

ANDREA BELLAVIA

Force Change Schemas and Excessive Actions:
How High-Level Cognitive Operations
Constrain Aspect in Idiomatic Constructions

Andrea Bellavia
Universitat Autònoma de Barcelona
Centre de Lingüística Teòrica

bellavia.andrea@gmail.com

Abstract

Aspectuality has been claimed to be determined by the same principles in both literal and idiomatic readings of equivalent structures. In this paper, we analyze the English V one's BODY PART out/off idioms which correspond to a pattern of intensive meaning construction involving a change in the interpretation of the aspectual classes of their VPs. This class of idiomatic constructions denotes systematically a change of location undergone by a body part at the source domain which is metaphorically projected into the target domain which denotes an event carried out in an intensive fashion. The activation of metaphorical modes of thought is the foundation of the two-level integration model advanced here as a semantic compositional representation (semantic pole) of the idiomatic constructions. The model, blended in nature, gives rise to emergent structures which are foregrounded with respect to the unitary integration process. The interaction between the cognitive operations involved in the construction of the final idiomatic meaning is argued to motivate the shifts toward atelicity of the idioms analyzed.

Keywords: Lexical Aspect; Aspectual Shifts; Idioms; Cognitive Grammar; Fake Resultatives

1 Introduction

The main question to be addressed in this paper is whether the aspectual properties of idiomatic constructions can be determined according to the same principles we would use for non-idiomatic ones. We take the issue by focusing on a specific pattern of intensive meaning construction in English: the V one's body part out/off idioms. In particular, we provide an analysis of constructions of the type *John laughed his head off* ('John laughed intensely/a lot') and *she cried her eyes out* ('She cried a lot') where the intensity of the action is systematically conveyed by a caused removal of a body part expressed in the linguistic structure.

The activation of this metaphorical mapping has consequences for the conceptual interpretation of aspect which appears to be constrained by high-level cognitive operations. In fact, under the literal reading of a construction containing the same VP (e. g. the audience laughed the actor off the stage), a different aspectual class would be involved. In more detail, under the idiomatic reading, the (unreal) eventuality can be associated to an atelic resultative construction (a fake resultative in terms of Jackendoff 1997) while under the literal reading the sentence can be defined as a telic resultative construction. These aspectual shifts have been motivated by advancing metaphorical modes of thought dynamically activated in the process of idiom comprehension (Mateu & Espinal to appear, 2010 after Gibbs 1994, Lakoff 1993, Lakoff & Johnson 1999).

The formulation of the metaphor an intensive action is a change of location (Mateu & Espinal 2010) will be the basis for the application of the so-called Force Change Schema (Broccias 2003) used as the semantic pole for resultative constructions and adapted to the data discussed in the present study to propose a possible compositional path for their idiomatic meaning. The model, structured by two level of successive conceptual integration, will be advanced as a schematic representation for the meaning implications involved in the idiomatic pattern. The general goal of this paper is to investigate the cognitive operations involved in the conceptual interpretation of the aspectual properties related to different classes of predicates and to account for the shifts toward atelicity which affect certain classes of idioms like the ones under examination. We begin by discussing the notion of lexical aspect and its relevance within the Cognitive Linguistics framework in subsection 2.1.

In subsection 2.2, we provide an overview of previous accounts which have specifically dealt with idioms and aspectuality. In particular, we will consider as valid metaphorically driven approaches to idiomatic interpretation (Espinal & Mateu 2010) as opposed to formal treatments of idioms (Jackendoff 1997, McGinnis 2005, Glasbey 2003) which see idiomatic meaning as a combination of the properties of their syntactic constituents. In section 3, (i) we advance our proposal by introducing the problem of aspectual shifts and examining the cognitive operations involved in idiom comprehension and (ii) we introduce the two-level integration model as a heuristic representation of their semantics. We conclude with some final comments conclusions in section 4.

