ from passive participles (in that they do not agree in gender or number with the passive object), but they are historically derived from passive participles. Originally, these were accompanied by a copula (*było* in 47a), which then dropped out of use in Modern Polish (Tabakowska, 2003).

(47) a. Projektów było gwałt narzucono. (Middle Polish)
        Plans-gen-pl. be-past-3sg-neut great many impose-past-3sg-neut
        'Great many projects were imposed.'
     b. Zbudowano szkołę. (Modern Polish)
        Build-past-3sg-neut school-acc
        'The school was/has been built.' (Tabakowska 2003, p. 386)

Like in the case of past tense forms, the copula contributed so little content to the proposition that when it disappeared, perhaps through phonological reduction or because of unstressed pronunciation, its absence was not felt to be conspicuous. However, it is clear that none

of the above omissions would have been possible if the gram conveyed detailed meanings whose contribution to context could not be dispensed with. Radical generalization exhibited by the gram's meaning, paralleled by the phonological reduction and dependence on the accompanying material are all typical of closed-class forms near the grammatical extreme of the continuum. The example of the past tense gram in Slavic languages is special in this regard, because it illustrates that grams caught at different stages of grammaticization do not pose a challenge to the lexicon-syntax division. Varying degrees of grammaticization do not contradict the traditional notion of a separation between the two systems: grams found "shortly after" they separated from their lexical source do not exhibit strikingly rich meanings. More generally, their behavior during their passage is consistent with the characteristics outlined in section 2.3.

The following table (6) sums up the characteristics of the copula--derived gram in Croatian, Czech, and Polish, indicating differing degrees of its grammaticization and univerbation in these languages. Where a characteristic is indicative of progressing univerbation it is marked with an asterisk (*). As can be seen, Polish displays a definite tendency on every count, with Croatian being closer to the lexical source, and Czech somewhere in between.

Table 6. Comparison of degrees of univerbation in Croatian, Czech, and Polish

Degrees of univerbation	Croatian	Czech	Polish
Form of the gram	clitic	clitic	suffix*
Correspondence gram: source	full (identical)	full	partial*
Negation	on the gram	on the verb*	on the verb*
Reduction to Ø	no	in the 3rd person*	in the 3rd person*

The purpose of this analysis was to trace the development of a gram from its lexical origins, through cliticization to an all but complete incorporation. As examples from Slavic languages show, the more advanced the development, the more likely the gram is to exhibit features typical of a closed-class form. Semantic reduction triggered by the form's generality is accompanied by progressing phonological erosion and dependence on the neighboring lexical material, all features associated with elements separated from the lexicon by the disputed blurred border. In light of this evidence, it is truly difficult to argue that the distinction between the lexicon and syntax is a misguided ideal.

3.10. The *Give*-Gerund CP Construction

The above reviews of constructions aimed to demonstrate that schematic constructions cannot and do not have very contentful meanings if only because whatever meanings they may have at first, they undergo bleaching quite early on in the process of grammaticization, as was shown in section 3.8. Any such dismissive review of constructions could continue indefinitely, taking on dozens of more examples one by one. I am going to conclude this section with one last brief description of a pattern whose semantics may at first glance seem strikingly contentful for a schematic pattern.

The *give*-gerund composite predicate (CP) patterns are a subtype of the fairly large group of light verb constructions, which are characterized by a broad semantic common denominator. However, unlike the super--category they belong to, *give*-gerund patterns seem to have a specialized semantic contribution. In her study of light verbs, Kearns (2002) gives a number of examples of *give*-gerund predicates (*give John a beating/flogging/whipping/thrashing*) and suggests that the verbs in gerund form denote actions involving 'bodily harm.' This observation seems consistent with a considerable number of examples like the following:

(48) a. The patrol officer tried to pin down his arms so that his comrade could *give him a good battering*.
   b. We go in there and *give them a kicking*.
   c. *Give him a serious hiding* for that kind of attitude.
   d. I have a good mind to walk out there and *give you a sound licking*.

A quick search through uses of the construction reveals that the construction allows practically any native root with the meaning of 'beat' (*spank, belt, smack, cane*). This could give the impression that the construction is indeed dedicated to the expression of causing harm. However, Trousdale (2008) notes that the range of verbs allowed in the construction is much broader. First, he points out that "there is a considerable subset of give-gerund CPs which involve not physical harm, but verbal castigation, as in *he gave him a dressing down*" (Trousdale, 2008, p. 41). Examples of this subset are attested frequently:

(49) a. She gave me a severe tongue lashing.
   b. I'm going to give him a good chewing out when I get home!
   c. The police gave the child a stern talking to.

Trousdale also shows that some uses can be ambiguous, as in the following example, where *seeing to* can mean either 'beating' or 'having sex':

(50) I'll give her a seeing to. (Trousdale, 2008, p. 35)

Further, there are examples, where the object is subjected to an action involving physical effort or a procedure:

(51) a. Throw the potatoes in the pan, put the lid on and *give them a vigorous* shaking.
    b. I offered to *give the tree a pruning.*
    c. … *gave himself a brushing down* in front of the mirror (Norman Collins, *Love in Our Time*).
    d. *Give the lawn a thorough soaking.*
    e. She *gave the shirt a quick ironing.*

If there is anything these uses have in common, it is the sense that the object is affected by the action, which is a fairly general semantic element, one that is perfectly natural and typical of grammatical forms. Being subjected to an action and becoming affected as a result is a pervasive recurring theme that is the main semantic contribution of grammatical categories such as the accusative case (Dowty, 1991; Levin & Rappaport Hovav, 1993), resultative construction (Levin & Rappaport Hovav, 1993) or to take a less obvious case, the malefactive dative (Janda, 1993; Wierzbicka, 1988):

(52) a. Matka mi umarła. (Polish)
       Mother to.me died.
       'Mother to-me died.' 'My mother died on me.' (Wierzbicka 1988, p. 212)
    b. Dítě nam v noci pláče. (Czech)
       Child.nom we.dat in night.loc cries.
       'The child cries at night (and we are affected by this).' (Janda 1993, p. 85)

A similar construction is found in Portuguese, where the verb *dar* ('give') can be followed by a feminine noun taking the indefinite article *uma* and the suffix *-da*. In the following examples, the nouns denote actions involving 'bodily harm' too.

(X) *dar uma pancada* ('to give a beating'), *dar uma bofetada* ('to slap in the face'), *dar uma bordoada* ('give a thrashing'), *dar uma cabeçada* ('to head-butt'), *dar uma topada* ('to stub one's toe'), *dar (uma) porrada* ('to

give a hiding'), *dar uma palmada* ('to slap'), *dar uma cajadada* ('to give a blow'), *dar uma cotovelada* ('to hit with the elbow'), *dar uma facada* ('to knife'), *dar uma tacada* ('to strike gently'), *dar uma chicotada* ('to give a whipping'), *dar uma chinelada* ('to slap with a slipper'), *dar uma navalhada* ('to stab'), *dar uma joelhada* ('to strike with the knee'), etc.

This is by no means a complete list, but the number of the above expressions makes it look like this is a construction with a special preference for 'bodily harm' nouns. However, the meaning associated with this pattern is more general, as the nouns allowed here form a larger group:

(53) *dar uma arrancada* ('to accelerate'), *dar uma olhada* ('to take a look'), *dar uma parada* ('to stop over'), *dar uma passada* ('stop by, show up'), *dar uma pensada* ('think, reflect'), *dar uma tossida* ('to cough'), etc.

While instances of the *give*-gerund construction may at first strike one as being remarkably dedicated to a narrow kind of semantic content, a closer look at more instances reveals that the construction does not in fact specialize in dedicated meanings after all.

3.11. Conclusion

It is possible to place a wager that no rich semantic or pragmatic effects proposed in constructionist analyses are true contributions of schematic grammatical constructions. As closed-class forms, schematic constructions are simply unable to convey more than what constructions have been traditionally known to convey. In this respect, little has changed, and although the construction grammar framework deserves the credit for drawing attention to the semantics of constructions, numerous semantic characterizations proposed within the framework are rather beyond belief, precisely because they are at odds with the implications of the lexicon-syntax distinction. The distinction, which has been *de facto* consigned to history, may still be very relevant to constructionist analyses.

4. How Constructions Are Really Constructed: Manner of Obtainment

4.1. Rich Meanings in Construction Grammar

The main recurring theme of the present work, the question of meanings of (especially schematic) constructions is considered in this study of the Manner of Obtainment Construction. As can be predicted from the tone of the previous sections, here too it will be argued that the meaning of this construction must carefully be double-checked against the pattern of meanings normally found in closed-class forms. This way, one can guard against proposing overly ornate meanings that may be too far-fetched as contents of closed-class forms.

Why should such a cautious approach to meanings be necessary? It certainly makes sense to take observed meaning effects for what they are rather than dismiss them simply because they run counter to the modular approach insisting on the sterile transparency of syntax. But although one should dispassionately examine each instance of an interesting meaning observed in a construction, no matter how jarringly at odds that meaning may be with the traditional (pre-cognitive linguistic) views of what is possible in a closed-class form, one should also approach such meanings with some circumspection; after all the traditional views on the austerity of closed-class form, meanings cannot be entirely wrong, if only because they were accepted by so many for so long. While this is an argument by consensus, a fallacy I am aware of, there are overwhelming numbers of function forms that do corroborate the traditional view, whereas exceptions can be examined and dismissed upon closer inspection. For these reasons alone then, it seems judicious to hedge one's bets while proposing rich meanings as possible contents of closed-class forms.

One should also note that to embrace the semantic superpowers of closed-class forms while contesting the traditional views of the limitations of closed-class forms is to apply double standards. That is, the flat rejection of the traditional distinction between the lexicon and grammar involves levels of skepticism unmatched in cognitive linguistic analyses of the contentfulness of constructions. It seems good practice to retain an open mind toward both the lexicon-syntax division *and* the accuracy of the proposed semantic constitution of constructions. That is, for the sake of consistency and fairness, rather than unquestioningly accept them as part of the meaning, it is first necessary to rule out other sources of such meanings.

The following analysis of grammatical constructions should show that it is possible to reconcile the ambition of CxG to analyze constructions as links between form and meaning with the retention of the traditional properties of closed-class items. It is possible to attribute meaning to function forms without overdoing the content.

Additionally, it will be argued that the meanings that the grammatical constructions do have, are constrained by their form. That is, the meaning of a construction should follow from the elements present in the form of the construction, a point that will figure in the analyses presented here. This study will further attempt to demonstrate that the constraints on schematic closed-class constructions reflect universal principles which govern how complex event schemas can be blended out of simpler schemas in linguistic constructions. In the Manner of Obtainment Construction, to which we turn next, the blending of event schemas will be shown to trigger obtainment readings. Then, in the *way* construction, it will be argued that while motion events can involve disparate sub-events blended together, paths do not allow any integration of incongruous elements.

This section focuses on a peculiar resultative construction with a conventional meaning. The meanings of sentences based on that construction cannot be accounted for as a sum of the contributions of individual words found in such sentences. Further, it will be shown that although the meaning associated with the construction is conventional, it is not arbitrary. The meaning of the construction is a product of complex cognitive computations along a pattern which is found in many unrelated languages which allow secondary predication. The pattern involves metaphor, manner-motion conflation, conceptual integration of frames based on diverse event schemas, and the activation of gapped counterfactual scenarios.

4.2. The Anatomy of the Construction

In this study, I will analyze the properties of a grammatical construction which I will refer to as the Manner of Obtainment Construction (MOC), described in previous studies (Szcześniak, 2008; Szcześniak & Callies, 2008). It is the main claim of the present contribution that the meaning of the construction under consideration is a product of complex cognitive computation. Before I offer a detailed analysis of how such meaning is compiled, it is first necessary to demonstrate that the meaning attributed to the construction cannot be explained away as an ordinary sum of the meanings of the individual words found in MOC sentences. The following description of the structure and use of the Manner of Obtainment Construction will show that sentences containing it cannot be interpreted through straightforward semantic composition, but require recourse to the semantic contribution by the construction.

Below is a description of the semantics of the construction. Examples (1—3) below are Polish and German sentences built around what I call the Manner of Obtainment Construction. MOC sentences contain morphologically complex verbs composed of a root and a prefix, which are otherwise common forms in both languages. Although most examples here come from Polish and some from German, similar constructions exist in other languages (here, I only mention—but do not analyze in great detail—examples from Czech, Slovak, Slovene, and Estonian), and although these may be governed by slightly different constraints, there are striking similarities in the form of this construction in unrelated languages. The similarities are especially striking when German and Polish are compared to English, whose closest equivalent is *x's way*, a construction built differently and governed by a different logic. The similarities (between German and Polish) will be analyzed later in the study as hints of common underlying mechanisms revelatory of not only the nature of this construction, but also the expression of possession and obtainment in general.

(1) a. Sługa wybłagał listość.
    b. Servant wy-begged mercy.
    c. 'The servant was given mercy after he begged for it.'

(2) a. Chłopak wymantrował (sobie) miłość.
    b. Boy wy-mantra'd (himself) love.
    c. 'The boy found love by chanting mantras.'

(3) a. Natürliche Autorität kann man sich nicht erschreien.
    b. Natural authority can one oneself not er-scream.
    c. 'One can't win natural authority by bluster.'

(The purpose of this chapter is not to claim that languages like Polish, German or Estonian can have the same construction, but to describe the meaning of the construction in Polish and German, whatever the similarities or differences).

4.3. Obtainment

The above sentences share the meaning 'Subject obtains Object by V-ing,' in examples (1—2), the subjects are seen as securing mercy and love, and in (3), there is talk about securing authority. The fact of obtainment needs to be emphasized, because it is a central element of meaning carried not by the verb (or any words used in the sentence), but by the construction itself. The verb conveys the manner in which the object is obtained, but not the notion of obtaining itself. Further, the construction entails the interpretation of obtainment; it does not merely implicate it. In (1), the servant does not just beg for mercy, but actually succeeds in securing it.

It is generally assumed that "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" (Goldberg, 2006, p. 5). Although it may seem transparent and predictable to speakers of Polish and German, the Manner of Obtainment Construction is precisely an example of a conventionalized pairing of form and meaning.

As will be argued later in this study, the pairing is motivated by strong cognitive dynamics which shaped the construction throughout history, but those dynamics are long lost facts on a par with prehistoric etymologies of words normally unavailable to most speakers. Thus, the construction under consideration is an unusual pattern which must be learned by speakers of languages where it is found, rather than emerging spontaneously as a consequence of abstract principles of grammatical transformations.

It is necessary here to dispel potential doubts about the above claim. Specifically, the construction could theoretically be dismissed as a trivial case, if the obtainment meaning could be pinned down on the verb, thus taking the spell off the construction itself. Verbs used in the construction

take a prefix (*er-* in German and *wy-* in Polish), and at first glance, it might be the impression of German and Polish speakers that verbs thus modified actually do express both manner and the idea of obtainment. This impression is no doubt reinforced by the existence of lexicalized prefixed *er-* and *wy-* verbs that are listed in dictionaries. Verbs like *erkämpfen* or *wywalczyć* are entries in German and Polish dictionaries where they are both defined as 'win by fighting'. This is also how most speakers would define the meanings of such lexicalized verbs and nothing about it would strike anyone as unusual or controversial. However, other forms yielded by the same pattern, like *erschreien* ('obtain by screaming') or *wymantrować*, ('obtain by chanting mantras') are not as transparent as their lexicalized counterparts may seem. Such novel forms require special context to be interpretable at all, and when presented with these verbs out of context, speakers are usually nonplussed and cannot provide an effortless definition along the lines of 'to obtain by V-ing.' Clearly, the semantic element 'obtain' does not come from the verb alone.

4.4. Manner

Apart from the meaning component of obtainment, the construction serves to specify the manner in which the prospective possessor acquires an object. The manner is encoded by the verb root, and in principle, any activity verb can serve to convey a manner of obtainment. Some verbs are common and lexicalized, and others are novel creative derivations which may elicit varying reactions from native speakers. However, in a supportive context, they are barely noticed, unlike malformed expressions which normally stand out even amid engaging prose. Sentences (4—5) contain examples of attested MOC verbs which convey the manners 'by dating,' 'chatting,' and 'by flirting.' Admittedly, these are quite unusual instrumentalities for achieving any ends, and to be interpreted as manners of obtainment, they require generous conceptual effort, but that is precisely the whole point of the MOC. The construction forces the listener to build a complex scenario in which the verbalized activity is conceived of as a way leading to a goal. Further, the listener must infer all other conditions not mentioned, but which must hold for that goal to be realized.

Thus, the behavior of the couple in sentence (4) is described euphemistically, because dating alone does not normally end in pregnancy. The listener must fill in the facts left unsaid, and this omission is perceived

as a surprising and humorous way of framing the events leading to the birth of a baby.

(4) a. Adam i Ewa chodzili ze sobą tak wytrwale, że *wy*-chodzili dziecko.
    b. Adam and Eve dated with each other so persistently that (they) *wy*-dated child.
    c. 'Adam and Eve dated so persistently that they ended up having a baby.'

(5) a. Er hat Bilder, die er sich erchattet oder erflirtet hat.
    b. He has pictures which he himself *er*-chatted or *er*-flirted has.
    c. 'He has pictures which he gotten hold of by chatting or flirting.'

Not all verbs qualify to be used in the construction. This question will be addressed more extensively in section (4.10.5), but as a first approximation it can be proposed that manner cannot be conveyed by verbs which encode the notion of a goal (only atelic activity verbs can be used). If a verb expressing an accomplishment or an achievement is used in the construction, despite being semantically intelligible, the resulting sentence is ill-formed both in Polish and German (6—7). This is because telic verbs already entail a goal, and a goal cannot serve as a means of achieving another goal expressed in the same clause.

(6) a. *Anna wyopalała sobie oparzenia na skórze.
    b. Anna *wy*-tanned herself sunburns on skin.
    c. 'Anna got sunburned from tanning.'

(7) a. *Anna ersonnte sich Sonnenbrände auf der Haut.
    b. Anna *er*-tanned herself sunburns on the skin.
    c. 'Anna got sunburned from tanning.'

Further, not only is it important to acknowledge the fact that the construction contributes meaning, but it is also instructive to appreciate what kind of meaning it is. It is not simply another semantic element on a par with what the words introduce to the sentence, like another bead strung next to others of its kind. Instead, the construction is seen as imposing a larger meaning frame which accommodates and organizes the remaining meanings in the sentence. Recall from section (2.3.4) that this is a general property of function forms (of which, I believe, the MOC is a representative). Unlike proposition-bearing lexical items, function forms impose the conceptual delineations of the scene scaffolding. Here too, the MOC sets up a general scenario of a participant coming into possession of a theme. The particulars regarding the participant,

method of obtainment and the theme being obtained are provided by lexical items.

4.5. Conflation

Examples of the MOC have found their way into the literature, but to the best of my knowledge, they have never been claimed to be instances of a separate construction. For example, Talmy (2000b, p. 242) presents them as a variation on the theme of the conflation of manner and motion. Conflating manner and motion is a special capacity found in so called satellite-framed languages. Specifically, the operation involves representing motion events where the manner of motion is expressed by means of a verb and the path of motion is conveyed through a prepositional phrase. For example, in the following sentence, the manner of motion is expressed by the verb 'bounced', and the direction of motion is conveyed by means of the phrase 'into the kitchen'.

(8) The ball bounced into the kitchen.
     [The ball MOVED into the kitchen] WITH-THE-MANNER-OF [it bounced].

The special character of conflation is evident in its restricted availability. Languages use various patterns of representing manner (for a full account on the typology of verb-framed and satellite-framed languages, see Talmy, 2000b or Slobin, 2003), but as is clear from Talmy's famous typology of satellite-framed and verb-framed languages, only the former can conflate manner and motion using one verb only. In verb-framed languages like Spanish, if manner is relevant enough to be mentioned, an additional verb in the gerundive form must be employed to specify it. In the following example, manner is conveyed by the verb *rebotar* ('to bounce'):

(9) a. El balón entró en la cochina rebotando.
     b. The ball entered in the kitchen bouncing.
     c. 'The ball bounced into the kitchen.'

To account for the conflated reading of sentences like (8), Talmy postulates the deep verb MOVE which is not realized overtly, but which must be invoked to properly interpret the event as consisting in a directional

motion with a specified manner ('the ball bouncing *into* a location') rather than the motion occurring in the same spot ('the ball bouncing in place'). Talmy notes that a similar pattern of conflating manner with another semantic component is found in sentences like (10), which happens to be an example of a classic MOC sentence:

(10) Die Armee hat (sich) die Halbinsel erkämpft.
       The Army has (itself) the peninsula er-fought.
       'The army gained the peninsula by battling.' As if 'The army battled the peninsula into its possession.' (2000b, p. 242, ex. 10)

Talmy argues that the semantic component 'gaining the peninsula' is understood metaphorically as the peninsula being 'moved into possession.' In other words, according to Talmy, although disguised in a slightly different syntactic form, such sentences are also examples of the conflation of manner and motion.

However, it is important to single out the MOC as an autonomous syntactic entity related to but separate from the conflation patterns discussed by Talmy. As will be demonstrated below, the semantic constitution of the construction is more intricate than in manner-motion conflations. Further, the syntax is also slightly different in each case. Also, not all satellite-frame languages have the MOC. If each language that can conflate manner with the deep verb MOVE could also automatically conflate manner with the deep verb OBTAIN, there would be reason to assume that the MOC is simply a natural extension of conflation patterns. But because the construction appears only in some satellite-frame languages, it must be more of a special extra rather than a standard feature of the conflation package.

4.6. Obtainment as Motion

In all of the above examples, the construction conveys a combination of two main meaning components: obtainment and a specific manner whereby that obtainment is achieved. While the semantic component of manner is coded by the verb, the obtainment part must be postulated as a deep verb which conflates with manner under the form of the verb. An important question is how the deep verb OBTAIN is induced. Unlike in classic manner-motion conflation sentences, where the deep verb MOVE is suggested by prepositional phrases (*into* or *out of a location*), in this con-

struction there is less overt material in the form of MOC sentences that would hint at the obtainment reading. That is, there is no prepositional phrase like *from x* that would suggest a source of obtainment. One obvious possibility would be that the pairing of the form of the construction and its reading is simply arbitrary. However, the fact that the construction is found in many languages in a similar form suggests that the pairing must be motivated.

In Polish, the manner verb is preceded by a directional movement prefix *wy-* which means roughly 'out (of).' This suggests that the meaning of obtainment is conjured up metaphorically by visualizing a given object being retrieved out of a container. Talmy (2000a, p. 241) analyzes the semantics of this construction in German also in terms of obtainment being a result of metaphoric movement into one's possession (10). In his account, however, the theme is not retrieved out of a container, but instead possession is conceived of as a sort of the possessor's container into which the object being obtained is inserted. The difference between Talmy's analysis and the explanation offered here is perhaps not very important, as far as it can be agreed that in both cases, obtainment is thought of as arising from a metaphoric motion event, but there are reasons to believe that the German prefix *er-* functions similarly to its Polish counterpart and it too conveys the meaning 'out (of).' Historically, the prefix comes from the Old German *ur-* which also yielded *uz-* whose present-day form *aus-* conveys precisely the meaning 'out (of).'[1]

If the aforemoentioned treatment of obtainment as retrieval is accurate, then conflating the deep element OBTAIN with manner should be a procedure similar to Talmy's event integration of manner and motion. In both cases of manner conflation, an extra meaning component is understood to be part of the reading of the sentence despite not being coded by an overt verb. In fact, in the MOC, the deep verb OBTAIN is not merely a counterpart of MOVE, but is really its consequence by metaphorical derivation, as signalled by the prefixes *wy-* and *er-*.

Thus the MOC does seem to be a special autonomous realization of the manner—motion integration. This impression is justified by the striking similarity between the form of the construction (11) and the form of descriptions of ordinary physical retrieval events (12—13). In Polish, the

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[1] Similar examples are found in other languages. Some, like Czech, use the exact same prefix (*vy-*). But similarities can be found in unrelated languages too. In Estonian, an equivalent construction uses the adverbial *välja*, which can be translated as 'out.' A slightly different take on the same theme can be found in Slavic languages. In Slovene, verbs are preceded by *pri-*, with the meaning of 'to oneself,' suggesting the construction profiles the end point of the trajectory.

prefix *wy-* is used in both cases, and in German, although the prefixes used do not match identically, they are related historically.

(11) a. Sie erkämpften ihre Freiheit. (German)
    b. Oni wywalczyli swoja wolność. (Polish)
    c. 'They won their freedom with a fight.'
       [They OBTAINED their freedom] WITH-THE-MANNER-OF [they fought]. As if [they MOVED their freedom out of a container] WITH-THE-MANNER-OF [they fought].

(12) a. I pried the cork out (of the bottle).
    b. Ich zog den Korken aus (der Flasche). (German)
    c. Wydostałem korek (z butelki). (Polish)
       [I MOVED the cork out (of the bottle)] WITH-THE-MANNER-OF [I pried it].

(13) a. twist the bulb out.
    b. die Glühbirne herausdrehen.
    c. wykręcić żarówkę.

The most conspicuous difference is that in manner-motion conflation sentences the source and goal phrases are optional, whereas in the MOC, they are gapped. This may seem counterintuitive, given the construction's reliance on the container metaphor. The reason this happens may be that the container is a metaphoric imaginary location, and thus its precise identification is a challenge. However, as was signaled in the previous section, in the conflation of manner and motion, the motion element can be worked out based on the satellite prepositions *into* or *out of* which suggest motion straightforwardly enough. But in the case of the conflation of manner and obtainment, the interpretation path from *wy-* or *er-* ('out (of)') to OBTAIN is not as obvious or direct. It involves a number of cognitive operations, which include the metaphoric association of location with possession and the manipulation of a number of schemas. These points will be discussed in sections (4.11—4.16).

4.7. History

I do not know when the construction was first used, and I will not attempt a historical analysis here, but it is obvious that the construction is neither a recent acquisition for Polish or German nor a marginal colloquialism.

Despite its exotic ring and peculiar structure, the MOC is an established and fairly productive grammatical instrument. Examples of MOC uses can be found in the literature, like the following excerpt from Friedrich Hebbel's nineteenth-century poem *Der Brahmine*:

(14) a. Wollte ich den letzten hindern.
       b. Sich Vergebung zu erweinen.
       c. I wanted to stop the past.
       d. Cry my way to forgiveness.

Concerning the age of the construction in Polish, at least some forerunner form of the MOC must have been present before Polish split from the other West Slavic languages, Czech and Slovak. Hypothesizing such a remote origin is based on the presence of equivalent forms in Czech and Slovak. The Polish form of the construction with its prefix *wy-* has an identical equivalent in Czech, where the same prefix (spelled *vy-*) is attached to verbs: *vyžebrat slitování* (Pol. *wyżebrać litość*, 'get mercy by begging'), *vyskákat (si) medaili* (Pol. *wyskakać medal*, 'win a medal by skijumping') *vybojovat svobodu* (Pol. *wywalczyć wolność*, 'win freedom by fighting'). The same is true of Slovak, whose MOC differs from the Czech counterpart only in spelling: cf. *vyskákat (si) medaili* (Czech) and *vyskákať (si) medaili* (Slovak). It is natural to assume that the similarities between the three languages owe to the construction's common origin before the split within the West Slavic group, rather than to a later independent emergence in the three languages.

An equivalent relative in English is the *way* construction, to be analyzed in the next chapter. Its structure is different and the ranges of meanings it can convey also differ, but there are reasons to believe that the English construction and those in Polish and German represent examples of similar patterns.

4.8. Possession and Location

Because possession figures in the form and meaning of the MOC, it is helpful to first consider how this conceptual category is expressed apart from the usual possessive verb *have*.

Possession is an elusive abstract concept. It cannot be observed directly the way motion or location can. A stolen apple does not look any different from any other apple (Snare, 1972, p. 200). It is therefore not surprising

to find that to express possession, various unrelated languages exapt constructional formulae which serve to convey more tangible concepts such as location, goal or companion (Heine, 2001, p. 316). The association between location and possession is of two kinds. In many languages, possessive constructions were grammaticalized out of locative constructions, as in Russian, where the possessum and the possessor are subject and oblique object respectively, and the possessive relation between the two is conceptualized as the location of the possessum (figure) relative to the possessor (ground).

(15) a. U menya brat.
       b. At me brother.
       c. 'I have a brother.'

In English, the picture is slightly more complicated and the locative nature of possession is not as readily obvious as in Russian. Like other Germanic languages, English uses its dedicated verb *have* whose meaning is first of all that of possession, not location. However, the etymology of *have* from the PIE root *kap- ('grasp') shows that here too, possession was originally an implicature of proximity, an element later desemanticized (Łęcki, 2010), which in this particular case resulted from catching and holding; it was conceptualized in a purely spatial sense. Actually, the verb *have* still retains its original 'hold' sense, as in *He has a gun!* To account for this semantic change, Radden (2003, p. 100) suggests that the metaphor POSSESSION IS HOLDING is at work, which is also responsible for the same change that is affecting the verb *hold*, as in *to hold a position*, *to hold a passport*, or *slaveholder*.

