

PRAGMATIC AND COGNITIVE CONSTRAINTS ON LEXICAL-
CONSTRUCTIONAL SUBSUMPTION

Lorena Pérez Hernández María Sandra Peña Cervel
University of La Rioja *UNED*
lorena.perez@unirioja.es spena@flog.uned.es

This article explores the constraints that underlie the functioning of motion verbs expressing movement in a particular way (e.g. *skulk*, *scamper*). Our study has been carried out in accordance with the postulates of the *Lexical Constructional Model* (LCM), as put forward by Ruiz de Mendoza and Mairal (2006). The LCM accounts for the relationship between lexical and syntactic meaning by merging into one unified approach relevant theoretical and methodological assumptions from both functional projectionist theories such as *Role and Reference Grammar*, on the one hand, and constructional models of linguistic description, on the other. Such a combined framework allows us to offer a comprehensive characterization of the verbs under scrutiny, including (1) syntactically relevant information (logical structure), (2) semantic content (lexical template) and (3) those cognitive and pragmatic constraints which may license, restrict or block the fusion of lexical templates into higher-level constructional patterns.

Keywords: Constructions; Lexical-Constructional Model; Cognitive Linguistics; pragmatics

LA SUBSUNCIÓN LÉXICO-CONSTRUCCIONAL:
RESTRICCIONES PRAGMÁTICAS Y COGNITIVAS

En este artículo se describen las restricciones que subyacen al funcionamiento de una categoría de verbos que expresan formas particulares de movimiento en inglés (e.g. skulk, scamper). El marco teórico empleado en esta investigación, el Modelo Léxico-Construccional (MLC) permite establecer un puente entre las teorías proyeccionistas, como la de la Gramática del Papel y la Referencia y otras de corte construccional. Siguiendo los postulados del MLC, ofrecemos una caracterización exhaustiva de estos verbos de movimiento, incluyendo: (1) su estructura lógica, (2) su contenido semántico (plantilla léxica), y (3) las restricciones cognitivas y pragmáticas que bloquean, restringen o licencian la fusión de las plantillas léxicas con patrones construccionales de alto nivel.

Palabras clave: Construcciones, Modelo Léxico-Construccional, Lingüística Cognitiva, Pragmática

1. Introduction

Functional and cognitive theories have so far offered contradictory views on the nature of the relationship between the lexicon and the grammar.¹ Functional accounts such as Van Valin and LaPolla's (1997) *Role and Reference Grammar* (henceforth *RRG*) or Dik's (1997) *Functional Grammar* (henceforth *FG*) make a clear division between these two components, maintaining that morphosyntactic structure can be derived from the information coded in a lexical representation by means of a set of linking rules. On the contrary, cognitive and constructional approaches (Goldberg 1995, 2002, 2005; Lakoff 1997; Lakoff and Johnson 1999; Croft 2001) believe in the existence of a continuum from lexicon to grammar and deny the necessity of linking rules (cf. Langacker 2005). As pointed out by Ruiz de Mendoza and Mairal (2006), there are weaknesses in both approaches. On the one hand, functional projectionist theories do not take into account the role of constructions in generating new morphosyntactic structure, as is the case with those constructional patterns motivating a subcategorial conversion which results in an increase in the number of arguments for a given predicate. Thus, in example (1) below, both the reflexive *myself* and the PP argument are not directly derivable from the argument structure of the predicate *walk*, but they are added to its original semantic representation whenever this predicate occurs within the caused-motion construction.

- (1) I *walked myself into oblivion*²

On the other hand, cognitive and constructional theories of meaning have not devoted too much attention to the description of those constraints that regulate the unification process between a lexical entry and a higher-level grammatical construction. In other words, it remains to be explained why a motion verb like *walk* can participate in the resultative construction (example 2 below), while this is not the case with a different motion verb like *skulk* (example 3). The fact that only the first of these predicates can occur in the resultative construction is particularly shocking since both verbs apparently fall within the same *Aktionsart* category of activity predicates.³

- (2) I *walked myself tired*⁴
 (3) *I *skulked myself tired*

The LCM would explain these facts by means of an internal principle known as the *internal variable fusion constraint*, which is based on the semantic compatibility between

¹ Financial support for this research has been provided by the DGI, Spanish Ministry of Education and Science, grants HUM2004-05947-C02-01/FILO and HUM2007-65755/FILO. The research has been co-financed through FEDER funds.

² From <http://amber7211.blogspot.com/2006_06_01_archive.html> (Accessed 16 February, 2007)

³ For a detailed description of the *Aktionsart* distinctions in *Role and Reference Grammar*, see Van Valin (2005).

⁴ From <<http://www.hystersisters.com/vb2/showthread.php?t=23961>> (Accessed 16 February, 2007)

the internal variables of a lexical template and the semantic configuration of the constructional template. Unlike its hyperonym *walk*, the predicate *skulk* contains, at least in one of its senses, an internal semantic variable that encodes a sense of movement without a fixed or definite destination and this clashes with the telic nature of a resultative construction, hence preventing this verb from taking part in it.

As will be shown below in more detail, the LCM bridges this theoretical gap between current functionalist and constructional theories, and at the same time it provides a powerful system of representation for lexical items and grammatical constructions. This study makes use of the theoretical tools provided by the LCM in order to carry out an analysis of motion verbs which describe particular types of movement (e.g. *skulk*, *scamper*). Our aim is three fold. First, we shall attempt to provide a detailed semantic representation of the verbs under scrutiny in the form of lexical templates as proposed by the LCM. Second, we shall attempt to attest the compatibility of these verbs with the caused-motion and the *way* constructions by looking for real use occurrences through the *WebCorp* search tool. Finally, following the dictates of the LCM, we will comment on the internal and external constraints which regulate the compatibility between the lexical and constructional templates of the predicates under consideration. As far as the external constraints are concerned, special attention will be paid to those of a cognitive and pragmatic nature.