2 Background

2.1 The Inherent Structure of Events

The first point that we feel the need to clarify for a proper coverage of the topic is the distinction between the notions of grammatical aspect and lexical aspect (or *Aktionsart*). In the Cognitive Linguistics literature, scholars do not always support the different implications of the separation between the two types of aspect and this is not astonishing given the impossibility to mark a clear-cut grammar/lexicon distinction (Boogart and Janssen 2007). However, when it comes to aspectual shifts, we assume Vendler's classification (Vendler 1967), and implicitly the relevance of lexical aspect, for two main reasons.

First, we argue that there is a correlation between the inherent structure of events and the typical abilities for apprehending and tracking relationships claimed in Cognitive Grammar, namely the notion of scanning (Langacker 2008: 111). In fact, how component states of an event are accessed and conceptualized crucially relates to the binary properties assigned to the aspectual classes. Second, we endorse the definition of aspect provided in Croft (2012) according to which lexical aspect describes how events are construed as unfolding over time and, thus, a two-dimensional analysis of aspectual types is required in order to investigate the semantic complexity of aspect and the conceptualization processes that intervene in the relationship between aspect and *Aktionsart*. Basically, two general approaches to aspect can be distinguished in the literature (Croft 2012, Michaelis 2004): unidimensional and bidimensional. In unidimensional approaches, there is no difference between the semantics of grammatical and lexical aspect. In bidimensional approaches the two types of aspect are semantically distinct. In the present account, we assume Croft's (2012) construal approach according to which aspectuality has to be defined according to the semantic structure of predicates and inferred from the interpretations of predicates in different tense/aspect constructions. In other words, events may involve different perspectives, and then the possibility of viewpoint shifts in terms of aspectual construals is fundamental to capture the differences in the inherent structure of events. Since the analysis presented here is essentially focused on the lexical aspect of different classes of predicates, we assume as a starting point the basic Vendlerian classification into four different categories of lexical aspect.

- (1) States: be sick [stative, durative, atelic]
- (2) Activities: sing, run [non-stative, durative, atelic]

- (3) Achievements: sink [non-stative, punctual, telic]
- (4) Accomplishments: build [non-stative, durative, telic]

Generally speaking, these classes are defined according to three binary distinctions: stative/non-stative, punctual/durative, telic/atelic. The present analysis is concerned with detelicization processes in idiomatic contexts, namely aspectual shifts from a telic to an atelic interpretation of a predicate when an idiomatic expression has the same syntactic structure, or at least the same verb phrase, as a non-idiomatic counterpart.

In particular, states describe situations that are both stative and durative since they do not change and last over time. Activities describe both dynamic events and processes and involve a change over time. Additionally they do not have an inherent endpoint. Processes are also instantiated by the Achievement class but provide as well a culmination of the event in a punctual point in time. Accomplishments involve a process resulting in a change of state that lasts in time. The typical diagnostic procedure to define the aspectual class of a verb is the modification by the container and durative adverbials (Croft 2012). The *in*-phrase and *for*-phrase modification (as originally dubbed in Vendler 1967), commonly used to distinguish between telic and atelic events, indicate respectively the length and the span of time over which the event occurred.

These diagnostics will provide the analysis with crucial insights to define the aspectual properties of the data discussed in the present paper. Other methodologies have been applied to define more specifically the properties of the four categories, even though their semantics may overlap and, accordingly, the predicates may belong to different aspectual classes. This comes as no surprise given the fact that each category shares at least one property with the other three categories part of the taxonomy. Now, we are going to describe how this potential overlapping has been diagnostically disentangled. The present progressive *what are you doing?* test has been applied with respect to the stative/non-stative distinction, and in particular to differentiate states (to know) from activities (to laugh), since both are durative and atelic but display a divergence in terms of the dynamicity of the event.

- (5) What are you doing? *I am knowing.
- (6) What are you doing? I am laughing.

Finally, two other tests are used to make a distinction on the one hand between accomplishments and the other three categories, on the other hand between states and the rest of the taxonomy: *it took me/him/her/us-TIME INTERVAL-to* test and *do you - STATE?* test.

