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9

Figurative Meaning Construction in Thought and Language

EDITED BY
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Volume 9

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Foreword and acknowledgements

This volume brings together a selection of cutting-edge research studies that were delivered at the *2nd International Symposium on Figurative Thought and Language* (November 2015), including five of the plenary talks and seven selected papers from the symposium. The authors, coming from ten different countries, are representative of many angles of Cognitive Linguistics. I am confident that the twelve chapters in this volume will foster scholarly debate in the issues raised and offer further impetus for future research on this area. I hope the volume will attract the interest of linguists, whatever their scientific persuasion, in the interplay between language and thought.

My warmest thanks go to the authors for their enthusiasm and high-quality chapters. I gratefully acknowledge the constant support and fruitful advice of the editors-in chief of the series *Figurative Thought and Language*, Angeliki Athanasiadou and Herbert Colston: Their wisdom and experience have been a great asset to me. Special thanks go to Günter Radden for his generous help during some steps of the editing process. My warm thanks go to Esther Roth and the publishing house John Benjamins for their efficient collaboration throughout the whole process.

Annalisa Baicchi
Genoa, April 2019

Figurativeness all the way down

By way of introduction

Annalisa Baicchi
University of Genoa

This volume showcases twelve chapters that profile current research on figurativeness as is explored from the Cognitive Linguistics perspective.

Figurativeness is not merely a device for the embellishment of communication as was seen until a few decades ago, but it is, first and foremost, the pivot around which our thinking ability revolves. The opportunity is seized in this introduction to briefly take stock of how meaning is constructed in the mind of the language users, and to delineate how figurative language is the outcome of semantic information grounded in the action-perception system of the human brain, and embodied in our mind through the sensori-motor system that guides our interaction with the world.

Over the mid- and last-twentieth century two opposite approaches on the nature of meaning have permeated the scientific debate. They have brought to the fore the question whether meaning is 'outside the self' waiting for a mind to grasp it and store it independent of human experience (*Objectivist Realism*), or it is the outcome of the language user's experience (*Embodied Realism*).

The Objectivist Realism postulates the existence of a mind-independent reality and grounds its tenets on principles of subject-object separation. According to this school of thought, which has imbued the dominant philosophical and linguistic research from Aristotle to Chomsky, the world consists of entities that belong to objectively defined categories, where categories share logical relations that are unrelated with the human mind. Existence is separate from any aspect of human cognition, like perception, understanding, knowledge, or belief. The mind is a computational device that collects the data from human experience, dissects them mechanically, and stores them taxonomically in terms of primary semantic units. Thus, meaning is 'outside the self' and the mind is a mere storage of human experience. Entities and categories of reality are expressed in thought and language through symbols whose meaning is represented by conventional correspondences. From this premise follows that language is an autonomous faculty distinct from any other type of knowledge, and it is the instrument to represent objective reality in symbolic

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form, with mental representations being necessarily either true or false. Figurative expressions are confined to the marginal province of Logic or disdained entirely because they are not verifiable and not representative of reality. Such expressions portrays a research hurdle for generativists, since they can not explain it within the framework of meaning conceived of as bundles of necessary and sufficient features: either the features are compatible, or they are not. Such an approach to meaning sees figurativeness as a violation of selection restriction, and as something that lies beyond the speaker's competence as it flouts the established set of linguistic rules.