2. A note on our corpus

This study was initially intended to be carried out on data taken from the *British National Corpus (BNC)*. Our first trial search on the simple query on-line service of the *BNC* proved, however, that this corpus was not useful for our purposes. Subordinate level motion verbs, such as *skulk* and *scamper*, have a lower frequency of occurrence than basic level related categories (e.g. *walk*, *run*) and this is much more noticeable when looking for tokens of such verbs as part of the grammatical constructions under consideration. In spite of its size of over 100 million words, the *BNC* only returned a very small number of hits for our queries. In some cases, as with the verb *skulk* within the caused-motion construction, the *BNC* offered no hits at all. Nevertheless, being motion predicates, these verbs were expected to take part in this type of constructions, since their semantic make up is fully compatible with them (see Goldberg 1995: ch. 7).

The lack of data from the *BNC* prompted us to look for a bigger and richer corpus which we found to be the Internet itself and which we have accessed by means of a tool known as *WebCorp* (Kehoe and Renouf 2002; Renouf 2003; Renouf, Kehoe and Banerjee 2005; Morley 2006; Renouf, Kehoe and Banerjee 2007). As explained by Lüdeling, Evert and Baroni (2005), this is a web-based interface to search engines such as Google and AltaVista, where the user can specify a query using a syntax that is more powerful and linguistically oriented than the one of the average search engines. It is, thus, possible to use wildcards such as * meaning *any substring* (as in: **ing*). Moreover, *WebCorp* organizes the results returned by the search engine in a clean *keyword in context* format, similar to that of standard concordancing programs. Just like such programs, *WebCorp* also offers various result processing options such as tuning the *kwic*

visualization parameters (e.g. larger/smaller windows), the possibility of retrieving the source document, checking the native speaker status of the author, word frequency list generation, computation of collocation statistics, etc.

Web-based corpora search tools, such as *WebCorp*, have the obvious disadvantage of making it virtually impossible to replicate an experiment in an exact way at a later time. This is due to the fact that some web sites and pages will have been added, some updated, and some deleted since the original experiment. On the positive side, and in spite of being subject to constant brittleness due to the variable nature of the services provided by the engines, *WebCorp* enables linguists to search a pool of data of unprecedented richness and ease of access. This is particularly important for those pieces of research whose object of study has a low frequency rate, as is precisely the case with subordinate motion verbs like *skulk* and *scamper*. Where the *BNC* retrieved no hits, *WebCorp* provided us with a small, but extremely valuable set of real use examples of the verbs under consideration.

With the exception of examples 16(b)-16(g), which are hypothetical versions of 16(a) introduced for the sake of discussion, all examples of *skulk* and *scamper* used in this paper are real instances of these verbs obtained from the Internet by means of *WebCorp*. Special care was taken to use only those examples whose source could be attested to belong to native speakers of English. Thus, all of them have been extracted from blogs or web pages which include a description of their authors and their origins. Most of them have been found to have higher education and to write their blogs on a regular basis.

As pointed out in the introduction, our analysis is not quantitative in nature, but rather aims at attesting the compatibility of the motion verbs and the constructions under scrutiny and to make use of the real examples retrieved by means of *WebCorp* in order to describe their semantic make-up as well as the cognitive and pragmatic constraints that are at work in their constructional subsumption. Neither do we claim that the use of these verbs within these constructions is widespread. The number of tokens found in our searches amounts to roughly 20 instances for each of the verbs under consideration. But these few examples found through *WebCorps* are valuable in showing the fact that however marginal, there are native speakers of English who feel such uses are possible. Language is a living entity and changes in grammatical routines do not occur overnight or in massive numbers. As linguists working within the LCM we are also interested in testing the explicative potential of our theoretical framework, which we expect to be able to accommodate not just general linguistic phenomena, but also minor tendencies which can nowadays be observed thanks to the use of powerful databases such as the Internet pool of information.

3. Lexical templates for *skulk* and *scamper*

The LCM draws from previous work by Faber and Mairal (1999) and Mairal and Faber (2002, 2005) on lexical decomposition. In an attempt to provide richer semantic descriptions than those offered by *logical structures* as posited in *RRG* (Van Valin and LaPolla 1997; Van Valin 2005), these authors have put forward the notion of *lexical*

template. RRG's logical structures capture the argument structure of verbs and other predicates and classify them according to their *Aktionsart* type. In RRG, the *Aktionsart* distinctions are based in those proposed by Vendler (1967), and the decompositional system is a variant of the one put forward by Dowty (1979). A motion verb, like *walk* (a type of activity, i.e. **do'** according to the RRG *Aktionsart*) would show the following logical structure:

(4) *walk* **do'** (*x*, [**walk'**(*x*)])

The elements in bold followed by a prime (e.g. **walk'**) are constants (usually predicates) and are regarded as semantic primes. Those elements in normal typeface (e.g. *x*) are variables and they express positions that are to be filled by expressions of particular languages when the semantic representation of individual sentences is built. In a structure like (4) above, if the variable *x* is substituted by the English expression *my baby*, i.e. **walk'** (*my baby*), we are in the process of representing a sentence stating that *my baby walks*.

As pointed out by Mairal and Faber (2002, 2005), logical structures have several weaknesses as a system of lexical representation:

- First, only those aspects of the meaning of the predicate which are grammatically relevant are captured.
- Second, the nature of the primitives involved is unclear, inconsistent and lacks typological adequacy.
- Third, logical structures only account for arguments that are strictly derived from the meaning of the predicate, but they do not capture those which arise from the use of a predicate in a particular construction.

In order to overcome these shortcomings, the LCM postulates the use of so-called *lexical templates*, which are an enriched scheme for the representation of the meaning of predicates. Unlike logical structures, lexical templates include:

- an inventory of semantic primes (i.e. a restricted set of superordinate terms that define each lexical domain). The primitives used within the LCM coincide closely with those of Wierzbicka's *Natural Semantic Metalanguage Approach* (1972, 1996, 2002a, 2000b), which has been shown to be valid over a hundred languages.
- a set of universal lexical functions (henceforth LF) which act on the primitive or superordinate term to generate more specific hyponyms and which capture those pragmatic and semantic parameters that are idiosyncratic to the meaning of a word and distinguish it from others within the same lexical hierarchy.⁵

⁵ The lexical functions of the LCM are inspired in Melchuk's Text Meaning Theory. However, unlike Mel'cuk, Clas and Polguère (1995) and Mel'cuk and Wanner (1996), the LCM lexical functions are used to organize the lexicon paradigmatically and to generate hyponyms from primitives. For a more detailed description of the entire set of lexical functions used in LCM, see the work by Alonso Ramos (2002) and Alonso Ramos and Tutin (1992), from which the examples in the main text have been taken.