English, with its spatial etymology of possessive verbs but without Russian-style locative constructions to express possession, still retains a conceptual apparatus for understanding possession in terms of location and vice versa. There is an automatic association between the two concepts such that even those relations that are not of the ownership or kinship type can be talked about in possessive terms. Whenever something can be thought of as a figure located within or near a ground, it can automatically be represented as a possessum, as in (16).

(16) a. This apartment has three occupants.
       b. The driver has three cars in front of him.
       c. They have asthma.

This is also true of abstract entities like time or love. These can be conceptualized as possessa, but for this to be possible, they must first

undergo reification and transubstantiate into objects with a specific location relative to their possessor. Literally, (17 a—b) are neither typical cases of possession nor of location, but because they materialize as concrete objects with specific locations, they become locata relative to a ground, and hence, they can naturally be thought of as being subject to possession. Further, the location of a possessum does not have to be expressed overtly, as it can still be assumed to be relative to the possessor. In (17c), the kiss is, almost by default, taken to be an entity within a person's grasp, one that can be handed from one participant to another just like anything that is subject to transfer of possession. From the linguistic point of view, possession is an inevitable consequence of location.

(17) a. Some people have too much time on their hands.
     b. Jill has no love in her heart.
     c. Give me a kiss.

The picture presented here may seem oversimplied in light of how possession is approached in the literature. Heine's (1997) review of possessive construction types may give the impression that there may be little by way of a universal pattern, as the types he lists seem to form a collection of unlimited diversity. There are constructions where possession is expressed via action verbs, as in Nama (Central Khoisan), where the English sentence *The man has the car* is conveyed literally 'The man has taken the car' (p. 92). There are languages that employ goal-focus constructions, like the Bolivian variety of Quechua that would render *I have a rope* as 'A rope exists for me' (p. 94). There are also so called companion schemas like the Luo (Western-Nilotic) construction that would render *The Luo people have good customs* as 'The Luo are with good customs' (p. 93). Then there are genitive constructions, source-focus constructions, topic and equation constructions.

The types presented by Heine make it clear that the familiar patterns found in European languages represent a minority on the cross-linguistic scene. All this diversity illustrates the point that the category of possession is a universe of its own, and it is not possible to treat it extensively here, attempting to do justice to all its nuanced complexity. Instead, I would like to point out that for all its richness, the impressive display of constructions has some things in common. First, the abstractness of possession is conveyed in concrete spatial terms. It is noteworthy that the constructions found in language after language represent the possessor and the possessum as being located near each other. Whatever the exact form or original meaning of the constructions in question, they all

ultimately involve some type of location where both these arguments are situated and it is their proximity that serves as an indication of a possessive relationship between them. The logic underlying the association of possession and proximity is that since possession is not a directly observable property, some other visible property must be used to express the relationship between two participants, and the best candidate for that property is proximity. The grammaticization of such forms can be imagined as being driven by the pragmatic inference from 'A is seen near B' to 'A and B are likely to be in the relationship of possession'. If speakers using spatial expressions rely on their hearers to infer that implicature, and if communication succeeds sufficiently often, that spatial-possessive implicature should turn into a true entailment through pragmatic strengthening as envisaged by Traugott (1988).

The equal sign between location and possession is an important component in the argumentation presented further in this study. It will be argued that the grammatical construction under consideration activates a locative scenario as a prerequisite of the possessive reading that it serves to convey.

4.9. Reference Point Relations

Langacker (2008) offers a slightly different analysis of the possessive construction in English. He views possession as a linguistic phenomenon that can be accounted for in terms of reference point relations. He argues that since possessive expressions are used for a vast array of relationships (*the car of the year*, *today's top songs*, *your problem*, etc.), "a general characterization can hardly be based on specific conceptual content" (p. 505). He goes on to suggest that what all the different uses of possessive expressions have in common is that the possessor serves as a reference point for the identification of a less salient object. It is not a linguistic, but a more general conceptual mechanism motivated by the fact that there are fewer possessors than possessa, possessors are more salient, and are thus a logical choice as anchoring devices.

However, this analysis does not deal with the origins of the possessive construction in various languages. Langacker's reference point account explains why possessive expressions have been extended for uses that go beyond relations of possession, and as such, it is not an alternative to the POSSESSION IS HOLDING metaphor as an account of why possessive expressions have the form that they have in English.

Still, despite their different foci, the two accounts are both spatial in nature, which provides additional rationale for why possessive expressions lend themselves so naturally to conveying reference point relations. Consider the following examples from Langacker:

(18) a. Do you see that boat out there in the lake? There's a duck swimming right next to it.
   b. Do you remember that surgeon we met at the party? His wife just filed for divorce. (Langacker, 2008, p. 83, ex. 25a—b)

The above (18a) is a prototypical example of reference point identification, where the object being identified is in physical proximity to its reference point. This way of referencing serves as a model for other less concrete instances of proximity, such as the one in (18b), where the two participants are visualized as being placed side by side. If one source of possessive constructions is the description of spatial proximity, and if spatial proximity is also a model for reference point relations, it is rather to be expected that reference point descriptions will make use of possessive expressions.

4.10. Schemas

The reading of the MOC is a typical closed-class meaning for two reasons. Obtainment and, more generally, possession are concepts represented by a range of grams. Furthermore, the meaning is assembled out of patterns, more specifically event schemas, which themselves are associated with closed-class items.

Interpreting MOC sentences requires recourse to a number of what has come to be called event schemas. These are defined as configurations of thematic roles participating in basic situation types (Radden & Dirven, 2007, p. 270). Accounts of event schemas have been developed as extensions of Fillmore's Case (1968) and later work on thematic roles of verbal arguments. The term was first used by Talmy (1991; 2000b, p. 217) in his analysis of patterns in which simple unitary events form complex events. Dirven's (1999) work on event schemas has emerged as part of his analysis of metonymic regularities in noun-verb conversion, and a similar inventory of schemas was proposed by Heine (1993), whose main focus was on how events are captured in sentences. Rappaport Hovav and Levin (1998) approach event schemas from yet another angle, their

interest being in argument selection properties of predicates. Despite the different theoretical starting points represented by these accounts, they share a number of fundamental assumptions. One of them is the recognition that not only do participants in an event represent a limited number of thematic roles, but the event itself too will be framed as one out of a handful of existing schemas. These are defined as conceptual schemas of an event which combine a type of action or state with its most salient participants of different roles in the action or state (Heine, 2004, p. 78). An event schema will also signal a specific relationship between the participants, and thus guide the interpretation of a sentence as expressing an example of a having situation, a giving situation, etc. A given event schema will be activated for a large number of verbs. All languages have an inventory of schemas, each dedicated to a given meaning pattern. This makes the schemas universal. Schemas also form larger combinations which allow speakers to express more complex meaning patterns. The combinations require certain metaphoric interpretations mechanisms and syntactic properties (packing manner and result in one clause).

4.10.1. Image schemas vs. event schemas

It is now a good opportunity to address the question of the relationship between event schemas and the more familiar image schemas introduced by Johnson (1987) and Lakoff (1987). Although the two terms are sometimes used interchangeably (Choi & McDonough, 2007), it is important to point out differences between image and event schemas. First of all, image schemas are pre-linguistic cognitive patterns, and while they are reflected in language, they are a matter of thought rather than of verbal frames. On the other hand, event schemas are linguistic constructs which closely parallel argument structures. Levin and Rappaport Hovav (2008) define an event schema as a structural component of meaning representing an event type; drawn from a limited inventory consisting of the event types encodable in language. From the above distinction between pre-linguistic image schemas and linguistic event schemas there follow a number of consequences. Image schemas are more detailed and specific, and the inventory of known image schemas has been hypothesized to be substantial and diverse, including instances of physical phenomena and their typical characteristics.

For example, the concept of HORIZON and the reasoning patterns associated with it can be taken to form an image schema (Johnson, 2005, p. 33).

Indeed, any recurrent conceptual representation that provides the basis for abstract thought is an image schema. Event schemas, on the other hand, are situation types, which capture a given relationship between participants.

Yet, with all the differences between the two, one important similarity must also be indicated. Lakoff (1987) observed that image schemas form larger structures; indeed an idea will normally be based on a number of image schemas combined into a unitary image schematic gestalt. The basic logic of image schemas is due to their configurations as gestalts, structured wholes which are more than mere collections of parts. Their basic logic is a consequence of their configurations (p. 272). The possibility of combining schemas is implicit in much work on the subject. Some image schemas are implicit in closed-class forms. For example, Lakoff and Núñez (2000) argue that meanings expressed by means of the prepositions *into/out of* involve a combination of the path schema with the container schema. The same is almost certainly true for event schemas. Although these are predicate-sized, and so one clause will be built around a whole event schema, that schema can in itself be a sum of smaller events. Such a macro-event, as Talmy (1991) calls it, is conceptualized as a unitary amalgam, but is made up of two smaller events and the relationship between them (Talmy, 2000b, p. 213). Not only do both image and event schemas share the tendency to fuse into schema complexes, but the two interbreed to form hybrid schemas. There is good reason to believe that event schemas contain image schemas, especially if these can be fitted into slots for verbal arguments. Specifically, it will be argued that the event schemas in MOC sentences involve the concept of CONTAINER which has been widely recognized to be an image schema.

4.10.2. Event schemas

I will now review examples of event schemas identified in the literature, drawing on the work by Dirven (1999) and Heine (2004). Dirven's and Heine's accounts differ in terms of their exact inventories of event schemas. The statuses of some schemas in the two accounts are approached differently in that one schema in Dirven's inventory is subsumed under a more general schema in Heine's inventory. (Specifically, the authors differ on the question of the schemas involved in being, location, and movement). Here I will not be concerned with hierarchy issues or the relative importance of schemas. Instead, in what follows, I will draw from

both accounts and enumerate those event schemas that are present in the interpretation of MOC sentences. Later, I will show how these schemas interact forming complex event schema systems to produce possessive readings.

4.10.3. I action schema (the doing schema)

In the doing schema, the main participant is portrayed as the source of the energy that instigates an action. The action in question is normally understood as deliberate and controllable, initiated by an animate volitional agent; the event is not a process or incident which the participant merely undergoes. Thus, normally unergative rather than unaccusative verbs will be found in action schema sentences. Typical examples of action schema sentences are *The girls are singing* or *The children were hopping around*. Apart from the agent, the action schema can also include a patient involved in the action, which is expressed as the object as in *The workers chiseled wooden blocks*. The patient participant can be omitted if it is not a focal element of the schema, as in *The workers chiseled for hours*. Narratives conveyed by action schema sentences are built around a general situational skeleton where an agent generates the energy that is behind the action, and the energy can be directed at a patient if one is present in the action.

4.10.4. II essive schema (the being schema)

This is a very amorphous schema which groups together a number of loosely related schema types. Generally, its function is to relate a characteristic or any other conceptual category to a given entity (Heine, 2004, p. 79). What makes the essive schema so hard to circumscribe is that the conceptual categories in question can really be of any kind. The schema is found in descriptions of class membership (*He is an athlete*), attribution (*He is crazy*), company (*He is with me*), or location (*He is at school*), among other possibilities. In fact, so many different uses of this schema are identified that it is tempting to classify them as examples of different schemas. For example, while Heine considers location as a use of the being schema, Dirven (1999) combines it with motion as the location or

motion schema. In my discussion of MOC sentences, I will follow Heine's analysis of location as an example of the being schema, distinct from the motion schema. First, the two are different in that the motion schema is dynamic and the location schema is static and thus more similar to the other essive uses. Secondly, although motion involves location, this does not entail that the two should be treated as equal components within the same schema. Rather, motion should be treated as a complex schema which includes the simple location schema.

4.10.5. III process schema (the happening schema)

At first glance, this schema seems similar to the doing schema in that both schemas emphasize a potentially continuous action unfolding in time and involving a participant at the heart of the event. Like in the doing schema, in the happening schema too, there is an action where usually one entity is involved, and the verb used is intransitive.

(19) a. Her earring fell down the drain.
      b. The hikers got lost.

One crucial difference is that in the process schema, the entity in question is not the source of energy involved in the action, so it is not an agent, but instead a patient that undergoes whatever process is described by the verb. In other words, the process schema involves unaccusative verbs which take the participant as an underlying object. This schema does not enter into the MOC schema complex. It is discussed here as an example of what does not meet the specification of the MOC schema complex. However, the process schema is present in the *x's way* construction, which will be discussed in the subsequent sections.

The constraints governing the MOC require the entity involved to be an agent for two reasons. First, the participant of the action must be a potential possessor, and many patients possible in unaccusative processes are not capable of possession. Second, more importantly, the happening schema's incompatibility with the construction is a consequence of how we normally visualize possessors-to-be gaining possession. Obtainment is conceptualized metaphorically as retrieving the possessum from a container, a development where the requisite energy originates from the agent and is directed at the possessum. The happening schema violates this expectation of energy flow by having unknown-provenance energy

directed both at the possessum and at the possessor. Such a surreal scenario would place unfeasible requirements on the argument structure by forcing both participants into the underlying object position, while leaving the subject position empty.

4.10.6. IV motion schema (the moving schema)

This schema is present in descriptions of a participant changing location from a source, through a path to a goal. According to Talmy (1985; 1996), the conceptualization of a motion event necessarily contains a source, path (which he terms the *medial portion*), and a goal, but these three stages are not normally mentioned in each motion schema narrative. Instead, they form a presupposed conceptual base in which one stage is usually profiled: *The campers came out of the tents, The car sped through the tunnel,* and *Mallory reached Mount Everest.* Stages that are not encoded (or windowed for attention) are said to be backgrounded or gapped. The motion schema is typically assumed to serve to express the movement of either agentive participants that move of their own volition (walking, crawling) or themes that undergo a change of place (falling, sliding). As a result, this schema is theorized to be a higher-level structure combining the being schema with either the doing schema or the happening schema. Talking about entities may additionally require mention of an extra participant that causes some entity to change location (*The barmaid slid the glass*). From the syntactic point of view, such schemas are complex predicate structures involving more sub-events. Conceptually, they involve a triple combination of the doing, happening and being schemas. The motion schema is characterized by a goal bias in that the goal is profiled more often than the source. This characteristic has been termed as the goal-over-source principle (Ikegami, 1987). Put simply, what this principle means is that the goal is often more salient and more likely to be asserted than the source. It is more natural to say *The situation changed for the better* rather than **The situation changed from the worse*. The source and the goal have unequal statuses in that the source is always a presupposed inevitable part of any motion narrative, whereas the goal is more of an unknown, as it may or may not be reached. This makes the goal a more natural point of interest and inherently more salient than the source. Of course, it is the degree of discourse salience that is taken into account when a particular part of the source-path-goal trajectory is selected for profiling. Unless the source in a particular description is in some way special or unpredictable, it is not

likely to be selected over the goal for profiling. As Talmy argues, attention is a limited resource, so windowing will be on truly essential aspects of a situation. "(T)he gapping of certain portions of a conceptual complex permits certain conceptual areas that are assessed as less relevant, more redundant, or more obvious (i.e. capable of being filled in by the hearer) to continue on unenhanced at their usual background level of processing" (Talmy, 2000a, p. 305).

4.11. Combining Schemas

The above discussion focuses on a small number of basic schemas identified in the literature. The list is not exhaustive; there are other schemas that are combinations of smaller basic ones. The possibility of combining schemas into more complex configurations is of course not a new idea. In his original account of event expression, Talmy (1991) introduces the notion of event integration, a process in which simple events that can be expressed in a separate clause each (20a) get fused into a unitary macro-event conveyed by a single clause (20b):

(20) a. The glass slid down the counter because I pushed it.
      b. I slid the glass down the counter.

Combining schemas makes it possible to produce more complex configurations that are the basis of a number of constructions discussed here. One such experiential scenario is obtainment. Below, its semantics and underlying logic is discussed.

4.12. Obtainment and Loss

The obtainment schema is a separate species of a schema, which, to the best of my knowledge, has not been analyzed in the literature. It is not to be considered on a par with the examples of simple schemas presented in section 4.2, because it is a combination of two simpler schemas, namely the motion schema and the doing schema. The mechanism of the two schemas joining together is described below in section 5; here, a semantic analysis is provided.

In an obtainment event, a participant is portrayed as coming into possession of a theme, where possession is viewed metaphorically as the possessor being in close proximity with the object, as was demonstrated in section 4.6. Thus, possession is probably not an independent schema, as it relies on the metaphoric reinterpretation of the essive schema. This analysis differs from Dirven and Verspoor (2004, p. 82), who identify "having" as an independent schema. One downside of singling out a having schema is that this does not reflect its formal behavior suggesting a strong affinity with the essive schema. This affinity in turn has its consequences in how possession is realized in more complex schemas. That is, if possession is understood in terms of location in the proximity of a theme, then obtainment can be expected as motion to that location. Indeed, in the MOC construction, a theme is brought into contact with the prospective possessor. In the *x's way* construction (next chapter), it is the possessor that moves in the direction of the theme.

In this context, it is worth mentioning a related concept, that of loss. There are reasons to postulate a LOSE predicate as a reverse or simple negation of a HAVE/OBTAIN predicate, which is found in a range of grammatical forms, where often both LOSE and OBTAIN predicates are possible. In terms of its schema manifestation, loss is conceptualized as a possessor or prospective possessor moving away from a theme. For example, the *x's way* construction is used to convey 'lose' senses, as in *He drank his way out of his football scholarship*. Further, Mondorf (2011) compares the *x's way* to another construction, where the reflexive *self* conveys both 'obtain' (21a) and 'lose' (21b—d) senses:

(21) a. Max married himself into big money. (Mondorf, 2011, p. 399, ex. 4b)
    b. Howard Dean screeched himself out of the race.
    c. He has doped himself out of the job.
    d. Mike's own family has swindled him out of his fortune.

Bogusław Bierwiaczonek pointed out to me that there are examples of reverse obtainment constructions in Polish, such as *Szef wybił mi z głowy wyjazd* (lit. 'The boss bludgeoned the trip out of my head.' ≈ 'The boss bullied me out of the trip'). These conceptualize loss as a theme (here *the trip*) being removed out of the possessor, a process opposite to obtainment, where a theme is retrieved out of a container and brought into contact with the possessor. More generally, it seems justified to propose that schemas conveying loss contain an underlying 'use up/lose' predicate as a closed-class element. It represents a fairly common meaning recurring across various grammatical forms including (21b—d) and the following

examples. The 'lose/finish' predicate could also be postulated behind the augmentative function of the particle *up* in (22a—e). This is most probably an extension of the completion sense (Hampe, 2002; Tyler & Evans, 2003).[2]

(22) a. When he had eaten up the whole lamprey… . (The works of Francis Rabelais)
    b. Drink up before it spills!
    c. Time is up.
    d. We've used up all our savings.
    e. My membership is up.

There also seems to be an associative link between the OBTAIN and LOSE predicates, as is clear from the possibility that the dative (double object) construction, apart from typical 'give—obtain' uses (23a), also allows 'take away—lose' uses:

(23) a. His voice won him popularity.
    b. His drinking cost him the job.
    c. It took them 10 years to build the house.
    d. The police officer fined us $10 for jaywalking.
    e. The new law denied them equal rights.
    f. … and forbid them entrance into God's house. (John Milton, *The Tenure of Kings and Magistrates*)

4.13. Conceptual Integration

What is particularly important to stress is that examples like (20) above are not merely incidental instances of simple events forming larger events, but that there are recurrent patterns in which specific types of events tend to merge into larger wholes. The challenge is to point out regularities in schema combinations, and such patterns have been identified in the literature. For example, Dirven and Verspoor (2004, p. 83) suggest that the moving schema is a combination of a "happening" schema or a "doing" schema with the "source-path-goal" schema. If their view is correct, and

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[2] Tyler and Evans single out the uses of *up* that convey 'finish/to the end' readings—referring to them as "depletion" senses—and contend with the fact that they seem to represent a contradiction of the completion sense (Tyler & Evans, 2003, p. 141). However, they argue that the senses are in fact compatible, because the depletion of the theme correlates with the completion of the activity.

if even a basic schema can itself be a combination of more basic schemas, there should be no reason why they could not combine systematically to form higher-order schemas. One major conclusion following from my analysis of the MOC construction is that it itself represents such a pattern, where a complex macro-event schema is assembled out of a number of small schemas, and the pattern in question is quite intricate. The reading of MOC sentences requires reference to a number of event schemas listed in section 4.10.

One possible way of combining schemas in MOC sentences is captured in the framework of Fauconnier and Turner's (1996; 2008) theory of conceptual integration. An important tenet of the theory is that daily cognition involves effortless and automatic manipulation of mental content coming from disparate sources. People ordinarily blend inputs from two or more domains and form new mental spaces, nonce creations used not only in language, but also in imagination, hypothetical and counterfactual thought. For example, novel one-off operations include forming conditional if-then scenarios or imagining a debate between two philosophers each living in different eras, and thus unable to meet (Fauconnier & Turner, 1996). Other blends are fixed phrases or institutionalized concepts like the *Grim Reaper* (Fauconnier & Turner, 2006, p. 336), whose interpretation requires the parallel analysis of elements coming from different regions of our knowledge, such as the PEOPLE ARE PLANTS metaphor, *a space of harvest, the image of a cloaked skeleton*, etc., each of which contributes part of the logic of the blend. The image of the Grim Reaper has been an established concept for centuries and it is probably the compelling logic stemming from the associative blend that is responsible for its success in taking root in European culture.

The functioning of conceptual blends can be briefly summarized based on the simple example of imagining alternative pasts. People sometimes ponder questions such as what the past would have been like if telephones existed centuries before their invention. Entertaining such scenarios involves conceptual integration as illustrated in Figure 3. The picture of medieval people being offered a mobile phone is a blend of elements of our knowledge about the life in the Middle Ages (Input 1) with elements coming from the mental space about modern life and technology (Input 2). The Generic Space contains elements that are common to both Input spaces, including people, relationships between them, towns they live in, etc. The resulting picture (Blend) offers a scenario that would be impossible in either of the contributing spaces separately. In the "Middle Ages space," it is impossible to use phones, while in the "modern life space" it is possible, but it would be hard to imagine present-day people being surprised at the sight of a phone.

And of course, the whole point of the blend is to hypothesize how people unacquainted with electricity or radio waves would react to a voice from a phone speaker. The model of the conceptual blend operation also involves a generic space containing elements that the input spaces share, such as people and the possibility of using tools. This generic space contains the abstract structure applying to both input spaces, and is therefore a foundation that makes the blend possible. Theoretically, if the contributing input spaces shared no relevant details, the resulting blend would be obscure.
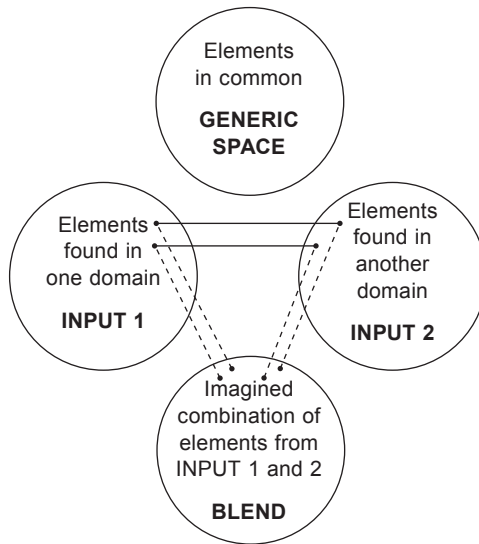
Figure 3. Conceptual blend

Conceptual blends are a pervasive feature of human cognition and are present in both linguistic and non-linguistic behavior. Conceptual Metaphor is one of its most studied instances. Blends can be performed without the mediation of language, as in the example of visualizing alternate realities. They have also been shown to be a promising explanatory framework to account for the semantics of compounds (Benczes, 2006, p. 58). Also, authors like Grygiel (2005), and Kleparski and Kopecka (2008) use Fauconnier and Turner's theory of conceptual integration to account for semantic change. Another obvious example of the motivating power of conceptual integration is morphological blending, where forms and meanings of words like *motel* result from the combination of inputs coming from two mental spaces. Grammatical constructions too rely on conceptual blending; Fauconnier and Turner (1996) offer a blending analysis of the Caused Motion Construction.

Most metaphoric blends encapsulated in fixed expressions are readily understandable, but those utilized by grammatical constructions are less obvious or accessible to attention. Most speakers are not aware of the metaphoric nature of the main semantic elements present in the construction, but those elements must, at some unconscious level, play a role in the interpretation, given their recurrence in the constructions of obtainment found in various languages. The following section will discuss how these metaphoric elements account for the form of the constructions of obtainment.

4.14. Blending Spaces in the MOC

The form of the MOC and similar constructions in many languages suggests that obtainment, as expressed by this construction, is viewed as the coming into contact of the possessor and possessee. In English, the *x's way* construction (discussed in detail in the section following the present study of MOC), one of whose functions is the expression of obtainment, frames the possessor as a theme moving toward a location, which is the possessee, as in *Bill Clinton talks his way to fortune.* In Polish and German, it is the possessee that is realized as a theme in motion toward the possessor, but despite a different organization of the scene, in each of these languages, the process results in the two participants being in proximity to each other. The movement that brings the possessor and possessee into contact is instigated by the agent's specific activity. In the *x's way* construction (Szcześniak, 2013), the prospective possessor sets oneself in motion by performing an activity specified by the verb. In the Polish and German construction, the possessor moves the theme to oneself by retrieving it out of its original location. In Figure 4, this is illustrated as the agent removing a theme out of a container in Input 2 and that agent performing an activity (such crying, cheating, etc.) in Input 1. In the Blend, the activity is viewed as a manner that causes the removal of the theme out of a container.

Other languages have constructions that are variations on the scenario of the possessor and possessee coming together. For example, in Slovene, obtainment is also viewed as movement of the possessee toward the possessor, but the Slovene construction focuses on the final part of the possessee's trajectory, where it is brought to the possessor. In Slovene, the sentence *Janez won a medal in ski-jumping* could be expressed "Janez si je prismučal pokal," literally 'Janez has to-oneself-jumped himself a medal,' as if Janez pulled the medal to himself by jumping.
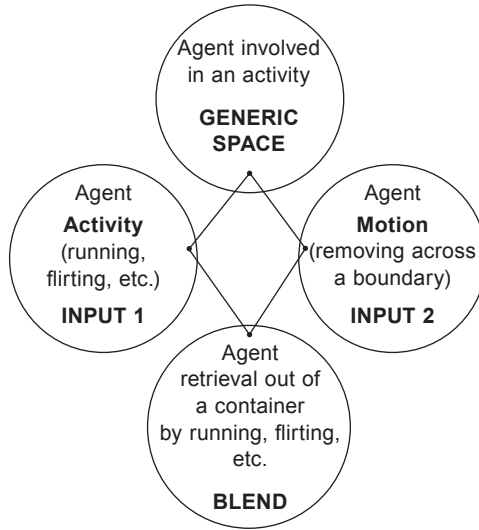
Figure 4. Blending of the two disparate inputs

In all these examples, movement is caused by activities that do not typically have the potential of setting things in motion. To imagine directional motion that results from talking or smiling one must engage in conceptual blending. In one space, the theme is viewed as being retrieved out of an unspecified container. The movement of the theme is caused by the agent's action and these two events are viewed as being integrated into one larger event. In the other space, there is an unintegrated sequence in which an agent performs an activity and the theme moves toward the agent. These two spaces combine into a blend in which the agent's activity, whatever it is, causes the theme to materialize as if out of a container. The two input spaces share a generic space in which the agent and the theme not only appear, but find themselves in a relationship of possession understood as a result of proximity (Figure 5).

Possession interpreted metaphorically as a spatial relationship is what motivates the choice of the integrated event input space that frames obtainment as a retrieval event and provides the syntactic form found in retrieval event sentences.

Theoretically, the form of the construction could be very different. For example, the construction could inherit a double-object syntactic frame associated with transfer of possession, if obtainment were associated with showing off what one has come to possess. Although transferring is directly associated with the concept of possession and would thus be a more natural candidate, it is more accurate to postulate the involvement of the moving schema. One reason is that the transfer schema presup-

poses the participation of a donor and a recipient, where the former actively causes a recipient to have a theme. In the case of MOC scenarios, it is the recipient that initiates the event. Also, another indication that a transferring schema is not involved is that although there is a source, it is not animate and it is implicit.
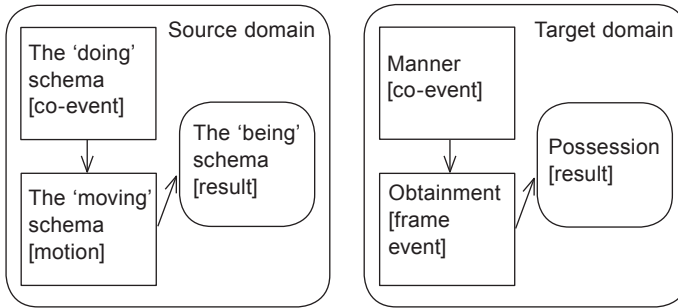
Figure 5. Cross-domain mapping of schemas yielding a possessive reading

Finally, another motivating factor that contributes to the naturalness of this blend is the metaphor that it incorporates, namely causation is emergence (Lakoff & Johnson, 1980, p. 74). Lakoff and Johnson argue that creation is conceptualized metaphorically as an act of emergence out of a container. Their view of the rationale behind the container view differs from mine, but what needs to be stressed is the role of the container image in metaphoric processing. This point will be elaborated on in section (4.18) on the emergence of metaphoric mappings.