The Objectivist mathematics-fashioned perspective has been discarded since the 1980s when cognitive scientists (Pollio et al. 1977; Lakoff and Johnson, 1980; Johnson-Laird, 1988; *inter alia*) carried out a number of empirical studies on the mind which provided us with sound evidence that the categorization of experience is mapped onto the human mind through a process of metaphor by way of perceptual, especially spatial experience. Grown out against the tenets of the Objectivist Realism, the paradigm of Embodied Realism has propounded an internist perspective on reality and adopted perceptually and experientially based principles of iconicity and indexicality, sequential order, proximity and distance, quantity, figure and ground, just to mention a few (Putman, 1981). Lakoff & Johnson's *Metaphors We Live By* (1980) is acknowledged as the manifesto of this new approach to figurative meaning. It is worth mentioning the fact that in the 1930's Ian Richards had paved the way towards an investigation on figurativeness as a mental tool. He first propounded the claim that metaphor goes beyond the limits of linguistic rules for it is indeed a cognitive mechanism. In his words, "metaphor is the omnipresent principle of language" to such an extent that "thought is metaphorical and proceeds by comparison, and the metaphors of language derive therefrom" (1936, pp. 92, 94). The advocates of the Embodied Realism postulate that language and thought are closely structured and bound to the 'embodied experience', both in literal and figurative meaning. They consider any type of meaning as the outcome of human experience (Lakoff & Johnson, 1999), and conceive of language as one of the many cognitive abilities of the human mind, on a par with visual and sensori-motor perception, attention-focusing, memory, emotion, reasoning, and so on. Hence, our linguistic system is inextricably interwoven with the rest of the human physical and cognitive selves (Sweetser, 1990). According to Lakoff and Johnson's 'Embodiment Hypothesis', minds are fundamentally "constituted and constrained by the kinds of organization reflected in the biological, anatomical, bio-chemical, and neurophysiological characteristics of the body and the brain" (1980, p. 3). The term 'embodiment' clearly expresses the idea that cognition cannot function without the physical reality of the body, which is, as a matter of fact, totally immersed into the environment. We could add that the embodied experience is better understood when it is compared to a complex adaptive system where the body, the brain and the context

are seen as systemic agents whose mutual interactions result in meaningful actions. This is all the more true when the whole system sets out to accomplish linguistic actions in order to construe meaning. Cognition arises from the sensori-motor interaction between an agent and the surrounding world, that is, a form of coupling where the agent and the environment are not separated but they mutually influence and determine each other (Varela et al., 1991).

Figurative language is the outcome of our figurative thought, which derives from the ever-present interconnection between our physical experience and the relation we set up with the cultural context in which we live (Gibbs & Colston, 2012). Not only are the mind and the body inseparable, but they cannot be reduced to mechanical brain activity or abstract mental representations separated from the whole personhood. We take side with Gibbs when he stated that "understanding embodied experience is not simply a matter of physiology or kinesiology, but demands recognition of how people dynamically move in the physical and cultural body" (Gibbs, 2005, p. 228). It is from this premise that cognitive linguists aim to achieve knowledge of figurative thought on the basis of an accurate analysis of systematic patterns of figurative language, a goal that they pursue through the identification of pre-conceptual and conceptual structures that are core pivots for the functioning of our mind. The chapters in this volume all pursue the goal of demonstrating how the figurative meanings expressed through linguistic patterns are a window onto our figurative thought.

Flanked by this brief introduction, the volume comprises of four parts: I. *Figurativeness and theory*; II. *Figurativeness and constructions*; III. *Figurativeness, pragmaticity and multimodality*; IV. *Typology of figures and cognitive models*. Within each part, topically germane chapters are next to each other, and each of them focuses on different aspects of figurativeness addressed from the usage-based methodology of Cognitive Linguistics research.

Part I. Figurativeness and theory: Addition, identification and structure

In his chapter entitled "*Metaphor thoughtfully*", **John Barnden** discusses the possibility of understanding discourse segments metaphorically even when they are not themselves couched metaphorically. Conceptual metaphor theory holds that metaphor involves forward transfer of information from the source domain of a metaphor schema to a target domain. This does not, however, preclude the possibility that information might also be transferred from target to source (Barnden, 2016). Barnden argues that reverse transfer may occur during online understanding, resulting in "addition of metaphor". Psychological studies have already confirmed bidirectional transfer between metaphorical sources and targets. Barnden

provides convincing examples of situations that might give rise to reverse transfer and addition of metaphor. He emphasises that reverse transfer effecting addition of metaphor is a possibility but is not predictable. This exacerbates the challenge of attesting metaphorical thought arising during occurrent understanding, but it should certainly not discourage cognitive scholars from exploring online processes such as metaphorical thought. Barnden's notion of "addition of metaphor" opens up a fresh and attractive look at metaphor theory. It may also have consequences beyond metaphor. If metaphorical transfer turns out to be a bidirectional process, one of the distinguishing features of metaphor as opposed to metonymy is lost and their distinction becomes even more blurred.

