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POLYSEMY IN THE SEMANTIC FIELD OF MOVEMENT IN THE ENGLISH LANGUAGE



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INTRODUCTION

One of the long-established misconceptions about the lexicon is that it is neatly and rigidly divided into semantically related sets of words. In contrast, we claim that word meanings do not have clear boundaries.¹ In this paper we will give proof of the fuzziness of meaning through an analysis of the semantic field of MOVEMENT in the English language. We will show that many MOVEMENT verbs belong not only to several subdomains within the field of MOVEMENT, but also to various semantic domains through metaphorical extension.

Before dealing with the double or even triple membership of MOVEMENT verbs, let us first present the model on which our description of the lexicon is based, the Functional-Lexematic Model (Martín Mingorance, 1984, 1985a,b; 1987a,b,c; 1990a,b).

1. THE FUNCTIONAL-LEXEMATIC MODEL

The FLM integrates Coseriu's *Lexematics* (1977), Dik's *Functional Grammar* (1997a) and some fundamental principles of cognitive linguistics. Following Faber and Mairal (1998: 4-5), the two main objectives of this model are, on the one hand, the construction of the linguistic architecture of the lexicon of a language, and on the other hand, the representation of knowledge based on the linguistic coding of dictionary entries.

The FLM establishes three axes of analysis: the paradigmatic, syntagmatic and cognitive axes. The elaboration of the paradigmatic axis entails the structuring of the lexicon in semantic domains —each

corresponding to a basic area of meaning,² and the organization of lexical domains into hierarchically constructed subdomains elaborated on the basis of shared meaning components. A subdomain is "a subdivision of semantic space derived from the factorisation of the meaning definition of its members"³ (Faber and Mairal 1998: 6). Word definitions are built according to Dik's method of *Stepwise Lexical Decomposition*. This means that the definition structure of each lexeme consists of the nuclear word—the archilexeme—and a series of semantic features which mark its distance from the preceding members of the subdomain.

Following Faber and Mairal (1999), the domain of MOVEMENT is organised into four subdomains. The first subdomain describes generic movement, while the other subdomains subsume lexemes which denote movement in a number of contexts: liquid, atmosphere and land. Cutting across this major configuration of the domain, the parameters of manner and direction introduce further divisions within each subdomain.⁴ For instance, these parameters traverse the following subdomains within the subdomain lexicalizing generic movement:

1. Direction:

To move towards a place/person/thing
To move back
To move up
To move down

2. Manner:

To move quickly
To move slowly
To move smoothly
To move in a circular manner

As an example of a subdomain structured paradigmatically, we have selected the subdomain *To move down*:

fall: to move down from a high position/the sky/a tree.

plunge: to fall suddenly a long way from a high position.

plummet: to fall very quickly from a high position.

come down: to fall (rain/snow) heavily.

descend: to move down a slope/stairs (fml).

The verbs indented to the right (*plunge*, *plummet*, *come down*) are defined in terms of the verb immediate above them (*fall*), which thus becomes their definiens. They are basically differentiated from one another in terms of manner. The other archilexeme of this subdomain is *descend*.

The construction of the syntagmatic axis implies the analysis of the complementation patterns of each lexeme using predicate frames as integrated formulae.

The following types of information are captured in predicate frames:

- (i) the form of the predicate
- (ii) the syntactic category to which it belongs
- (iii) its quantitative valency, i.e. the number of arguments that the predicate requires
- (iv) its qualitative valency, i.e. the semantic functions of the arguments and the pertinent selection restrictions
- (v) the meaning definition

Predicate frames describe a state of affairs and specify the relationship between the predicate arguments (represented by the variable *x*). Each argument is characterized by a selection restriction—described in terms of binary semantic features—and fulfills a semantic function (Agent, Experiencer, Goal, Recipient, etc.).

Consider the predicate frame of the verb *bow*:

[(*x*₁: prototyp. human)_{Ag} (*x*₂: prototyp. part of the body)_{Go}]_{Action}

DEF = to bend your head and upper body as a greeting or as a sign of respect.

This frame describes an Action and specifies the relationship between a human argument, performing the function of Agent, and an argument fulfilling the function of Goal and semantically marked as part of the body (head).

The elaboration of the cognitive axis entails the formulation of the predicate conceptual schemata, which are cognitive constructs encoding semantic, syntactic and pragmatic information and representing our knowledge about the lexical unit in question. Conceptual schemata are codified at three levels: lexeme, subdomain and domain.