- (7) It took them two months to build the castle.
- (8) Do you know the truth? Yes, I do.

Vendler (1967) posits other diagnostic questions to distinguish achievements from states. The *at what moment?*-test and the *for how long?*-test are used to point out the compatibility of achievements with the first temporal question while states are fine if modified by the second one. Inverting the test to evaluate the nature of the predicates for the two classes will lead to semantic inappropriateness, or more drastically to ungrammaticality.

- (9) At what moment did the ship sink?/*At what moment have you been sick?
- (10) For how long have you been sick?/*For how long did the ship sink?

However, even if helpful, the above-mentioned tests do not solve completely the exact attribution of the aspectual properties to the individual classes, being this an operation crucially influenced by usage-based facets and viewpoint factors, besides the morphological/inflectional elements that, in some languages, play a role in the definition of aspect (Dahl 1985).

2.2 A Conceptual Metaphor Account of Aspectuality

The model presented in this paper to account for the cognitive operations that intervene in the conceptual interpretation of aspect and constrain the attribution of the aspectual class to the VP in idiomatic context, is based on a previous analysis advanced in Espinal & Mateu (2010) and Mateu & Espinal (to appear) which has posited the activation of metaphorical modes of thought as the fundamental motivation for the atelicity of idioms like (11) and (12).

- (11) John worked his guts out all day long/*in ten minutes.
- (12) John laughed his butt off all day long/*in ten minutes.

(Mateu and Espinal to appear)

In particular, the above sentences, which appear to fall in the class of fake resultatives, are compared to telic resultative constructions in (13) and (14) associated to literal interpretations.

- (13) The audience laughed the actor off the stage in/*for ten seconds.
- (14) She worked the splinter out of her finger in/*for ten seconds.

(Mateu and Espinal to appear)

By claiming the activation of conceptual metaphors, the study demonstrates how the idiomatic readings in (11) and (12) can be associated to durative activities (given also

possibility to modify the sentence by a for-phrase) and goes beyond Jackendoff's claim that VPs in fake resultatives like are interpreted as "V excessively" and Glasbey (2003)'s argument according to which in the non-literal sentences there is no gradual patient relationship. The intuition to deal with fake resultatives in terms of conceptual metaphor is inspired by Goldberg (1995)'s account of true resultatives, which in her Construction Grammar approach are seen as a metaphorical extension of the caused-motion constructions of the type John kicked the bottle into the yard. Resorting to the basic conceptual metaphor change of state is a change of location the resultative construction structure is 'inherited' from the caused-motion. Different formulations of the specific conceptual metaphors involved in the interpretation of the idioms in (11) and (12) are provided in Espinal & Mateu (2010). First, the conceptual mappings involve the primary metaphor the body as a container since a figurative extraction of body part from the container occurs at the source domain and is mapped into the target domain that is the more abstract intense action. In their terms, the action carried out in an excessive fashion is expressed in the linguistic structure by a displacement of a body part.

(15) AN INTENSE ACTIVITY IS AN EXCESSIVE DETACHMENT (OR EXHAUSTION) OF A BODY PART

The metaphor as formulated in (15) is a subset of the more general (complex) conceptual metaphor in (16) which is responsible for the interpretation of idioms like (11) and (12) as durative activities.

(16) AN INTENSE ACTIVITY IS AN EXCESSIVE CAUSED CHANGE OF LOCATION/STATE

In particular, the change of location denoted by the directional paths (out or off) is projected into the domain of the activity, characterized as 'so intense that they appear to lack boundaries' (Mateu & Espinal to appear). We acknowledge the role of the conceptual metaphor in the definition of aspect in idiomatic contexts but at the same time we claim that it is insufficient to account exhaustively for the cognitive modes of thought involved in meaning construction which constrain the final atelic interpretation of the idiomatic constructions.