In the second chapter, "Separating (non-)figurative weeds from wheat", **Mario Brdar**, **Rita Brdar-Szabo** and **Benedikt Perak** investigate the way of identifying figurative expressions in discourse and propose to tackle the issue from an original perspective. It is well known that the relevant literature describes many approaches to figurativeness, despite their differences with respect to the complexity of their formal infrastructure, and pins down the shared idea that we should identify figurative expressions in as direct a fashion as possible. It is the aim of these authors to show that it is possible, or even advisable, to reverse the identification process and focus on literal expressions first (the "non-figurative weeds") and then delete them from further consideration. The subsequent stage consists of recognizing the figurative expressions, or what they label "the figurative wheat". In order to explain their methodology meticulously, the authors conduct fine-grained analyses of several small-scale case studies involving English and Croatian figurative expressions in discourse. Overall, Mario Brdar, Rita Brdar-Szabo and Benedikt Perak clearly demonstrate that it is useful to approach metaphors from the opposite way. This allows them to achieve a higher degree of success in the identification process with the advantage of employing considerably leaner tools. One further very interesting observation the authors offer is that the identification of conceptual metonymies does not appear to take advantage from the proposed methodology.

Conceptual metaphors are the focus in **Zoltán Kövecses**' chapter (*A multi-level view of metaphor and some of its advantages*), where the author discusses a number of issues that are interconnected any time we think about our conceptual system. He offers a detailed scrutiny of the set of relationships that hold between domains, image schemas, frames and mental spaces in metaphorical conceptualization. Through the accurate analysis of one source domain, that of BULDING, he convincingly proposes that our conceptual system is organized in such a way that we can distinguish four levels of schematicity, and he demonstrates how such system participates in metaphorical conceptualization. At the highest level, image schemas are extremely schematic for they arise from our most basic embodied experience. Domains, which occupy the next level below, are conceptually supported by image

schemas and characterized by more specific experiential content than the ones employing image schemas. In turn, below this level, are frames, which make use of and elaborate on the various aspects of domains. Mental spaces represent the lowest level because they rely on frames, domains and image schemas. To sum up, frames make up domains, and in turn domains are upheld by image schemas. Mental spaces are then contextualized on online specifications, elaborations, modifications, and fusions of frames. All in all, no level can be singled out as the only legitimate one in conceptual metaphor (Kövecses, 2020). The multi-layered view of metaphor offers the advantage of enabling us to accommodate many aspects of metaphor and account for a number of metaphor-related phenomena in a unified manner.

Part II. Figurativeness and constructions

Angeliki Athanasiadou's chapter deals with *Intensification via figurative language* and her discussion is based on the assumption that figurative processes cooperate harmoniously, thus forming a network of figures (Athanasiadou, 2017). This type of cooperation is of particular interest because not only does it contribute to creativity and novelty, but it also foregrounds emphatic and intensified constructions. In addition, the author observes that the cooperation of more than one figure in one and the same construction renders the construction extremely intense. Indeed, intensification occurs in degrees, depending on the type as well as the number of conceptual processes: ironies and similes, for example, seem to be more emphatic and more intense than metonymies. Intensification also depends on the degrees of conflict between sources and targets. Conflict, incongruence, opposition and reversal of values are devices that enhance intensified figurative meaning in discourse. Athanasiadou clearly explains that irony (opposition or reversal of values), simile (conflict of values), metaphor (dissimilar domains), hyperbole (extreme ends), and metonymy (A CONCEPT FOR ITS OPPOSITE) are shown to depend on the degree of incongruity between sources and targets. Intensification seems to be further facilitated by particular constructional patterns. Given that figurativeness encourages and is encouraged by the lexico-grammar, the author discusses representative constructions that are indicated to license figurativeness.

In his paper entitled 'Falling to one's death' *in multiple landscapes*, **Cristiano Broccias** offers a very detailed analysis of the expression "*He fell to his death*" as a possible counterexample to Goldberg's (1995) "Unique Path Constrain", which bans simultaneous motion in multiple landscapes in caused motion/resultative constructions. This example has been previously analysed by Iwata (2014a, 2014b) who contends that it does not represent an instance of the resultative construction. In addition, he argues that, since *to his death* is metonymic for the place where one is

presumed to have died, the occurrence of simultaneous motion in multiple landscapes (i.e. downward movement and metaphorical motion into one's death) is, in any case, apparent. Broccias offers a number of observations that clearly shows that the example at hand does instantiate the resultative construction and that motion in multiple landscapes cannot be explained away in metonymic terms (Broccias, 2014). Rather, he contends that our ability for blending intimately connected facets of a complex event and the satellite-framed nature of English are held to be decisive factors.