2. POLYSEMY OF MOVEMENT VERBS

Many MOVEMENT verbs fall within several subdomains. This double/multiple membership may be accounted for on the following grounds:

- a) The meaning component focalised
- b) The genus of the lexeme
- c) The metaphorical extension of the verb

Let us examine each of these factors.

2.1. FOCALIZATION OF A MEANING COMPONENT

We have used Dik's (1997a) pragmatic functions of *Focus* and *Topic* to account for some instances of polysemy in the semantic field of MOVEMENT. These functions specify the information status of the constituents of the predicate within the communicative setting in which they occur, and they are assigned to the constituents after the assigning of semantic and syntactic functions. The *Topic* is the entity about which the predication predicates something in the setting in question, whereas the *Focus* refers to the most relevant information in the setting:

(1) As for Mary (Focus), I don't care for her (Topic).

The application of such functions to the paradigmatic description of the lexicon is based on the organization of the lexicon at three levels: domain, subdomain and lexeme. In consonance with this idea, we may formulate various levels of focalization:

Level of focalization 1: Domain

Level of focalization 2: Subdomain

Levels of focalization 3, 4, ... : Lexeme

A domain stands for the level of focalization number 1. It performs the function of Focus in that it represents one of the basic areas of meaning.

A subdomain represents the level of focalization number 2 in that it focuses on an area of meaning within a domain.

The following levels of focalization are formulated at lexeme-level. This means that the lexemes of a subdomain represent different levels of focalization based on the meaning hierarchies within the subdomain.

What is most relevant is that what is Focus on a level becomes Topic on the level below. Then a domain, which performs the function of Focus on the level of focalization number 1, becomes topic at subdomain-level in that it presents the given information, since all the subdomains of MOVEMENT lexicalize the concept of movement. Therefore, the archilexeme of the lexical field, *move*, which performs the function of Focus at domain-level in that it codifies the nuclear meaning of the domain, becomes Topic at subdomain-level, since it is the definiens of the archilexeme of each subdomain.

Similarly, a subdomain, which acts as Focus on the level of focalization number 2, becomes Topic at lexeme-level, since all the lexemes in the subdomain share the nuclear information formalised by the subdomain. Then, as we move down in the semantic hierarchy which characterizes the internal structure of each subdomain, what is Focus in the meaning definition of the archilexeme (level of focalization number 3) becomes Topic in the meaning definition of its hyponyms (level of focalization number 4). For example, if we take the subdomain analysed above, *To move down*, the definiens "to

move down" acts as Focus in the definition of *fall* (the archilexeme), and as Topic in the definition of *plunge*, *plummet* and *come down*, the function of Focus being performed by the semantic parameters of manner and place in that they individuate the members of the subdomain.

Let us now consider the functions of Topic and Focus in the case of lexemes belonging to several subdomains. Here the function of Focus applies to a particular meaning component, which thus becomes especially relevant. The verbs *whizz* and *zoom* involve quick movement, thus belonging to the subdomain *To move quickly*. But they can also denote movement through the air:

(2) The bullets whizzed past.

Then, these verbs belong to the subdomain *To move quickly* or *To move through the air* depending on which parameter is highlighted, whether manner or medium.

Similarly, the verbs *circle* and *whirl* refer to circular movement in the air. If the manner component is focalized, then the verbs fall in the subdomain *To move in a circular manner*. If the focus is on the medium, then the verbs belong to the subdomain *To move through the air*.

The table below shows the double membership of these verbs.

VERB	FOCUS	DIMENSION	MEANING
<i>whizz</i> <i>zoom</i>	Manner	<i>To move quickly</i>	To move (an engine/device) <u>very quickly</u> with a loud whistling noise To move (a vehicle/an aircraft) <u>very quickly</u> with a loud buzzing/humming noise
<i>circle</i> <i>whirl</i>		<i>To move in a circular manner</i>	To move <u>in a circular manner</u> in the air To <u>turn round</u> in the air very quickly
<i>whizz</i> <i>zoom</i> <i>circle</i> <i>whirl</i>	Medium	<i>To move through the air</i>	To move very quickly <u>through the air</u> with a loud whistling noise To move very quickly <u>through the air</u> with a loud noise

			To fly around in circles To move very quickly in a circular manner <u>through the air</u>
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2.2. GENUS OF THE LEXEME

Many verbs describe generic movement. Verb membership is then determined by the semantic parameter of medium or direction, or by the parameter specifying the nature of the subject/object.