The meaning associated with an LF is abstract and general and can produce a relatively high number of values. To give just an example, consider the LF *Magn*, which expresses intensification and which can be applied to different lexical units to produce values such as the following:

Magn(smoker)=heavy
Magn(bachelor)=confirmed

Taking the above into account, the lexical template for the predicate *walk* would be the following:

(5) *walk* [Loc_{in}(land) Instr(feet)] **do'**(x,[**move'**(x)])

As can be seen in example (5), the lexical template consists of a semantic component (in brackets), which captures the specific semantic variables that define the predicate (i.e. location and instrument in the example under scrutiny), on the one hand, and the logical structure which shows the *aktionsart* type (i.e. **do'**), the semantic prime (i.e. **move'**), and the number of arguments taken by the predicate (i.e. *x*).

We are now ready to offer a semantic representation in the form of lexical templates for the motion verbs that are the object of our study (i.e. *skulk* and *scamper*).

To begin with, *skulk* is defined in the *Collins English Dictionary* as “to move stealthily, so as to avoid notice”. The *Merriam-Webster Dictionary* puts some more emphasis on the *secret* and *deliberate* nature of the action: “to move in a stealthy or *furtive* manner”. The analysis of the instances of *skulk* in our corpus reveal that this type of secretive movement is often motivated by feelings such as those of *fear*, *cowardice*, or *shame*. The corresponding lexical template in (6) formalises the semantic content of the verb:

(6) *skulk* [Loc_{in}(land) Instr(feet) Manner(furtively) Propt(feeling_type: fear/cowardice/shame)] **do'**(x,[**move'**(x)])

As regards the second of the predicates under scrutiny, the *Collins English Dictionary* defines *scamper* as the action of “running about hurriedly and quickly”. The *Merriam-Webster* again adds a further shade of meaning: “to run nimbly (i.e. quick and light) and usually playfully about”. Nevertheless, since the vast majority of the instances of *scamper* in our corpus do not convey the idea of running *playfully*, we have decided to take the broader definition provided in the Collins Dictionary.

(7) *scamper* [Loc_{in}(land) Instr(feet) MagnInv₁(run)] **do'**(x,[**move'**(x)])

The primitive *move* captures the fact that all these verbs belong to the same lexical domain (i.e. the domain of movement),⁶ and the different lexical functions capture those semantic and pragmatic specifics of each of the predicates. The semantic representation of *skulk* and *scamper* provided by the lexical templates is capable of accounting for straightforward instances of these predicates such as those in examples (8) and (9):

⁶ For a taxonomy of the lexical domains recognised within the LCM, see Ruiz de Mendoza and Mairal (2006, 2007).

- (8) William *skulked* home, keeping in the shadows in case he met Mr. Crisplook.⁷
 (9) That day was unseasonably balmy [...] and many children *scampered* to school.⁸

However, the above lexical templates on their own are not capable of accounting for those instances of *skulk* and *scamper* in which these verbs occur within more elaborate grammatical constructions. Consider for instance, occurrences such as the following:

- (10) ... yet, thanks to the way things are shaking out, he may be able to *skulk his way back to Congress*.⁹
 (11) ... *skulk him into prison*, till he should pay the debt.¹⁰
 (12) Robbie Keane wriggled and *scampered his way to the goal-line*.¹¹
 (13) I *scampered myself to Assiniboine park yesterday* for a meeting.¹²

In examples (10) and (12), the predicates under consideration occur within the *way*-construction, while in (11) and (13), they take place as part of the caused-motion construction. As a result, their argument structure has changed and the original lexical templates in (6) and (7) no longer account for the new semantic configuration that the predicates display in these examples.

The remainder of this paper will be devoted to the description of the constructional integration of the lexical templates for *skulk* and *scamper* in (6) and (7) above into higher-level grammatical structures. It will be shown how the explanatory power of the lexical-constructional model allows us to explain:

1. the subcategorial conversion undergone by these verbs when placed within a particular grammatical construction, and
2. the particular conditions under which these verbs may be compatible with a certain construction (i.e. *way*-construction and caused-motion construction) or, in other words, the internal and external constraints that regulate the lexical-constructional unification.

4. Constructional templates for *skulk* and *scamper*

Consider the following examples in which the predicates *skulk* and *scamper* are shown to instantiate the *way*-construction and the caused-motion construction respectively:

⁷ From <<http://dictionary2.classic.reference.com/wordoftheday/archive/2006/12/04.html>> (Accessed 20 February, 2007)

⁸ From <<http://www.jewishworldreview.com/cols/will112504.asp>> (Accessed 20 February, 2007)

⁹ From <<http://ohio13.blogspot.com/2006/03/did-tom-sawyer-write-script.html>> (Accessed 20 February, 2007)

¹⁰ From <<http://www.texasstemmed.com/stiff/7009.html>> (Accessed 20 February, 2007)

¹¹ From <http://www.manchestereveningnews.co.uk/sport/football/manchester_city/s/47/47924_man_city_2_spurs_3.html> (Accessed 20 February, 2007)

¹² From <<http://phackpic.blogspot.com/2008/04/new-link.html>> (Accessed 20 February, 2007)

- (14) a. ... people in the US will be very discouraged about the state of our nation if Mr. Bush manages to *skulk his way back into* the White House (*way-construction*).¹³
 b. "...violent and controlling. He acted out of rage, certainly not out of fear. I swear I'm telling you the truth. He *skulked them into* a snare" (*caused-motion construction*).¹⁴
- (15) a. I alighted onto the quay and *scampered my way across to* Noke (*way-construction*).¹⁵
 b. "... you better not let that clock beat you. On time, in class is what your mission is right now", he *scampered me out* the room hollering (*caused-motion construction*).¹⁶