4.15. The Interaction of the Schemas Within the Construction

The interpretation of MOC sentences is a function of the interplay of a number of schemas that make up the form of the construction. The doing schema is the starting point; it is expressed overtly by the verb, which is invariably an activity verb. The doing schema sets the rest in motion: The activity initiated by the agentive subject of the sentence is followed by the moving schema, a motion in which the activity verb serves as a manner. The moving schema is expressed by elements such as additional morphemes, particles or adverbials signaling direction of motion. In this schema, the theme is conceptualized as changing location from an unspecified source to the location associated with the agent.

Finally, because the final location is associated with the agent, the being schema is activated, which is understood metaphorically as a possession scenario. This chain of events, dissected into separate schemas here, is conceptualized as one large event, which in the minds of speakers is not analyzable into the above component schemas. Rather it is a general scenario in which an agent obtains a theme in a particular manner.

What should be emphasized here is that in the ultimate aspectual calculus, the derived event schema is what one would expect to result from the component parts given their aspectual properties. That is, from the point of view of Aktionsart, the event expressed in a MOC sentence is an accomplishment, a category made up of an activity and a telic completion of a goal (or more generally, change of state) that follows the activity. These two components, activity and change of state, are present in the event structure, where the former is conveyed by the verb root and the latter is signaled by the prefix associated with the resultative change of location. This complex composition is accommodated by the syntactic shape of the construction.

4.16. Sources of MOC Blending

A blending analysis of MOC sentences has to contend with the challenge of explaining how the blending in question arose. In the example,

(24) a. Zespół wypogował sobie tytuł mistrza.
     b. Band *wy*-pogo'ed itself title champion-$_{GEN}$
     c. 'The band won the chamion title by dancing pogo.'

the interpretation that the band has won the champion title by performing a pogo dance is a result of a metaphoric computation operating on two conceptual spaces activated by the construction. In one of the two spaces, there is directional motion out of a container, and the other space contains an event expressed by an activity verb. These two input spaces are blended into a space in which the activity is viewed as a manner of motion which leads to the successful retrieval of the theme in question. This blending of activity and motion is most likely an extension of a more concrete scenario in which objects are retrieved out of containers in specific physical manners, as in *The mechanic wiggled the hose out of the tank*. Here, the hose is pulled out of the tank by quick irregular movements from side to side. However, this prototype of MOC sentences is

problematic for a blending analysis in that at first glance, it may not seem an example of blending, because wiggling something out of a place does not seem to involve combining two scenarios in the mind. After all, only one visual scene is involved, and the movement out of the tank apparently does not require reference to other scenes for analogy. If that is the case, how can one account for the blending in most MOC sentences?

However, there is good reason to suspect that in seemingly unitary scenes, there is also division into two subspaces. This division is what allows the schema to be extended to express situations involving larger-scale retrieval, as in (25).

(25) His stooges whisked the ringleader out of the country.

The meaning of the verb *whisk* is "to move with a swift light stroke" and it is primarily a local small-scale movement that can be captured completely in a single visual field. Now, whisking a person out of the country is an operation that takes place over a longer while, normally requires a means of transportation, involves covering a great distance, all of which resist being apprehended in a single glance the way one can see a scene involving whisking a tablecloth from underneath a dish. What makes it possible to extend the use of the verb to larger scenes is the separability of the manner, abstracting away from the physical dimensions involved.

While whisking a person out of the country is still a description of physical, non-metaphorical movement, situations pictured in most MOC sentences are those of imaginary motion. The co-existence of two separate spaces which blend into an imaginary scene is more conspicuous than in the wiggling or even the whisking scenario. More physical attributes are suspended; not only the scale or dimension are disregarded, but also the fact that activities like flirting are not manners of retrieval at all.

4.17. Online Understanding

At this point, I wish to indulge in a slightly speculative excursus on the presence and influence of metaphoric thinking in ordinary use of figurative language. The above would be more convincing if it could be demonstrated that interpreting descriptions of obtainment involves an online understanding of the metaphoric elements present in the blend. Do speakers and hearers evoke, consciously or unconsciously, metaphori-

cal mappings while processing MOC sentences? This question is part of a more general debate about whether conventionalized metaphors induce metaphoric imagery. The issue is addressed by the following four main hypotheses representing various degrees of the interaction between metaphoric thought and language processing (Gibbs, 1994).

> **H1.** Metaphoric thought plays some role in the historical evolution of what words and expressions mean.
>
> **H2.** Metaphoric thought motivates the linguistic meanings that have currency within linguistic communities, or is presumed to have some role in people's understanding of language.
>
> **H3.** Metaphoric thought motivates an individual speaker's use and understanding of why various words and expressions mean what they do.
>
> **H4.** Metaphoric thought functions in people's immediate on-line use and understanding of linguistic everyday speech and literature that refer to love meaning.

Of the four, Hypothesis (1) is almost certainly the least controversial, while Hypothesis (4) is the strongest and most contentious one. It would seem that routinized uses of even transparently graphic expressions may bypass reliance on metaphoric links. That this might be the case is suggested by pre-Lakoffian intuitions about stale metaphoric expressions, intuitions easily inferable from the label "dead metaphors." Although Lakoff and Johnson (1980) contended with this the traditional view, claiming that "dead metaphor" is a misleading name, it is quite possible that people do limit themselves to associating an expression directly with its most frequent meaning and use, rather than its deeper metaphoric logic. If conventionalized metaphoric expressions such as *wind down* do not have the potential to surprise as strongly as novel expressions, there should be no reason to maintain that their metaphoric logic is attended to consciously any more than we should insist that speakers keep track of etymologies of the words they use.

Furthermore, it is a well-known fact that speakers often do not really understand the logic of metaphoric expressions, as is clear from many awkward uses like *We stood over an abyss, but we took a great step forward.*[3] Here, the expression *take a step forward* is taken to mean simply 'do something decisive and positive,' with little reflection given to its metaphoric details that clash with those of *stand over an abyss*. Finally, some skepticism should be justified on plausibility grounds: if hearers were to focus on all details suggested by the form of an expression, they would miss

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[3] Attributed to a Polish communist leader Władysław Gomułka.

the content. Some information must be filtered out. However, it would be naive and exaggerated to insist that metaphoric mappings be exposed fully to conscious experience for metaphor to have any significance in the interpretation of metaphoric expressions. It would still be perfectly justified to postulate the participation of metaphoric thought in decoding conventional expressions even if metaphor processing is opaque to awareness most of the time. To use an analogy from outside semantics, processing the exact frequencies of phonemes is most certainly never a conscious operation, but this is hardly a problem for phonologists talking about the role of phonemes in the phonology of a language and their contrastive behavior in speech perception. The possibility of unconscious reference to metaphoric mappings is given support by experimental data, such as the results of a psycholinguistic study by Gibbs and others (1997).[4] But the authors of this study caution that their results do "*not* mean that pre-existing metaphorical concepts are *automatically* accessed each time an idiom is encountered in discourse" (original emphasis). The authors suggest that despite there being an option of quick access to conceptual metaphor during the processing of idioms, people do not necessarily rely on conceptual metaphor for the comprehension of familiar idioms.

If these reflections can be related to MOC sentences, it might be concluded that in the cases of lexicalized verbs like the German *erkämpfen* and Polish *wyczytać* ('find out by reading'), access to metaphor is not necessary and is perhaps skipped most of the time. But the construction provides a mold for the uses of new verbs in surprising metaphoric configurations, comparable to collocational pairings as in *The poet fornicated his way into an early grave* or *E.T. BMX'd his way into our hearts*. New combinations of the meaning of retrieval with a peculiar manner thus almost guarantees the element of surprise which is helpful in attracting hearers' attention and directing it at the underlying metaphoric logic. The same is true of similar constructions in English, such as the *x's way* construction.

One problem with the metaphor in this grammatical construction is that it is not as transparent as metaphoric expressions like *blow a fuse*,

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[4] In the experiment, subjects were asked to read short narratives containing metaphoric expressions. After the reading task, a lexical decision task followed, where the subjects were shown letter strings and had to to decide whether or not these strings were real words. The assumption was that if interpreting an idiomatic expression activated its metaphoric mapping, then the activation of the metaphor should leave traces in the form of priming those words whose meanings are associated with the main topic of the metaphor. Thus, if the expression *blow one's stack* activates the ANGER IS HEATED FLUID IN A CONTAINER metaphor, then words like *heat* should be recognized faster than non-related words like *lead*, which is what the authors of the study observed.

come to fruition, or *wind down*. If at all, online understanding takes place unconsciously at best.

4.18. Emergence of the Mappings

The psychological literature of the past few decades has been concerned with theorizing about how concepts emerge in a child's mind. A common trend has been to assume that formation of abstract concepts is based on the bodily interaction with and perception of physical phenomena. For example, Michotte (1963) focused on the development of the concept of caused motion in children and argued that infants understand caused motion as "ampliation of motion," where the term "ampliation" refers to the transfer of motion from one moving object to another one that it sets in motion. Later, Leslie (1982) speculated that the concept of causation originates from the perception of caused motion, and pointed out that children can tell causal from non-causal events and are sensitive to reversals of agency in causal events.

The concepts of obtainment and creation should be derivable in a similar fashion. They are metaphoric extensions of the concept of caused motion, and as such they should be grounded in experiences that take place early in child development. Lakoff and Johnson's analysis of the concept of creation as being grounded in the experience of birth is an attempt to identify a possible origin of this concept. Part of the appeal of birth as the grounding of the MAKING metaphor is that, according to Lakoff and Johnson, birth is as fundamental a human experience as it is humanly possible. "In birth, an object (the baby) comes out of a container (the mother). At the same time, the mother's substance (her flesh and blood) are in the baby (the container object)" (Lakoff & Johnson, 1980, p. 74). Thus, this experience serves as a model for framing instances of creation as acts of retrieval of objects out of a container.

While birth as the source of the metaphor of creation is a compelling proposal, it is not an entirely adequate account. The experience of birth is not a plausible model for the abstract concept of creation because birth is not consciously witnessed or grasped by children until well after the concept of creation has developed. Further, birth is no doubt a very fundamental human experience, but conceptually, it is not a simple event. Finally, to aid consolidation of the concept under formation, birth would need to be a repeated event.

In light of the inadequacy of the birth-grounding view, it seems justified to embark on a slightly speculative excursus to develop an alternate account of how the concept of obtainment might be grounded in experience. It is much more likely that the concept of creation emerges in the first few days or weeks of life. We can assume that the first stages of concept formation must begin as soon as the baby begins to interact with the surroundings, as it is rather difficult to entertain the alternative view that the baby postpones the sorting out of perceptual input, while the first few weeks of life are marked by a complete indifference to the incoming stimuli. The child almost certainly attempts to recognize and make sense of observed images as soon as it catches sight of them.

This process occurs under special visual conditions. One important factor that surely must affect concept formation is the fact that neonates are very shortsighted. In the first days of life, they can only see objects within 12—17 centimeters of the face (Blythe, 2005, p. 565). This radius extends with time, but the fact remains that during the formative period, the child finds its visual field enclosed within a small area. Objects appearing in front of a baby are seen as entering from the outside, crossing a boundary between a child's visual field and the invisible sphere. This is probably the first time when the child associates visibility with existence, coming into the visual field with appearance (cf. *come into existence*). It should be noted that newborns are capable of holding objects and bringing them close to themselves,[5] which makes it possible for them to bring objects from outside their visual field, and causing something to appear is conceptualized as creating it. Put another way, coming close to the obtainer is for all practical purposes tantamount to coming into existence. This is reflected in the syntactic pattern for obtainment found in Slovene ("Janez si je prismučal pokal" from section 4.14). Recall also from section (4.8) that in some languages this pattern is a primary way of expressing possession. In Nama (Central Khoisan), the English sentence *The man has the car* would be conveyed literally as 'The man has taken the car.'

The pattern found in the MOC may develop when a child's visual field extends enough to perceive many objects at once, and the boundary between the visible and invisible is no longer defined by its sight scope, but the boundaries of objects. Thus, the invisible is now inside objects—containers with their contents hidden inside. Observing objects emerge from inside containers is nothing short of witnessing those previously invisible objects come into existence in front of a child, within the sphere of her attention and maneuverability. Without doubt, such a situation is

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[5] This is possible thanks to the palmar grasp reflex, which is in place within hours or days of birth (Gramsbergen, 2005).

arresting enough for the child to recognize it as a major event type worth filing away and making available for processing and associating with other concepts. The association in question would be equating proximity with possession. This might seem dubious, as there is a huge leap between seeing an object nearby and having it, but children are known to have a tendency to claim and dispute the possession of newly found things like toys, puppies or candy. This might be seen as an instance of a not yet fully developed understanding of possession, but it is similar to how possession is asserted: possessive pronouns are used with words whose referents do not necessarily have to belong to the person by the possessive pronoun (*my seat*, *your pencil*). This is the first step toward what seems like a significant event for a child, sufficiently significant to structure that child's understanding.

There are further syntactic clues lending credence to the above view. Szabolcsi (1986) views creation/coming into being verbs as having an 'exist' component in their meanings; that is, the event schema associated with creation contains within it a more basic schema associated with being. Kiss (2007) adds verbs of obtainment to this class and shows that all these verbs take what she calls an 'incremental theme', characterized by the change from non-existence to existence. From the syntactic point of view of telicity, emergence is appearance, because the predicate CREATE has the event structure of CAUSE to APPEAR:

[CREATE [y]] [[x ACT] CAUSE [APPEAR [y]]]

The concepts (and consequently the event schemas) of appearance and creation are thus closely related and are among the most basic concepts that have to develop early on in life, when sensorimotor constraints determine their metaphoric nature and grounding such that creation is understood as bringing something close to self or pulling it out of a container. Further, it could be ventured that children probably develop them either in parallel or in close succession.

A potential criticism of the above view could be that it is implausible that the formation of such concepts could occur so soon in infancy. However, although there is some disagreement as to when and what kind of concepts are formed first, some researchers argue that a lot more conceptualization occurs in infancy than is generally assumed. For example, Mandler (1999, p. 365) claims that "the first year of life is far from being an exclusively sensorimotor stage." Before language starts, concepts such as "action," "location," "agent," or "possession" must be in place (Maratsos, 1983).

4.19. The "Common Sense" Misconception

The interaction of the schemas should not be taken for granted. The interpretation of the construction requires a fairly improbable pairing of the moving schema with the doing schema which in tandem are understood to lead to a resulting conceptualization of a locational schema.

There is no inherent logical connection between the schemas of moving and doing. These are not associated as closely as moving and manner, as in *I zigzagged out of the bar*. Even in a literal reading of physical movement, there is no way in which crying can promote movement; it is at best a coincidental co-event. Within Talmy's classification of co-event types (Figure 6), the case at hand is an example of the concomitance relation similar to uses such as *The car screeched by*, where the screeching is a characteristic of secondary relevance to motion. Such patterns are not unheard of, but not as ordinary as they might appear. And it is certainly not the case that their pairing is a matter of extra-linguistic logical necessity. Such strange bedfellow schemas are paired only in languages that provide special-purpose patterns.

[Figure   Motion   Path   Ground] Motion Event   ← Relation   [Event] Co-event

$$\begin{Bmatrix} \text{MOVE} \\ \text{BE LOC} \end{Bmatrix} \qquad\qquad \begin{Bmatrix} \text{Precursion} \\ \text{Enablement} \\ \text{Cause} \\ \text{Manner} \\ \text{Concomitance} \\ \text{Subsequence} \\ \vdots \end{Bmatrix}$$
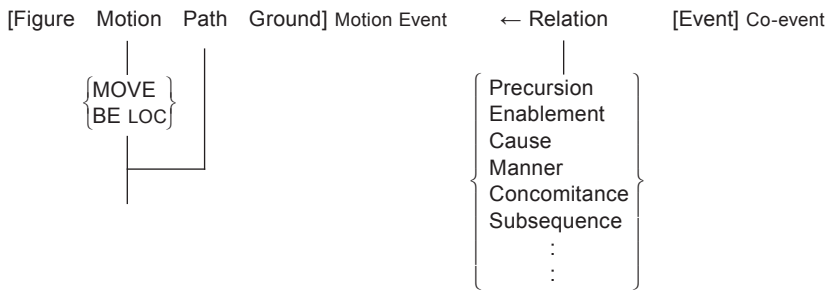
Figure 6. Path conflated in the motion verb (adapted from Talmy 2000b, p. 28)

As Talmy notes, to a speaker of a language like English, such sentences may seem so straightforward that they offer little to ponder. How else might such propositions be colloquially expressed? But, of course, there are languages (e.g. Romance languages) with very different patterns of expression (Talmy, 2000b, p. 29), where conflation does not occur even between related sub-events, let alone incongruous ones.

It is easy to argue that common sense dictates the interpretation carried by MOC sentences. For example, it can be claimed that the praying farmers scenario is easily understood thanks to our understanding of how the world works. In other words, common sense is brought into play when selecting the most plausible interpretation of a sentence based on an unusual construction. Under this view, when faced with a sentence

like [praying farmers], most users will probably follow relevance theoretic-
-style reasoning and conclude that the sentence must mean something
like 'the farmers prayed for the rain, so they got it.' This is an illusion of
ease made possible by the conventionality of the construction. In real-
ity, the construction does not yield itself to commonsensical deduction
like this if it attempted in a language which does not have it. When
presented with a word for word translation of the sentence (*Os agri-
cultores rezaram a chuva*), speakers of Portuguese are confused by what
the intended meaning might be. Typically, the first guess is that the sen-
tence means 'The farmers prayed for the rain,' a purpose clause without
the preposition *pela* ('for'). It is a great leap from purpose or intention to
result.

4.20. Gapping

Apart from the overt elements of its form and meaning, the MOC is also
defined by those elements that are obligatorily absent in its constitution.
This section discusses the gapping (omission) of the source argument in
the form of the construction and of the counterfactual scenario implied
in its meaning.

4.20.1. Complement blocking

The system of formal syntactic structure and the system of semantic
structure correspond to each other but each has its own independent
structuring patterns (Talmy, 2000a, p. 265). A participant that is present
in the semantic content representation of a sentence may not necessarily
be encoded overtly.

As Talmy demonstrates, not all participants are obligatory comple-
ments. Some are optional, and some can even be gapped (blocked en-
tirely). Such is the case of seller participants in sentences containing the
verb *spend*. This verb exhibits an interesting selection pattern, because
it activates a whole commercial transaction event frame, where a seller
is obligatorily present in its semantic representation, but gapped in the
syntactic structure and cannot appear in sentences like *I spent $10 on the
CD (*to the salesclerk).*

One criterion for gapping proposed by Talmy is the scope of perception (p. 266). In sentences expressing events of physical motion, one can choose to omit mention of the source argument, especially if it can easily be inferred and is less relevant than other elements of the scenario. In the two sentences below, the source can be omitted on limited scope of perception grounds. Recall that according to the goal-over-source principle, the source argument is presupposed, and thus often does not need to be mentioned, and is therefore underrepresented with respect to the goal.

(26) a. I yanked the plug out [of a socket].
      b. I took the garbage out [of the house].

But while in physical motion sentences the source is an optional complement, in the MOC construction, the source argument is gapped altogether. Thus, one cannot say (26c—d):

(26) c. Wymodlili (?z nieba) dziecko.
          (They) *wy*-prayed (from heaven) a child.
      d. Wyśpiewali (*z jury) nagrodę.[6]
          (They) *wy*-sang (from the jury) a prize.

It can be speculated that the conceptual shift from the physical motion schema to its metaphoric motion counterpart found in the MOC construction induces a shift of status of the source argument from an optional complement to a blocked complement. The motivation behind the shift is probably a matter of pure discourse salience: The focus is obligatorily on obtainment and possession (final windowing) rather than on where the obtained theme was originally located. This is probably a consequence of the goal-over-source principle (section 4.2.4).

Also, in the case of real physical retrieval, the source is at least potentially visible, whereas retrieval out of a metaphoric container makes it hard to be specific about what that container is. The construction makes it a convenience not to have to mention the nebulous source, which is elusive and hard to name. A similar example of a construction where the

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[6] Bogusław Bierwiaczonek pointed out that in some uses the source can be mentioned, or is indeed obligatory. For example, in *Wycisnęła z niego prawdę* ('She squeezed the truth out of him'). However, this is not a true MOC sentence, but a generic motion construction found in English (as is evident from the translation in parentheses). Therefore, the example can be thought of as a metaphoric expression of physical motion (comparable to 26a—b), where the truth is imagined as if being squeezed out of somebody. In such cases, the source can be mentioned.

logic of "omission for convenience" is at work is the Implicit Theme Construction (Goldberg, 1995; 2006), which allows the user to skip mention of the bodily fluids for reasons of politeness (as in *Don't spit into the wind*, without making overt mention of saliva). In the Implicit Theme Construction, the theme is most often omitted, being stylistically awkward:

(27) I bled (*blood) on my shirt.

Gapping is not to be confused with simple omission. The latter involves withholding information that is not otherwise available or inferable. In the case of gapping, information is blocked, but it is easy to recover the missing elements based on one's knowledge of a given semantic frame. For example, a sentence like *I spent $10 on the CD* automatically evokes the commercial transaction frame, which includes a seller. Consequently, the seller, even if unnamed, will be in the background. Skipping mention of the seller does not conceal his or her presence and it is very different from distorting or burying facts that would otherwise be less obvious, such as by failing to mention that, say, the $10 in question was a counterfeit bill.

4.20.2. Gapping of counterfactual events

Counterfactual imagination is the ability to entertain alternate outcomes of actual situations. Experiencing, pondering or expressing a real life event often gives rise to thoughts about how that event could have turned out differently or not taken place at all. This is a universal and pervasive ability that humans put to use effortlessly and often involuntarily.

4.20.3. Situational triggers of counterfactuals

The rich psychological literature on counterfactual thinking offers one observation relevant to the construction under consideration, namely that counterfactual thought is triggered by unusual events (Kahneman & Tversky, 1982; Byrne, 2005). People tend to mentally alter improbable events to imagine their more normal versions. Counterfactual thought in the opposite direction is possible, but not nearly as common or automatic. Although desert-island speculations, or visualizations of any other

fantastic scenario opposed to ordinary life, are a familiar motif, they are not flirted with as frequently or spontaneously as mental enactments triggered by near-misses, freak accidents or any other startling events. If a fortunate obtainment of a desired goal is also an event justifying the contemplation of other likely upshots, then counterfactual thinking might well be a subroutine activated for interpreting MOC descriptions.

Counterfactual thought is more than just an echo of processing an actual event. Counterfactual scenarios of real situations are not termini of the train of thought beyond which it does not progress. As such they would be mere decorative additions to thought, or even pointless distractions. It makes more sense to suspect that they serve a particular purpose. In the psychological literature (Roese & Olson, 1997; Byrne, 2005), it is hypothesized that counterfactual thoughts serve as a means of evaluating an actual situation, its benefits, drawbacks, risks, as well as its probability. There is therefore a feedback loop between reasoning about a factual event and setting up its counterfactual foil.

4.20.4. Linguistic triggers of counterfactuals

The above-mentioned concerns intrinsic characteristics of the events themselves that induce counterfactual imagination. But the likelihood of counterfactual scenarios being entertained by an observer may also be heightened by means of how an event in question is expressed. It has been observed that expression of positive and negative factual scenarios is characterized by an asymmetry in that positive scenarios are a basic default constructed both in the case positive and negative factuals. Negation is understood as an unrealized positive; the interpretation of a negative occurs by activating its corresponding positive counterfactual (Fauconnier & Turner, 2002, pp. 230—247). But does this mean that asserting a positive does not activate its negative counterfactual?

Talmy suggests that almost any construction other than a simple positive declarative clause will prompt a hearer to visualize a situation counterfactual to the actual utterance. "Among sentence types, perhaps mainly it is a simple positive factual declarative clause (e.g., *I went to the movies last night*) that raise in consciousness only the named event without the backgrounded accompaniment of its unrealized alternative" (Talmy, 2000a, p. 292). But although simple positive sentences do not implicate their negative counterfactuals, interpreting complex sentences may involve invoking a negative as a foil for comparison, as in (28).

(28) I went to the movies yesterday because they were playing my favorite film.

Any mention of the reason for going evokes the unrealized counterpart of the event, since it is understood that in the absence of that reason, the event would not have occurred. That counterfactual does not normally surface as an overt expression like "or otherwise I wouldn't have gone." Although it is possible and perfectly natural to add it as an afterthought, counterfactual descriptions like this are implicatures that do not need to be asserted openly. Instead, they are routinely gapped.

A similar reasoning can be applied to MOC scenarios. Sentences like (29) can be paraphrased in a parallel way as (30).

(29) Wyśpiewała nagrodę.
     She *wy*-sang award.
     'She won an award by singing well.'

(30) She managed to win the award [sub-event because she tried hard, by singing very well].

In other words, it is only thanks to the reason asserted in the subordinate clause that the event in the main clause occurred. Because MOC sentences name a special manner which is understood as a prerequisite for the occurrence of the event, it seems likely that at least most MOC factuals are expressed against a conceptual background of non-occurrence. The reason why I am introducing the above qualification rather than insisting that *all* MOC sentences evoke foils of unrealized obtainment is that it is easy to think of examples of mundane obtainment which could also be expressed by means of conflated sub-events, such as (31).

(31) Wyssałem ostrygi z muszli.
     I *wy*-sucked oysters out of the shells.
     'I sucked oysters out of the shells.'

(32) Wir haben uns Öl erbohrt.
     We have ourselves oil *er*-drilled.
     'We drilled out oil.' (Talmy, 2000, p. 242, ex. 10c)

These MOC examples express fairly ordinary instances of obtainment through predictable means that perhaps do not suggest any special difficulty or uncertainty of outcome, and as such may not necessarily induce a hearer to imagine unrealized scenarios. However, it should be pointed out that (31—32) are *not* typical MOC sentences, but rather non-

-metaphoric conflations of manner and real physical motion. While true MOC sentences are hard to translate literally into English, the sentences in (31—32) can easily be rendered in English using the same pattern as is found in manner motion event integration sentences like *I shoved the chair out of the way* or *He slammed the ball into the basket*. To use mental space terminology, these examples are based on single-scope integration of inputs representing the same topologies. The manners mentioned (sucking or drilling) are manners that can be associated with retrieval.[7]

Now, in true MOC sentences like (26), the manner is conceptually more detached from the event of retrieval. Because MOC-proper sentences involve double-scope integration of incompatible inputs (as described in section 5), one must engage in metaphoric reasoning to imagine singing as causing an award to move out of a container. It is perhaps this unconventional fusion of mismatching sub-events that alerts a hearer to the unusual nature of an event being discussed, and thus helps activate a counterfactual background for that event.

4.20.5. The role of counterfactuals in the MOC

It is also worth considering exactly what role counterfactual scenarios play in expressing MOC events. It is my claim that an unrealized scenario is an ingredient of the meaning of MOC sentences, and its function is to facilitate reasoning about the event that did take place. Gapped counterfactuals impose themselves as a background to the conceptual panorama of our reasoning when their likelihood was high or if they were almost bound to happen. Thus, considering MOC-sentence events against high--likelihood counterfactuals is a way of putting these accomplished events in perspective and understanding better their likelihood of success. Without that comparison, estimating the likelihood of MOC events would be mathematically unfeasible. Against the counterfactual background, MOC events are depicted as improbable developments which took place almost against all odds, and it is appreciated that their realization is a rare feat.

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[7] Additionally, it can be observed that these sentences are paraphrasable without a *because* subordinate clause (e.g., *We extracted oil because we drilled*). Their paraphrases sound more natural with *by* prepositional phrases (*We extracted oil by drilling. I removed the oyster by sucking.*) This seems to be a typical characteristic of literal physical motion sentences pointing to the run-of-the-mill nature of manners employed in obtaining a particular result that such sentences describe. Peculiar manners would intuitively call for a circumlocutional paraphrase in a separate clause.