The table below presents the verbs whose membership is influenced by the medium parameter.

VERB	MEDIUM	DIMENSION	MEANING
<i>dart</i>	Air Land	To move through the air To move quickly using one's feet	To fly <u>suddenly</u> and quickly (insects) To run <u>suddenly</u>
<i>dive</i> <i>plunge</i>	Air	To move down through air To move down through air To move downwards	To move <u>down</u> through air quickly and steeply To move <u>down</u> through air suddenly a long way To <u>fall</u> suddenly a long way from a high position
<i>dive</i> <i>plunge</i>	Water	To move in/down below the surface of a liquid To cause sb/sth to move in/down below the surface of a liquid	To move head-first <u>down</u> into water To cause sth to move <u>down</u> into water quickly and violently
<i>sink</i>	Air Water/ Liquid/ Substance	To move down through air To move in/down below the surface of a liquid	To move <u>down</u> through air To move <u>down</u> below the surface of a liquid/ soft substance

<i>glide</i>	Water Air Land	To move over liquid To move through the air To move smoothly	To move (boat) <u>quietly</u> and <u>smoothly</u> across water To fly <u>quietly</u> To move <u>quietly</u> and <u>smoothly</u> in an effortless way
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The verb *dart* describes sudden movement in air and on land:

- (3) He darted across the room.
- (4) Bees were darting from one flower to another.

The verbs *dive*, *plunge* and *sink* designate downward movement in air and water:

- (5) She plunged into the swimming-pool.
- (6) The falcon plunged towards its prey.

Sink, as the general term, denotes movement in a wider variety of contexts:

- (7) Helen sank into water/mud/an armchair.

However, we postulate that the verbs *dart*, *dive* and *sink* prototypically describe movement in a given medium: *dart* is prototypically associated with *air*, and *dive* and *sink* with *water*. Our claim is supported by the fact that the medium parameter need not be syntactically present:

- (8) She dived from the bridge and rescued the drowning child.
- (9) The aircraft-carrier, hit by a torpedo, sank at once.

Further, as we will show below, *sink* has a metaphorical projection onto FEELING, which codifies the metaphor Emotion = Liquid (Goatly 1997):

- (10) When he crashed, his heart sank at the thought that he might die.

Finally, *glide* refers to quiet/smooth movement in a wide range of contexts (water, air, land):

- (11) The cruiser glided across the sea.
- (12) An owl glided over the fields.
- (13) The snake glided towards its prey.

As mentioned above, the domain of MOVEMENT is marked by the semantic parameter of direction, which can determine verb membership. The

lexemes *jump, vault, leap, hop* and *spring* are subsumed under various subdomains depending on whether they denote forward or upward/downward movement over an obstacle:

VERB	DIRECTION	DIMENSION	MEANING
<i>Jump</i> <i>Vault</i> <i>Leap</i> <i>Hop</i> <i>Spring</i>	Forwards	<i>To move forwards quickly/suddenly</i>	To move forwards quickly using your legs To jump onto sth with your hands on it To jump energetically a long distance To jump on one foot (sb)/with both feet (birds/small animals) To jump suddenly
<i>Jump</i> <i>Vault</i> <i>Leap</i>	Over sth	<i>To move across/over/through</i>	To move over sth quickly using your legs To jump over sth with your hands on it To jump over sth energetically
<i>Jump</i> <i>Spring</i> <i>Hop</i>	Up/Down	<i>To move up/down using one's feet</i>	To move up/down quickly using one's feet To jump suddenly To jump on one leg

(14) Robert jumped one metre/over the fence/out of the shadow.

(15) Carol sprang at him/to her feet.

Finally, as shown below, verb membership can also be determined by the parameter describing the nature of the subject or object.