The original argument structure of *skulk* and *scamper*, as shown in the corresponding lexical templates in section 3 only accounts for the existence of a single argument. However, examples (14) and (15) show instances in which these verbs undergo a subcategorical conversion from one to three arguments, the two new arguments being a contribution of the grammatical constructions in which the verbs occur. Thus, examples (14a) and (15a) instantiate the *way-construction*, while sentences in (14b) and (15b) illustrate the *caused-motion construction*. These constructions add new shades of meaning to the original predicates so that their full semantic interpretation can only be obtained through the unification of their lexical templates and the corresponding constructional templates. One of the main advantages of the LCM is that, since lexical and constructional templates share a similar metalanguage, the former can be straightforwardly absorbed by the latter. This process is known as *lexical-constructional subsumption* and it is defined by Ruiz de Mendoza and Mairal (2006) as "the principle-regulated fusion of a lexical template into a higher-level constructional pattern". This process is governed both by internal constraints (i.e. those subsumption restrictions which originate in the *Aktionsart* idiosyncrasies and lexical specifications of the predicates) and external constraints (i.e. those restrictions on the lexical-constructional subsumption which involve a cognitive operation such as high-level metaphorical and metonymic mappings).

The next two subsections show in detail the modifications that the original lexical templates for *skulk* and *scamper* undergo when they are included within the *way-* and *caused-motion constructions* respectively as in examples (14) and (15) above.

¹³ From <<http://forums.macrumors.com/archive/index.php/t-69397/t-91084.html>> (Accessed 27 February, 2007)

¹⁴ From <http://www.commingedelegate.com/2002_05_11/4645_vicky.html> (Accessed 27 February, 2007)

¹⁵ From <http://www.diplesser-known.net/8997_sentinels/november-december_9632.html> (Accessed 27 February, 2007)

¹⁶ From <<http://www.tornflinching.com/artfulness/5444.html>> (Accessed 27 February, 2007)

4.1. Lexical-Constructional Subsumption within the Way-Construction

As pointed out by Goldberg (1995: 199), the *way*-construction implies that “the subject referent moves along the path designated by the prepositional phrase” as in *Frank dug his way out of prison*. In examples like this, as Goldberg (1995: 199ff) has shown, the meaning of the construction cannot be fully predicted on the basis of its constituent parts.

Moreover, the fact that the *way*-construction entails that a path is created to effect motion and that such a motion occurs despite some kind of external difficulty, explains why some basic motion verbs such as *walk*, *go* or *run* do not fare well with it (Goldberg 1995: 205). However, motion verbs which focus on the manner in which the motion is realized, such as *skulk* and *scamper*, are fully compatible with the construction.

Figures 1 and 2 below show the representation of the lexical-constructional unifications that take place in examples (14a) and (15a), in which the predicates *skulk* and *scamper* are embedded within the *way*-construction:

- (14a) ... people in the US will be very discouraged about the state of our nation if Mr. Bush (x) manages to *skulk his (x_i) way back into* the White House (z).

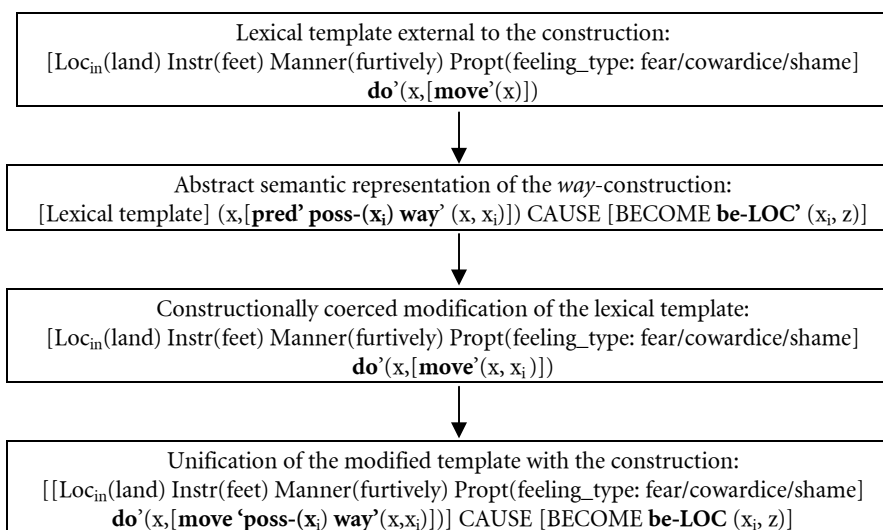


Figure 1. Simplified representation of lexical-constructional subsumption in (14a)

A few clarifications are in order here. Those template items in capital letters represent high-level propositional elements, which are usually referred to as semantic primitives in other theories (see Wierzbicka 1972, 1996, 2002a, 2002b; Jackendoff 1990, 1996a, 1996b; Levin and Rappaport 1996, among others). The fixed and invariable elements are written in bold type. In the case of the *way*-construction, the element *way* is considered as a fixed item. It goes without saying that such invariable elements as *way*

should be parametrized pragmatically in a later stage. The final semantic interpretation of *way* will take into account not only the rest of the predication, but also the context. Because of this and in spite of its fixed nature, it is necessary to take this item of the construction as a generic element, which may adopt different interpretations depending on the variables noted above (e.g. *way*=a path, a hole, etc.). Finally, it should be pointed out that in the *way*-construction the actor, which is of the *effector* type, acts upon itself as a causing force and this is indicated in the template by means of the co-indexation.

Let us now focus on example (15a) in which the motion predicate *scamper* undergoes subsumption with the *way*-construction.

(15a) I (x) alighted onto the quay and *scampered my (x_i) way across to* Noke (z).