The *Metaphorical adjective-noun phrases in German journalese* is the topic discussed by **Sabine De Knop**. In her paper, the author explores a number of metaphorical adjective-noun phrases (ANPs), as they are used in a dataset she has compiled by retrieving examples from German newspapers, with the aim of describing the semantics behind the polysemous structure of ANPs. Indeed, the interpretation of metaphorical ANPs is not always straightforward. The whole ANP-construction provides an overall figurative frame and tends to influence the metaphorical use of the adjective in that construction (De Knop, 2015). Through the fine-grained analysis of her collection of data, the author shows that the accurate description of the semantic and conceptual variety of nominal phrases with an attributive adjective is possible only with recourse to several dimensions and theoretical concepts. For example, the distinction between predicating vs. non-predicating attributive adjectives is essential for the interpretation of metaphorical phrases. As the study shows, the same syntactic structure can refer to different metaphorical or literal predications. The role of the context, either verbal or visual, is of special importance as well as the nature of the adjective in the adjective-noun phrases along with our encyclopedic knowledge in the form of frames, which plays a major role in the interpretation process of such construction.

Francisco Gonzálvez-Garcías' chapter (*Metonymy meets coercion: The case of the intensification of nouns in attributive and predicative constructions in present-day Spanish*) offers an accurate usage-based analysis of coercion involving the intensification of the *prima facie* non-gradable category of nouns. With his analysis and discussion relying on the Goldbergian version of Cognitive Construction Grammar, the author studies the "X *es muy* N" construction in present-day Spanish, as in "Es muy universidad alemanna". He demonstrates that, in attributive and predicative contexts, an array of intensifiers (e.g. *bastante* 'very', *completamente* 'completely', *muy* 'very', *totalmente* 'totally', etc.) combines with common nouns belonging to many different semantic areas such as the internet, music, movies, places or animals, as well as with proper names. This type of construction exemplifies the fact that the intensifier coerces the noun, which can be bare or determiner-less, even if it is countable. This is possible because this process is metonymically motivated, the intensifier coerces the noun into encoding a positive or negative property through a GENERIC FOR SPECIFIC metonymy.

Part III. Figurativeness, pragmaticity and multimodality

Herbert Colston and **Ann Carreno** discuss the "*Sources of Pragmatic Effects in Irony and Hyperbole*". They tackle the crucial issue in current empirical research that refers to the way in which figurative language accomplishes different pragmatic effects. Two main approaches have investigated how figurative instances of speech give rise to pragmatic effects. One the one hand, holistic pragmatic-theoretical approaches (e.g. Relevance Theory, Sperber & Wilson, 1995; Wilson & Sperber, 2012) attempt to pin down broad processing inclusive of cognitive and pragmatic principles, such as optimal relevance, contextual assumptions, and positive cognitive effects, principles that apply to both figurative and non-figurative language. On the other hand, other approaches place their attention on particular pragmatic processes that might reside in only one figurative form, or within a family of figurative forms, but that will not necessarily apply to all figurative language. With the goal of demonstrating that, in order to fully explain the resulting meaning products, broad pragmatic approaches would benefit from incorporating many other mechanisms that can influence figurative meaning, the authors report on three experiments they conducted to show how hyperbole and irony contribute to accomplishing persuasion. More specifically, they have selected cases of accusation denials, which involve salient explanations regarding the reason why speakers accused of some form of wrong-doing talk figuratively in order to reject the insinuation.

Marcin Kuczok is the author of the chapter entitled "*Metaphorical interplay of words and gestures in the Catholic liturgical rituals*". The gestures and movements used in worship in the Catholic liturgy – such as kneeling, joining hands together, prostrating, or beating one's chest – are often accompanied by specific spoken formulas that express humiliation before God, regret for one's sins, submission to God, readiness to listen to God's word, or response to His will (Kuczok, 2009). The author banks on Lakoff and Johnson's assumption that the conceptual systems of religions are metaphorical, and embraces Forceville's claim that metaphor may be a multimodal phenomenon, which includes not only words, but also pictures, sounds, gestures, smells, and tastes. Kuczok offers a detailed analysis and discussion of selected Catholic liturgical rituals as motivated by verbal and gestural metaphors. He thus offers an original and interesting depiction of how the Catholic liturgy reveals itself as a form of human activity that is abundant in metaphors concerning the abstract sphere of religious notions, expressed by means of gestures or combinations of gestures with words.