4.21. Obtainment Through Retrieval in English

Although English does not seem to feature an obtainment construction parallel in form and function to the German and Polish pattern, the present analysis should also include mention of an example of expressions of production events based on the container schema. Rudzka-Ostyn (1988) provides numerous instances of a fairly productive pattern in English, where retrieval out of a container serves as a metaphoric basis for conceptualizing communication events:

(33) a. She was so shocked that she could hardly *bring out* a word.
    b. At last the prisoner *faltered out* his story.
    c. In spite of his fear, he *jerked out* his request.
    d. Mary *flung out* a curt remark and left. (Rudzka-Ostyn, 1988, p. 523)
    e. I didn't mean to tell you his name, it just *slipped out*. (Rudzka-Ostyn, 1988, p. 525)
    f. …he could not have *dealt out his* venomous snaps more indiscriminately. (Henry Rowe Schoolcraft, *The Indian in His Wigwam*)

As the examples above illustrate, verbal expression scenes can often be expressed by a range of verbs followed by the particle *out*, a clear reference to the retrieval scenario, which Rudzka-Ostyn explains as follows:

> In Western cultures, a person's body or his mind can be seen as a container, and one's *feelings, thoughts, ideas* as entities which fill the container. Expressing (verbally) one's feelings is very much like taking *money out of one's pocket.* In both cases, the moving object which is inside the container (one's pockets, one's mind) moves **out of** it and can therefore be linked to one and the same image. (Rudzka-Ostyn, 2003, p. 21)

The naturalness of the above-mentioned uses is ensured by their alignment with the logic of the Conduit Metaphor (Reddy, 1993), which frames thoughts and their linguistic expressions as being transferred via an imaginary conduit. As Reddy puts it, "communication transfers thought processes somehow bodily" (p. 166), and he provides dozens of established expressions that follow the conduit pattern (e.g. *Your concepts come across beautifully*). Here, in examples (33a—f), the source of communication is viewed as a container out of which information must first be retrieved before it is relayed on to the recipient.

4.22. Event Schemas in the Time *Away* Construction

What follows is a description of the English time-*away* construction (discussed in section 3.8), whose semantic contribution seems to be the opposite of that of the MOC construction. The discussion here will serve to demonstrate that the meaning pattern in this construction too is a result of the interaction of event schemas.

The emergence of grammatical items is a consequence of event schemas which motivate certain syntactic patterns crystalizing out of reanalyzed expressions. Indeed, reanalyses become grammaticalized, because grammatical interpretations suggest themselves irresistibly by sheer force of their innate naturalness. Reanalyses are so intuitive and effortless that a speaker can't help but entertain them, and differently from lexical items, this happens without the speaker's awareness that a reanalysis is underway. For example, one can see a pattern in the time *away* construction, which most likely started out as a concrete scenario, originating from expressions like *throw something away*. Thus, the event schema instantiated by the phrase V THEME *away* gave rise to uses such as *twist the night away*, *laugh the class away*.

The uses in question are anchored around the "riddance" meaning of the particle *away*, which often appears with many verbs such as *throw, chuck, hurl, cast, sweep, give, turn, drive, send, brush* or *fritter away*. Each of these verbs can take a concrete theme object, as in *fritter away one's fortune*, or *sweep sweat away*. It is not surprising that such meanings lend themselves to metaphoric visualizations, where the theme affected in the event is not concrete. This is especially natural given the TIME IS MONEY metaphor, where time is treated like valuable things that can be *wasted, gamed, frittered, wantoned*, or *gambled away*. Verbs that can take both concrete and metaphoric themes include examples like the following.

(34) *game away, piss away, banish away (sorrow/depression/dark moments), throw (e.g. one's life) away, fritter away (one's time), waste away (the summer, etc.), fool away, wanton away, gamble away, dwindle away.*

Most verbs in (34) are found in both concrete and metaphoric uses are attested (examples 35a and b, respectively).

(35) a. Then, confound it, we've fooled away all this work for nothing. (Mark Twain, *The Adventures of Tom Sawyer*, 1876)

b. Elzey came in to look on, and we fooled away the time talking till I forgot how late it was. (Eliza Frances Andrews, *The War-Time Journal of a Georgia Girl, 1864—1865*)

c. I'm trying to drink away the part of the day/that I cannot sleep away. (Modest Mouse, *Polar Opposites*)

The number of uses of 'riddance' verbs with metaphoric themes is enormous, including abstractions like sorrow, depression, dreams, reputation and the like; for obvious reasons of space, I am not going to list examples here. However, what merits attention is that expressions to do with time form a large, semantically consistent set. Object NPs like *the whole afternoon, one's life, youth,* and countless others make collocations with 'riddance' verbs into a productive pattern (Table 7):

Table 7. Lose-time collocations

fool gamble game piss squander throw trifle waste wanton	an entire afternoon his life his whole youth every single day of his life three weeks etc.	away

This pattern is additionally reinforced by time-only verbs like *dally, tick, dawdle, loiter, dally,* and *pass,* which are normally found in uses such as:

(36) a. Ticking away the moments that make up a dull day. (Pink Floyd, *Time*)

b. Never, talk with any man, or undertake any trifling employment, merely to pass the time away. (Jeremy Taylor, *The Rule and Exercises of Holy Living.* 1813)

Collocations shown in Table 7 and example (36) are used frequently enough to be noted as a pattern with clear and predictable semantics, where the particle *away* marks disappearance as a result of an action whose manner is specified by the verb. It could further be speculated that the critical mass of possible verbs has accumulated to open the floodgates for verbs that do not in themselves convey the idea of riddance, but convey what can be construed as manners of riddance: *frivol, prattle, laugh, dance, kiss,* etc. Thus, what was initially a handful of collocations grew to

be a productive construction. It is safe to assume that the above account is indeed how events progressed, given what kinds of verbs are found in texts throughout the centuries. In the 1500s, only verbs of riddance are attested, as in (37).

(37) From day to day thus wastes my life away. (Thomas Wyatt, *Songs and Epigrams*, 1542)

Uses with other manner verbs do not emerge until the 18th century:

(38) Restless, he rolls and groans the night away. (Francis Fawkes, *The Argonautics of Apollonius Rhodius*, 1780)

These uses crystallize into a construction thanks to the grammatical nature of the meanings encapsulated. Both the concept of time and, as is argued in section 4.3, the resultative element of disappearance/loss are grammatical-enough meanings to be featured in a construction. The form of the time *away* construction itself condenses a common event schema where a participant loses possession of a theme (Table 8). Specifically, in the constructional sub-event, the complex predicate "lose possession of" is realized as CAUSE AWAY, where CAUSE is a general deep verb which surfaces as either *throw, send, get*, etc. This constructional sub-event then imposes a structure onto the verbal sub-event, yielding the construction form known as the time *away* construction.[8]

Table 8. Integration of sub-events

constructional sub-event:	CAUSE AWAY theme
verbal sub-event:	*dance* [AWAY theme]

Indeed, it could be ventured that it is the alignment of the constructional sub-event and the event schema that is responsible for the gradual emergence of the construction. It is as if language users note that the grammatical meaning associated with the LOSS event schema "shines through" the form of the construction:

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[8] This approach to deriving constructional patterns is adopted from Goldberg & Jackendoff 2004, where the idea is expressed as:

> The semantic argument structure of the constructional subevent determines the syntactic argument structure of the sentence by general principles of argument linking. (Goldberg & Jackendoff 2004, point 15)

Table 9. Association of the LOSS event schema with the construction

event schema:	LOSE POSSESSION OF theme
constructional sub-event:	CAUSE AWAY theme
verbal sub-event:	*dance* [AWAY theme]

This is of course a recurring theme in many grammaticization scenarios. Many uses are necessary for speakers to note a productive pattern associated with a grammatical meaning. This is illustrated by the case of the future-reference function of the verb *go* in English and in Polish. The story of the English grammaticization path is familiar enough. Having started out as a lexical word expressing change of location, the verb acquired a grammatical function of marking a future plan/reference in the progressive aspect. The logic behind this change is fairly transparent. Moving somewhere with a specific intention to be carried out in the immediate future is easy to be reanalyzed as an intention only. Hopper and Traugott (2003, p. 93) show that initially *going to* was used in contexts, where actual physical movement occurred with the purpose of carrying out an action in the immediate future. Others accounted for the evolution in terms of metaphoric transfer from 'moving on in space' to 'moving on in time' (Sweetser, 1988).

So why did the same not happen in Polish? (Even more puzzlingly, no shift occurred in German, a language that "is in possession of all necessary lexical ingredients and in close contact with languages with GO based future" (Eckardt, 2006, p. 95). A quick look at uses of the verb *iść* ('go') confirms that all it conveys is physical movement, and not a grammatical reference to the future. However, it is possible to find seeds of potential grammaticization. The sentence *Idę spać* ('I'm going to sleep') can be uttered by a person who is in bed already and will not take a single step in any direction. Does this mean that Polish too will develop a periphrastic future construction at some point in the future? Probably not. What seems to be happening here is that the Polish 'go' here expresses planned movement from awake to asleep. For this to become a productive pattern, Polish would need more expressions featuring the verb *go* conveying metaphoric motion. One can imagine that if many different expressions of the form *go*-V with a metaphoric motion meaning were used, at some point the verb go would be reanalyzed from metaphoric motion to plan of metaphoric motion to just plan, which in grammatical terms would be interpreted as future reference.

4.23. Concluding Remarks

The meaning of the MOC is well within what can be expected of a closed--class form. Obtainment can be understood as an element of transfer of possession, a meaning associated with constructions such as the Double Object Construction or the Dative Construction. Furthermore, it is related to a host of grammatical forms serving to convey possessive relations. Thus, the meaning does not go beyond what is normally found in closed--class forms.

Also in terms of the internal composition of the meaning, little is extraordinary. Although it involves conflating incongruous sub-events, it does not in any way override or defy the aspectual logic of blending event schemas.

Counterfactual scenarios may be among grammatical means on a par with mood categories, which are standard grammatical instruments for framing propositional content as either conditional, hypothetical, inter-rogative, negative, etc. Indeed, negation involves counterfactual process-ing in that it brings to mind an event that did not happen. As such, they are not independent meanings, but rather pointers that instruct the listener on how to approach the proposition.

5. Way Too Much Meaning: The Semantics of the *Way* Construction

5.1. Introduction

Like in the preceding sections, here too I will challenge the proposal of CxG that all constructions should be treated as being equally capable of carrying semantic and pragmatic meaning. The specific objective of this section will be to dispute the idea that constructions "conventionally associate special pragmatic forces or effects with specific morpho-syntactic structures" (Kay, 1995, p. 171). Kay's position on pragmatic effects is, like many other cognitive claims, a departure from conventional wisdom. He argues that these "pragmatic forces or effects resulting from utterances of such expressions are conveyed according to conventions of language rather than by a process of conversational reasoning and so must be accounted for by the grammar." If this is correct, semantic enrichments usually involve admitting pragmatic effects as part of the meanings of schematic patterns grammatical constructions.

This pronouncement represents a complete shift in identifying the source of pragmatic effects. Traditionally, it has been assumed that implicatures derive from extra-linguistic conversational dynamics, and Kay's proposal is to attribute them to linguistic convention, an evidently radical claim but one certainly worth examining. To appreciate the import and implications of this claim, it is necessary to indulge in an excursus on the nature of effects invoked by Kay. Given his description, it is justified to assume that Kay means conventional implicature. One must recall that effects that have a stable association with particular linguistic expressions cannot be canceled without anomaly. Linguistically-driven pragmatic effects are not contingent on context to go through and should therefore always be present, regardless of context. For example, the adverb "yet,"

as in *Kevin hasn't phoned yet* carries with it the implicature of expectation that Kevin will call at some point. This use of "yet" always triggers this pragmatic effect, heedless of context, and it cannot be cancelled without self-contradiction or a sense of oddness (? *Kevin hasn't called yet, and I know for a fact that he doesn't plan to*.) The problem with the CxG approach is that such pragmatic effects are postulated for constructions, where they are not always as stable. A case in point here is a meaning widely ascribed to the *x's way* construction, namely the interpretation of difficulty accompanying the motion in sentences like *We elbowed our way through the crowd*. The problem with the difficulty reading as an implicature is that it is easy to point out examples of uses where that reading does not arise (as in *Virtually unchallenged, she romped her way to gold*). This shows that it cannot be a conventional implicature, and this should pretty settle the dispute: The remaining pragmatic effects (unfossilized, 'live' conversational implicatures) are not part of the meaning of a specific expression, and cannot therefore be attributed to a construction. This study will therefore make a case for two main ideas: namely, pragmatic effects proposed for grammatical constructions are not always due to linguistic convention nor do they always hold for grammatical constructions as conventional implicatures.[1]

More generally, this study contests the idea that grammatical constructions can convey any kind of meaning whatsoever, even fairly rich contentful ones, which are otherwise not normally found in closed-set items. In the case of *x's way*, the widely accepted difficulty reading (Goldberg, 1995; Michaelis, 2005; Nakajima, 2005; Jackendoff, 2010) can only be a conversational implicature, and not an entailment lexicalized by the construction. Proposals of such unusual meanings are a consequence of the assumption made in Construction Grammar (and other cognitive linguistic models) that the distinction between closed and open classes of linguistic forms is of questionable veracity and benefit. Acknowledged reluctantly though it is, this distinction has been played down. The motivation behind this practice is that ignoring the distinction makes it possible for closed-class forms, traditionally declared meaning-

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[1] To be sure, there is some room for doubt, as it is easier to prove the former than the latter. To demonstrate that pragmatic effects are due to factors beyond linguistic convention, one would only need to find uses of a construction where those pragmatic effects associated with it do not arise. Conversely, demonstrating that they are always in the domain of language would require ruling out the possibility of there ever being a context where a pragmatic effect observed for a given construction does not appear at all. Assuming the absence of such contexts is essentially tantamount to committing the fallacy of the argument from ignorance — namely, equating absence of proof with proof of absence.

-free, to be pairings of form and meaning just like any other linguistic elements. It is a primary contention of the present analysis that the distinction and meaningful closed-class forms can be reconciled. That is, the key tenet of Construction Grammar that grammatical constructions do carry meanings does not call for dismissing the traditional view of sparse meanings allowed in constructions and other closed-class forms.

5.2. Particulars of the *X's Way*

5.2.1. Obtainment senses

The *x's way* construction has been a frequent subject in the cognitive linguistic literature. Indeed it is perhaps the most studied and best understood construction and something of a poster boy of Construction Grammar. Its characterization by authors like Goldberg (1995; 2010) and Jackendoff (1990; 2010) is thorough and for the most part seems consistent with speaker intuitions. However, as should become clear in the following sections, our understanding of the construction is still far from complete. Especially in light of the main theme of the present study, which insists on questioning some semantic effects attributed to closed--class forms, some inadequacies in constructionist analyses will become evident. I will offer an alternate view accounting for less common uses of the construction. Specifically, this part will review examples where the *x's way* construction serves to express obtainment senses, such as *Jane gambled her way to a fortune* or *eat your way to health*, where a fortune and health have a dual status of goal and possessum, and where the motion interpreted metaphorically is an instance of coming to obtain these possessum goals.

These uses are interesting for two reasons. First, they differ quite markedly from now-familiar, indeed rather run-of-the-mill, instances such as *The robbers made their way back to the car* or *Camels trek their way across the desert*, where movement occurs over a physical path. Second, more importantly, in more metaphoric examples, there appear verbs that some authors consider unacceptable. That is, most notably Goldberg (1995) points out that verbs whose meanings are not associable with motion (e.g. *smile, giggle, sleep*) yield uses of marginal acceptability. One of the main claims of this analysis is that far from being anomalous, uses

of verbs that have nothing to do with motion are more natural than instances of the construction with verbs lexicalizing a motion path. In fact, one of the major claims of the present analysis is that the construction features a resultative predicate (to do with the idea of covering a path), and as a consequence, it does not allow resultative motion verbs. This claim derives from and is an instance of Levin and Rappaport Hovav's (1991) observation that manner and result are elements in complementary distribution (which is evidenced by the fact that they cannot both be lexicalized within a single verb). When they appear together within a clause, the verb usually conveys a manner and the secondary predicate supplies a result. One does not find instances where say a result is specified twice in the same clause. Thus, cases of acceptable verbs that seem to convey both manner and result can be shown to entail manner only and to merely implicate path or goal.

5.2.2. Closed-class characteristics of the *x's way*

All these claims are predicated on the assumption that the *way* construction is a closed-class form. Of course, *x's way* is <u>not</u> a perfect gram located near the closed-class extreme. It does exhibit some properties characteristic of lexical items. For example, it is not completely schematic—it does contain some pre-embedded material. This should not be a problem, because so do many other grams like the dative prepositional construction (*The general gave orders to the troops*), which comes with the pre-embedded preposition *to*, and is nonetheless a firmly grammatical pattern. More seriously, the way construction contains a lexical element (the noun *way*), which places it further away from the grammatical extreme.

   Still, the construction bears enough characteristics of closed-class forms to be considered one too. First, it is an example of a gram that has *not* emerged instantaneously. Unlike typical open-class items, which benefit from the lexicon's full openness to additions (a characteristic discussed in section 2.3.1), the *way* construction has taken a long time to grammaticize from its early Middle English form described by Israel (1996). Initially, it was a loose group of collocations allowing many nouns and few verbs. Over the centuries, the collocations have crystallized into one modern form with a fixed noun phrase and a flexible verbal slot, a product of slow grammaticization pressures. What is important to note here is that it would be impossible to coin this construction overnight the way lexical items are allowed into the language.

Secondly, *x's way* is clearly dependent on the accompanying lexical material for its interpretation, so it is a closed-class item by the criteria of conceptual autonomy discussed in section 2.3.6. Out of context, a phrase like *my way* may have a range of meanings ('my route,' 'my will/plan,' 'my method,' 'my condition'), neither of which is really the reading triggered by the remaining elements present in the *way* construction ('special progression/path'). This interpretational dependence of the construction is closely related to another of its characteristics, namely the fact that it is never used on its own as a stand-alone utterance. The *way* construction is not a minimal free form in the sense of Bloomfield (1926), so it acts as a closed-class form according to the criteria named in section 2.3.11.

The aforementioned two features are correlated with another feature of closed-class forms that has to do with the kinds of meanings they typically convey (described in section 2.3.4). Specifically, closed-class forms tend to express non-propositional meanings or very general frames that serve as a conceptual scaffolding for scenes that are then fleshed out by lexical meanings (Talmy, 2000a). In our case, the *way* construction conveys precisely meanings that are both non-propositional and schematic enough to serve as scaffolding. Briefly, the construction signals that the path traversed in the scene is perceived as being different from what would be an ordinary path. This point will be discussed in sections 5.9 and 5.10.

It is also worth pointing out that *x's way* is a closed-class form on one more count, namely non-substitutability (2.3.2). While it would be possible to substitute the constructional frame of *I tiptoed my way to the bedroom* using a simple motion pattern (only because the verb *tiptoe* freely participates in alternations), this would not be possible with sentences like *Flagellants suffer their way to wisdom* or indeed with many other verbs often featured in *x's way* (e.g. *push, elbow, threaten, sweet-talk*, etc.)

The preceding characteristics can be taken to assume that *x's way* is indeed a closed-class form and it will be examined here as such. It is in this spirit that the following analysis is undertaken. First, a brief review of the literature is offered about how the construction has been analyzed before. The review will highlight some implausible meanings observed by other scholars that are inconsistent with the main theme here, namely with the notion that closed-class forms (which the construction is a representative of) are unlikely to carry contentful meanings. As part of a more general agenda, I use these alleged meanings to make a case for critical circumspection about the kinds of meanings a construction like the *x's way* can convey. This, in turn, should serve to show that it is possible and necessary to maintain the distinction between closed and open class elements in Construction Grammar.

As an extra benefit of suspending the strict constructionist view of the *way* construction as an autonomous idiosyncratic entity with its own quirks (and as a benefit of reappraising traditional assumptions about what is and is not possible in grammar), the construction will be shown to be subject to some common, clearly non-idiosyncratic linguistic constraints. That is, manner and result complementarity will be shown to be reflected in the *way* construction's resistance to result verbs. It is this resistance that is the real cause behind anomalous uses previously explained in terms of lacking the difficulty reading. Conversely, the preference for manner verbs explains why many uses asterisked as unacceptable by some researchers are in fact endorsed as quite unproblematic by many speakers.

It will also be demonstrated that metaphoric obtainment readings reveal interesting properties of the construction that define how it assembles motion events and paths in these events. These will be shown to follow constraints of differing rigidity. That is, the construction will be shown to be rather rigid about how it structures paths, disallowing blends of inconsistent elements. But at the same time, *x's way* behaves differently about motion events, which it can build out of disparate, indeed incongruous sub-events blended together. In other words, the construction is very tolerant of inconsistencies in constructing motion events out of apples-and-oranges elements. Still, although the construction makes ample use of available event schemas—indeed, its meaning is built around them—it does not feature any other elements going beyond a spare reading typical of a closed-class form.

5.3. The Semantics of the *X's Way*

5.3.1. Activity inherent to motion against obstacles

In the broadest strokes, the construction is a specialized syntactic pattern for expressing motion toward a goal. In the example below, the verb (*limped*) encodes the manner of motion along a path (*his way*) leading to the goal expressed by the prepositional phrase (*to the finish line*).

(1) Parker limped his way to the finish line in extreme pain.

Three major senses of verbs attested in the *x's way* construction have been identified in the literature. They include the means (2a) or the manner (2b) in which the motion occurs. The distinction is that the means represents a method that is at the same time a prerequisite for the motion, while a manner does not in itself make the motion possible, but is only a characteristic by which the motion can be recognized. The "drilling" in (2a) is the prime impetus that powers the motion, while the "schlepping" in (2b) is merely an externally observable, secondary feature of walking—in this scenario, it is not the "schlepping," but the walking that is seen as giving traction to the moving participant. However, the "schlepping" in (2b) can still be considered an inherent, perfectly integral element of motion, and is not as detached from motion as the incidental activity in (2c). Here, the sniveling occurs while the motion is in progress, and it is not even a secondary feature of walking. As Goldberg (1995; 1999) and Israel (1996) note, the incidental activity use of the *x's way* construction is marginal for many speakers. Goldberg also remarks that the means interpretation takes precedence over the manner interpretation. Also, because this means that reading predates the manner by at least four centuries, which proves that the latter is an outgrowth of the former. Goldberg concludes that "(t)his analysis predicts, for example, that there are no speakers who accept only the manner interpretation and not the means interpretation. And to date, I have found none" (Goldberg, 1999, p. 34). This conclusion is convincing enough, but it does not warrant the view that the manner interpretation is in some way deficient. If it is diachronically secondary to the means interpretation, it is a new sense under development, and indeed in recent years it has been gaining currency, as is clear from examples provided further (in point 7), most of which come from fiction works published after the year 2000.

(2) a. The workers *drilled their way* out of the mine.
　　 b. The Canucks *schlepped their way* to Calgary.
　　 c. We *sniveled our way* out of the movie theater.

According to Goldberg, the anomaly in (2c) is that an incidental activity verb does not portray motion as taking place in the face of difficulty or resistance. Goldberg (2010, p. 53) insists that the construction should carry the "presupposition that the motion was difficult in some way" and that the motion involved "the creation of a path."

Thus, Goldberg identifies two principal features found in the most felicitous uses of the construction. The first is the stipulation that the activity expressed by the verb should be closely associated with the motion in question, rather than being a nonessential ornamental attachment.

Second, it should be possible to imagine the motion as occurring despite some hindrance.

Finally, the construction is not to be confused with more literal uses of the phrase one's *way,* as in *I lit my way with a flashlight.* Superficially, the form of both constructions is identical, but literal uses differ from the *way* construction. First, they foreground the image of a way as a specific route a person takes, while the *way* construction treats the path more schematically, focusing more on the motion event. Put another way, the phrase *way* in the construction is a desemanticized equivalent of the *way* in the literal construction. Second, the literal uses are less conventionalized in that they allow any genitive phrase, so one can say *I lit her way* or *I lit Amy's way with a candle*, while the genitive in the way construction must always be co-referential with the subject (conf. *I groped my/*her/*Amy's way out of the dungeon.*) This is a fairly straightforward consequence of the *way* construction being a closed-class form whose meaning can be expected to be simplified compared to more literal open-class forms with more contentful semantics.

5.3.2. Aktionsart

The characterization presented in the previous section is largely consistent with earlier descriptions of the *way* construction. Jackendoff (1990) identified two aspectual constraints on the meaning of the verb. The first is that the verb should express what can be construed as a process or a bounded repeated event (e.g. *crawl, knock, skip*). In other words, from the point of view of Aktionsart, the construction takes activity and semelfactive verbs. This means that states, accomplishments and achievements (*They existed/drowned/died their way to fame*) do not appear in the construction, since the kinds of events they express are non-repeatable. Jackendoff adds one more constraint, the condition that the verb be construed as "a process with some kind of internal structure." This explains why the following hypothetical uses are unacceptable.

(3) a. *I paused my way through the phone call.
     b. *She sat her way to the end of the conference.

Additionally, it has been noted that the construction is an unaccusative diagnostic, and it only takes unergative and transitive verbs (Levin, 1993, p. 99). Uses with unaccusative verbs are unacceptable:

(4) a. *Some dividend and interest have accrued their way to the account.
     b. *The guests arrived their way to the wedding.
     c. *The flower bloomed its way to a prize. (Levin, 1993, p. 99)

What the aspectual analyses share with the Goldberg-Israel observation of motion despite difficulty and motion-specific activities is that they all make similar predictions about which verbs are possible in the construction. The above-asterisked sentences turn out to violate both the aspectual requirements and the lexical-semantic specifications. However, the Goldberg-Israel views are more detailed than Jackendoff's aspectual analysis. That is, while Jackendoff identifies unergative verbs in general as candidates possible in the construction, Goldberg and Israel take a more fine-grained look and single out a subclass of unergative verbs as unlikely (undesirable even) to appear in the construction.

In what follows I will question some of Goldberg's findings. I will start by reviewing the claim that the difficulty reading arises with real motion verbs. Then I will call into question the construction's selectional properties responsible for allowing and disallowing specific verbs. I will attempt to show that the construction's alleged discernment between inherent and incidental activities is not as fine-grained and sensitive to graphic detail as Goldberg insists.

5.4. Soft Constraints

The preceding discussion focused on two important constraints: one that calls for verbs with meanings that have to do with directional movement (call it the motion constraint) and another that requires that the motion be construed as defying some obstacles (the difficulty constraint). Neither constraint is really observed. As far as the motion constraint is concerned, contrary to the widely accepted views, the construction does not really see through the verb's meaning; it does not select for the nature of the activity expressed by the verb. What it does see is the verb's Aktionsart. Hence, as long as an activity is expressed by an unergative verb, it does not matter whether that activity is incidental or inherent to motion. In other words, it is not within the construction's purview to control exactly what the logical connection should be between the activity and motion. As to the difficulty constraint, the alleged expression of "motion achieved despite some obstacle," though frequently observed, may be no more than a consequence and reflection of another more basic property of the

construction. Further in this analysis, I argue that "adversity" readings of motion in the face of obstacles arise as a result of the implicature of a special path triggered by the construction.

It is rather surprising to see how the two constraints are accepted so unquestioningly despite evidence to the contrary found in corpus data. That is, a brief glance at corpus evidence reveals a considerable number of instances of the *way* construction that do not follow the two constraints. Given how fully acceptable and numerous those uses are, it is rather hard to argue that we are dealing with real constraints that are sometimes ignored, overridden by other considerations. The difficulty reading arises frequently enough to be taken for an essential meaning component of the construction, but it is certainly not found in all uses and is not a necessary condition for a use to sound natural and grammatical. The following uses involve motion verbs, in keeping with the motion constraint, but they lack any hint of obstacles for the motion in question.

(5) a. Attired in jugglers' costumes, the two *frolicked their way* to a splendid victory. (Spokane Daily Chronicle, April 24, 1978)
   b. Inspiring gay athlete Blake Skjellerup has *whizzed his way* to the 2010 New Zealand Senior Speed Skating title. http://www.gaynz.com/articles/publish/2/article_9355.php
   c. Schultz *rollicked his way* to the front of the stage, swinging his unruly mop of hair around like a young Eddie Vedder and hucking himself over the edge. http://www.theblueindian.com/show-coverage/show-photos-videos/music-midtown-2011-a-retrospective/
   d. Fatiniza *romped her way* through her debut album 'Confusion' and a few of her favourite cover songs to a very appreciative audience. http://www.fatiniza.com/index.php?article_id=34&clang=0

On the other hand, some uses involve verbs whose meanings do convey a sense of difficulty, but they are sound emission verbs, not motion verbs. They express an activity incidental to the motion, flouting the motion constraint.

(6) a. Martyn Brabbins *panted his way* over the line in 863rd place in the Stroud half-marathon. http://www.thetimes.co.uk/tto/arts/music/festivals/article3804282.ece
   b. The train *huffed and puffed its way* over the hill.

While the above examples violate one constraint and follow the other, it is easy enough to come across uses that ignore both of them. The sentences

in (7) involve incidental activity verbs and they describe motion scenarios where no difficulty is experienced.