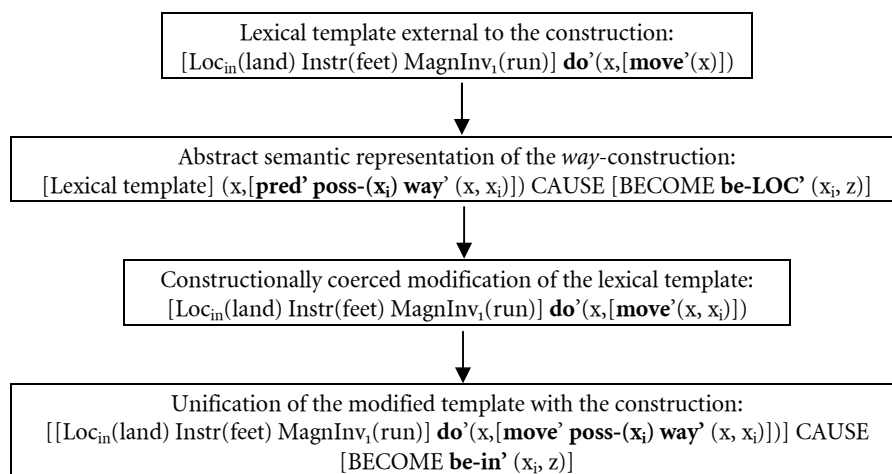


Figure 2. *Simplified representation of lexical-constructional subsumption in (15a)*

Just as was the case with the previous example, in sentence (15a) the semantic features encoded in the argument structure of the predicate do not coincide with those of the *way*-construction. The LCM explains facts such as these in terms of *coercion*. As pointed out by Ruiz de Mendoza and Mairal (2006), “lexical and constructional templates interact in a constrained way. First, there is a general principle of conceptual interaction according to which higher-level conceptual patterns incorporate lower-level patterns”. A specific instance of this general principle is what Michaelis (2003) has termed the *Override Principle* in the context of constructional coercion, according to which the meaning of a lexical item conforms to the meaning of the structure in which it is embedded. Thus, we can see how the original lexical template is coerced by the constructional template in order to make their unification possible. Since *scamper* is initially a one-place predicate, the resulting constructionally coerced lexical template needs to add one more argument (x_i) so as to allow mutual compatibility.

4.2. Lexical-Constructional Subsumption of Skulk and Scamper within the Caused-Motion Construction

In her well-known work, Goldberg (1995: 152) provides a semantic characterization of the caused-motion construction. According to this author, “the basic semantics of this construction ... is that the causer argument directly causes the theme argument to move along a path designated by the directional phrase; that is, ‘X CAUSES Y TO MOVE Z’”. This characterization is illustrated by means of the well-known example *Sam sneezed the napkin off the table*. As Goldberg points out it is the caused-motion construction that accounts for the novel use of the verb *sneeze* in sentences of this kind. The example also justifies the need to allow the verbs to be associated with rich frame-semantic meanings. In the case of *sneeze*, its use as part of the caused-motion construction is licensed by the knowledge that ‘sneezing’ involves the forceful expulsion of air. As Goldberg (1995:29) adds, “this would not be captured by a skeletal decompositional lexical entry for *sneeze* such as, for example, ‘X ACTS’”.

An intransitive predicate like *skulk* does not originally display a theme argument unless it happens to occur within the caused-motion construction. When this is the case, the predicate necessarily undergoes a subcategorical conversion which results in the addition of one more argument, thus achieving the required compatibility with the grammatical construction under consideration. Figure 3 below shows the representation of the lexical-constructional subsumption for the predicate *skulk* and the caused-motion construction in example (14b).

(14b) He(x) *skulked* them(y) into a snare(z)

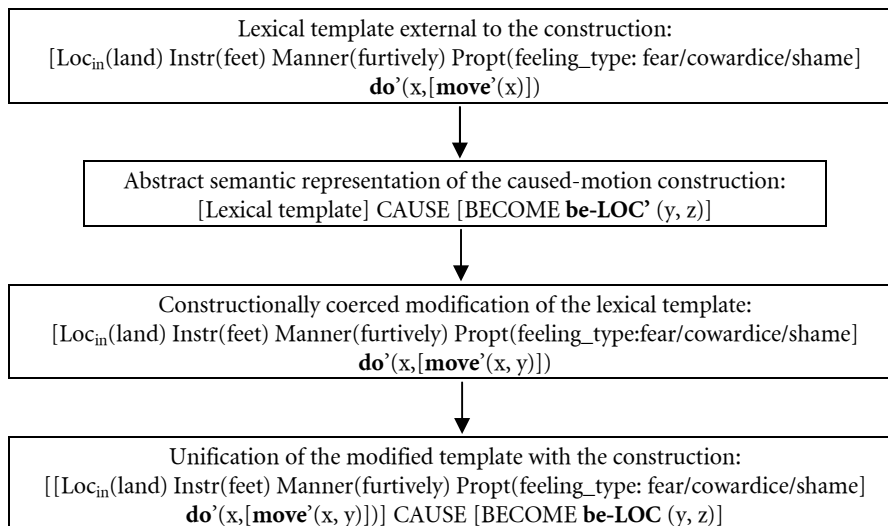


Figure 3. Simplified representation of lexical-constructional subsumption in (14b)

Likewise, in example (15b), the one-place predicate *scamper* takes up an additional theme argument in order to pave the way for its unification with the caused-motion construction, and as a result, its first argument becomes an effector which causes the patient to move to a particular location.

(15b) “... you better not let that clock beat you. On time, in class is what your mission is right now”, he(x) *scampered* me(y) out the room(z) hollering.