3 A Conceptual Analysis of Aspectual Shifts

In the present study, an aspectual shift is claimed to occur (in certain classes of idioms) when a VP, that allows both a literal and an idiomatic reading, can be associated to

different aspectual classes depending on the interpretation that is accessed according to contextual information and communicative purposes. More classes of idioms have been argued to be affected by aspectual shifts toward telicity. The V one's BODY PART idioms, examined in the present paper after Espinal & Mateu (2010), are one of those classes. Furthermore, relevant counter-examples, undergoing the same types of shifts and involving the same patterns of conceptual interaction have been proposed for Romance languages (e. g. Italian, see Bellavia 2012). Let us take into analysis the following minimal pair:

(17) The audience laughed the actor off the stage in ten seconds/*for then seconds.

(18) John laughed his head off for ten seconds/*in ten seconds.

The verb *to laugh* under the literal and the idiomatic readings is associated to two different aspectual classes, respectively. In (17), the possibility to modify the event by using an in-phrase adverbial allows us to define it as telic (accomplishment). The same cannot be said for (18), where the VP under the idiomatic interpretation denotes a durative activity. The problem at issue is complex and relates to different factors. First of all, the question we should find an answer to is how the aspectual properties of the same VP can be different in the two relevant readings. Then, we should find out whether it is a problem that can be explained by looking at the structural components of the sentence or we need to appeal to the conceptual interpretation of aspectuality.

We claim that the change in the aspectual properties can be accounted for by considering the cognitive operations involved in the conceptual mapping between two domains of experience, namely the concrete change of location expressed in the structural components of meaning and the intensity of the action expressed by the idiomatic meaning. These semantic implications are heuristically represented using a two-level model of conceptual integration where, at the first level, the integration will involve two components of meaning giving rise to the single sentence unit of the idiom like in John laughed his head off; at the second level, the integration will affect the two domains of experience implicated via metaphorical activation. The details of the semantic model are described in more detail in the next section.

Following the main tenets of Cognitive Grammar (Langacker 1987, 1991), we argue that idiomatic constructions involve at the semantic pole a complex scene that consists of a final foregrounded meaning as a result of a compositional path which corresponds to the process of assembling of their semantic structure. The purpose of the compositional path is to capture in a unitary fashion all the meaning implications, patterns of

figurations (Langlotz 2006) and cognitive operations involved in idiomatic interpretation. The phonological pole implies the same configuration as the one correspondent to a potential literal scene implied by the sentence. In this sense, the literal scene “works as the scaffolding against which the idiomatic meaning is conceived” (Langlotz 2006: 108). Once the idiomatic meaning can be accessed via patterns of figuration which provide a conceptual basis to make sense of its semantics, it will be foregrounded. In the background, the literal scene will be still available but as a more concrete domain from which the conceptual structure is imported, or – to put it in terms of Langlotz (2006) – as standard of comparison for the foregrounded idiomatic meaning.

We argue that the meaning implications involved in the idiomatic construction in (9b), carry out aspectual information and since the displacement of the body is unreal and is used as a source domain to make sense of the intensity domain, there is no endpoint involved in the idiomatic event. But the inherent scene provided by these idioms is much more complex and to represent it properly we resort to the Force Change Schema (FCS) as developed in Broccias (2003). The FCS will serve as the conceptual “scaffolding” to build up the two-level integrated model implied by the activation of the conceptual metaphor an intense action is a change of location which will give rise to the foregrounded idiomatic meaning.

To sum up: the sentence in (17) – associated to a literal reading – can be claimed to be a true resultative. We have already seen that, examples such as (18) have been defined as fake resultatives since they are conceptually associated to atelic readings and there is no semantic relation between the V and the NP. More precisely, there is no semantic constraint of patienthood over the NP (Goldberg 1995: 99–100).

The FCS has been proposed to represent the semantic pole of transitive resultative constructions (Broccias 2003: 52) as in the following examples:

(19) John hammered the metal flat.

(20) Sally danced herself to fame.