(7) a. A murmur *buzzed its way* through the room as the girls recognized him standing with several of his teammates. (*Candy Rules*, Linton Lewis)

  b. (T)he *train echoed its way* into the gigantic Union Station in Kansas City. (*Intercept*, Patrick Robinson)

  c. A strong wind, blowing from the gates of hell, *rustled its way* out of the mountains. (*Place of Skulls*, Caleb Pirtle)

  d. The walkie-talkie hissed and *crackled its way* back from its slumber. (*The Servants of Freedom*, Keith R. Parris)

  e. … the road that *crinkled its way* through the luxuriant vineyards. (*A Rockwell Portrait: An Intimate Biography*, Donald Walton)

  f. The chicken … *clucked its way* to the other side of the road. (*The Book of Want*, Daniel A. Olivas)

  g. His work thrived; and he *hummed his way* homeward once more well content. (*The Lordly Ones*, Keith Roberts)

  h. Billie Holiday *crooned her way* into the room. (*Lust for Life*, Adele Parks)

  i. She came right to me and *purred her way* onto my lap. (*Abby*, Lisa A. McCombs)

  j. Only last month a Mercedes broadsided a young javelina as it *oinked its way* across the street in back of the IMAX Theater. (*Desert Noir: A Lena Jones Mystery*, Betty Webb)

  k. The sun *sizzled its way* through the heavy sky. (*Tramping Through Mexico, Guatemala and Honduras*, Harry A. Franck)

  l. The river is merrily *chuckling its way* through the woodland. (*Walking in Eden*, Ron Scholes)

The list could go on. Practically any sound emission verb can be found in multiple uses in books (searched by means of the Google Books service). In fact, non-difficulty and non-motion verbs are easier to find than sentences that violate only one of the two constraints. It is therefore justified to claim that the above are far from being isolated cases of the construction used in defiance of the motion and difficulty constraints. When presented to native speakers, such sentences are generally not found to be any less natural or acceptable than conventional uses with verbs suggesting effortfulness. None of the examples above can therefore be dismissed as unproblematic on the grounds that they may be sloppy (they appear in the work of too many published authors) or overly experimental through poetic license (we are dealing with a strong common pattern, and not single experimental cases).

5.5. The Inference of Difficulty

If the "difficulty" constraint can be ignored so easily, what exactly is the status of the difficulty sense: an entailment, presupposition or an implicature? If we assume that the notion of difficulty is an entailment, then its cancellation would necessarily have to make the above examples anomalous. If it was a presupposition, its absence would also be a serious problem, as sentences with false presuppositions do not have truth value. For example, the sentence *I want to break up with my girlfriend* takes for granted that there is a girlfriend and that we are currently in a relationship. If these presuppositions turn out to be false, then the sentence can neither be true nor false. It would then have no truth value at all: If we are no longer in a relationship, I could not answer the question *Do I want to break up with her?* with a simple yes or no. Returning to the examples from the previous section, if the notion of effortfulness can be absent from the sentences, as it clearly is, without making them nonsensical, then it is not a presupposition.

The only remaining possibility is that the notion of difficulty is an implicature, which is a problem for the "difficulty" constraint, because for the difficulty reading to be a defining property of the construction, it should be either an entailment or a presupposition. In principle, it should not be an implicature, since implicatures are assigned to utterances, rather than to concrete linguistic forms; they are merely epiphenomena of other properties, and consequently, and perhaps most importantly, they are not likely to be semantic components of a construction. In Goldberg's (1995) discussion of the difficulty reading, she uses "implication" and "imply," but if the difficulty interpretation is an implicature, then it cannot be part of the construction's meaning.

Theoretically, the problem of an all-too-soft difficulty constraint could be alleviated by observing that the constraint is violated precisely in those sentences that are considered marginal by most users. This way, not only does the constraint not appear so soft after all, but the marginality of the sentences in question is thus accounted for. Indeed Goldberg shows that the difficulty reading is absent in sentences where the verb expresses a manner rather than a means of motion (e.g. *We sniveled our way out of the movie theater*), and recall that manner readings are not primary central instances of the way construction. However, I wish to question the premise of this argument, namely the claim that manner reading sentences are considered marginal. The malformedness of examples like *We sniveled our way…*, however marginal they may seem to some speakers, is rather suspect. Manner reading sentences are not rated lower than means

reading sentences. Where there is anomaly, observed in truly problematic uses, it is not due to a lack of an obstacle to motion or to the presence of non-motion verbs. Indeed, the objective of the following sections will be to demonstrate that the construction is particularly conducive to blends of incongruous events, which involve precisely non-motion verbs. Instead, what the construction requires is a specific type of entailment that the verb should contribute. Concretely speaking, the construction resists result verbs that do not lexicalize manner. This dispreference is a consequence of what the construction really conveys—that is, not the implied presence of an obstacle but, as Goldberg (1995, p. 203) calls it, a "self-created path" reading. The construction serves to describe motion events taking place along a path, whether concrete or metaphorical (a point to be discussed in section 5.10), and the contribution of the verbs is to complement this meaning by specifying the manner of the motion in question. Classic motion verbs, that is those that only express a path (*go, move, travel, reach, leave*, etc.) not only duplicate the path meaning already expressed by the construction, but fail to contribute much else. The problem is that true motion verbs could not contribute more meaning if they tried, and that is because of a curious phenomenon referred to as complementarity of manner and result which, to the best of my knowledge, was first observed and studied thoroughly by Levin and Rappaport Hovav (1991).

5.6. Complementary Distribution of Manner and Result

Levin and Rappaport Hovav (1991; 2010) observed that single lexical items (roots) are incapable of entailing manner and result at the same time. If manner is lexicalized in a verb (e.g. *to scrub, sweep, lick, mop*, etc.), it is as if the manner information uses up the semantic potential of the verb and leaves no room to convey result. As a consequence, verbs like *scrub* or *sweep* do not specify whether or not the action resulted in cleanliness. The opposite is also true: if a verb lexicalizes a result (*to clean, empty, kill*, etc.), it is mute about how the activity is carried out. In Levin and Rappaport's words, "lexicalized manner and result are in complementary distribution" (Levin & Rappaport Hovav, 2008, p. 1).

The complementarity of manner and result is questioned by Goldberg (2010) based on a number of exceptions. However, a closer look at Goldberg's counterexamples actually helps confirm rather than deny the regularity. Indeed, one might venture that any exceptions, including those

to be encountered in the future, will ultimately corroborate Levin and Rappaport's observation. Perhaps the most familiar alleged exception, the verb *climb*, which is argued to entail both a result (upward motion) and manner (by using hands and feet), may probably not lexicalize the result after all. The upward motion is not an entailment because it can be canceled without falling into a self-contradiction, as in *climb down the ladder* or *climb sideways*. More generally, the absence of directionality is evidenced by the fact that the verb invites the use of a wide range of prepositions as in *climb over the fence, climb into bed, climb onto mom's lap,* or *climb across the glacier.*

But the case of *climb* is more nuanced than it may seem at first glance. To put it otherwise, one could argue that the result reading being lexicalized is not "upward motion" but simply "motion" itself, in which case we are faced with both a manner and a result. But then, how firmly lexicalized is the manner component? Is it really lexicalized at all? Upon some further reflection, it is not altogether clear that the use of limbs is a defining characteristic of the verb's meaning. Certainly more kinds of driving forces may qualify as manner components of *climb*. To take a handful of the most obvious examples, a car can climb a hill by means of spinning wheels. A plant can climb a wall by means of prehensile leaf-tips. A road may climb a slope, etc. Now, for the sake of the argument, let us assume that these could be dismissed as metaphoric extensions of the prototypical sense of *climb*. Similarly, a road climbing a slope can be accounted for as a case of fictive motion, where it is imagined as ascending, as if afoot, from the base of the slope up to the top, in which case it can also be seen as an extension of the classic full-manner sense of *climb*. This means that the question of manner of *climb* dissipates into a nebulous phenomenon of metaphoric cognition, which makes it harder to observe. Still, a handful of additional examples like the following, suggest that *climb* is used in a watered-down sense comparable to that of the manner-neutral verb *rise*:

(11) a. The sun climbs over the horizon.
     b. The plane climbed to an altitude of 31,000 feet.
     c. Government spending continues to climb.
     d. The value of the company's stock climbed steadily.
     e. Japan climbed to world power status.

In other words, as the result component asserts itself in our manner-result calculus, it is the manner component that seems to unravel. It seems that if the two components may coexist within a verb at all, it is only when either one of them is fairly imprecise. We do not find an exception to the

Levin-Rappaport regularity represented by a verb where both the manner and result are graphically detailed.

Another apparent exception that may seem to pose a problem to the complementarity of manner and motion is the verb *decapitate*, if it is analyzed as meaning 'kill (result) by removing the head (manner).' However, what appears to be an entailment of death is not a real entailment, but merely an implicature arising from our understanding of the external world. That decapitated beings eventually die is not a rule of language, but a common-sense realization that a person or animal cannot survive without a head, and this impression is only true of some, not all living animal species. It is by all means perfectly possible to decapitate without killing—and not only in the case of Greek mythology, where the Hydra was decapitated only to grow back its heads. In real life, among animals that do not succumb to decapitation are earthworms, which not only can function without their heads but also reproduce faster.[2] In other words, the result "death" in the case of *decapitate* is little more than an implicature, albeit strong and consistent enough to be confused for a lexicalized entailment.

Yet another counterexample is the verb *drown*. At first glance, it seems to lexicalize both a result (killing) and a manner (by submerging under water or other liquid). Indeed, Talmy (2000b) argues that there is a cline in strength of implicature, and while some verbs, such as *choke,* merely implicate result, others like *strangle* implicate it more strongly, and verbs like *drown* are at the entailment of the cline. Hence *drown* "no longer implicates but asserts the killing" (2000b, p. 268). It is true that in its lexicalization of result, the verb *drown* is very close to the entailment extreme, but it is questionable that it conveys a full entailment of killing. There are ways of canceling the result reading; for example, one can say "In cases of drowning, mouth-to-mouth resuscitation should be started immediately," while this would sound odd in the sentence "In cases of killing… ." It seems speakers are ready to use *drown* in "nearly dead" situations. This could of course be dismissed as sloppy usage, but it is unlikely that many people would be equally sloppy with *kill* in "nearly dead" situations. There is something about the verb *drown* that makes it possible to use it loosely. I suspect there is a qualitative difference that speakers are sensitive to between a full entailment and a very strong implicature. This strong implicature is of course very near an entailment and at first glance, it can be confused for an entailment, but there are

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[2] Other animals capable of surviving decapitation include many insects, the most familiar of which are cockroaches. According to entomologist Christopher Tipping, cockroaches do not die until weeks after being decapitated, and when they do, it is not as a direct result of decapitation itself, but starvation.

uses that can still tease apart such close neighbors and show them to be really distinct. More apparent exceptions could no doubt be adduced, but considerations of space (as well as my own ignorance of further examples) do not allow an exhaustive treatment of every single case here. Nonetheless, based on the above examples, one might venture the conjecture that other such putative exceptions will ultimately prove to lexicalize only either the manner or result, not both. Combining result and manner is an operation involving two sub-events, something that in the design of language was meant to be performed by clause-sized units, not single root-sized lexical items.

The most relevant cases of complementarity as far as the *way* construction is concerned are motion verbs. These too lexicalize either a result (goal of motion) or a manner only, but not both. If a verb conveys a result, such as attaining a goal (*arrive, reach, come, make it*), it does not specify the manner in which the motion took place. On the other hand, verbs like *flutter*, *plod* or *tiptoe* are neutral about whether or not the subject in the sentence reached the intended goal. Indeed, they do not even entail motion at all—each verb be used to describe an activity taking place without advancing or retreating. Note that each can be followed by the phrase *in the same spot/in place* without much of a contradiction:

(12) a. The crow erupted in chatter and *fluttered in place* just out of reach. (*People of the Lakes*, Kathleen O'Neal Gear, W. Michael Gear)
   b. Sawyer struggled up out of his seat, cigar ash spilling down his damp shirt as he churned his stubby arms at the slow-motion teams *plodding in place* out on the floor. (*History of England*, John McDermott)
   c. As they *tiptoed in place*, they cast interested glances at the coffee table and the cake. (*The Invisible Bridge*, Julie Orringer)

Result motion verbs cannot be used in such ways: **He was going in place*. Some such uses are downright unintelligible: **The plane arrived motionless*.

At this point, one should mention the case of many Polish verbs which may seem to go counter the regularity. Verbs like *dojechać* ('arrive in a vehicle'), *doczołgać się* ('reach [a place] by crawling'), *wybiec* ('run out'), *zastrzelić* ('shoot dead'), etc., seem to contradict the regularity by being orthographic words that combine in their meaning the element of manner ('ride,' 'crawl,' 'run,' 'shoot') and the element of result ('reach a goal,' 'leave a location' and 'kill'). However, these are not exactly morphologically simplex verbs. Apart from their root (which in each case expresses the manner), each verb is preceded by a prefix (adding the element of

result). Because the regularity of complementary distribution applies to single roots, these examples do not pose a problem to it.

All this leads to an apparently counterintuitive conclusion that a great majority of motion verbs turn out to be manner of motion verbs, with very few being real path of motion (result) verbs. The reason why this has been overlooked so far is probably that many motion (result) verbs are practically always associated with motion, because the manner they specify does not make sense without motion. For example, it would be rather bizarre to argue that *walk* is not a "real" motion verb. However, the element of directed motion does not come from the verb itself, but from the prepositional phrase accompanying it. Without path or goal phrases, the direction is merely an implicature, albeit a reliable one, but one which is perfectly cancelable:

(13) He likes to walk for hours. After all, this is the only entertainment he has in his 2m x 2m prison cell.

Thus, one could put forward a rather controversial conjecture that the path element in many motion verbs is something of an illusion. One way to understand it is to think of it as an event anticipated with a high degree of certainty, based on partial information about motion. Paths in verbs such as *walk* or *step* can be viewed as predictions in the same way as a still image of a ball being kicked into a goal automatically brings to mind the image of that ball hitting the net. This is what will happen most of the time, but of course it does not have to, as the shot can sometimes be intercepted at the last second right above the goal line. Similarly, a photograph of a person lifting one foot will co-activate the anticipation of motion along a path. One difference in this analogy is that in the ball-net scenario, kicking the ball and the ball hitting the net are two events a brief instant apart, while moving one's feet and advancing along a path are events not separated in time, and therefore more firmly integrated. However, predicting a path on the basis of manner is not the same thing as entailing it. Although the prediction can be counted on to check out more than regularly, it does not have to go through, as example (13) illustrates.

A similar logic of separating semantic components within verb meanings can be found in Goldberg and Jackendoff (2004) where a case is presented against viewing certain sound emission verbs as motion verbs. They discuss the ability of the verb *belch* to appear in sentences such as *Bill belched his way out of the restaurant* (Goldberg & Jackendoff, 2004, p. 534, ex. 4a), where it appears to be a motion verb. They state:

> The essential point is that the verb does not change its meaning so as to license these extra arguments: for instance, *belch* in 4a is not 'converted' to a motion verb in the lexicon or anywhere else. Its contribution to the meaning of 4a is the same as its contribution to the meaning of *Bill belched loudly*; it is, in both cases, a verb expressing bodily function and sound emission. The sense of motion and the sense of REPEATED belching in 4a come from the construction and from the way the construction combines semantically with the verb to express a complex event. (p. 534)

By the same token, it can be argued that the contribution of result in manner-of-motion verbs comes from the construction in which these verbs are used, and they are still nothing more than activity verbs. Viewing verbs like *plod* or *shuffle* as verbs with a path component would be an example in false conversion where a verb would acquire a result sense on top of a manner sense, in contradiction with the Levin-Rappaport complementarity observation and with Goldberg-Jackendoff analysis of sound-emission verbs.

Now, the group of verbs prematurely classified as motion verbs includes a large number of sound emission verbs such as *boom, clang, clop, howl, hum, pitter-patter, rattle, roar, swoosh, vroom, wail,* or *whish.* In most dictionaries, these verbs are defined as motion verbs glossed with definitions like "to make or move with such a sound." That is no doubt because of the frequency with which these verbs are used in motion constructions. The following sentences illustrate uses of just the first few examples of verbs found by searching a dictionary for sound emission verbs that are also automatically defined as motion verbs:

(14) a. Horses pulling carriages clip-clopped down the street.
    b. A black race car roared its way around the track.
    c. A garbage truck rumbled from street to street.
    d. A meteorite swooshed across the sky over Siberia.
    e. The soldiers squelched across the marsh.
    f. Birds flapped through the mist.
    g. Elephants rumbled across the savannah.
    h. An empty beer can clanged down the stairs.
    i. A bee buzzed into the room.
    j. Uncle Jim's old tractor coughed down the road.
    k. An elusive lone mosquito whined around the room.
    l. An iridescent dragonfly that droned through the air.
    m. Goats were trip-trapping over the bridge.
    n. A balloon farted through the air.
    o. The train chugged through the canyon.

This list is by no means exhaustive; it is limited only to sounds produced as a direct result of motion. It does not include verbs like *whistle, chirp*, or any of dozens of verbs like *belch* that Goldberg and Jackendoff convincingly argued to be non-motion verbs. Although they are often used in motion constructions and they describe sounds that may accompany motion, they do not result from activities that drive the motion in question. The point to be made here is that the multitude of such uses illustrates the ease with which one can mislabel a large group of verbs.

Yet the fact remains that the above examples are verbs of sound emission; they do not undergo automatic conversion into motion verbs. Although each of the sentences above clearly convey motion along a path, but it is not by means of the verb, but of prepositional phrases, just as was the case with manner of motion verbs. To take just the first example from the list above, *Horses pulling carriages clip-clopped down the street* can be made "motionless" by removing the prepositional phrase, especially if the sentence is supplied with an additional clause that cancels the implicature of motion:

(15) Horses pulling carriages clip-clopped, but the carriages wouldn't budge.

This inability of lexical items to hold both manner and result might be a result of a more global design of how language divides labor between verbs and prepositions. The manner of an activity is expressed by verbs, the part of speech prototypically associated with expressing dynamic events, while the topographic details of the path are left to prepositions, the part of speech naturally associated with delineating the spatial specifications of a scene. When elements of path do get expressed by verbs (*go, arrive*), it is only the sketchiest hints of the path that make it into the verb's meaning ('translocation', 'reaching the goal', respectively), and if there are more elaborate trajectory details in a scene, they are supplied by prepositions anyway. That is why there are incomparably more verbs of manner than "true" verbs of motion.

More generally still, all this might be the very *raison d'être* of motion constructions, as progression toward a given location is among most basic experiential gestalts that language can be hypothesized to have evolved to express. Of course, hypothetically, one can imagine various combinations of manner of motion coupled with specific path trajectories within single lexical items. Such a language design would not require the *x's way* or indeed even the ordinary intransitive motion frames, as the path prepositional phrase could be entailed by the verb. However, such a design would face the obvious problem of staggering numbers of possible manner-path configurations. In practice, this would mean the

need to store enormous numbers of motion manner-result coinages. At this point we can only speculate on how many such verbs would have to exist—thousands, maybe tens of thousands, which may not seem unfeasible, given that language users are estimated to be familiar with at least tens of thousands of words anyway. However, the tens of thousands of hypothetical motion manner-result verbs would include items with very slight differences in meaning discernible to specialists only, much the way arcane color terms are appreciated by trained and experienced artists. While such a system would not be an impossible burden for memory, it would certainly be an unnecessary one, which can be avoided by a simpler system where the two components are kept separate. A solution to this comes in the form of constructions with empty slots for both elements. One obvious advantage of constructions over capacious lexical items is that constructions can easily accommodate rare combinations of manner and result (e.g. *prance* + *against the wall*), where both result and manner are transparent. Viewed another way, this simple logic can be thought of as a restatement of Rappaport Hovav and Levin's (1998, p. 112) Sub-Event Identification Condition which states that "(e)ach sub-event in the event structure must be identified by a lexical head (e.g., a V, an A, or a P) in the syntax." The fairly considerable informational load makes it necessary for manner and result to be linked to separate lexical units, which must be expressed overtly. And this is precisely what the *x's way* construction enables by realizing both constants overtly. For morphologically simplex roots like *stawd* to convey manner-result combinations, they would also be arbitrary and rather difficult for children to learn, especially in the case of combinations rarely heard in the input. Signs of separating manner and result can be seen all over language, in syntactic constructions, in morphologically complex words (Polish verbs like *zastrzelić* or *wybiec*, mentioned earlier), in English phrasal verbs like *dream up*, or in resultative phrases such as *shoot dead* or *wipe clean*. Given how pervasive this linguistic habit to separate is, it is unclear why language should insist on allowing exceptions to the tendency, exceptions that turn out to be more and more dubious upon closer examination.

5.7. Blending Disparate Events

In the previous sections I have argued that *x's way* sentences violating the two proposed constraints are in fact not as anomalous as they are considered to be in the literature. In this section, I will attempt to explain

why such uses do not differ very strongly from uses that are endorsed by Goldberg and others. I argue that this is not a question of subjective preferences or willingness on the part of some speakers to experiment with creative uses of the construction. As I will demonstrate below, the acceptability of a use of the *x's way* construction does not depend on whether a verb conveys motion despite difficulty. The construction is not and cannot be sensitive to fine details of meaning. Instead, what matters is how event schemas are blended in the event structure created by the predicate. If the construction is sensitive to anything, it is the aspectual status of the sub-events present in the clause.

5.7.1. Event schemas

It might be speculated that what motivates the existence of constructions is their ability to capture recurrent situation types. Like in the case of the Manner of Obtainment Construction discussed in the previous chapter, here too, I will attempt to analyze the event-schematic constitution of the *x's way* construction.

Constructions can be thought of as syntactic configurations which have evolved as schematic reflections of the structure of experiential frames. That is, the more frequent the expression of a given experiential scene such as transfer of possession or direct impingement, the greater the need for a syntactic pattern dedicated to the expression of such situations. Heine (1993, p. 91) refers to such stereotypical mental representations of recurrent experiences as event schemas. These are schematic models that distill the most important characteristics from large numbers of diverse events, which are thus grouped in classes relevant to and preformed for linguistic expression. Essentially, the characteristics distilled are not only responsible for the existence of syntactic patterns, but they also affect their syntactic shape. For example, transfer of possession patterns such as X VERB Y to Z captures characteristics such as the number of participants (source, theme and recipient), the order in which the transfer proceeds, and the sense that the transfer involves motion, whether actual (e.g. *throw, pass*) or metaphoric (e.g. *explain, recommend*). It is neutral as regards the type of theme being transferred (is it a tangible object, is it a welcome gift?), the reasons behind the transfer (e.g. is it good will, pity, extortion?), the amount of time needed to realize the transfer, etc. In English, these aspects are gapped, but one can imagine syntactic structures that would reflect these and perhaps other details. The point of constructions is that

they reflect only a small number of salient characteristics, while ignoring many others, because they are less frequent or less relevant in most descriptions of transfer of possession. Similarly, constructions dedicated to expression motion also pick out only some salient characteristics which are responsible for their syntactic constitutions. What is interesting is that the syntactic forms of constructions such as the *x's way* can be manipulated to compose synthetic motion scenarios quite unlike typical real-life motion types. The following is a discussion of the event schema makeup of the *x's way* construction.

In section 4.10, a number of basic event schemas were identified, including the action (doing) schema, the process (happening) schema and the motion schema. These three schemas are relevant in our discussion, because they are the building blocks of scenes described in *x's way* sentences. Before their presence in the construction is discussed, it is first necessary to address a point of potential confusion here. The term "process" has two different applications. It can mean a simple atelic activity, and this is how it is used by Jackendoff (1990, p. 213), who identifies verbs in the *x's way* construction as being "inherently a process verb (e.g. *eat, whistle, roll*) or … a repeated bounded event (e.g. *belch, joke, homer*)." But the term "process" (also termed as "happening") can also mean an event where a participant completes a change of location (e.g. *he fell; they appeared)* and is thus resultative in nature. Although "process," traditionally interpreted as a continuing event, is a rather misleading label for the unaccusative sense, the label has become established and for want of a better term, it is this second sense that will be applied in the present analysis.

While analyzing the aspectual structure of *x's way* sentences, it is important to note that there are two main types of scenes expressed by the *x's way* construction, and they differ in terms of their aspect. Specifically, a sentence built on the construction can be telic (16a) or atelic (16b).

(16) a. We pushed our way out of the building.
       b. We pushed our way through the crowd.

The two sentences also differ in terms of the event schema they depict in that the first one is a process (in the "happening" sense) and the other an atelic motion schema. The difference is considerable because (16a) involves the resultative element of reaching a goal, while (16b) is a continuing action. Despite this difference, however, both cases include a common sub-event, namely an action schema. The difference results from the addition of the prepositional phrase conveying an achievement--type event (*out of x, to, onto* or *into x*):

(17) a. He felt his way up the stairs/out of the basement.
      b. Simpson fought his way down the track/to the finish line.
      c. We paddled our way across the lake/to the other end of the lake.
      d. The dog wriggled its way up his leg/onto his lap.
      e. Two robbers dug their way underneath a hospital/into the bank vault.

Thus, in the aspectual calculus of an event expressed in a typical *x's way* sentence, whether the sentence is an accomplishment or an activity, in each case, an activity-type event (*feeling, fighting, paddling, wriggling* or *digging*) is present.

Of considerable importance here is the fact that incidental activity verbs (*giggle, whistle*) are, in terms of Aktionsart (Vendler, 1967), on a par with real manner verbs. From the point of view of lexical aspect, both the events inherent and those incidental to motion are action ('doing') schemas, which are eligible to appear alongside a goal and form a process schema or a motion schema, and hence also ideal in the *x's way* construction, a realization of the motion or process schema.

As a result, it is fairly easy to come across sentences involving blended event schemas like *A loose tile rattled its way down the roof.* Sentences like this are so common, especially in formal registers that claims that they are marginal appear rather dubious.

5.7.2. Salience of manner

One reason why incidental details make it into *x's way* sentences is that linguistic descriptions of physical scenes are a reflection of our habit of observing salient accompanying characteristics in a scene. These characteristics are most often manner, enablement, or other elements that are instrumental in the larger scene. This is uncontroversial enough. Manner is a key factor in achieving a result, so it goes without saying that it is included in linguistic descriptions, and there is indeed a wide selection of grammatical means for singling it out from result. The same is true of sentences depicting motion events: in English at least, there is a strong tendency to assert it apart from specifying goal and direction (taken to be motion equivalents of result). Manner is somewhat less prominent in many other languages, but even these languages lend support to our hypothesis that manner verbs and incidental activity verbs are alike when

it comes to expressing motion scenes. As was explained in section 4.5, languages conflate manner and motion differently. Briefly, the difference is that in English the main verb in the sentence expresses manner and the path is relegated to the preposition:

(18) A butterfly fluttered (MANNER) into (PATH) the room.

In Romance languages, the main verb expresses the path, while manner is conveyed by an optional phrase, as in this Portuguese example:

(19) Uma   borboleta   entrou (PATH) no quarto   rodopiando (MANNER).
      A   butterfly   entered   in the room fluttering.

In practice, in Romance languages, the manner element is often not asserted, and by comparison with English, they have few manner of motion verbs. On the other hand, English offers a great number of manner verbs which are commonly featured in sentences. There is no fusion of manner and motion within a single verb. Additionally, in Romance languages, verbs expressing incidental activities co-occurring with motion appear in the same position and gerundive construction as manner of motion verbs:

(20) Um cão entrou no quarto ladrando/uivando/rosnando/salivando, etc.
      A dog entered the room barking/howling/growling/salivating, etc.

The point here is not to compare the gerundive in Portuguese to the verb slot in the *x's way* construction (they are different, and the Portuguese gerundive can accommodate many more verbs that would not appear in the *x's way* construction). The point is that manner is kept separate from the motion verb the way incidental activity verbs are. In other words, both in English and Portuguese, from the point of view of syntax, manner of motion verbs are more alike incidental activity verbs than they are with motion verbs or other motion elements.

It is possible to venture the claim that in descriptions of directed motion, there is a universal tendency to distill manner from other elements such as path or goal. Manner tends to be viewed as an independent variable. This tendency is perhaps most striking in new languages such as *Idioma de señas nicaragüense* (Nicaraguan Sign Language), created some thirty years ago by deaf children, where users express manner and path sequentially (Senghas et al., 2004). Data from the study prompt Zubizarreta and Oh (2007) to argue that "the compositional nature of human languages is truly universal and … verb does not simultaneously encode

manner and directed motion, but that at some abstract level, these two are represented independently" (2007, p. 3).

Finally, one could speculate that the salience of incidental activities benefits from the salience of manner in accomplishment events. Slobin (2003, p. 162) notes that manner is an important semantic component in descriptions of events and "English speakers … make widespread communicative and cognitive use of this dimension." Because manner is attended to closely as an essential independent variable in any situation where a result is attained, a habit has developed of attending to *any* activity accompanying an effort to achieve a result, including activities that may be less instrumental in achieving a result. It is reasonable to assume that given the special prominence of manner, in the mental resources dedicated to computations of dynamic events, a slot is reserved for information to do with manner. If that slot is not filled with details specifying manner of motion, the slot remains open to elements like incidental activities occurring in the course of a motion event.

Whether one looks at satellite-framed languages like English, which incorporate manners into the main clause or verb-framed languages like Spanish which tend to omit manner altogether, one could postulate a natural junction in motion events, where direction of motion is separate from but can blend with other elements like manner. In satellite languages, users may have taken a step further and mentally fuse together meaning elements that are associable less closely than direction of motion and manner of motion. Thus, we see constructions fusing result with incidental activities not only in English, but also Polish and German, where blends are possible like those discussed in section 5.4. This is not to say that all and any blends are allowed. While it is feasible to fuse event schemas, this is not the case with constructing paths, a question addressed further in section 5.10.