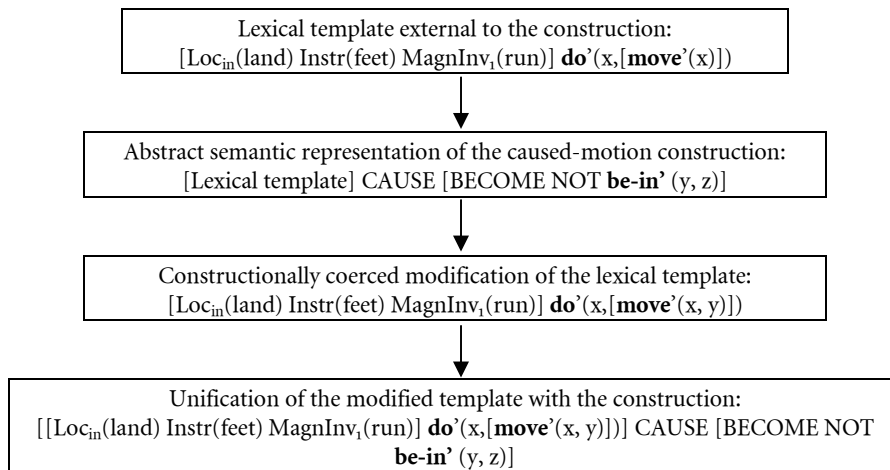


Figure 4. Simplified representation of lexical-constructional subsumption in (15b)

5. Constraints on Lexical-Constructional subsumption

The semantic interpretation which results from the unification of lexical and constructional templates accounts for the subcategorical conversion that verbs like *skulk* and *scamper* undergo when they take place in grammatical environments such as those provided by the caused-motion and the *way*-constructions. In the examples under consideration, the adaptation of the lexical meaning to the constructional meaning is first of all licensed by external constraints of a cognitive nature, more specifically, by the high-level metaphor NON-EFFECTUAL ACTIVITY IS AN EFFECTUAL ACTION. Such a metaphorical projection allows us to interpret the originally intransitive predicates *skulk* and *scamper* in terms of a transitive structure of the actor-object kind. This mapping, in turn, is governed by the cognitive principles of *Invariance*, *Correlation* and *Mapping Enforcement*.¹⁷ On the one hand, according to the first two principles, both the topological and implicational structure of the source domain should be preserved in the target. For example, as illustrated by Ruiz de Mendoza and Mairal

¹⁷ For a more detailed explanation of these principles, see Ruiz de Mendoza and Mairal (2006, 2007).

(2006), it would be extremely odd to use the name of a company to refer to the spouse of one of the employees, but not an employee or a chief officer. The same could be said in the context of a hospital where it is common practice for nurses to refer to their patients by their diseases (e.g. Go see the appendicitis in room 301 which contrasts with * Go and see the newly changed sheets in room 301). On the other hand, the *Mapping Enforcement principle* states that no item in the source is to be discarded from a mapping system if there is a way to find a corresponding source element in the target domain. For example, in expressions like *give a kick*, as shown in Ruiz de Mendoza and Mairal (2007), the target of this metaphor is in turn imbued in a built-in metonymy that maps the action of kicking onto the effects of kicking, whose target corresponds to the possession element of the source. The resulting account offers perfect matches in the source: the agent is the giver, the patient is the receiver, kicking is giving and the possession of the object is mapped onto the effects of kicking, which enables us to preserve the possession element in the metaphoric source (cf. Lakoff's 1993 account of the same example in which he claims that since the possession element in the source domain does not have an exact counterpart in the target – the person that *receives a kick* does not actually *have* the kick – it would have to be discarded.)

However, it is interesting to note that external constraints based on higher-level cognitive mappings on their own do not explain why some instances of the caused-motion construction with *skulk* and *scamper* are possible while others are odd or straightforwardly incorrect. Consider the following sentences:

- (16) a. He *skulked me into* prison....
 b. He *skulked me into* an argument
 c. He *skulked me into* temptation
 d. He *skulked me into* depression
 e. ???He *skulked me into* a surprise party to celebrate my birthday
 f. ???He *skulked me into* a laugh
 g. ???He *skulked me into* happiness

Sentences (16a)-(16d) are acceptable instances of the predicate *skulk* within the caused-motion construction. (16a) represents a literal use of *skulk*, while (16b)-(16d) are figurative extensions of the predicate which involve a non-physical prepositional phrase (PP), which is understood metaphorically as a location (EMOTIONS/STATES/IDEAS ARE CONTAINERS). Likewise, (16e) includes a PP which is a physical location (i.e. *party*), while (16f) and (16g) display PPs which refer to metaphorical locations (i.e. *laugh*, *happiness*). In spite of the fact that all these sentences display a similar structure, type, and number of arguments, only examples (16a)-(16d) sound natural and acceptable in English. In order to find an explanation for these facts, it becomes necessary to look carefully at the semantic representation of the predicate *skulk* as formalized previously in its lexical template.

One of the lexical functions included in the lexical template for the predicate *skulk* captures the manner in which the motion is carried out (i.e. furtively, secretly) and yet another lexical function indicates the reason why the motion is carried out in such manner (i.e. because of fear, shame, and/or cowardice). This specific aspect of the meaning of *skulk* (i.e. the fact that it is caused by feelings of fear, shame, and/or

cowardice) clashes with the choice of an axiologically positive destination as is the case in examples (16e)-(16g). Under normal circumstances, it would be a pragmatic absurdity in our culture to be ashamed and/or frightened to take someone to a party (example 16e), to make someone laugh (example 16f) or to make someone happy (example 16g). On the contrary, the semantics of *skulk* are highly appropriate when the final location towards which the patient is being directed is of a negative nature (e.g. temptation, depression, etc.) as in examples (16a)-(16d). It is culturally unacceptable in our society to try to harm somebody or to try to cause a negative effect on somebody and therefore, actions of this kind, such as those depicted in examples 16a-16d, are usually carried out in a furtive or secretive manner. As a result of these pragmatic and cultural expectations, the constructional subsumption is blocked in sentences 16e-16g, but granted in sentences 16a-16d.

These examples show that the external constraints that regulate the processes of constructional subsumption are not only cognitive in nature (i.e. high-level metaphors and metonymies) as proposed by Ruiz de Mendoza and Mairal (2006, 2007), but that pragmatic aspects of what constitutes acceptable human behaviour are also at work here.¹⁸ Thus, it is part of our knowledge of what constitutes polite behaviour in our western society that we should try to act in such a way that we maximize the benefit and minimize the cost to others (see discussion on the Tact Maxim, Leech 1981). This type of pragmatic knowledge explains why it is possible to use *skulk* within the caused-motion construction if the location towards which the agent is directing the patient is a negative location. In such cases, the agent is acting against the Tact Maxim and therefore, it is coherent to do it in a furtive way. On the contrary, if the location is a positive one, there is no need for secrecy and the use of the predicate *skulk* becomes a pragmatic absurdity in this situation.