ARGUMENT	SEMANTIC SCOPE	VERB	DIMENSION	MEANING
	Human/ Object	<i>shake</i>	<i>To move from side</i>	To move quickly from

Subject		<i>tremble</i> <i>quiver</i>	<i>to side/back and forth/up and down repeatedly</i>	side to side/ up and down To shake uncontrollably/ slightly To shake slightly
	Part of the body	<i>shake</i> <i>tremble</i> <i>quiver</i>	<i>To move one's body</i>	To move one's body quickly from side to side/up and down To shake uncontrollably/ slightly To shake slightly
	Human Boat	<i>sail</i>	<i>To move towards a place</i> <i>To move over liquid</i>	To travel to a place by ship To move (boat) over the sea
	Object	<i>rise</i> <i>fall</i>	<i>To move upwards</i> <i>To move downwards</i>	To move upwards through air To move down from a high position/the sky/a tree
	Vehicle/ aircraft	<i>plunge</i> <i>plummet</i>	<i>To move in/downwards below the surface of a liquid</i> <i>To move downwards through air</i>	To move (vehicle) below the surface of water To move down through air very quickly
	Human	<i>rise</i> <i>fall</i>	<i>To move one's body by raising it</i>	To stand up (fml)

		<i>plunge</i> <i>plummet</i>	<i>To move to the ground</i>	To move to the ground from force of weight / loss of balance To fall suddenly a long way from a high position To fall very quickly from a high position
Object	Object	<i>swing</i> <i>lift</i> <i>raise</i> <i>bend</i>	<i>To move from side to side/back and forth/up and down repeatedly</i> <i>To cause sb/sth to move up</i> <i>To move in a different direction</i>	To move regularly from side to side/back and forth To cause sb/sth to move up To lift sth To turn in a curve/angle
	Part of the body	<i>swing</i> <i>lift</i> <i>raise</i> <i>bend</i>	<i>To move a part of one's body</i>	To move regularly from side to side/back and forth To move a part of one's body upwards (esp. head/arm/leg/foot) To move a part of one's body upwards To move a part of one's body downwards

The verbs *shake*, *tremble* and *quiver* may be found with a subject argument semantically characterized as human or as concrete. But they can also take an object denoting a part of the body via the metaphor Body part = Human (Goatly 1997):

(16) Mark was so nervous that his knees were shaking.

Sail typically occurs with a subject semantically characterized as boat. Its use with a human agent results from a metonymical process (content for receptacle):

(17) They sailed the Mediterranean.

Rise designates upward movement of both human and concrete entities, but the prototypical argument is human, as shown in the restricted use of *rise* with human subjects when it describes body movement:

(18) She rose to greet me.

Fall, *plunge* and *plummet*, which denote downward movement, may also occur with human and concrete entities:

(19) He fell off the horse.

(20) The vase fell from her hand.

Lastly, the verbs *swing*, *lift*, *raise* and *bend* take an object semantically marked as object or part of the body:

(21) She lifted her head when I came in.

(22) The suitcase is too heavy for him to lift.

2.3. METAPHORICAL EXTENSION OF THE LEXEMES

The verbs *creep* and *escape* fall within various subdomains because of their metaphorical extension.

VERB	SUBDOMAIN	MEANING
<i>Creep</i>	To move in a particular way	To move quietly and slowly in order to get to a place <u>without being noticed</u>
	To move slowly	To move (light/shadow/mist) ^{very} slowly, so that you <u>hardly notice it</u> (lit.)
<i>Escape</i>	To move off/away from a	To <u>leave</u> a place after doing sth illegal

	place/thing/person	
	To move out of a place	To <u>move</u> (gas/liquid) <u>out of</u> an object/a container

Creep typically describes a person's slow movement towards a place and thus falls primarily within the subdomain *To move in a particular way*, which refers to movement on land. Yet it also belongs to the subdomain *To move slowly* through a process of personification (Object/Substance=Human), whereby a concrete entity semantically marked as "light/ shadow/ mist" is seen as a human entity. The meaning components speed —"slowly"— and secrecy —"without/hardly being noticed"— are basic to the definition of both verbs.

On the other hand, *escape* falls in the subdomains *To move off/away from a place/ thing/ person* and *To move out of a place*. This double membership obtains from the metaphorization of liquid as a human entity:

(23) Gas is escaping from this hole.

3. INTERFIELD MEMBERSHIP OF MOVEMENT VERBS

We have so far analysed the intrafield membership of a set of MOVEMENT verbs, i.e. their grouping under several subdomains within the semantic domain of MOVEMENT. We will now focus on the verbs' interfield membership, i.e. their projection onto other semantic fields.

The relations of a semantic domain with others codify metaphorical processes, thus showing that lexical structure is governed by conceptual structure., or, in Sweetser's words (1990:25), "much of meaning is grounded in speakers' understanding of the world". Indeed, each language is equivalent to a particular conceptual system by means of which we interpret our environment, and this conceptual organization is reflected in the lexicon. This means that metaphor is not only a cognitive but also a linguistic phenomenon. Metaphorical processes are encoded in the lexicon and must thus be integrated in a lexical model.