5.8. Motion Verbs Unattested in the Construction

In support of the hypothesis that the *x's way* construction conveys a sense of difficulty, Goldberg (1995, p. 205) notes that the construction resists many basic motion verbs like "move," "step," or "walk":

(21) a. *She stepped/moved her way to New York. (Goldberg, 1995, p. 205)
    b. *He walked his way from the kitchen to the bathroom.

    c. *The kid jumped his way into the sandbox. (Kuno & Takami, 2004, p. 73)

    d. *The mountaineer arrived his way to the top.

According to Goldberg, these sentences are anomalous because "vanilla motion verbs do not normally imply that there is any difficulty or indirect motion involved, an implication which is required by the means interpretation of the construction" (1995, p. 205). Even more interestingly, uses of these verbs in the construction suddenly become more acceptable, if not perfectly so, in a context where some difficulty or effort can be imagined (22a—b). On the face of it, this makes sense, but then, upon further reflection, one can of course construct more contexts combining the use of the above verbs with a sense of difficulty (22c), which do not work as smoothly as (22a—b). Examples like (22c) are not anomalous for lack of a difficulty reading, but because there is something about the verbs themselves, not the resulting reading that makes such examples sound unnatural.

(22) a. The old man walked his way across the country to earn money for charity. (Goldberg, 1995, p. 205)

    b. He carefully walked his way down the tightrope.

    c. ? With extreme difficulty and pain, he walked/stepped his way through the thick hedge.

At the risk of belaboring the point, it should be stressed that in theory, (22c) should be perfectly unproblematic. Here is a sentence that clearly asserts the existence of an obstacle, a fact that should be welcomed by the *x's way* construction. So it must be something else that makes it anomalous. A more straightforward explanation of the anomaly is to suppose that the construction is not about difficulty at all, but instead conveys something other than a default path. That is, the use of the phrase "one's way" featured in the construction signals that there is something about the path that makes it noticeably different from a typical path that a participant would travel. Put simply, the path conveyed must be construable as being distinct from an average ordinary path.

One important advantage of this "unusual path" reading of the construction is that it parallels other observed semantic effects associable with closed-class forms. For example, there are various constructions dedicated to expressing indirect causation (e.g. *I had the wall painted*), where indirectness is conveyed on the iconic principle that there is a greater distance between the causer's action and the caused effect than in the case of a simple *I painted the wall*. In other words, if there were

nothing unusual about the causation event in question, an ordinary construction like *I painted the wall* would suffice. But the internal complexity of the event justifies using a more complex construction. More formally speaking, this is captured by the principle that "unmarked forms tend to be used for unmarked situations, and marked forms for marked situations" (Horn, 1984, p. 26). This property is also captured by Levinson's (2000, p. 38) M-heuristic, which states that "What's said in an abnormal way isn't normal." (Recall that this is analogous to the inference process in the *into*-gerund construction discussed in the previous chapter, where it was natural to conjecture that unusual causation may but does not have to involve some dishonesty in pursuing an action.)

In the case of the *way* construction too, the idea that the path traveled is different from a normal path is hinted at by the form of the construction, more specifically, by the appearance of the *one's way* phrase. Note that this unusualness of a path explains the difficulty reading. It is simply a pragmatic inference triggered by the impression that the path expressed is of a special kind and one can therefore suspect that a different path may be harder to travel than an ordinary path. A similar proposal is made by Kuno and Takami (2004) who claim that "the implication of difficulty is attributable to the fact that the distance is perceived to be of a nontrivial nature" (2004, p. 82).

The unusual path reading is also reinforced by the so called "windowing of attention." According to Talmy (2007, pp. 268—269), lexical units tend to focus attention more strongly than closed-class units, which by nature serve to background presupposed meanings. For example, the adjectives *continuous* or *incessant* in *her continuous/incessant complaints* clearly foreground the repetitive aspect of the activity, while the closed-class suffix *-ing* in *she's complaining* merely expresses this semantic element as an element of the background of the scene. In the construction, the phrase *one's way* is an attention-windowing device which brings to the forth the path more effectively than the bare prepositional phrase that would be part of the "ordinary" intransitive motion construction.

It is now time to attempt to explain why examples (22a—b) seem acceptable while (22c) is rather anomalous. Consider the tentative hypothesis that the mental image of a special path signaled by the construction should be consistent with the meaning contributed by the verb. While manner verbs do not entail paths, they usually evoke expectations of paths associated with given manners of motion. For example, a verb like *walk* comes with some typical, fairly mundane paths, while *push* and *elbow* naturally trigger mental pictures of less straightforward paths. Of course, a manner of motion expressed by any given verb will be possible along

many paths, but some of them will be default, while others less likely. In the case of the *x's way* construction, the verb should be compatible with the nontrivial distance and special path conveyed. The reason why *walk* does not normally appear in the *way* construction is that in most scenarios, the path portrayed is too predictably ordinary for the construction. When *walk* does work, it is in the case of paths where walking is <u>not</u> the most typical manner of motion. For example, in a sentence like *The skier walked his way down the slope*, the verb *walk* works well enough precisely, because the path visualized is rather unusual for that context, because here one would normally expect skiing, not walking. Similarly, in the cross-country travel scenario (22a), one can visualize a rather extraordinary path. The man did not cross the country in one fell swoop, but instead took at least several days to complete his journey. Furthermore, the traverse was most likely accompanied by additional activities. All this makes the path drastically distinct from one that could be summed up by saying simply *walked across the country*. Finally, in example (22b), the tightrope walker traverses a path that only an infinitesimal section of the population dares take it. That makes it unusual enough.

In conclusion, we can see that sentences built around the *way* construction are acceptable when they convey unusual manners and unusual paths, not the difficulty reading. But while the path should be construed as being somewhat out-of-the-way, it is also constrained in ways to be discussed below.

5.9. The Path Phrase

The *way* construction allows a range of types of paths, from physical ones running through space to cases of paths in time, and last but not least, atemporal metaphoric paths. Paths running through space can safely be considered to be most basic. First, as Mondorf (2011) shows, throughout its history the construction has been used most often to convey motion along concrete paths. Second, they serve as a basis for the expression of paths through time (23a—b) or metaphoric locations (23c—d).

(23) a. He walked his way to the end of his existence.
　　　 b. Pat was making her way to dinner.
　　　 c. Lennon composed his way to critical acclaim.
　　　 d. Some stars rebelled their way to stardom.

Although time paths and metaphoric paths can both be subsumed under the category of metaphor, and they must both coincide with the passage of time, there is a distinction between them. Typical time paths are described by strictly temporal expressions such as *the end of his existence*, *midnight*, or *dinner*. These are points in time, quite unlike *critical acclaim*, or *stardom*, which are not even occurrences, but states. But regardless of whether these two types should be considered two independent or interrelated kinds of paths, the existence of at least three types of paths goes to show that the construction is quite flexible in terms of how it structures paths.

Despite this flexibility, the construction seems to be severely constrained in one important respect, namely the uniformity of the entire stretch of the path. That is, if the path is metaphoric and abstract, so should the goal. In (24a), the path is not through space, but through a period/state, and the goal is interpreted as a point ending that period—it is not a physical location. In (24b), although the goal could be a physical object (a plate full of food), here it is interpreted figuratively, as is the path.

(24) a. The bird sang his way to freedom.
      b. Flirt your way to a free lunch.

Conversely, if the path is concrete, of course the goal is concrete too.

(25) Hundreds stormed their way into the store.

These parallels between the status of the path and the goal hold regardless of the type of manner. Incidental and inherent manner verbs combine with both literal physical paths and abstract paths. Although some speakers, as was mentioned above, reject expressions of physical path if the manner is incidental, such sentences are generally possible, and considered much more natural than uses where an abstract path is combined with a concrete goal:

(26) *At the library, the schoolgirl lied her way to a book (under the interpretation that the girl lies to a reluctant librarian who finally gives in and offers a book).

Note that the verb *lie* is not incompatible with the construction. It is found in many diverse uses such as:

(27) A former South Philadelphia bank branch manager talked and lied her way to a one day sentence in a half million dollar embezzlement

case … . http://philadelphia.cbslocal.com/2013/05/18/bank-embezzler-
-pays-steep-prices-after-lying-her-way-to-a-1-day-sentencing/
(28) [Martha Stewart] lied her way to the top. http://www.freerepublic.
com/focus/f-news/1092515/posts
(29) [Lance Armstrong] lied his way *to* fame. http://www.theguardian.
com/football/blog/2012/nov/26/happy-150th-notts-county

There are some problematic uses, especially ones to do with money,
which do seem similar to (26). For example, in the following sentences,
the goal could be interpreted as a physical, concrete one.

(30) Woman lied her way to £30,000 (headline). http://www.cambridge-
-news.co.uk/Cambridge/Woman-lied-her-way-to-30000.htm
(31) [Marion Jones] cheated and lied her way to medals and millions
of dollars. http://www.telegraph.co.uk/sport/othersports/athletics/
2288593/Jail-beckons-for-drug-cheat-Marion-Jones.html

However, the sums specified are almost certainly not intended as sin-
gle unitary objects that the possessor-to-be can hold in her hands after
completing the abstract path—such events would not be plausible in any
conceivable scenario, shy of a scene featuring a suitcase full of hundred-
-dollar bills. More likely, the sum of money mentioned is also to be imag-
ined as an abstract goal, a mathematic quantity that the person is entitled
to, rather than an actual physical bundle of cash.

There are other apparent counterexamples. For instance, in example
(32) an abstract path appears to combine with what looks like a physical
goal. However, it is in reality a metaphoric goal. It should be noted that
a physical object can be meant as a metonymic substitute for an abstrac-
tion. In this case a gold medal is a token of victory; it does not represent
a value in itself like the goals in (33). These would be hard to imagine as
standing in a metonymic relationship to something abstract, and conse-
quently sentences with such insufficiently abstract goals are perceived as
anomalous.

(32) The team powered their way to a gold cup.
(33) a. *Mr. Cheswick tried to rant his way to a cigarette (under the
interpretation that he attempted to obtain a cigarette by ranting).
b. … ranted his way to a red card.

A sentence with an abstract path and physical goal can be considered
grammatical to the extent that the goal NP lends itself to an abstract
interpretation. One can therefore predict some variability in users' re-

actions to sentences with physical goal NPs, because people will often differ in their ability and openness to translate a physical goal into an abstract meaning.

There are eight theoretical combinations of manner, path, and goal:

    i. inherent manner — physical path — physical goal
    ii. incidental manner — physical path — physical goal
    iii. inherent manner — abstract path — abstract goal
    iv. incidental manner — abstract path — abstract goal
    v. inherent manner — abstract path — physical goal
    vi. incidental manner — abstract path — physical goal
    vii. inherent manner — physical path — abstract goal
    viii. incidental manner — physical path — abstract goal

Of these, the first four are attested commonly enough:

(34) a. Mel *strong-armed his way* through the crowd (pattern i).
     b. I *chuckled my way down* the ski hill (pattern ii).
     c. He *fornicated his way* into an early grave (pattern iii).
     d. He *smoked his way* to a PhD (pattern iv).

Patterns (v) and (vi) are less straightforward. To take pattern (vi) first, while it is theoretically possible to comprehend a sentence based on it, such as *The girl lied her way to the book*, such examples are for the most part found unacceptable by speakers. On the other hand, pattern (v) is unattested and indeed it is an impossible scenario. One cannot visualize a scene, where a participant moves toward a physical goal in a motion--inherent manner along an abstract path. For example, in a sentence like *Kevin sprinted his way to the finish line*, one cannot conceivably imagine the path to the physical finish line as being abstract. Confronted with such examples, a listener automatically assumes that the path to the finish line is physical, and even after being told that the path is abstract (e.g. a long arduous training regime), the physical path scenario seems to get in the way of entertaining an abstract path interpretation. Similarly in scenarios (vii) and (viii), a participant traveling toward an abstract goal is automatically imagined to traverse an abstract path, and a physical path interpretation is blocked from even being considered. For example, if one were to imagine a scene such as *Fred Astaire tap-danced his way to stardom*, the image that emerges is that of a career progression (abstract path) toward popular acclaim (abstract goal). Even if one were told that Astaire only performed one single tap dance while moving across a stage from point A to point B (physical path) and that single event assured his ascent

to stardom, this path is still superimposed on by the notion of an abstract path, namely an increase in popularity leading to a level of stardom. This is because the attainment of an abstract goal cannot be processed as a focus on a single static point, excluding the prior progression toward that point. There seems to be a mental constraint against disconnecting the goal from the progression leading up to it, and replacing that progression with an equivalent stretch of a path. For all our conceptual blending ability, we seem unable to splice sections of physical and abstract paths. This simple fact is captured by Table 10. It shows that sentences featuring the *way* construction are acceptable where the path and the goal are of the same type (i—iv). The grey half (v—viii) includes configurations of spliced paths and goals. Such sentences are either impossible (v, vii, viii) or considered odd (vi).

Table 10. Manner-path-goal combinations

		Manner	Path	Goal
i	OK	inherent	physical	
ii	OK	incidental	physical	
iii	OK	inherent	abstract	
iv	OK	incidental	abstract	
v	—	inherent	abstract (impossible)	physical
vi	anomalous	incidental	abstract	physical
vii	—	inherent	physical (impossible)	abstract
viii	—	incidental	physical (impossible)	abstract

The insistence of the path being uniform can be accounted for as an instance of the Invariance Principle (Lakoff, 1993), which holds that:

> Metaphorical mappings preserve the cognitive topology (that is, the image-schema structure) of the source domain, in a way consistent with the inherent structure of the target domain. (Lakoff, 1993, p. 215)

Lakoff points out that an important consequence of the Principle is that "image-schematic structure of the target domain cannot be violated" (p. 215). In metaphoric uses of the *way* construction, abstract elements of the scene are mapped onto the target domain of a path, and in this case, the Principle ensures that the mapping onto the target domain of a path does not violate the integrity of a uniform path whose goal is of

the same nature as the trajectory itself. There only exist paths composed of trajectories and goals coinciding on the same plain, and attempts to build a path violating this image-schematic structure result in anomalous sentences.

5.10. Meanings of the *Way* Construction

What sorts of meanings does the *way* construction convey then? The main, most basic meanings are of course those of motion along a path. However, note that motion is often associated with possession, as was discussed in section 4.12. Therefore, reaching a location can also be understood metaphorically as coming into possession of objects found in that location. This is why sentences like *Astaire tap-danced his way to fame* should, perhaps more accurately, be considered descriptions of possession--obtainment rather than of pure motion toward a location. Abstractions like 'wealth' and 'fame' can be thought of as possessed objects—it is more natural to talk about *having* wealth or fame than *being* in wealth or fame, and even cases of concepts like 'love,' which are conventionalized metaphoric locations (*fall/be in/out of love*) can also be expressed as possessed objects (*I have your love/give me back my love*). This metaphoric processing makes the construction quite versatile, especially in comparison with the basic motion constructions based on simple motion prepositional phrases.

Note, however, that obtainment readings only arise in abstract interpretations. Thus, while the person in (35a) can be assumed to have won or obtained fame, the same cannot be said about the person in (35b). Physical motion along a physical path leading to a physical goal is only interpreted as motion and little else, whereas abstract motion is open to being interpreted as obtainment.

(35) a. The man made/tiptoed/hobbled/inched his way to fame.
      b. The man made/tiptoed/hobbled/inched his way to the car.

Recall from section 7 that abstract paths come in two types. There are temporal paths, where goals are specific points in time such as 'midnight,' 'marriage,' 'end of one's existence,' or 'an early grave.' Then there are atemporal abstract paths, with abstract concepts for goals such as 'happiness,' 'fame,' or 'health.' These two types behave differently in terms of the potential for obtainment interpretations. It seems only purely atemporal

paths yield obtainment readings (36), while the temporal paths serve to express abstract travel through time (37). While it is perfectly natural to talk about a person obtaining or having wealth or international renown, it would be markedly odd to say a person "has midnight" or "obtains/ has marriage."

(36) a. She clawed her way from poverty/to wealth.
     b. He scintillated his way from obscurity/to international renown.

(37) a. They danced their way from dawn/through the day/to midnight.
     b. We gallivanted our way from dawn to the evening.
     c. Maneuver your way through your single life/to marriage.

The facts outlined above lead to an interesting conclusion. That is, if abstract paths cannot lead to physical goals and if only abstract atemporal paths yield obtainment readings, then physical goals consequently fall out of the circle of objects that can be expressed by the *way* construction as obtained. While the construction freely expresses obtainment of abstract objects like kisses or victories, it cannot be used to convey obtainment of physical, tangible objects such as keys or coins. It should be stressed that this is really caused by the properties of path, and not by the fact that the meaning of metaphoric obtainment of a concrete object is impossible for other reasons. Recall that the Manner of Obtainment Construction discussed in the preceding chapter is used (in Polish as well as in German) to express getting or winning both physical and metaphoric objects (38). This is possible because unlike *x's way*, the Manner of Obtainment Construction does not frame the obtained object as a goal at the end of a path, but as an object retrieved out of a container. As a result, the construction and in Polish and German does not run into problems to do with joining disparate sections of a path.

(38) Zenek wyżebrał   koc   i   jedzenie.
     Zenek wy-begged   blanket   and   food.
     'Zenek scrounged a blanket and food.'

5.11. Conclusion

The difficulty reading attributed to the construction is most likely not a semantic contribution of the construction. If anything, the observed difficulty effect is at most an inference arising in many—but *not* all—con-

texts. At the risk of sounding redundant, the difficulty reading is perhaps too much on the graphic side for a closed-class item that the construction is. A more credible candidate for the construction's semantic content is the reading of motion along a path, with the possible stipulation that there is something unusual about the path making it differ from typical ordinary paths. However, it should be noted that the image of the path conveyed by the noun inclusion *way* is schematic, which becomes apparent when it is compared to how the path is profiled in literal constructions like *I traced our way on the map*. Unlike the literal uses, however, the *way* construction can serve to convey metaphoric obtainment meanings, which despite their rather exotic feel, are meanings perfectly typical of other closed-class forms found in possessive constructions.

6. Too Contentful to Be True

In this chapter, we will consider a number of examples of what at first might seem to be very contentful constructions—genuinely productive patterns that at the same time carry surprisingly—indeed fantastically—rich meanings. However, as the following discussion will seek to demonstrate, these patterns are close to but not quite constructions.

6.1. Constructional Frames

In Construction Grammar, there is a move to recognize as constructions and as large as possible number of items. As Goldberg (2006, p. 5) argues, "patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency." Similarly, Jackendoff (1997a, p. 157) advocates "a more inclusive view of linguistic knowledge that includes this material," where by "this material" he means "potential *Wheel of Fortune* puzzles," namely, idioms, clichés, meaningful names, titles of songs, quotations, etc. Specifically, the move is to include among linguistic constructions instances such as *All you need is love, fair price, easy come easy go,* or *the right to bear arms*, and countless other examples, most of which can be expected to be familiar to an average speaker of English. He observes that the number of such multi-word elements "is of about the same order of magnitude as the single words of the vocabulary" (1997a, p. 156), which makes them anything but a periphery of language. It seems logical, therefore, to consider them as part of a person's lexicon or, as construction grammarians argue, include them in the constructicon, the all-inclusive storage area containing all pairings of form and meaning.

However, it is important to distinguish between linguistic items stored in the lexicon and linguistic constructions. While both are stored, they are not necessarily the same. Certain memorized expressions may very well be part of a speaker's competence, but they are governed by entirely different rules. Quite simply, just because they are stored does not automatically make them constructions.

It is worth asking why some scholars are ready to view patterns such as *long time no see* as constructions. One argument is that they are open to modification. Rasulić (2010) provides a number of examples of expressions such as *first come first serve* or *easy come easy go*, which she considers not only lexical entries, but precisely constructions, or—as she also terms them—"constructional frames," capable of being used creatively and altered freely in everyday language use. Indeed, a look at the clearly high degree of variability of form in these expressions confirms that they are not as fixed as the name suggests. To take just one example of a fixed expression, *easy come easy go* is attested as *easy come easy love, easy come easy grow*, etc.

One should stress that the readiness to consider fixed phrases as constructions to be modified is also evinced by other authors. Hurford (2012, pp. 164—265) provides the example of the proverb *A bird in the hand is worth two in the bush*, and argues that such sentence-length units are stored and "can be productively used as templates for parallel expressions" such as (1).

(1) a. *A grand in the bank is worth two in the stock market.* (Hurford, 2012, p. 265)
    b. *A Voter in the Hand Is Worth Two in the Focus Group.* http://www.teapartytribune.com/2013/04/04/a-voter-in-the-hand-is-worth-two--in-the-focus-group/
    c. *A Pistol in Hand Is Worth Two in the Glove Box.* (title of a 2008 movie)
    d. *A Girl In Your Arms Is Worth Two In Your Dream.* (title of a 1915 song by Grace Nash and Henry Burr)

Hurford proposes the schematic formula *A* NOUN i*n the* NOUN *is worth two in the* NOUN as a representation accommodating novel uses based on the proverb. Although he never claims that this formula is stored as a construction in the lexicon, this is in fact what would have to be the case if *A bird in the hand* is to be considered a productive template.

It should come as no surprise that the possibility of ample modification is touted as evidence that such constructional frames are just as productive as familiar constructions. However, there is something suspect about this kind of modification. It seems that the high degree of modification

freedom in constructional frames is indicative of a different nature of constructional frames.

First, it should be noted that constructional frames are not productive in the same way as "conventional" classic constructions. In other words, they are not productive in the sense of Lyons (1977). They do not follow syntactic rules associated with a given construction but "creatively extend or transcend them" (1977, p. 548). Creativity is therefore to be distinguished from productivity. Lyons invokes the productivity vs. creativity distinction in the context of coining compounds and notes that "lexicalization of compounds by means of metaphorical extension is a normal process in the everyday use of language and … can only be accounted for in terms of strategies, rather than rules … ." However, the distinction applies equally fruitfully to all cases of introducing new forms on analogy with existing ones.
The following discussion will attempt to elaborate on this difference.

6.1.1. The productive behavior of *once bitten twice shy*

Rasulić's analysis comes with ample corpus material to show how host expressions are modified. This happens by one of the elements of the expression being replaced, but in such a way that the correspondence between the new version and the original template is clear. In the following, the last element *shy* is replaced by rhyming words, which reinforce the association with the original form of the idiom. Right here, it could be pointed out that syntax does not include rhyme as one of its selectional restrictions.

(2) a. Once bitten twice lie.
    b. Once bitten twice die.
    c. Once bitten twice cry.

Further, the modification of fixed expressions often involves the use of lexical items of diverse syntactic stock. For example, modifications include

(3) a. Once bitten, twice Ed.
    b. Once bitten, twice watch out.
    c. Once bitten, twice burned.
    d. Once bitten, twice as curious.

An adjective can be replaced with a noun, verb or a prepositional phrase. This is very different from the behavior of phrases like the time *away* construction, where one does not insert words representing grammatical categories other than the one intended for a given slot. Thus, for example, one can say *dance, laugh* or *talk the night away* but not *curious the night away.* (Of course, certain seemingly cross-categorial replacements are possible. For example, it is possible to imagine something like to *Ed your way PP*, but this is really a conversion, and therefore not an actual cross-categorial insertion).

Another point of difference is that in constructional frames, it is theoretically possible to replace any part of the expression.

(4) a. Once bitten, *never* shy.
    b. Once *Biden*, twice shy.
    c. Once *written*, twice shy.
    d. *Frost* bitten, twice shy.

This too is quite unheard of in constructions. In the *x's way*, one can only manipulate the verb slot and to some degree the genitive slot. Thus, one can of course *push, elbow,* or *feel one's way PP*, but it is not possible to *force one's *street/*alley/*hallway PP.* Also, one can hear *push your/his/her, etc. way,* but not *push Jenny's way.*

All the above differences are really consequences of the one main difference between constructions and constructional frames, which is that the former leave at least one slot open which is intended for insertion and imposes specific criteria for what is allowed in the slot. On the other hand, the latter are entirely lexically filled expressions, with no empty slots. The only possibility that they can be used in new ways is by creative modification. Incidentally, this is why it is very unlikely that speakers actually store schematic templates like *A* NOUN *in the* NOUN *is worth two in the* NOUN. In the case of *once bitten, twice shy*, what would the template look like, if in principle each slot could be modified?

The problem with the professed productivity of fixed expressions is illustrated by their similarity with what Goldberg (2006, p. 5) calls "filled idioms" examples of which include *going great guns* or *give the devil his due.* According to Hurford, these expressions "don't allow any productive substitution" (Hurford, 2012, p. 265). Now, rather predictably, a quick Google search does turn up modified examples, and these include not only those like *give the devil his pew/brew/blue*, where the theme noun is conspicuous through rhyme with *due*, but also modifications like *give the devil his opportunity* or *give the devil his violin*. These modifications are

exactly the kind of novel uses accruing around *once bitten twice shy* or *a bird in the hand*.

What they all have in common is that they do not seem like obvious candidates for productive uses for all users. Just like *once bitten twice shy* strikes very few as interesting material for modification, the potential of *give the devil his due* escaped Hurford's attention too. And no wonder—the reason this happens is that these expressions are not productive idioms any more than a spoon is a multipurpose tool just because it can be made into a bracelet, paper weight or an improvised prison weapon. There is a difference between modification that repurposes a fixed expression and inherent versatility of an open-ended construction. There is a difference between creativity and productivity.

But what exactly is creativity and how does it differ from productivity? The notion of creativity is invoked but, to the best of my knowledge, never really elaborated on. Though creativity is often contrasted with productivity, it is not explained how, in Lyons's words, it extends and transcends syntactic rules. I will now proceed to attempt to analyze creative use of constructions by drawing upon accounts of creativity in psychology.

6.1.2. Creativity

Creativity here is meant in the now classic sense of well working associative memory, which allows one to combine two seemingly disparate elements. According to Mednick (1962), a person's creative potential is characterized by considerable individual variability. It is hypothesized that what the essence of creativity boils down to is finding what two or more seemingly unrelated things have in common. How creative a person is can be measured by means of the so called Remote Associates Test, or RAT for short. This task requires a subject to identify an element that links three words, such as *sore — shoulder — sweat* (here, the connecting word is COLD, as is illustrated in Figure 7). Generally, creative people tend to identify connecting words more often and more quickly. The point here is captured by the name of the task: the parts presented are fairly remote and thus require a person's performance outside of conventional rules of logic. Some people are better at solving RAT items than others. They will spot the unifying element, and others will not.

How does a creative association occur? As the following figure illustrates, the clue words *sore, shoulder,* and *sweat* activate large cohorts of expressions in which they can be found. Thus, *shoulder* appears in

shoulder blade, hard shoulder, etc. It can be assumed that a person looking for a common denominator between *sore, shoulder* and *sweat* pulls up three such cohorts at the same time and looks for expressions that may share a similar or the same element. The challenge is that the cohort contains elements that are not part of expressions with *shoulder,* but may be collocates, such as *shrug.* Yet they still have to be considered because they may very well be just the connecting element. This of course extends the cohort of possible associates. (The cohorts shown in Figure 7 are by no means complete. They do not include many other elements that a speaker may think of when primed with the clue *shoulder,* such as *chip on the shoulder*). Another complication is that the clue word can be meant in more than one sense or grammatical category. For example, the *clue* sore can be used as an adjective with the meaning 'angry,' as in *sore loser,* or as a noun with the meaning 'sensitive spot,' as in *bedsore.* Yet despite this enormous number of combinations (represented by arrows), most of which are dead-ends, the true common link is found sooner rather than later. It is my experience that if the common element suggests itself, it does so in the first seconds, and before the exact word emerges, it is preceded by a realization that the connection has been found.
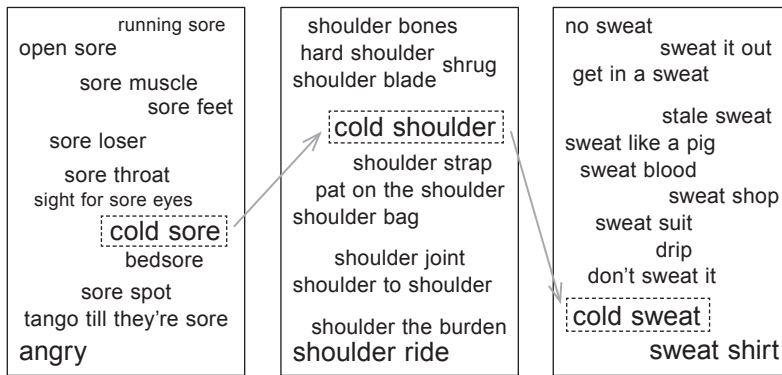
Figure 7. Remote association between *sore, shoulder,* and *sweat*

This is precisely what happens with constructional frames. Producing an expression like *first come first surf* is nothing like filling a slot in a grammatical construction; rather, the task requires some special literary skills. One can trace the process, where a speaker starts with two meanings that need to be combined in a memorable expression. One is the idea of Internet use and the other the meaning of 'priority.' This can be established based on a quick review of online uses of this modified expression which shows meanings roughly "priority for surfing (actual water surfing or

surfing the web) given by order of arrival." Thus, the modification is a re-sult of a RAT-style creativity association, where a speaker must look for a match between 'Internet use' and 'priority.' Note that this association is not as obvious or easy to make as it seems after the fact (once the result-ing expression is known). The cohort containing expressions to do with priority is larger than Figure 8 suggests. For example, not shown in the set is the saying *the early bird catches the worm* and neither are (most likely many) others that a brain storming activity would help find. Similarly, the list of possible Internet-related expressions is simply too large to be accommodated in Figure 8, where there is no room for *go online*, *log onto the Web*, *access the Internet*, etc. Still, a match can be found out of what is most likely a staggering number of candidates. Finding that match is possible thanks to a clever observation that *first come first serve* has just the right kind of meaning and one of its components, *serve* is similar in form to the word *surf*.
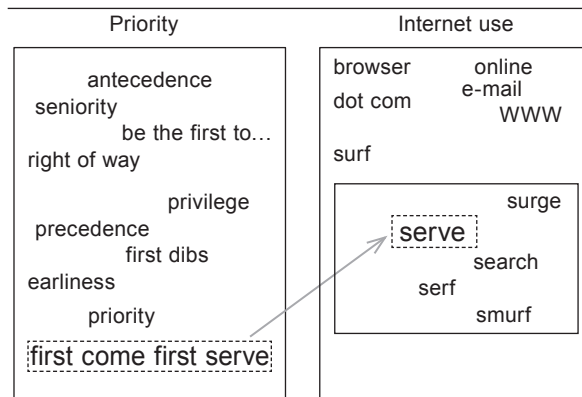
Figure 8. Remote association behind the expression *first come first surf*

None of the above-illustrated impressive feats are part of the usage of conventional constructions. First, constructions are not modified and they do not call for anywhere near the level of resourcefulness involved in adjusting *first come first serve*. Unlike *first come first serve*, which is the widely familiar original wording, there is no "original" use of a fully fixed construction that speakers bear in mind and consult when interpreting a new use. When a speaker inserts adjectives into the covariational *the xer the yer* construction, it is not as if some special creativity was called for in the process. Speakers do not modify *the xer the yer* frame, nor do they even make a reference, however, unconscious to some model form such as *the more the better,* for the construction is listed in the constructicon as a very schematic skeleton, not a fully fleshed out model to be modified.