Part IV. Typology of figures and cognitive models

In his chapter "*Figures of speech revisited: introducing syntonymy and syntaphor*", **Bogusław Bierwiaczonek** aims to add the terms 'syntonymy' and 'syntaphor' as well as the concepts of synecdochic metonymy and synecdochic metaphor to the traditional typology of figures of speech. In order to adequately represent the typology of figurative language, he believes that the new terms that he proposes are necessary to capture extensions of meaning that cannot be satisfactorily described in the traditional terms of synecdoche, metonymy and metaphor. He argues that the two additional terms cover important intermediate categories of transfers of meaning between synecdoche, understood as vertical transfer based on various levels of taxonomy, and the two other tropes of metonymy and metaphor (Bierwiaczonek, 2013). More specifically, synecdoche involves reduction in the "vertical" GENUS FOR SPECIES transfers of meaning, while syntonymy is based on the operation of expansion of meaning from the species to genus, including paragons of categories. By contrast, syntaphor accounts for extensions of meaning based on the operation of comparison and extension of category boundaries based on the perceived and/or conceived similarities and differences between categories which belong to the same basic level category or below it. Overall, the new concepts and terms may not only help identify and designate certain borderline cases of figurative language, but they can also add precision and adequacy to the analysis of lexical polysemy, and contribute to a cognitive account of catachresis.

In the chapter "*Cutting and breaking metaphors of the self and the Motivation & Sedimentation Model*", **Simon Devylder** and **Jordan Zlatev** investigate why English and many other languages make use of expressions of irreversible separation, commonly known as "cutting and breaking" expressions, to speak about the self (e.g., *I broke into tears*). They also inquire whether such expressions should be treated as metaphorical. Employing concepts and methods from Cognitive Semiotics, and especially the conceptual empirical loop, the authors develop fine-grained identification and classification procedures based on intersubjective intuitions, and apply these to data from a corpus of personal descriptions of traumatic experiences. They show that the ten most common "cutting and breaking" verbs in the sample correlate with different dimensions of the self, which confirms that there is motivation involved but it does not show its nature. With a view to offering a principled explanation of expressions of irreversible separation, the authors make use of the Motivation & Sedimentation Model (MSM), which distinguishes between three interacting levels of meaning making: the situated, the sedimented, and the embodied. This allows them to demonstrate that most instances in their dataset are metaphorical in nature, and that metaphoricity is a scalar notion, depending on factors like semantic tension and iconicity.

Francisco Ruiz de Mendoza Ibañez and **Alicia Galera Masegosa** deal with "The metonymic exploitation of descriptive, attitudinal, and regulatory scenarios in making meaning". On the basis of the *Lexical Constructional Model* (LCM hereafter; Ruiz de Mendoza Ibañez & Mairal Usón, 2008; Ruiz de Mendoza Ibañez & Galera Masegosa, 2014), the authors set out to develop a part of the LCM explanatory apparatus with the aim of providing it with a more detailed account of situational cognitive models (or scenarios). This aim is pursued through a detailed account of the different manifestations of the inferential activity that arises from the cognitive activity involved in the linguistic profiling of such scenarios. Elaborating on the initial taxonomy of cognitive models in Ruiz de Mendoza and Galera Masegosa (2014), they propose the subdivision of scenarios into three subtypes – descriptive, attitudinal, and regulatory – and examine the inferential patterns that arise from their metonymic exploitation. More specifically, the kind of scenario involved constrains the inferential mechanisms activated at the pragmatic level, which are supported by metonymic activity in the form of metonymic expansion plus metonymic reduction.

The set of original chapters in this volume offer their unique take on the complex interplay between figurative thought and figurative language. The interesting insights in each chapter undoubtedly contribute to advancing our understanding of how meaning is constructed figuratively and how deep the influence of our body is involved in such a process. The contributions to this volume surely testify to the fruitfulness of a Cognitive Linguistics approach to figurative meaning construction.