Therefore, the codification of metaphorical processes in the lexicon not only tells us a great deal about how we understand and construct reality but also reflects the internal organization of the lexicon.

Below we sketch the metaphors codified in the domain of MOVEMENT, which establish connections with the semantic fields of COGNITION, SPEECH, CHANGE, FEELING and ACTION.

MET. PROCESS	TYPE METAPHOR	METAPHOR	LEX. EXPRESSION	TARGET DOMAIN
Reification	Concretization	Idea = Object	<i>swing, revolve, stuff cram, shove</i>	COGNITION
		Words = Object	<i>raise, drop, pass</i>	SPEECH
		Ideas/Words = Cloth	<i>spin, weave</i>	SPEECH
	Place/Space	Activity = Place	<i>rush, leave, quit abandon</i>	ACTION
	Orientational	Health = Up	<i>fall, sink</i>	CHANGE
		Pitch = Up	<i>rise, raise, sink, lower drop</i>	CHANGE
		More = Up	<i>jump, rise, raise, fall sink, plunge, plummet come down, lower drop, sink</i>	CHANGE
		Importance/Status = Up	<i>rise, climb, come down</i>	CHANGE
		Happy = Up	<i>fall, sink, lift</i>	FEELING
		Activity/Processes = Movement forward	<i>push, prod</i>	ACTION
Personification	Emotion = Sense expression	<i>shake, tremble, shiver shudder, quiver</i>	FEELING	
	Idea = Human	<i>slip, escape</i>	COGNITION	
	Body part = Human	<i>fall, sink</i>	FEELING	

Following Goatly (1997), the metaphorization of abstract entities can obtain through a process of reification or personification. Reifying metaphors fall into three categories:

- (i) Concretizing metaphors, which codify the representation of abstract entities as objects or cloth/clothes (first row).
- (ii) Orientational metaphors, i.e. equations linked to the notion of place/space (second row).
- (iii) Metaphors related to the notion of orientation. Abstract concepts such as health, pitch, happiness, amount and rank are seen as entities on a vertical axis (up/down)⁵.

The last set of equations codify the personification of abstract entities.

Note that some verbs codify several metaphors, e.g. *rise, fall, sink, lower*. In this regard, we may affirm that the intrafield membership correlates with the interfield double membership.

MOVEMENT AND CHANGE

The projection of MOVEMENT onto CHANGE touches upon verbs denoting an increase or decrease in amount or degree, thus linking MOVEMENT to CHANGE, since the semantic parameters of amount and degree traverse the domain of CHANGE. The connection between both semantic fields obtains from a set of orientational metaphors (cf. above):

- (24) He has risen to the position of manager.
- (25) Share prices have plunged.

MOVEMENT AND FEELING

MOVEMENT verbs also extend to FEELING. This extension results from the codification of several metaphorical processes:

- the metaphorical representation of a feeling (happiness) on an up/down scale:

- (26) Whenever I feel down, Martha lifts my spirits.
- (27) Peter's face fell when I broke the news to him.

- the personification of body parts. This metaphor interacts with the previous one (cf. example above).

- the metaphorical structuring of emotions as sense expressions. The verbs *shake, tremble, shiver, shudder* and *quiver* describe body movement as expression of an internal emotional state (anxiety, fear, disgust). This metaphorical process can be explained by the fact that emotions have corresponding physical effects on the experiencer, and these effects have come to represent the emotion that caused them:

- (28) He trembled like a leaf at the sight of the tiger.

MOVEMENT AND COGNITION

The metaphorical projection of MOVEMENT into COGNITION results from a process of reification or personification of abstract entities. On the one hand, ideas can be metaphorized as objects moving in/into (*revolve, penetrate*) or out of somebody's mind (*slip, escape*):⁶

- (29) The importance of her decision did not penetrate at first.
- (30) His surname has slipped my mind.
- (31) There is a major point which seems to have escaped you.

To use Halliday's terminology (1994:117), the last examples are instances of the *please-type* metaphorical structuring of mental processes. Mental processes can be represented either as *like-types* or *please-types*. This means that *I like X* is equivalent to *X pleases me*. Then, *It has slipped my mind/It has escaped me* has the same meaning as *I have forgotten it*.

Ideas can also be seen as objects which are pushed into someone's mind:

- (32) He stuffed my head full of strange ideas.