Interestingly enough, a crucial distinction between (19) and (20) is pointed out in Broccias (2003: 178). The former conveys a visible condition, the latter a not visible condition. When a not visible condition is involved the event is said to be carried out in an above-the-norm fashion.

The FCS is a composite structure which results from the integration (in terms of Fauconnier & Turner 1996) of a force component (FC) and a change component (CC). In a sentence like (17), the FC is the *audience laughed the actor*, whereas the CC is *the actor*

off the stage. The V is an intransitive verb that is constructed here in a forcible fashion and, in terms of Langacker (2009: 256), can be considered as the skewing element of the construction, namely an element whose the composite meaning of the expression it appears in is incongruent with respect to the verb's meaning. The schema in Figure 1 represents the FCS and it is related to the true resultative construction of the literal reading in (17). At the FC, the trajector the audience exerts the force instantiated by the verb laughed over the landmark the actor. At the CC, the force causes the displacement of the element that corresponds to the landmark from an origin to a goal. The path *off* is instantiated by an arrow. The entities that are not in bold are not specified in the linguistic structure. In this sense, even if *off the stage* could be considered as the resultant state, no specific entity representing the goal is expressed in the sentence. The dotted lines indicate the correspondences between the entities of the two components that are integrated in the single conceptual unit (the blend).

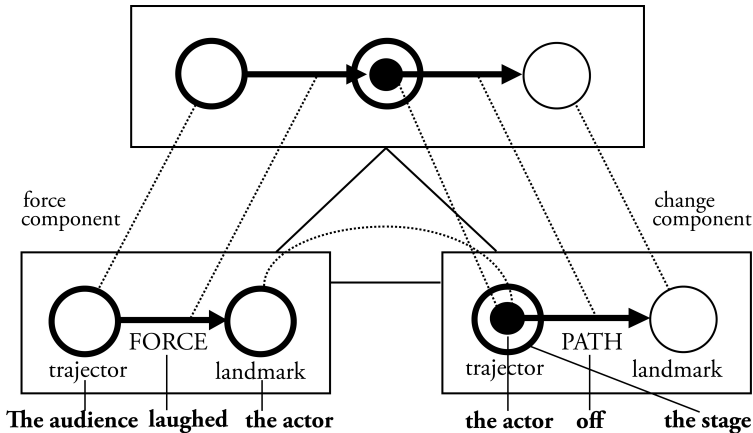


Figure 1: The audience laughed the actor off the stage

The point we make in the present paper is based on an extended version of the FCS consisting of two levels of integration obtained via metaphorical activation. The two-level model provides a schematic description of the semantic pole of the idiomatic construction in (18) and is representative of fake resultatives. As represented in Figure 2, at the first level (exactly like the literal reading) the integration between the FC and the CC results into a single conceptual unit. Thus, we have a force exertion of the verb *to laugh* from the trajector *John* over the landmark head at the FC, and a displacement (head off) from an origin toward a goal at the CC. Given the coreferentiality of the

possessive determiner with the subject the origin coincides with the trajector. We claim that the first-level integration occurs within the source domain that is the change of location.

The interaction of this domain with the target domain intensity conceptualized via the image-schematic structure scale, giving rise to the final level of integration where the event itself of laughing is argued to assume the role of trajector moving along the open-ended scale of intensity and providing, thus, no inherent endpoint in the event. In fact, as defined in Johnson (1987: 123) the image schema scale may either continue indefinitely in one direction or may terminate at a definite point. The concept of intensity has been defined in the literature as open-ended, hence we stipulate the indefinite value of the abstract concept (∞) expressed by the intense action. Still, the dotted lines indicate the correspondences between the entities of the two components that are integrated into a single conceptual unit.