¹⁸ It should be born in mind that the LCM uses labels such as *pragmatic* and *discourse* meaning for convenience, that is, in order for readers to find points of reference to other approaches where comparable phenomena have been treated in different ways. Likewise, for the LCM the controversy over the existence of continua between linguistic phenomena is immaterial. This affects both the CL proposal of a continuum from lexicon to grammar and of a continuum from semantics to pragmatics. As regards, the semantics-pragmatics facts, what the LCM postulates is the possibility of constructing meaning representations that go beyond the argumental level on the basis of inferential activity or on the basis of constructional interaction, or by combining both processes. Thus, we may have inferential activity based on the linguistic expression providing partial access to low-level situational models (traditional implicature), or to high-level situational models (traditional illocutionary force), or to discourse coherence patterns. Alternatively, we can often derive comparable meaning implications by grammatical means on the basis of constructional realization at different level of description. It is possible to ask for a glass of water by saying *I'm thirsty* or *Can you give me some water, please?* The reasons for using one or the other way are a matter of communication strategies, but what matters within the LCM is that we have two alternative ways, with slightly different meaning effects, and there is no need to postulate a continuum from one to the other.

6. Conclusion

To summarize, in this paper we have made use of the theoretical tools of the LCM in order to carry out an analysis of two motion verbs which describe a particular way of movement (i.e. *skulk* and *scamper*). The semantic representation of these predicates in the form of lexical templates helps us to overcome some of the weaknesses of previous functional models by endowing the semantic description with a higher degree of systematicity, richness of detail, and typological adequacy. The metalanguage used in the lexical templates paves the way to its subsumption with the constructional templates of the caused-motion and *way* constructions in which we have found these verbs to occur. This combination of lexical and constructional information explains the subcategorical conversion undergone by the original verbs. Moreover, we have also shown how the constructional subsumption itself is granted by a number of external constraints of a cognitive and pragmatic nature.

With this preliminary study of two motion verbs we have attempted to show the advantages of an analysis of this type of predicates within the LCM framework. In doing so, we hope to have paved the way to subsequent studies of other motion verbs within the same category. The description of their semantic make-up in terms of lexical templates will help to complete the inventory of pragmatic and cognitive constraints that are at work in the licensing of their subsumption with specific grammatical constructions.

Works Cited

- Alonso Ramos, Margarita 2002: 'Colocaciones y contorno en la definición lexicográfica'. *Lingüística Española Actual* 24.1: 63-96.
- Alonso Ramos, Margarita and Agnès Tutin 1992: 'A Classification and Description of Lexical Functions for the Analysis of their Combinations'. Leo Wanner, ed. *Recent Trends in Meaning-Text Theory*. Amsterdam: John Benjamins. 147-67.
- Collins English Dictionary, < <http://www.collinslanguage.com> > (Accessed 10 January, 2007).
- Croft, William 2001: *Radical Construction Grammar*. Oxford: Oxford UP.
- Faber, Pamela and Ricardo Mairal 1999: *Constructing a Lexicon of English Verbs*. Berlin and New York: Mouton de Gruyter.
- Dik, Simon C. 1997: *The Theory of Functional Grammar, part I: The Simple Predication*. Dordrecht: Foris.
- Dowty, David R. 1979: *Word Meaning and Montague Grammar*. Dordrecht: Reidel.
- Goldberg, Adele 1995: *A Construction Grammar Approach to Argument Structure*. Chicago: U of Chicago P.
- 2002: 'Surface Generalizations: An Alternative to Alternations'. *Cognitive Linguistics* 13.4: 1-31.
- 2005: *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford UP.
- Jackendoff, Ray 1990: *Semantic Structures*. Cambridge: MIT.
- 1996a: 'Semantics and Cognition'. Shalom Lappin, ed. *The Handbook of Contemporary Semantic Theory*. Oxford: Blackwell. 516-539.
- 1996b: 'Conceptual Semantics and Cognitive Linguistics'. *Cognitive Linguistics* 7: 93-129.
- Kehoe, Andrew and Antoinette Renouf 2002: 'WebCorp: Applying the Web to Linguistics and