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PART I

Figurativeness and theory

Addition, identification and structure

Metaphor thoughtfully

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Some Cognitive Linguistic theorizing and related psychological experimentation points to the active use of metaphorical, source/target relationships (mappings) in the mind even when external metaphorical communications are absent. However, some ramifications of this need attention. This article explores how people might mentally *add metaphor* while understanding discourse, i.e., mentally couch their understanding in metaphorical terms not used by the discourse itself. This could even involve giving a literal sentence a metaphorical understanding. Metaphor addition is suggested by psychological evidence of bidirectionality in metaphor, where there is not only the normal, "forwards" transfer of information from source to target but also "reverse" transfer. In a different vein, the article deepens the author's previous *Anti-Analogy-Extension Thesis* whereby source-domain items that are not mapped into the target can nevertheless be crucial in indirectly illuminating the target, and therefore arguably crucial in representing it. This results in an unusually holistic and fictionalist view of mental representation.

Keywords: metaphorical mappings, metaphor in thought, bidirectionality, mental representation, fictionalism

1. Introduction

This article explores and amplifies some ramifications of the idea, arising especially from the work of Lakoff (1980/2003), that metaphor is fundamentally an aspect of thought, and only derivatively of external expression in linguistic, pictorial, gestural or other forms. More specifically, the article engages with an idea about metaphorical thought (MT) that can be expressed as:

> (MT) *our occurrent thoughts can be, and maybe often are, metaphorical, irrespective of external expression.*

By means of the term "occurrent" I focus on thoughts (etc.) that are taking place at a particular time, as opposed to, for instance, beliefs that a person might hold

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over some (perhaps long) period without necessarily actively entertaining them in thought, and as opposed to long-term mental constructs such as concepts. I use "thoughts" in a liberal way, not confining attention to propositional, statement-like thoughts but also allowing consideration of, for instance, mental constructs akin to questions or wonderings, and also perceptions and mental images (visual or otherwise). Neither of the terms "occurrent" and "thoughts" in (MT) implies any necessary involvement of consciousness. The "irrespective of external expression" stresses that the thoughts need not be entertained during the understanding or production of any act of external expression in language, gesture, pictures, diagrams, music, dance or whatever. Of course, one important role for the thoughts is in such understanding or production.

By a thought being "metaphorical" I mean that it is couched at least in part in terms of the concepts from the source subject matter of a metaphorical way of describing the target situation that the thought is about. For instance, the temporal relationships of some events might be couched as spatial relationships of physical objects standing for those events, under a metaphorical conception of TIME AS SPACE (see, for instance, Moore, 2006, on such conceptions). So a metaphorical thought is an *internal* matter of couching the situation in metaphorical terms to oneself (perhaps entirely unconsciously), much as one might externally use a metaphorical sentence such as *"Christmas is still far away."*[1] Henceforth I will refer to (MT) as the idea of *metaphorical thought* for short, but the restrictions and liberalities I've just laid out about what this term means will remain important.

This idea of metaphorical thought is historically related to and compatible with, but neither implied by nor reliant upon, the notion that we somehow hold within ourselves largely static, long-term structures such as "conceptual metaphors" or "primary metaphors" (Grady, 1997; Lakoff & Johnson, 1980/2003). Such structures are made up of "mappings" or relationships between source-side concepts and target-side concepts. Henceforth, partly to emphasize that this article is not dependent on the specific details of Conceptual Metaphor Theory or the theory of primary metaphors, I will use the term *metaphor schema* to mean such an internally-maintained relationships between two subject matters, such as between TIME and SPACE or between ELECTRICITY and LIQUID. As is well known (see, e.g.,: Bergen, 2015; Hampe, 2017b; Murphy, 1996, 1997; Steen, 2017; Vervaeke & Kennedy, 2004), even if we do hold metaphor schemata in our minds, it does not logically follow that when thinking about, say, something involving TIME we always actively use mappings relating it to SPACE. This issue even arises when we understand a sentence about TIME that's

1. I use the term "subject matter" rather than "domain" in order to be neutral between the various proposed notions of domain and because of my scepticism about these notions (Barnden, 2010). But readers who adhere to domains can take my subject matters to be domains.

couched using SPACE, let alone when we are privately thinking about a TIME situation. In understanding the sentence we might not make online use of the mappings linking to any metaphorical thought, couched in terms of SPACE, about the TIME situation. Rather, when the SPACE wording is sufficiently familiar, we might have an entrenched meaning in terms of TIME directly stored with the SPACE wording. So, in understanding the sentence *"The meeting fills the whole morning"* we might conceivably have a TIME meaning stored for the (arguably) spatial word *"fills."* Similarly, the comprehension of *"Mary grasped the idea"* could in principle just directly retrieve an *understand* sense of *"grasp"* rather than retrieving a physical notion of grasping and then using a metaphorical mapping to get to the notion of understanding. This direct-access-to-target-meaning possibility plays an important role in, for instance, Steen's discussion (2017) of his Deliberate Metaphor Theory, which is a refinement and extension of Conceptual Metaphor Theory.