Even if some instantiations of the construction are listed in the mental lexicon, such as *the more the merrier*, there is no reason to assume that they are consulted the way constructional frames necessarily are.

Indeed, the level of originality involved in modifications of constructional frames makes it clear that many such new uses are puns. Uses such as *easy crumb easy go*, *once married twice shy*, or *beauty is in the eye of the beer-holder* are evidently orders of magnitude more singular than *him be a teacher?!* or *twist the night away*. Constructional frames serve as material for word play that only some speakers are engaged in. They are not anywhere near the ubiquity of constructions such as the time *away* or *x's way*. Of course, pun-like modifications may be produced independently by different speakers, but it is certainly not the case that all speakers will think of a curious combination the way they use (effortlessly for the most part) constructions such as the covariational *the xer the yer*.

Constructional frames differ from constructions in one more important respect, namely the time needed to enter the language. While the eventual success of single lexical items, constructional frames and traditional constructions is a notoriously difficult to predict, as noted by authors like Pinker (2007, p. 307) or Metcalf (2002), constructional frames are more like single items in that they are capable of entering the language practically overnight, while traditional constructions are, from the point of a speaker, static elements of a language. They never arise within the lifespan of a single speaker. Rather they seem to have been around forever. Of course, traditional constructions must develop at some stage in history, but the time of entry was never a point in time, but a longer period spanning generations of speakers.

By contrast, constructional frames materialize instantaneously, often with the speakers being aware of the exact moment a given expression becomes part of the language. One such expression with a pinpoint date of entry is *mother of all battles.* This expression emerged in the English language at the time of the First Gulf War, coming from Saddam Hussein's January 17, 1991 proclamation "The great duel, the mother of all battles has begun." As J. Algeo and A. Algeo (1991, p. 380) explain, the phrase is a literal translation of an idiom, which is what the phrase has become in English. The translated phrase soon spawned countless collocational offspring such as *mother of all bombs, trips, novels, albums, smartphones, movies*, etc., where the part *mother of all* bears the meaning 'the greatest or most notable example of.'

6.1.3. The question of storage

Constructions are *learned* pairings of form and meaning, so if modified phrases are productive constructions, they should be listed in a way that accommodates productive use. For instance, the phrase *no-fly zone* can be recognized in a long list of copy-cat phrases that it inspired such as *no-lie zone, no-phone zone, no-go zone, no-spin zone, no-bully zone*, to name a few examples turned up in a perfunctory Google search. Is *no-fly zone* an instance of a productive construction? It is rather odd to suggest that users of English file away in their constructicons an entry like *no*-Inf *zone*. If they do, why not add an entry like *no-fly* N? This would be necessary to account for the possibility of phrases like *no-fly list* (an actual black list of people barred from boarding a plane), *no-fly day*, or *no-fly policy*. And of course, there is also the possibility of saying things like *yes-fly zone* or *dead-fly zone*. Invoking a construction here would not only create a burden on memory but would multiply entities (like 5a—c) that many speakers would probably never take advantage of.

(5) a. no fly ____
      b. no ____ zone
      c. ____ fly zone

Instead of listing such "constructions" with different empty slots, it would sometimes be less taxing on memory to list each new invented modification as an independent lexical item. In fact, forms like *no-bully zone* or *no-fly passenger* do seem like new lexical items, novel coinages, and not uses of a construction. If they were used often enough, they would gain currency and would eventually be listed as newly coined entries in dictionaries. (Note that even very frequent uses of constructions like *push* or *sleep one's way* are not listed in dictionaries; they were never neologisms, but realizations of the same construction).

Take another example, *tug of war* modified as coinages *tug of more, tug of gore*, or *tug of whore*. The modifications here involve a rhyme. It is unlikely that the common lexicon of users of English features an entry like *tug of* ____, where the slot comes with a stipulation that it is to be filled with rhyming nouns. It makes more sense to suppose that the lexicon contains the fully specified entry *tug of war*, which can serve as a template for analogical extensions. This is how such examples are analyzed by some authors. For example, Ayto (1999) and Hickey (2006) label *tug of love* an "analogical formation."

This is not to say that a pattern cannot over time become a productive construction. Something of the sort is probably happening to forms like *must-have, must-see,* and *must-read.* Initially a conversion from a verb to noun and adjective done with common verbs, these forms contain the segment *must-*, which has now become something of a prefix productively added to almost any verb of activity. Thus, it is possible to say that a product is a *must-buy*, a fragrance is a *must-smell*, a song is a *must-hear*, and there are even uses like *must-fuck*.

To sum up, lexical items and constructional frames enter the language by felicitous circumstance or force of authority endorsement—they become popular if they happen to be produced by popular figures in films or in memorable events, as was the case of Saddam Hussein's *mother of all battles*. Then, the subsequent fate of an expression and its rise as a constructional frame is a function of some creative people's reliable associative memory. What should be borne in mind is that associative memory is better in some people than in others or can be different in the same person at different times, while access to syntactic rules is automatic and for the most part, equal for all speakers. To put it otherwise, the kinds of modifications that perpetuate a constructional frame rely on resources of creativity not specific to any of the constructional frames in question. They are common to and can apply equally well to any constructional frame, but they are NOT relevant to the development of traditional constructions. These are mainly the product of event schemas.

6.1.4. A short digression on memes

Phrases like *mother of all battles* reworked in new incarnations bear characteristics of memes, defined by Dawkins (Dawkins, 1976) as "units of cultural inheritance." Typical examples of memes are music jingles, many of which are so infectious that they can haunt a person incessantly for hours, a maddeningly unpleasant experience which earned such patterns the title of *Ohrwurm* ('earworm') in German. While earworms are normally pieces of music, they can also be fragments of language. Like jingles, these too can be insidiously sticky and can replay themselves in the minds of speakers. In a 1876 short story *Literary Nightmare*, Mark Twain describes the experience of being haunted by the repetitive incantation of the sentence "Punch in the presence of the passanjare" heard on a bus. Dawkins notes that "[s]ome memes may be more infective

than others because of their inherent properties" (Dawkins, 1998, p. 304). In our case, one factor making a phrase particularly infective is the effective use of metonymic logic. An infectively attractive phrasal meme is then predictably more prone to be copied and modified.

6.2. Transfers of Meaning

6.2.1. Coercions

Next I wish to turn to coercions, an otherwise well-known phenomenon which seems to pose a problem to the approach I adopt. The following are instances of use of what seems to be a completely schematic construction which is nevertheless extremely rich in semantic detail. The meanings conveyed by the family of constructions in question are so remarkably, indeed irresistibly colorful that they could be taken as a dream falsification of the traditional partition into open- and closed-class ingredients of language.

(6) a. We're parked out back.
     b. I squeezed myself behind that van.
     c. I got hit in the bumper on my way to work this morning.
     d. The ham sandwich at table 3 raised a toast.
     e. The trombone had to leave early today.

Before anything else, it is important to note a terminological issue. Predictably, scholars involved in the study of these uses disagree as to how they should be analyzed. The above have variously been approached as transfer of reference phenomena (Jackendoff), or transfers of meaning (Nunberg, 1995).

   At first glance, it seems perfectly justified to view patterns discussed here as grammatical constructions. They certainly meet the criteria set out in Goldberg's definition of grammatical constructions:

> 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. (Goldberg, 2006, p. 5)

To the best of my knowledge, transfer-of-meaning coercions have never been officially certified as constructions and catalogued in the inventory of pairings of form and meaning, complete with a name. However, they are usually treated as ones. Zelinsky-Wibbelt (2010, pp. 192—194) discusses them as "elliptical linguistic constructions." Lapata and Lascarides (2003) mention them as examples of logical metonymy, that is "constructions in which the argument of a word in syntax appears to be different from that argument in logical form." Culicover and Jackendoff (2005, p. 227) list coercions among constructions "[creating situations] in which a piece of semantics has no corresponding piece in the syntax or phonology." Jackendoff justifies the decision to include them in the grammar by observing that "[o]ne might be tempted to dismiss these phenomena as 'mere pragmatics,' hence outside the grammatical system. But this proves impossible, because reference transfer can have indirect grammatical effects" (Jackendoff, 2003, p. 658). At first glance, they could be examples of maximally schematic constructions governed by rules such as the so called "statue rule" which allows one to refer to a statue by the name of the person that the statue portrays (Bouchard, 2013).

However, this terminological issue can be settled and shown to involve phenomena that are actually not constructions. The discussion below will seek to demonstrate that these examples deceptively resemble grammatical constructions such as the time *away* or the Co-variational Conditional construction, but in reality represent what Kay (2002) terms as "patterns of coining," after Fillmore (2002). Indeed, any semantically contentful pattern can be shown to exhibit non-constructional properties. My objective is not to remove these phenomena from grammar, for they clearly do have grammatical consequences, so they must be handled at least in part by grammar. However, in what follows, I wish to show that these phenomena differ from grammatical constructions.

6.2.2. Meaning transfer

Examples (6a—c) above differ from (d) and (e), and will be treated separately. Under Nunberg's (1995) analysis, "[t]he name of a property that applies to something in one domain can sometimes be used as the name of a property that applies to things in another domain, provided the two properties correspond in a certain way."

Adding to their unusual nature is that, according to Nunberg, we are not merely dealing with simple substitutions of reference confined to

single nouns, where *burger* can be intended to refer to a person. Nunberg approaches these uses as a case of meaning transfer, where an important role is played by predicates. He claims that examples like (7) work by transferring the meaning of the predicate, not the noun, so that the meaning conveyed by the predicate applies not merely to the poet's *oeuvre*, but to the poet himself.

(7) Yeats is still widely read. (Nunberg, 1995, p. 124, ex. 49)

The reasoning is that this transfer operation is only possible when the predicate can be construed as conveying a property that is relevant not only to the metonymous referent (poet's production), but is also significant for the person himself. This also applies to uses of pronouns, as in the example below, where the reflexive pronoun is to be interpreted literally, and not as a reference to Yeats's poems. In Nunberg's words, "we assume that people who read Yeats's poetry aloud are doing something to the poet as well." By virtue of performing one operation on the poet's work, a corresponding operation is also performed on the author.

(8) Yeats did not like to hear himself read in an English accent. (Nunberg, 1995, p. 122, ex. 40)

To use another example, in (9) *himself* is coreferential with *Ringo* and not his car.

(9) Ringo squeezed himself into a narrow space.

This is of course countertraditional approaches, which view such reflexives as being metonymous with an object associated with their antecedent (here, Ringo's car), Nunberg claims what amounts to saying that these reflexives are actually to be interpreted literally. That is, he argues that such reflexives refer to the person and not an object associated with that person, and comes to the startling conclusion that such reflexives and their antecedents "are coreferential in a strict sense." In the example above, this is only possible when the action performed on the car can be interpreted as an action performed on oneself.

Further, Nunberg is quite explicit in insisting that it is not the meaning of the reflexive that is transferred, but the meaning of the verb. If the reflexive alone were all there was to it, and if the verb played no role in the transfer, it should be possible to apply meaning transfers of the reflexives with any verbs, but as Nunberg demonstrates, it would be very odd to say.

(10) ?? Yeats wrote a lot of himself in sprung rhythm (Nunberg, 1995, p. 122, ex. 41).

Nunberg uses this and other examples to make a number of points, but the general claim is that transfer of meaning is not confined to a single word but is a more complex operation that spills over larger syntactic sequences.

Thus, at first glance, the impression is very much that the problem at hand is indeed a complex schematic construction with a rich meaning and not a lexical operation performed on single words.

6.2.3. Problems with the construction approach

There are several problems with this view. Anomalous examples like (10) above can be explained without invoking predicate transfer. Quite simply, sentence (10) is ill-formed for two more ordinary reasons. First, the meaning "work, oeuvre" is conveyed with an intransitive verb *write*, so it is enough to say *Yeats wrote in sprung rhythm* or *Yeats wrote a lot in sprung rhythm*, and this usage is established enough to block, by the principle of contrast (Clark, 1987), alternative expressions as less idiomatic. Secondly, the example is ambiguous, or, to put it otherwise, if a poet "writes a lot of himself," one could conclude that that poet incorporates thinly veiled autobiographical details in his work. Such uses are attested, as in example (11).

(11) Years ago, one of Carla's friends and fellow authors made the perceptive observation that Carla is only writing herself in her books.

These attempts to explain the odd grammar of (10) are of course only alternatives to Nunberg's approach. There does not seem to be any theoretical reason why one explanation should be preferred to another. But on closer inspection, Nunberg's analysis has some weak points. Suppose the anomaly of example (10) is in fact because writing does not and cannot have the same significance to a poet's *oeuvre* and the poet as well. One could conclude that the problem has to do with the verb of creation of *write* and the interpretation it imposes. Verbs of creation in general are special because their objects are not merely affected, but *effected*, or brought to existence. Obviously, the impact and significance of the operation on the *oeuvre* is incomparably greater than on the poet himself.

The asymmetry between the relevance to the *oeuvre* and the person is such that it is almost confusing to suggest the two can be compared. Yet, despite this asymmetry, other similar verbs, many of which are also verbs of creation suffer from no such problems. One can say (12) perfectly felicitously, meaning that Yeats repeated his writing or ideas, and even though the relevance to the work is not really matched by the relevance to the person.

(12) Yeats copied himself toward the end of his life.

Of course, it is possible to argue that copying one's words has a tremendous significance for the person, as it diminishes a person's reputation for creativity or whatever. But this is precisely what could be said about "writing oneself in sprung rhythm," the reading being that sprung rhythm could be a defining mark of the author himself. Indeed, this could and would be the interpretation of "writing oneself in a particular technique" if only the collocation were not preempted by something else.

Similarly, metonymous reflexives are found in a number of fixed expressions such as *repeat oneself* or *make oneself clear*, where the reflexive is understood to stand for the person's ideas or words. Further, similar uses are common in many established expressions, where the metonymy is so frequent and ordinary that it may go unnoticed. To *explain oneself* means "give an account of one's motives, provide the reasons of one's behavior," not "explain one's physical person" or less plausibly yet "explain the reason behind one's existence." To *align oneself with (someone)* is "to bring (one's views) into agreement with (someone else's views)." Crucially, what these examples show is that one can carve out of the larger meaning quite a number of senses that are related with it, but are not exactly synonymous with it: views, behavior, opinion. And the list does not end there. Other such established expressions which exploit indirect denotation include *expose oneself to, express oneself, self-absorbed, full of oneself*, or *sort oneself out*.

Some of these expressions do not come with a specific predefined intended referent. For example, in *exceed oneself* (or *someone*), the person being exceeded really means something about that person, not really the person in the physical sense. If someone is said (remarked) to have exceeded him or herself, it is understood that the person has surpassed a previously established standard, such as creativity, quality of work, endurance, or negative aspects like degree of arrogance or selfishness. Indeed any area of a person's behavior or activity might be the target of the meaning transfer, but crucially, it is not directly the physical person

that the pronoun denotes in the sense that it would with verbs like *photograph* or *lock up*.

6.2.4. Facets

At this point it is relevant to point out that the senses singled out in the preceding discussion are not exactly metonymous, but semi-autonomous senses referred to as facets (Croft & Cruse, 2004). The difference between fully autonomous senses and facets is important here, because the latter are considered to be part of the meaning of a word, and thus do not require invoking special semantic or syntactic operations proposed by Nunberg. That is to say, if they can be taken to be regular sub-manifestations of the meaning of a given word, that word can be used with their meanings without recourse to unusual constructions. Quite simply, facets can be confined to the lexicon and in consequence, no need will arise of invoking special constructional analyses for them. The following is a brief detour to explain some properties of facets.

In Croft and Cruse's analysis, facets are represented by meanings such as:

(13) a. *letter*: [COPY]   a yellowed letter.
                   [MESSAGE]   a love letter.
                   [TEXT]   a neatly hand-written letter.
     b. *film*:   [STORAGE FORMAT] a cellulose film.
                   [STORY]   an eye-opening film.

There is a sense that the above facets enjoy a degree of independence, whereas the modifiers pick out only one of the senses and ignore the neighboring facets. This effect also obtains with some predicates. In the examples (14a—b), the predicates *cross* and *promise* attach themselves to the [COPY] and [MESSAGE] facets respectively.

(14) a. They corresponded almost every day and often their letters crossed in the post.
     b. The letter concludes by promising reimbursement.

The reason these are not autonomous separate senses of *letter* is that they can be unified. While the modifiers and predicates in examples (14a—b) pick out specific facets of the words, some predicates operate on all facets

simultaneously. In (15), it is not possible to comb through a text that does not have both a physical form ([COPY] facet) and information content ([MESSAGE]) manifested by [TEXT].

(15) to go through the letter with a pen and highlighter.

There are also cases where all facets are profiled, but with differing degrees of prominence:

(16) to photocopy the letter.

Here all facets are present but the text takes center stage. What is photocopied is the exact shape of the text, the font, its graphic layout, etc. As a result, the content is copied (and that is the point of making a photocopy in the first place), and for a photocopy to be possible, a physical original copy is needed.

It is intuitively clear that there exists a global sense that serves as a contact point between the facets such that even when only one of the facets is more prominent than the other ones, these are readily associable and can be called up easily.

Another signal of unification is that facets can co-occur serially without zeugma.

(17) Frank sent me a hardly legible, but very sweet letter.

Note that a similar serial composition is not possible with fully independent senses.

(18) *Frank works for a reputable but steep sandy bank.

Unification is also evident in the presence of multiple facets in the figurative extensions of meanings. For example, the expressions *turn a new leaf* and *take a leaf out of someone's book* both rely on access to the same facets of the concept of 'book,' [MESSAGE] and [PHYSICAL COPY]. When we interpret the expression *turn a new leaf,* we compare the content of a book with the storyline of a person's life, and we make use of the image of a [PHYSICAL COPY] of a book, complete with pages that can be turned. Similarly, the meaning 'imitate someone' in *take a leaf out of someone's book* relies on reference to the [MESSAGE] mapping onto a person's unique style, imagined as depicted on the pages, which can be stolen.

It should be noted here that facets are a special kind of metonymy, distinct from whole-part and part-whole metonymies, even if they are all

often treated as instances of the same general mechanism by authors like Langacker (1999). As Bierwiaczonek (2010) observes, whole-part metonymies involve activations of referents that act as independent participants. For example, in a sentence like *Roger chewed on coca leaves*, what the subject *Roger* really refers to is not the whole person, but the active zone 'Roger's mouth and teeth' (a whole-to-part correspondence), but 'mouth and teeth' cannot be distilled from the whole as a separate component. The sentence cannot be paraphrased as *??Roger's mouth and teeth chewed on coca leaves*, while such paraphrases are natural for facet coercions, so that one can easily replace *Yeats did not like to hear himself read in an English accent* with *Yeats did not like to hear his work read in an English accent*.

The transfer of meaning might be an extension of a more general tendency of verbs to pick out a relevant aspect of a thing or person they take as their object, as they do not always denote that thing or person wholesale. For example, although the verb phrase *ask yourself* means the person asking a question is at the same time the respondent, but a question is really a challenge to a person's knowledge, beliefs or principles, and this verb is assumed to focus only on these aspects of a person, not the whole person. These facets are evident enough in quite novel but natural enough uses such as the following sentence.

(19) With his insistence on the Übermensch ideal, Nietzsche the work may have seemed unforgiving, ill-natured and cynical, but Nietzsche the man was actually very warm and understanding.

The point of this example is that the name of the author is in itself ambiguous between at least two facet readings, which can both be possible interpretations, at least in this context of public perception or evaluation. This is why the name has to be disambiguated between these two possible and equally justified readings.

It is possible that there is not a closed inventory of facets, and new ones can be both distilled out of the global Gestalt fairly spontaneously and understood equally effortlessly. In a BBC *Great Lives* program about D.H. Lawrence, the host Matthew Parris said that there are no remaining recordings of D.H. Lawrence's voice and then added:

(20) If any of you have any grandparents that have any D.H. Lawrence, I'd love to hear the sound of his voice. (Great Lives, D.H. Lawrence, 17 December 2010)

Delineating single facets is not only a convenient syntactic shortcut enabling one to say "Picasso" instead of "Picasso's painting." The ability to

partition a meaning into its facets is an important tool allowing speakers to debate meaning distinctions.

The boundary between the facets can sometimes be a crucial point, in fact instrumental and central, as in the debate on whether Shakespeare was one person or many.

(21) [T]here are two William-Shakespeares, one actor and another poet. http://journals.berghahnbooks.com/jrs/sample/downloads/page0019.pdf

(22) [M]any scholars argue that Shakespeare the man was a sham, that he wasn't that balding man with the earring from Strafford, but someone else entirely or many someone-elses. I'm talking about Shakespeare the work, the style, the influence, Shakespeare the words. Shakespeare isn't just a figure in popular culture; he is one of the architects of it. http://www.goodreads.com/author/show/6506141.Tobias_Niell/blog/tag/shakespeare

An analysis of these examples leads to a rather counterintuitive observation. Apart from a handful of uses like *Mr. Such and such died*, where death affects all aspects of a person (not only the physical person, but also that person's ideas, behavior, preferences, etc.), the "entire person" reading is not an overarching reading subsuming all other readings, but merely one among many, and it is not clear whether it is the main reading.

Another way to look at it can be found in McCawley's (1968, p. 130) suggestion that "probably all languages have implicational relationships among their lexical items, whereby the existence of one lexical item implies the existence of another lexical item, which then need not be listed in the lexicon." For example, the adjective *warm* in the sentence *This coat is warm* is ambiguous between meaning "having a relatively high temperature" and "preserving a relatively high temperature." McCawley's claim is that only the first meaning need to be listed in the lexicon; the other one seems a derivative and can be predicted based on the existence of the original meaning. McCawley does not specify what derivational principles apply, nor what meaning-shift patterns are possible, but it is intuitively valid that the second meaning is not an independent entry to be listed separately. One clue supporting this conjecture is that this pattern is found in many languages. The same kind of ambiguity is found in the following Hungarian sentence:

(23) Ez a kabát meleg. (McCawley 1968, p. 130, ex. 14)

The same happens in Portuguese, French, Russian, Polish, Korean, and probably any other language.

(24) a. Este casaco é quente.
    b. Ce manteau est chaud.
    c. Это пальто теплое.
    d. To palto jest ciepłe.
    e. 이 옷이 따뜻하다

The point here is that it would be quite far-fetched to propose a grammatical construction that would convert an adjective with one meaning into a new adjective with a related meaning. Under the rubric of implicational relationships, McCawley also includes cases of meaning correspondences involving meaning facets:

(25) a. John has memorized the score of the Ninth Symphony.
    b. The score of the Ninth Symphony is lying on the piano. (McCawley 1968, p. 131, ex. 15—16)

The name implicational relationship as defined by McCawley suggests that the derived meanings exist. It is not clear whether by "existence" McCawley meant that they are actually present and co-occur with the original meanings, but this is rather suspect because that would mean that a meaning automatically breeds its derivative listed in the lexicon. It is more likely that such secondary meanings can be generated as needed according to a logical pattern. McCawley's assertion can be modified by means of a minor tweak as follows "the existence of one lexical item implies the *potentiality* of another lexical item."

Granted, there is a difference between these straightforward implicational relationships and the clearly more elaborate correspondences such as DRIVER FOR CAR, but it makes sense to include them in the lexicon as operations that extend meanings of words through recognizable metonymic patterns. To include meanings like 'car' among facets of a person is not as facetious as it may at first seem (The facet in question could be expressed as [PERSON IN A CAR]). This may seem absurd at first, because a car is not really a part of a person, but as recent discoveries in cognitive science show, humans have a remarkable ability to treat various artifacts as extensions of their bodies. In a provocatively titled book *Natural-Born Cyborgs*, Clark (2003, p. 8) argues that "[t]he line between biological self and technological world was, in fact, never very firm." This surprising conclusion is given support by a number of observations. To use an example relevant to the facet under consideration, Clark

(p. 103) notes that experienced drivers are capable of deferred sensation of the road. One can have the "experience of feeling the road" through the mediation of the car's tires, axles and other parts that are external to the body but not beyond its control. Further, the effortless automaticity involved in driving a car (most drivers experience difficulty when asked to consciously reflect upon the question of which pedal is the brake) is comparable to sensorimotor control of one's limbs. This effortlessness is matched by a sense of remarkable control over the car, even when advanced technology takes over more and more tasks away from the driver. Clark observes that "[o]nce drivers are accustomed to ABS, they cease to feel as if the braking is in any way "out of their control."[1] (2003, p. 99) Finally, the fact that a person is inside a car makes the sense of incorporation even stronger. All of the above makes it natural for people to literally identify themselves with non-biological "extensions," which become true prostheses.

The general point to be made here is that the aforementioned operations do not need to be ascribed to specific constructions. They are most likely not even strictly linguistic operations. They can be handled easily enough by reference to metonymy, a complex enough mechanism to be responsible for the intricate effects observed above. The fact that different kinds of metonymy (e.g. facets and active zones) display distinct behaviors and the differences recur cross-linguistically suggests that metonymy is an independent cognitive skill. It is not necessary to posit additional mechanisms to account for the meaning transfer effects discussed above.

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[1] Recent research in neuroscience suggests that non-biological objects appear to be organically integrable into the functioning of the brain. In an ingenious experiment, Ramachandran tricked student volunteers into perceiving objects such as a table as part of their own body (Ramachandran & Blakeslee, 1998). This was achieved by hiding the student's hand from view and then stroking it while at the same time stroking the table surface for several seconds. At some point, Ramachandran hit the surface of the table with a hammer suddenly as the student watched. This resulted in a strong GSR [Galvanic Skin Response]. As Ramachandran notes, "[i]t was as though the table had now become coupled to the student's own limbic system and been assimilated into his body image, so much so that pain and threat to the dummy are felt as threats to his own body, as shown by the GSR" (Ramachandran & Blakeslee, 1998, p. 61).

6.3. Universal Grinder

There seem to exist schematic constructions with very detailed and ornate meanings. Some of the most remarkable examples include constructions involving universal grinder operations, as in examples (26) below, where a countable noun is used without an article and is meant to be interpreted as a mass noun denoting the substance coming from the animal in question.

(26) a. Have you ever had *peacock*?
      b. I'll order *chicken*.
      c. The smell was unimaginable and there were bits and pieces of *cow* all over the place. http://midcurrent.com/books/keeper-the-dead-cow-department

In the literature, sentences like (26a—c) are known as examples of so called "universal grinder" (Jackendoff, 1997a, p. 53), an operation involving count-mass coercion whereby countable noun referents are conceptualized as substances with no internal structure. The fact that this conversion only applies to animals and their meat, but not to fruit and juices obtained from them (one cannot say *Sprinkle your salad with orange*, where orange should mean 'orange juice') has been taken as evidence that the constructions are conventionalized and stored as lexicon entries, rather than being general conversion rules that apply to any analogous situation. In other words, we seem to be dealing with a highly schematic construction allowing for a specific meaning to be selected. It is as if such constructions were, in contradiction with their closed-class nature, sensitive to fine graphic details. Bierwiaczonek (2013) approaches such uses by means of what he terms "constructional metonymy," by which he means the activation of a grammatical construction through its part. Bierwiaczonek uses examples such as *the rich, the poor, the jobless*, each of which activating the construction [the Adj PEOPLE]. Here one could analyze cases (26a—c) as being parts of a larger [animal MEAT] pattern, where the part "meat" is omitted.