- Linguistics to the Web'. *Proceedings of the WWW2002 Conference*. Honolulu, Hawaii <<http://www2002.org/CDROM/poster/67/>> (Accessed 11 January, 2007)
- Lakoff, George 1993: 'The Contemporary Theory of Metaphor'. Andrew Ortony, ed. *Metaphor and Thought*. Cambridge: Cambridge UP. 202-51.
- 1997: *Women, Fire, and Dangerous Things. What Categories Reveal About the Mind*. Chicago: U of Chicago P.
- Lakoff, George and Mark Johnson 1999: *Philosophy in the Flesh, the Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.
- Langacker, Ronald W. 2005: 'Construction Grammar: Cognitive, Radical, and Less So'. Francisco José Ruiz de Mendoza and Sandra Peña Cervel, eds. *Cognitive Linguistics. Internal Dynamics and Interdisciplinary Interaction*. Berlin and New York: Mouton de Gruyter. 101-59.
- Leech, Geoffrey 1981: *Principles of Pragmatics*. Essex: Longman.
- Levin, Beth and Malka Rappaport 1996: 'Lexical Semantics and Syntactic Structure'. Shalom Lappin ed. *The Handbook of Contemporary Semantic Theory*. Oxford: Blackwell.
- Lüdeling, Anke, Stefan Evert and Marco Baroni 2005: 'Using Web Data for Linguistic Purposes' <<http://sslmit.unibo.it/~baroni/publications/WAC-LuedelingEvertBaroni.pdf>> (Accessed 11 January, 2007)
- Mairal, Ricardo and Pamela Faber 2002: 'Functional Grammar and Lexical Templates'. Ricardo Mairal and María Jesús Pérez Quintero, eds. *New Perspectives on Argument Structure in Functional Grammar*. Berlin and New York: Mouton de Gruyter. 41-98.
- 2005: 'Decomposing Semantic Decomposition'. *Proceedings of the 2005 International Conference on Role and Reference Grammar*. Academia Sinica: Taiwan. 279-308.
- Mairal, Ricardo and Francisco José Ruiz de Mendoza 2008: 'Internal and External Constraints in Meaning Construction: the Lexicon-Grammar Continuum'. Teresa Gibert and Laura Alba, eds. *Estudios de Filología Inglesa: Homenaje a la Dra. Asunción Alba Pelayo*. Madrid: UNED. 197-237.
- Mel'cuk, Igor A. and Leo Wanner 1996: 'Lexical Functions and Lexical Inheritance for Emotion Lexemes in German'. Leo Wanner, ed. *Recent Trends in Meaning-Text Theory*. Amsterdam: Benjamins. 209-27.
- Mel'cuk, Igor A., André Clas and Alain Polguère 1995: *Introduction à la lexicologie explicative et combinatoire*. Louvain-la-Neuve: Duculot/aupelf-UREF.
- Michaelis, Laura A. 2003: 'Word Meaning, Sentence Meaning, and Syntactic Meaning'. Hubert Cuykens, René Dirven and John R. Taylor, eds. *Cognitive Approaches to Lexical Semantics*. Berlin and New York: Mouton de Gruyter. 83-122.
- Morley, Barry 2006: 'WebCorp: A Tool for Online Linguistic Information Retrieval and Analysis'. Antoinette Renouf and Andrew Kehoe, eds. *The Changing Face of Corpus Linguistics*. Amsterdam: Rodopi. 283-296.
- Renouf, Antoinette 2003: 'WebCorp: Providing a Renewable Data Source for Corpus Linguists'. Sylviane Granger and Stephanie Petch-Tyson, eds. *Extending the Scope of Corpus-based Research: New Applications, New Challenges*. Amsterdam: Rodopi. 39-58.
- Renouf, Antoinette, Andrew Kehoe and Jay Banerjee 2005: 'The WebCorp Search Engine: a Holistic Approach to Web text Search'. *Electronic Proceedings of CL2005*. U of Birmingham. <<http://www.corpus.bham.ac.uk/PCLC/cl2005-SE-pap-final-050705.doc>> (Accessed 11 January, 2007)
- Renouf, Antoinette, Andrew Kehoe and Jay Banerjee 2007: 'WebCorp: an Integrated System for Web Text Search'. Nadja Nesselhauf, Marianne Hundt and Caroline Biewer, eds. *Corpus Linguistics and the Web*. Amsterdam: Rodopi. 47-67.
- Ruiz de Mendoza Ibáñez, Francisco José and Ricardo Mairal 2007: 'Higher-Level Metaphor and Metonymy in Meaning Construction'. Günter Radden et al., eds. *Constructing Meaning*. Amsterdam/Philadelphia: Benjamins. 33-49.
- 2006: 'Levels of Semantic Representation: Where Lexicon and Grammar Meet'.

Interlingüística 17: 26-47.

The Merriam-Webster, <http://www.merriam-webster.com/> (Accessed 10 January, 2007).

Van Valin, Robert D. Jr. and Randy J. La Polla 1997: *Syntax, Structure, Meaning and Function*. Cambridge: Cambridge UP.

Van Valin, Robert D. Jr. 2005: *The Syntax-Semantics-Pragmatics Interface: An Introduction to Role and Reference Grammar*. Cambridge: Cambridge UP.

Vendler, Zeno 1967: *Linguistics in Philosophy*. Ithaca: Cornell UP.

Wierzbicka, Anna 1972: *Semantic Primitives*. Frankfurt: Athenäum.

——— 1996: *Semantics: Primes and Universals*. Oxford: Oxford UP.

——— 2002a: 'Semantic Primes and Linguistic Typology'. Cliff Goddard and Anna Wierzbicka, eds. *Meaning and Universal Grammar: Theory and Empirical Findings*. Vol. 2. Amsterdam: Benjamins. 257-300.

——— 2002b: 'Semantic Primes and Universal Grammar in Polish'. Cliff Goddard and Anna Wierzbicka, eds. *Meaning and Universal Grammar: Theory and Empirical Findings*. Vol. 2. Amsterdam: Benjamins. 65-144.

Received 23 October 2008

Revised version accepted 4 March 2009

Lorena Pérez Hernández, PhD La Rioja, works as a permanent lecturer at the University of La Rioja (Spain), where she teaches courses on Semantics and Pragmatics, Scientific, Technical and Legal English, as well as discourse aspects of textual interpretation. She is the current editor of *RESLA (Spanish Journal of Applied Linguistics)* and a member of the Editorial Board of *ARCL (Annual Review of Cognitive Linguistics)*. Her present research interests include aspects of cognitive and functional semantics from a cross-linguistic perspective. She has published in international journals such as *Journal of Pragmatics* and *Language and Communication*.

Address: University of La Rioja, Dpto. of Modern Languages, San José de Calasanz, s/n, 26004 Logroño (La Rioja). Tel.: 34-941-299549, Fax: 34-941-299419.

María Sandra Peña, PhD La Rioja, teaches English Grammar, Pragmatics, and Cognitive Linguistics at the National University of Distance Education in Madrid. Her main research interests centre on the organization of knowledge in the form of Idealized Cognitive Models, with emphasis on image-schemas, metaphor and metonymy, and more recently, on Reference Grammar and Cognitive Linguistics. She is co-editor of *Cognitive Linguistics: Internal Dynamics and Interdisciplinary Interaction* (Mouton de Gruyter) and has published in *Miscelánea*, *Journal of English Studies*, *Annual Review of Cognitive Linguistics* and *Jezikoslovlje*. She has chapters in *Interaction and Cognition in Linguistics* (Peter Lang) and *Current Trends in Contrastive Linguistics: Functional and Cognitive Perspectives* (Benjamins).

Address: Universidad Nacional de Educación a Distancia (UNED). Facultad de Filología, Dpto. Filologías Extranjeras y sus Lingüísticas, Paseo Senda del Rey, 7, 28040 Madrid. Tel.: (+34) 913988469. Fax: (+34) 91 398 8470.