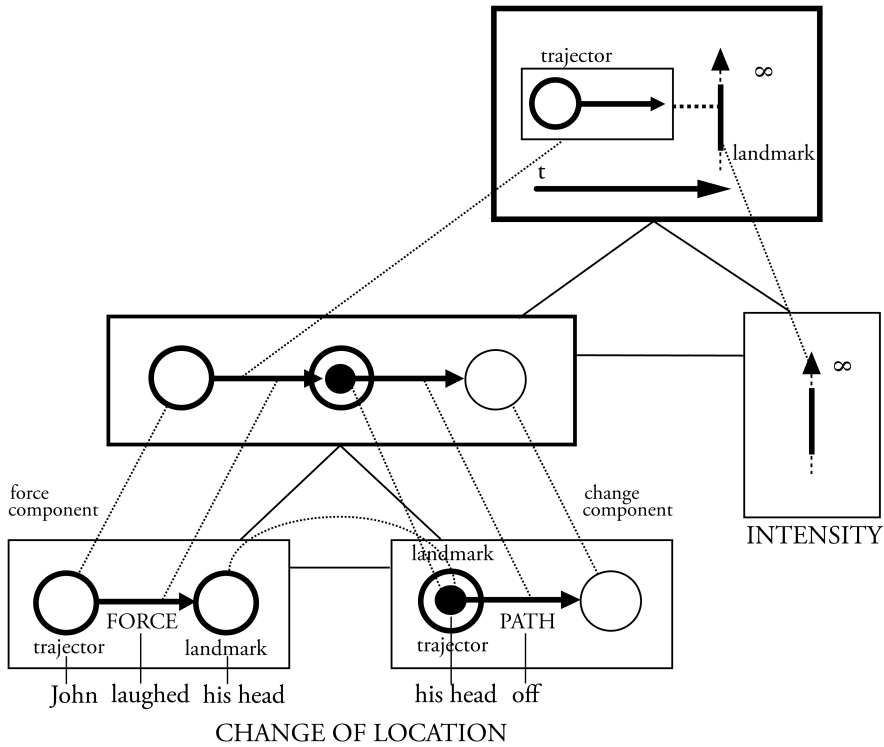


Figure 2: John laughed his head off

The single conceptual unit of the second-level integration will be the salient part corresponding to the foregrounded idiomatic meaning. Blended spaces are the result of projecting source domain onto target domains. Furthermore, conceptual units which are the result of blending operations are hybrid (Langacker 2008: 51) in the sense that they combine and foreground selected features of each input space. In the same way, at the end of idiom comprehension, the speaker will select the intense activity because the final level of integration will be in the foreground.

4 Final Comments

The proposal advanced as an account for aspectual shifts has been focused on the cognitive operations involved in idiomatic meaning construction and its processing. Our main concern has been to explain the systematicity of the expression of intensive actions via a caused removal of a body part. In this respect, we have claimed a two-level integration model as a representation of the unitary compositional paths entailed by the semantics of the V one's body part out/off idioms.

The model – based on the Force Change Schema (Broccias 2003) consisting of a single conceptual unit as a result of the integration between a force component and a change component – implies a second level of integration given by the activation of the conceptual metaphor an intense action is a change of location, first proposed in Espinal and Mateu (2010). The atelicity of the events has been assumed to be caused by the unbounded nature of the concept of intensity involved in the target domain. We have also argued that the conceptual mappings allow the different experiential domains to be integrated in an emergent structure that, given its complex blended nature, results in a foregrounded space, namely the final level of idiom processing.

Acknowledgements

Many thanks to Maria Teresa Espinal and Jaume Mateu for enlightening conversations and support. I would also like to thank the organizers and the audience of the SMCLC 2011 for comments and interesting issues raised after my talk. The present work has received financial support from the Spanish Ministerio de Economía y Competitividad (grant FFI2011-23356/FILO) and the Generalitat de Catalunya AGAUR (grant FI-DGR 2011). All errors are my own.