Following Reddy (1993), the verbs *stuff, cram* and *shove* lexicalize an aspect of the *conduit metaphor*, which explains the conceptualization of communication as the transfer of thoughts bodily from one person to another.

MOVEMENT AND SPEECH

The verbs *raise, drop, pass, spin* and *weave* show the extension of MOVEMENT to SPEECH. Ideas can be communicated like objects being moved: *raise* (a subject, an *objection*), *drop*⁷ (a *hint, remark*), *pass* (a *sentence, remark*):

- (33) You shouldn't drop hints about promotion to your boss.

Words can also be metaphorically seen as strands of thread that the speaker puts together to produce a coherent message:

- (34) The old sea captain sat by the fire spinning yarns.

MOVEMENT AND ACTION


The connection of MOVEMENT with ACTION is established through the metaphorization of activities as places. Activities can be described as if they were linear motion. It is then possible to move into (*rush*) or away from an activity (*leave, quit, abandon*):

- (35) They abandoned the game because of the rain.

On the other hand, causing an activity is causing movement forward:

- (36) She pushed me into taking the job.

CONCLUSION

The semantic analysis of the field of MOVEMENT has shown that words are embedded in a set of rich semantic relations. The focalization of a meaning component and the genus of the lexeme account for the extension of a few MOVEMENT verbs to other subdomains within the domain (intrafield extensions). On the other hand, the metaphorical processes encoded in the semantic domain of MOVEMENT account for the projection of many verbs onto other semantic fields (interfield extensions), thus giving proof of the linguistic significance of metaphor. 

NOTES

¹ This assumption is found in some semantic theories (i.e. prototype semantics).

² By working upwards from the definitional structure of primary lexemes, Faber and Mairal (1997) have identified eleven semantic domains corresponding to basic conceptual categories: EXISTENCE, MOVEMENT, POSITION, CHANGE, PERCEPTION, FEELING, COGNITION, POSSESSION, SPEECH, SOUND, and GENERAL ACTION.

³ The concept of subdomain is based on Geckeler's (1971) concept of *lexical dimension*.

⁴ See appendix for the configuration of the paradigmatic axis of the semantic domain of MOVEMENT.

⁵ Lakoff and Johnson's Experiential Hypothesis (1980: 267-268) postulates that most abstract concepts arise from our preconceptual bodily experiences as infants —like the experience of up and down— by metaphorical projection.

⁶ Note the conceptualization of the mind as a place. As Romelhart (1993:89) points out: "We use a spatial world to talk about the mind".

⁷ This verb codifies the *conduit metaphor* (cf. above).

⁸ The verbs in brackets are an example of the type of verbs falling in each subdomain.

APPENDIX: PARADIGMATIC DESCRIPTION OF THE SEMANTIC DOMAIN OF MOVEMENT⁸

1. MOVEMENT

1.1. General (*move*)

1.1.1. To move in a particular way

1.1.1.1. To move quickly (*race, hurry*)

1.1.1.1a. To cause sb/sth to move quickly (*race, hurry*)

1.1.1.2. To move slowly (*slow, trundle*)

1.1.1.2a. To cause sth to move slowly (*slow, trundle*)

1.1.1.3. To move smoothly (*glide, slide*)

1.1.1.4. To move forwards quickly/suddenly (*jump, leap*)

1.1.1.5. To move in a circular manner (*curl, circle*)

1.1.1.5a. To cause sth to move in a circular manner (*turn, spin*)

1.1.1.6. To move from side to side/back and forth/up and down repeatedly (*swing, rock*)

1.1.1.6a. To cause sb/sth to move from side to side/back and forth/up and down repeatedly (*swing, rock*)

1.1.2. To move off/away from a place/thing/person (*leave, go*)

1.1.3. To move towards a place/person (*advance, go*)

1.1.4. To move backwards (*back, reverse*)

1.1.4a. To cause sth to move backwards (*back, reverse*)

1.1.5. To move upwards (*rise, climb*)

1.1.5a. To cause sb/sth to move upwards (*lift, raise*)

1.1.6. To move downwards (*fall, descend*)

1.1.6a. To cause sth to move downwards (*lower, drop*)

1.1.7. To move upside down (*turn over, overturn*)

1.1.7a. To cause sb/sth to move upside down (*turn over, overturn*)