However, while constructional metonymy may be used to account for examples provided by Bierwiaczonek, it does not capture all the possible uses of the grinder operations. While it is true that a degree of conventionalization holds for these patterns, the readings obtained are not as specific as it seems. It is not the case that the construction always conveys 'animal = meat' meanings only. Cases of the construction can be found

where the name of an animal stands not for the meat, but fur or skin, as in the following examples:

(27) a. If money is not an issue, there are briefcases made of *alligator* or *crocodile*.
      b. a luxurious coat made of *angora rabbit* (fur).

And while *orange* cannot mean 'orange juice,' it can safely refer to cut up orange wedges in *Halloumi salad with orange and mint*. Such uses also include other non-animal foods (*We're having pizza and broccoli*). There are also uses where food units are reframed as inedible substances, as in the expression *end up with egg on one's face.*

Then there are uses where an article-free noun refers to smell, as in the following sentence:

(28) Thou smell of *mountain goat*. (William Shakespeare, Henry V)

The idea that the construction is dedicated to animal-meat meanings is obviously a result of the preponderance of exactly such uses. In reality, other clearly distinct instances can be chanced upon in many sources. The following is an excerpt from *Love in the Time of Cholera* by Gabriel García Marquez, where not an animal, but an artificial object is subject to the grinder operation.

> Once he tasted some chamomile tea and sent it back, saying only, "This stuff tastes of window." Both she and the servants were surprised because they had never heard of anyone who had drunk boiled window, but when they tried the tea in an effort to understand, they understood: it did taste of window. (Marquez, 1985)

6.4. Ham Sandwich Coercions

6.4.1. Coercions in the opposite direction

We now turn to patterns which may initially resemble the above uses, but are in fact a qualitatively different group. Examples (29a—f) represent a different kind of coercion. This additional group features a number of diverse instantiations:

(29) a. The ham sandwich at table 4 wants another coke.
     b. The pizza in the corner is winking at you.
     c. The liver/kidney/bladder in room 312… .
     d. The flute is positioned closest to the conductor.
     e. The violin fell asleep during the concert.
     f. Romeo was late for the rehearsal.[2]

Known as the "ham sandwich" coercion and body banter metonymy, these are similar to the transfer of meaning uses described above (in fact, Nunberg, 1995, treats them together), in that both are metonymous in nature, but the examples presented here are the opposite of the facet-based transfers of meaning. That is, while in the latter, individuals serve as anchors to refer to objects related to them, here it is metonymous objects that help identify individuals.

Their logic is predictable enough. Like in the case of the facet transfers, here metonymy is the binding force. Thus, their success cannot be due to novelty alone; they result from people's predilection for metonymy. Put another way, they succeed for the same reasons why metaphoric expressions are so pervasive. As Pinker (2007, p. 266) puts it, "[p]erhaps they are rare pearls that drop from the pens of an elite corps of bards and scribblers and then are hoarded by a grateful populace. But given their prevalence in language, it seems more likely that they are the natural products of the way everyone's mind works."

It is a matter of some debate how exactly these should be analyzed. There is little consensus on their exact status. Nunberg (1995) addresses the issue of whether they should be treated as transfer of reference or transfer of meaning (and favors the latter approach). Others, like Velasco (2009), see this as a case of reference transfer. Are they strictly lexical conversions that have nothing to do with syntax? Are they grammatical constructions?

Some authors lean toward a view of such uses as constructions and include them among other learnable items in a speaker's linguistic repertoire that serve to pair specific forms with meanings. Nunberg notes

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[2] Productive metonymous reference patterns can emerge spontaneously for a specific purpose in ephemeral niche-like environments, and then disappear along with these environments. In her book *The Zookeeper's Wife*, Diane Ackerman tells the true Second World War story of the Warsaw zoo, whose director used animal enclosures and cages to shelter Jews hiding from the Germans. Because German soldiers visited the zoo on a daily basis, the director and his wife devised a code in which they referred to specific Jews by the names of the animals in whose cages they were hiding. Thus, they would say "I think maybe the lions are hungry" or "take this to the bears." (*Book Chronicles Warsaw Zoo as Refuge in WWII, NPR* Published: January 18, 2008). http://m.npr.org/story/18222827

that they are associated with specific syntactic properties (*That/*those French fries is/*are getting nervous*), which suggests a degree of conventionalization normally associated with learnable items. According to Culicover and Jackendoff (2005), "there are conventionalized principles of interpretation that permit unexpressed semantic operators when necessary for semantic/pragmatic well-formedness" (2005, p. 227). In the case of the above examples, the nouns denoting meals are interpreted as customers associated with them: "[a] piece of meaning that can be left overtly unexpressed leaving it up to the listener to reconstruct it" (2005, p. 228). Jackendoff (1992) argues that these operations cannot be pragmatic only, because they exhibit interactions with binding theory, and can therefore be viewed as being syntactic in nature. The view of coerced uses as constructions does indeed seem tempting, given that they seem conventionalized in two ways. They are established patterns and deviations from them are rare. First, there is a strict meaning pattern ORDER FOR CUSTOMER (Ruiz de Mendoza Ibáñez & Velasco, 2002), and not say, CUTLERY TYPE FOR CUSTOMER or TAB FOR CUSTOMER. (Some theoretically possible extensions are never exploited: for example, the name of a company cannot be used to refer to, say, its customer's pet). Second, the operation is realized by means of a common syntactic frame, where the noun naming a meal order is preceded by a definite determiner; it is hard to find uses with indefinite determiners or indeed imagine a context where indefinite reference would make much sense (30c—e).

(30) a. The beefstake at table 4 is getting impatient.
      b. That burger in the corner wants his check.
      c. ? I remember there was once a ham sandwich that fainted.
      d. ? Any potato salad that doesn't tip will not be served again.
      e. ? That rude fat ratatouille will get himself thrown out of the joint.

To sum up, they are entirely schematic, with sentences built on the formula *Meal* $_{PP}$[location] predicate, at the same time very detailed in terms of semantic content. What makes the uses in (30a) special is the construction's ability to equate a food and a patron at a restaurant. One could wonder, if this is not an exotic semantic effect, then what is? The construction seems to come with an inbuilt bizarrely specific description of what kind of participants (paying customers) are to be picked out by reference to what kind of objects (their meals).

First, the semantic effect generated by the coercion uses is not as exotic or improbable as it may at first appear. It seems vaguely intuitive that patrons are associated with their orders and patients with their diseased organs. As some medical staffs admit, "We are socialized to—disease is

the thing. Yeah, I slip. We all do and see the patient as a disease."[3] Thus, one could argue that the patient-organ equation is not even a linguistic operation, but a more general cognitive abbreviation that finds its way to forms posing as constructions.

The following discussion will attempt to establish that the constructional approach to coercions is unjustified. I will attempt to demonstrate that ham sandwich coercions are not conventionalized constructions, but rather straightforward instantiations of fairly rare metonymies. It will be proposed that it is the infrequency of the metonymies that is responsible for the construction illusion; the infrequency is confused with conventionality.

6.4.2. Source-in-target and target-in-source metonymy

Ruiz de Mendoza Ibáñez (2000) distinguishes two types of metonymy, which he terms source-in-target and target-in-source metonymy. In the case of target-in-source metonymy, the referent accessed metonymically is contained within the conceptual domain specified by the source expression. For example, the noun *subway* in the sentence *The subway goes on strike* refers to the subway personnel, a target which represents a part of the whole named in the source expression. In source-in-target metonymy, the situation is reversed and the target is a larger entity whose part is named by the source expression. This type is exemplified by uses such as *four wheels* referring to the whole car.

Despite the inverted mirror-image-like correspondence of the two types suggesting an elegant binary division, known examples of metonymy are not distributed evenly between the two categories. There are theoretical reasons to predict that the majority will fall within the target-in-source metonymy.

Metonymy is motivated by three competing forces. First is the salience of the point of access (Kövecses & Radden, 1998). Second is the possession asymmetry. Third is alienability of the possessive relation.

The first one is probably the single most robust factor. Given enough salience of the source, it can override the other two constraints. This constraint has been addressed in the literature and I will not discuss it at length here, other than note that certain contextual conditions make

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[3] Hans A. Baer, Merrill Singer, Ida Susser, *Medical Anthropology and the World System* (Westport, CT: Praeger Publishers, 2003).

a metonymous association very likely. For example, in the much discussed ham-sandwich schema, the inaccessibility of the patron's name makes it necessary to use a stand-in name and the salience of the patron's order makes it a very logical and economical choice. But as should become clear below, this is a rather unusual setup.

The point to be made here is that when the two parts are contextually equal, and when none enjoys a salience head start, the direction is from possessor to the target, not vice versa.

6.4.3. Parallels with possession

The possessive construction serves to help identify referents through so called reference point relationships. As Langacker puts it, "the possessor functions as a reference point providing mental access to the entity possessed, its target" (Langacker, 2008, p. 505). Thus, for example, the phrase *Jocelyn's dog* helps place a dog through the reference point, its possessor.

Langacker observes that possessive expressions are generally irreversible; they display an "inherent asymmetry of reference point relationships," so that the mental path is from the possessor to the possessed, but not the other way round. While it is natural to say *Jocelyn's dog*, it is very hard to even interpret **the dog's Jocelyn*.

To some extent, the same seems to be true of reference transfers. Reference transfers where the possessed is identified through the possessor (31) are more frequent than cases where it is the possessor that is denoted by means of its possessed (32).

(31) a. James squeezed himself between two trucks.
     b. Harry got shot in the leg.
     c. We read a lot of Joyce.
     d. They managed to authenticate a previously unknown Picasso.
     e. The new Pinker is every bit as funny as the previous one.
     f. The latest Metallica is pretty disappointing (= Metallica album).
     g. The Times hasn't arrived at the conference yet (= the reporter from the Times). (Lakoff and Johnson 1980, p. 35)
     h. Estonia scored in the first two minutes of the game.
     i. Langley abandoned its operatives (= the CIA whose site is in Langley, VA).

(32) a. The ham sandwich at table 4 left without paying.
      b. Many have written about the need for the medical profession to see patients as individuals rather than the "*kidney in room #2.*" http://www.northshore.edu/academics/departments/wha/custom3
      c. The trombone had to leave earlier today.

Why then do any such cases exist if reference to the possessor through the possessed is cognitively unusual? If coercive metonymy follows a parallel logic to the irreversibility of possessive relationships, examples like (32) should not occur at all. However, the possessive construction too is sometimes used in the opposite direction, as in *the wallet's owner, the child's father*, or *the group's supervisor.* Note that this is only possible with relational nouns, in whose very nature it is to profile a relationship between one participant (e.g. *father*) and its argument (*child*). It is perhaps this that makes a reversed alignment clear enough. The absence of a profiled relationship makes examples like **the toy's child* sound strange, because whatever the relationship between the toy and the child, it is not a defining property that makes a child a child (a child is considered a child even if it has no toys, while one cannot be a father without children). A clear relation is probably what makes (32) possible. In (32a), a restaurant patron intended by the phrase *the ham sandwich* may not be a classic relational noun, but it does assume a meal order that makes that person a customer. Similarly, a patient invoked in (32b) presupposes a diseased organ. Such quasi-relational characteristics act as profilers justifying the reversed alignment of the coercion.

6.4.4. Not exactly conventionality

The examples of coercions presented above present a paradox. On the one hand, they feel so intuitive that they seem natural reflexes that do not need to be learned, but then there are clear examples that bear marks of conventionalization. Why are instances like the ham sandwich coercion attested while other theoretically possible ones are not? For example, if a customer sits near the door, why is he or she not likely to be referred to as "the door"? Is it because such patron-topography coercion is not conventionalized?

I would like to hazard the claim that conventionalization plays no part here, and in fact, the conventionalization in question may be an illusion. It is true that ham sandwich coercions appear conventionalized if only

because they are rare, among many other possible—but unrealized—coercion patterns. However, what makes them rare is that they are "fortunate" uses that involve legal reversals of the predominant possessed-through--possessor pattern. As was shown above, such reversals are possible only with relational nouns, which makes them rare enough. Ham sandwich, body banter and orchestra banter are rare examples of situations involving participants standing in quasi-relational correspondence with their possessed objects (patron—meal, patient—organ and player—instrument). Other patterns are not found because they would be unjustified impossible reversals of the possessed-through-possessor pattern. Thus, the reason a patron at a diner cannot be nicknamed "the door" is that a patron does not stand in a relational position to a door.

Of course, this is not to say that conventionalization may never take place. Witnessing such patterns may consolidate their use (through processes like entrenchment as defined by Bybee, 2003), and certain specific patterns may become conventionalized in some speakers, despite their potential of being generated by rule. Instead, the point here is that conventionalization does not need to take place for these uses to become part of the constructicon. Indeed, it is likely they are not listed in most people's constructicons at all and neither do they need to be. They should be as clear to listeners as spontaneous nicknames heard for the first time. (I am assuming that no one would postulate a "nickname construction" activated to process uses like *Senator Long Face* for John Kerry).

A speaker may create analogous uses even after hearing a ham sandwich sentence only once. What makes such uses compelling is not their status as established constructions, but their effectiveness and transparency thanks to compliance with metonymic logic. As such they are something of a reflex that can emerge spontaneously, independently in different speakers.

When they do become perpetuated, as they often do, it is as a result of a propagation process where a phrase is picked up by a linguistic community and reworked in a series of phrasal remixes. These new versions are variations on the theme and their *raison d'être* is owed in part to their association with the original. This makes such uses more similar to constructional frames like *mother of all battles* or *once bitten twice shy*, rather than to true constructions. It makes more sense then to view these phrases as archetypes that can help give birth to similar phrases. They are quotations that become a material to be experimented on, yielding new creations, which though associated with their original source, are new phrasal units, more like new lexical items, and not uses of a grammatical construction.

6.5. Concluding Remarks

Effects exhibited by the above uses may at first glance seem strikingly un-closed-class-like. Instances like the coercions presented in the previous section, may initially appear to be sensitive to fine semantic distinctions, in direct contradiction with the general hypothesis of this book. However, upon closer consideration, rather than being small autonomous constructions, they turn out to be regular-enough products of more general principles, whether those of linguistic processes like metonymy or facet selection or those of extra-linguistic abilities like remote association.

Goldberg claims that "all linguists recognize that a wide range of semi-idiosyncratic constructions exist in every language, constructions that cannot be accounted for by general, universal or innate principles or constraints" (Goldberg, 2003, p. 222). Linguists should also recognize that the presence of these principles and constraints in many apparently semi-idiosyncratic constructions is not immediately obvious. The aforementioned cases can easily be mistaken for colorful constructions, as indeed they are, only because signs of the workings of general principles and constraints are missed.

Finally, a point hinted at above, many uses described in this chapter are not instantiations of constructions, but coinages, genuinely independent lexical items. Even phrase-length examples (e.g. *mother of all battles, mother of all storms*) are often memorable enough to be circulated and potentially capable of making it into dictionaries. They are not constructions but what Fillmore (2002) and Kay (2002) call "patterns of coining," that is patterns "that appear in language data that do not qualify as parts of a grammar (i.e., as grammatical constructions)" (Kay, 2002, p. 1). Crucially, the point that should be clear from this chapter is that whenever a stable syntactic sequence appears to exhibit semantic properties too graphic or in any way too elaborate for a schematic pattern, it turns out to differ significantly from a grammatical construction. They are governed by different principles; they do not emerge through grammaticization, and their use involves degrees of creativity never called for by true grammatical constructions.

7. Final Remarks

The hallmark of Construction Grammar, its revision of the hypothesis of syntactically transparent semantic compositionality, can be and has been taken to extreme by expecting syntactic patterns to behave semantically like lexical items. However, just because syntactic constructions used to be falsely believed to be transparent does not mean that they should now be vividly colorful. That would be going from one extreme to another.

Construction Grammar does not have to be a denial of syntactically transparent semantic composition. (After all, the belief still stands that the bulk of conceptual structure of a sentence is conveyed by individual lexical items). The innovation consists in assuming semantic compositionality as a "default in a wider range of options" (Jackendoff, 1997a, p. 49). But although there are alternatives, a default is a default. That means that as much conceptual content as possible should be attributed to lexical items composing the sentence and only what cannot be accounted for by means of semantic composition can be claimed to be the semantic contribution of a syntactic construction. Thus, as a carrier of meaning, a syntactic construction is a special vehicle. It conveys only what lexical items clearly do not.

If we accept semantic compositionality as a default option, we should be prepared for one corollary, namely that of restraint in how we assign a sentence's conceptual structure to its sources in that sentence. If a given meaning can by default be shown to come from lexical items, it should not be ascribed to a construction. It is only if a corresponding match cannot be found among lexical items that it can be claimed for the construction.

The lexicon-syntax divide is not incompatible with the general spirit of Construction Grammar. It does not prevent constructions, even entirely schematic syntactic patterns, from having meanings. However, in

describing semantic effects observed in a construction, care should be taken not to welcome too quickly those meanings that are implausible candidates of meanings of closed-class forms. Exactly how contentful a construction's meaning is, should correlate with how lexically filled it is, and the more substantive meanings should be accounted for by reference to the lexical item inclusions present in the construction. It is justified to hypothesize that the behavior and nature of a category of constructions should correlate with some aspects of its form such as the number of items that make it up (is it a morpheme or a phrasal pattern?). Also, one should admit the possibility that some contentful semantics is part of grammar. Talmy posits a "universally available inventory" (Talmy, 2000a, p. 38) of meaningful categories that are part of closed-class forms, and it could be assumed that this inventory includes frequently recurring categories like possession, path, manner or result identified as part of the semantics in constructions discussed here. These categories may strike one as being quite contentful, and therefore in contradiction to the thesis of this study, but they have the advantage of being widely attested in a range of grammatical forms across languages: This way, they are quite unlike readings of 'difficulty' or 'incredulity,' which are postulated for one single construction each, so in other words, these readings do not enjoy independent corroboration that they can be part of the meaning of a closed-class form.

Far from being a passé illusion to be discarded as a continuum, the lexicon-syntax distinction offers important insights that may help describe grammatical constructions more accurately.

What implications do the above observations have for our model of the constructicon? How can one reconcile the division, however blurred, between the lexicon and syntax with the constructionist insight that all pairings of form and meaning must be stored, likely in one enormous super-store? The models of the constructicon presented at the beginning, in section 2.4, do not capture the qualitative differences between items that tend toward either the closed-class or the open-class extremes.

A possible alternative visualization of the constructicon could be represented by the following diagram (Figure 9). The three components are still present here, and the constructicon cuts across them all as well, but there are differences between the various regions of the constructicon. Essentially, in the closed-class parts of the constructicon, forms contain more syntactic content and less semantic content. It could even be ventured that roughly, the more syntactic information a given form specifies, the less semantic and phonological content it has. Thus, while the phonological and semantic contents seem to be correlated directly, and this pair seems to be inversely proportional to the syntactic information.
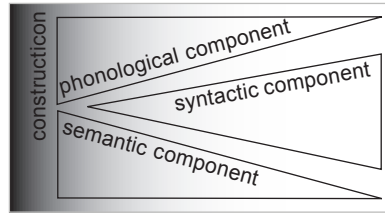
Figure 9. Constructicon sorted out

This model has some intuitive appeal. While there is still considerable controversy about how much semantic content a general syntactic pattern can convey, it should be obvious enough that, depending on the amount of lexical material embedded in it, such a pattern will have little or no phonological stipulation. On the other hand, a lexical item like *keyboard* may carry very rich phonological and semantic information. Note, however, the hedging tone of *may* here, as not all lexical items use their semantic potential: While some are very detailed in their meaning (e.g. *lasso*), others are quite general (e.g. *thing, make*). (But while lexical items can carry less semantic content than they are capable of, grammatical elements do not carry more semantic content than they are capable of).

A lexical item will also carry proportionately less syntactic information. It could even be argued, quite controversially, that some (though certainly not all) lexical words carry next to no syntactic information. To take one example, apart from being classified as a noun, the word *beer* does not carry argument structure frames and it is even fairly neutral concerning its mass/count categorization.

This model also accommodates the whole gamut of the contents of the constructicon, ranging from substantive lexical items to schematic constructions. It assumes that they can share important properties—that is both carry syntactic specifications of combinability, and both carry meaning, and can be located across the divide if it can be pointed out, as it will be, that they are not contentful or specifiable to the same degree.

Finally, it shows how modularity can coexist with the continuum view. On the one hand, it makes provisions for some items to have trans--categorical membership, if they draw on various components equally; and on the other hand, it accounts for items located toward the extremes of the traditional classes. Function forms such as the subject-predicate word order have no phonological content and only purely syntactic responsibilities. If there is any semantic contribution from such forms, it is irreparably abstract and anti-contentful.

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Konrad Szcześniak

Znaczenie konstrukcji
Kognitywne spory o podział na leksykon i składnię

Streszczenie

Niniejsza praca poświęcona jest analizie konstrukcji gramatycznych w ramach kognitywnego modelu Gramatyki Konstrukcji (*Construction Grammar*). Celem pracy jest wykazanie, że tradycyjny podział na leksykon i składnię (oraz na wyrazy leksykalne i funkcyjne) podany w wątpliwość w wielu najnowszych modelach językoznawczych, jest nadal aktualny i nie musi być sprzeczny z założeniami językoznawstwa kognitywnego. Opracowanie rewiduje przesłanki, którymi kierują się obecnie językoznawcy odrzucający podział na leksykon i składnię. Jedną z tych przesłanek, którą kwestionuje niniejsze opracowanie, jest rozmycie granic między leksykonem i składnią. Ważnym argumentem przemawiającym za odrzuceniem podziału są spostrzeżenia płynące z kognitywnych analiz konstrukcji gramatycznych, które wskazują na zdolność schematycznych konstrukcji do wyrażania złożonych i bogatych treści semantycznych. Takie zdolności semantyczne są sprzeczne z przyjętą charakterystyką form funkcyjnych, w myśl której formy te są ubogie w znaczenia albo wręcz ich pozbawione, ponieważ ich głównym zadaniem jest spełnianie funkcji gramatycznych. W ostatnich latach, autorzy wielu opisów konstrukcji gramatycznych przekonywali, że konstrukcje gramatyczne mają właśnie znaczenia typowe dla wyrazów leksykalnych. Niniejsza praca skupia się na szeregu konstrukcji gramatycznych i wykazuje, że najnowsze analizy konstrukcji, takich jak „*x's way*" czy „time *away*," przypisywały im przesadnie bogate znaczenia. Powtórna analiza zachowania tych form skłania do wniosku, że zawartość semantyczna konstrukcji jest dokładnie tak uboga i schematyczna, jak przewiduje to tradycyjna charakterystyka wyrazów funkcyjnych, podczas gdy bogate znaczenia obserwowane w ostatnich analizach są jedynie efektami pragmatycznymi wynikającymi ze specyfiki konkretnych kontekstów.

Główna teza opracowania uzasadniona jest dyskusją o następującej strukturze. W rozdziałach 1 i 2, omówiony jest tradycyjny podział na leksykon i składnię, po czym przytoczone są argumenty autorów proponujących jego podważenie. Następnie dokonany jest przegląd cech odróżniających wyrazy leksykalne od funkcyjnych, przy założeniu, że znaczna liczba różnic między tymi grupami wskazuje na prawdziwość podziału na leksykon i składnię. Rozdział 3 zawiera krótkie opisy konstrukcji, z których kilka było już wcześniej analizowanych w literaturze kognitywno-lingwistycznej. Niniejsza analiza dowodzi jednak, że konstrukcje nie wykazują się wyjątkowo bogatymi znaczeniami przypisywanymi im w dotychczasowych opracowaniach. W rozdziałach 4 i 5 przedstawione są dwie konstrukcje (t.j. *manner of obtainment* i *x's way*), które opisane

są pod kątem aspektualnej struktury ich znaczenia. Tutaj celem jest wykazanie, że treściwość konstrukcji nie wychodzi poza ramy możliwości złożeń schematów zdarzeniowych (*event schemas*). Rozdział 6 skupia się na przykładach sekwencji składniowych, które charakteryzują się wyjątkowo ciekawymi znaczeniami, dość nietypowymi dla skonwencjonalizowanych konstrukcji schematycznych, a zatem będącymi problemem dla głównej tezy opracowania. Jednak, zawarta w rozdziale analiza prowadzi do wniosku, że przedstawione przykłady nie są konstrukcjami gramatycznymi. Różnice między przypadkami omówionymi tutaj a konstrukcjami gramatycznymi pokazują, że formy, które na pierwszy rzut oka wydają się być wyjątkiem od reguły, w ostatecznym rozrachunku są jej potwierdzeniem.

Konrad Szcześniak

Le sens des structures
Un débat cognitif sur la division entre le lexique et la syntaxe

Résumé

Ce travail est consacré à l'analyse des structures grammaticales dans le cadre du modèle cognitif de la grammaire de construction (*construction grammar*). Nous nous y donnons la tâche de démontrer que la distinction traditionnelle entre le lexique et la syntaxe (ainsi qu'entre les mots lexicaux et les mots fonctionnels), tout en étant mise en doute dans plusieurs des nouveaux modèles linguistiques, est toujours valable et elle ne doit pas être contraire aux principes de la linguistique cognitive. Dans cette étude nous révisons les hypothèses des linguistes qui rejettent la division entre le lexique et la syntaxe. Une des prémisses qu'on met en cause ici est la frontière floue entre le lexique et la syntaxe. L'argument fort pour le rejet de la division serait donc que les idées dérivées de l'analyse cognitive des structures grammaticales montrent la capacité de la construction schématique à exprimer le contenu sémantique complexe et riche. Nous essayerons pourtant montrer que ces capacités sémantiques sont contraires aux traits des formes fonctionnelles généralement reconnues, selon lesquels ces premières sont pauvres en sens ou même d'en privées parce que leur tâche principale ne consiste qu'à exercer les fonctions de grammaire. Dernièrement, nombreux sont les ouvrages sur les structures grammaticales où on nous persuade de leurs sens qui est typique des mots lexicaux. Dans ce travail nous nous concentrons sur une gamme de structures grammaticales et nous montrons que l'analyse récente de structures tel que „*x's way*" ou „time *away*" leur attribue beaucoup trop de signification. Le nouvel examen du comportement de ces formes nous conduit à la conclusion que le contenu sémantique des structures est exactement si pauvre et schématique, comme prévu dans la caractéristique traditionnelle de mots de fonction, et que la signification riche du contenu observée dans des études récentes est simplement un effet pragmatique résultant de la spécificité des contextes particuliers.

Pour soutenir la thèse principale de cette étude nous proposons l'ordre qui suit. Ainsi, dans le 1er et le 2e chapitre nous présentons la distinction traditionnelle entre le lexique et la syntaxe, et nous citons les arguments des auteurs minant son existence. Ensuite, nous passons en revue les traits caractéristiques distinguants les mots lexicaux des mots de fonction, tout en indiquant qu'un nombre important de différences entre les groupes pointe vers la justesse de la division en question. Le 3e chapitre contient une brève description des structures, dont certaines ont été déjà analysées dans la littérature cognitivo-linguistique. Notre analyse montre toutefois visiblement que ces structures ne sont pas plus riches en sens que les études les plus récentes leur auraient attribuées.

Par la suite, dans le 4e et 5e chapitre nous présentons deux structures (*manner of obtainment* et *x's way*) qui sont décrites en fonction de la structure aspectuelle de leur signification. Ici, notre but est de démontrer que la richesse de la signification d'une structure ne va pas au-delà des possibilités d'assemblage des schémas d'événements (*event schemas*). Le 6e chapitre, permet de nous concentrer sur les exemples des séquences syntaxiques, qui se caractérisent par un sens particulièrement intéressant, tout à fait inhabituel pour les constructions couramment utilisées et qui, par conséquent, constituent un défi pour la thèse principale de l'étude. L'analyse que nous y proposons mène toutefois à la conclusion que les exemples que nous présentons ne sont pas des structures grammaticales du tout. Les différences entre ces cas évoqués et des structures grammaticales montrent que les formes qui au début semblent être des exceptions à la règle tendent à la fin de la confirmer.

The Meaning of Constructions

The hallmark of Construction Grammar, its revision of the hypothesis of syntactically transparent semantic compositionality, can be and has been taken to extreme by expecting syntactic patterns to behave semantically like lexical items. However, just because syntactic constructions used to be falsely believed to be transparent does not mean that they should now be vividly colorful. That would be going from one extreme to another.

The semantic capabilities of syntactic constructions are contingent on their position on the lexicon–syntax continuum, which in this study is assumed to accommodate the traditional lexicon–syntax division. The lexicon–syntactic divide may have been dismissed too soon. Even if the boundary is inherently and irreparably fuzzy and no practical way of demarcating the two magisteria can be found, this is no reason to abandon the distinction. It is one thing to establish the fuzziness of the boundary, and quite another to conclude that it means the absence of that boundary.

Więcej o książce