References

- Bellavia, A. (2012). Detelicization Processes in Idiomatic Constructions: A Cognitive Grammar Approach. In B. Surányi & D. Varga (Eds.), *Proceedings of the First Central Europe – an Conference in Linguistics for postgraduate Students*. Budapest: Pázmány Péter Catholic University.
- Boogart, R., Janssen, T. (2007). Tense and Aspect. In D. Geeraerts & H. Cuyckens (Eds.), *The Oxford Handbook of Cognitive Linguistics* (pp. 803–828). Oxford: Oxford University Press.
- Broccias, C. (2003). *The English Change Network*. Berlin/New York: Mouton de Gruyter.
- Croft, W. (2012). *Verbs: Aspect and Clausal Structure*. Oxford: Oxford University Press.
- Dahl, Ö. (1985). *Tense and Aspect Systems*. Oxford: Blackwell.
- Espinal, M. T., Mateu, J. (2010). On classes of idioms and their interpretation. *Pragmatics* 42, 1397–1411.
- Fauconnier, G. (2009). Generalized integration networks. In V. Evans & S. Pourcel (Eds.), *New Directions in Cognitive Linguistics*. Amsterdam/Philadelphia: John Benjamins.
- Gibbs, Raymond. 1994. *The Poetics of Mind*. Cambridge/New York: Cambridge University Press.
- Gibbs R., Bogdonovich, J., Sykes J., Barr, D. (1997). Metaphor in idiom comprehension. *Memory and Language*, 37, 141–154.
- Glasbey, S. (2003). Let's paint the town red for a few hours: composition of aspect in idioms. In A. Wallington (Ed.), *Proceedings of the ACL Workshop: The Lexicon and Figurative Language*, Sapporo, 42–48.
- Glasbey, S. (2007). Aspectual composition in idioms. In Louis de Saussure, J. Moeschler & G. Puskas (Eds.), *Recent Advances in the Syntax and Semantics of Tense, Aspect and Modality*. Berlin: Mouton de Gruyter.
- Goldberg, A. (1995). *Constructions. A Construction Grammar Approach to Argument Structure*. Chicago: The University of Chicago Press.
- Jackendoff, R. (1997). Twistin' the night away. *Language* 73, 534–559.
- Johnson, M. (1987). *The Body in the Mind. The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: The University of Chicago Press.
- Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By*. Chicago: The University of Chicago Press.
- Lakoff, G., (1993). The contemporary theory of metaphor. In A. Ortony (Ed.), *Metaphor and Thought*. Cambridge: Cambridge University Press.

- Langacker, R. W. (1987). *Foundations of Cognitive Grammar, Vol. 1. Theoretical Prerequisites*. Stanford, CA: Stanford University Press.
- Langacker, R. W. (1991). *Foundations of Cognitive Grammar, Vol. 2. Descriptive Application*. Stanford: Stanford University Press.
- Langacker, R. W. (2008). *Cognitive Grammar. A Basic Introduction*. New York: Oxford University Press.
- Langacker, R. W. (2009). Constructions and constructional meaning. In V. Evans & Stéphanie Pourcel (Eds.), *New Directions in Cognitive Linguistics*. Amsterdam/Philadelphia: John Benjamins.
- Langlotz, A. (2006). *Idiomatic Creativity: A Cognitive Linguistic Model of Idiom-Representations and Idiom-Variation in English*. Amsterdam and Philadelphia: John Benjamins.
- Mateu, J., Espinal, M. T. (to appear). Laughing our heads off: When metaphor constrains aspect. In *Proceedings of the 33rd Annual Meeting of the Berkeley Linguistics Society*. Berkeley, CA.
- Langlotz, A. (2006). *Idiomatic Creativity: A Cognitive-linguistic model of Idiom representation and idiom variation in English*. Amsterdam and Philadelphia: John Benjamins.
- McGinnis, M. (2002). On the systematic aspect of idioms. *Linguistic Inquiry* 33 (4), 665–672.
- Michaelis, L. A. (2004). Type shifting in construction grammar: An integrated approach to aspectual coercion. *Cognitive Linguistics*, 15–1, 1–67.
- Vendler, Z. (1967). *Linguistics in Philosophy*. Ithaca and London: Cornell University Press.