1.1.8. To move across/over/through (*pass, cross*)

1.1.9. To move in a different direction (*change, turn*)

1.1.10. To move in relation to sb/sth

1.1.10.1. To move together (*accompany*)

1.1.10.1a. To cause sb/sth to go with you (*take, bring*)

1.1.10.1.1. To move with sb, going before/after (*lead, follow*)

1.1.10.2. To move round in order to be on all sides of (*gather round, surround*)

1.1.10.3. To move out in all directions (*spread*)

1.1.10.3a. To cause sth to move out in all directions (*spread*)

1.1.10.4. To move into a place (*enter*)

1.1.10.4a. To cause sb/sth to move into a place/sth (*pierce, push*)

1.1.10.4.1. To move into a building by force (*break in*)

- 1.1.10.5. To move out of a place (*emerge*)
 1.1.10.6. To move to a different place/position (*shift, relocate*)
 1.1.10.6a. To cause sb/sth to move to a different place/position (*shift, relocate*)
 1.1.10.6.1. To move sb/sth to a different place/position by holding and drawing them along, esp. with force (*pull*)
 1.1.10.6.2. To move sb/sth to a different place/position by holding/walking behind them and exerting force on them, esp. with one's hands (*push*)
 1.1.11. To not move any more (*stop*)
 1.1.11a. To cause sb/sth to not move any more (*stop*)
 1.2. Liquid
 1.2.1. To move as liquid in a particular way (*flow*)
 1.2.1.1. To move slowly in small quantities (*drip*)
 1.2.1.2. To move quickly in large quantities (*pour*)
 1.2.1.3. To move out through an opening (*squirt*)
 1.2.1.3a. To cause a liquid to move out through an opening (*squirt*)
 1.2.2. To move in/downwards below the surface of a liquid (*sink*)
 1.2.2.a. To cause sb/sth to move in/downwards below the surface of a liquid (*sink*)
 1.2.3. To move over liquid (*sail*)
 1.3. Atmosphere
 1.3.1. To move through the air (*fly*)
 1.3.2. To move upwards (*rise*)
 1.3.3. To move downwards (*descend*)
 1.4. Land
 1.4.1. To move in a particular way (*skulk, creep*)
 1.4.1.1. To move using one's feet (*walk*)
 1.4.1.1.1. To move quickly using one's feet (*run*)
 1.4.1.1.2. To move up and down using one's feet (*jump*)
 1.4.2. To move downwards to the ground (*fall*)
 1.4.3. To move one's body (*writhe, squirm*)
 1.4.3.1. To move one's body by raising it (*stand up*)
 1.4.3.2. To move one's body by lowering it (*sit*)
 1.4.3.3. To move a part of one's body (*raise, bend, lick*)

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H. Olbertz, K. Hengeveld and J. Sánchez García, eds.
**THE STRUCTURE OF THE LEXICON IN
 FUNCTIONAL GRAMMAR**

Amsterdam: John Benjamins, 1998

312 pp.

The present volume can be ascribed to a current of resurgence of interest in the lexicon and lexical analysis which has characterised linguistic theory in the last few years. As the title suggests, the book deals with the role of the lexicon in Functional Grammar (FG henceforth), a model which the editors outline in the preface. In FG the lexicon is a fundamental component. Lexical items are treated as predicates (basic and derived predicates) and stored in the lexicon in the form of the predicate frames, which provide the following types of information:

- (i) the form and the syntactic category of the predicate,
- (ii) its quantitative valency, i.e. the number of arguments that the predicate requires,
- (iii) its qualitative valency, i.e. the semantic functions of the arguments and their selection restrictions,
- (iv) the meaning definition.

The underlying clause structure is built from the predicates. The expression rules transform the underlying structure into a clause in natural language, introducing the words that do not form part of the lexicon.

The volume is divided in five sections. The first section concentrates on the Functional Lexematic Model (FLM henceforth) and consists of five articles. The first one is a presentation of the model by Faber and Mairal, followed by three applications of it by Calañas, Felices and Fernández. In the last article of this section, Rozina discusses the semantics-syntax interplay.

The second section of this volume, which contains three articles, is devoted to predicate formation, i.e. the derivation of predicates on the basis of productive rules. Baron and Herslund deal with nominalizations in Danish, François analyses pseudo-reflective constructions in French, and Tweehuysen compares causative constructions in Dutch and Swedish.

The third and fourth parts consist of two articles each. In the third section, Butler and Corda raise the question of how to account for collocational