Another, related possibility is provided by the Career of Metaphor theory (Bowdle & Gentner, 2005), under which familiar wording would directly trigger an abstraction covering the source and target concepts. Regarding *"Mary grasped the idea,"* the abstraction would cover both physical grasping and understanding. The categorization or class- inclusion approach (Glucksberg, 2001) could also work this way in suitable circumstances.

Nevertheless, some experimental evidence points to online use, under suitable conditions, of source concepts – and hence, arguably, of mappings linking them to target concepts – during metaphor understanding (see, e.g.: Desai, Binder, Conant, Mano & Seidenberg, 2011; Desai, Conant, Binder, Park & Seidenberg, 2013; Gibbs & Matlock, 2008; Gibbs & Santa Cruz, 2012; Glucksberg, 2001; Jones & Estes, 2005; Miles, Nind & Macrae, 2010; Rubio Fernaʼndez, 2007). Partly because of this evidence, the present article adopts the working hypothesis that such online use can indeed happen.

Note the word "use" here: the mappings together with source elements they involve might or might not, themselves, remain as part of the final meaning representation of the sentence. In the latter case the source elements and mappings are only stepping stones helping the construction of a meaning representation that is entirely in terms of the target subject matter. This question of mere use as stepping stones *versus* remaining as part of the meaning representation is discussed further in Barnden (2016c) (see also Barnden, 2010), and is central to Steen's Deliberate Metaphor Theory (Steen, 2008, 2017). In the latter theory, most metaphor is non-"deliberate" and accordingly, if there is any use of mappings at all, this occurs only in processing stages leading up to the construction of a "situation model" (complete sentence meaning) that is entirely couched in target terms.

Of course, the need to suppose some online use of mappings is the more pressing the more unfamiliar the wording is. For example, consider the sentence *"Sorrel [tried*

to] coax the … memory out of a dark and cobwebby corner of her mind."[2] For hearers who had never encountered a sentence involving mental cobwebs before, nor more general metaphorical uses of *"cobweb[by]"* that could be specialized to mental states, it is hard to see how they could deal with *"cobwebby"* in understanding the sentence without having a metaphorical thought couched in terms of physical cobwebs.

If we assume that we do use metaphor schemata such as conceptual metaphors online during metaphor understanding, it is plausible that we can also have metaphorical thoughts even when not dealing with external expression. It would be strange to propose that metaphor schemata are used in occurrent thought *only* when dealing with external expression.

And if one makes the strong claim that the only way we have of conceiving some subject matters, e.g. MIND or TIME, is through their metaphorical connection to other subject matters, for example SPACE, then, of course, occurrent thoughts about the target must be occurrent thoughts in terms of at least one such subject matter. However, the claim that metaphors are essential to conceiving some subject matters is contentious, and Vervaeke & Kennedy (2004) and Murphy (1996, 1997) provide some critical discussion.

There is a considerable literature claiming that the ways we think about and deal with many aspects of life (including our own selves) are affected or "framed" by metaphorical views we hold of them, or are even just temporarily entertaining about them (see, e.g.: Boroditsky, 2000; Boroditsky & Ramscar, 2002; Burgers, Konijn & Steen, 2016; Lakoff & Johnson, 1999; Landau, Meier & Keefer, 2010; Landau, Robinson & Meier, 2014). Even when we acquire or are prompted to entertain the views in question by understanding recent discourse or other external expression, the point is that metaphorical thoughts can occur other than *during* the actual understanding or production of communications involving the metaphorical views in question.[3] It is worth re-emphasizing here that metaphorical thought might not rest on already-held, relatively static metaphor schemata. In principle, a metaphorical thought could be based on some idiosyncratic metaphorical mappings that, for instance, the person in question has only just thought of or has only recently picked up from a particular episode of discourse.

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2. From a crime novel, Hannah (2015, p. 287).

3. Lee & Schwarz (2016) distinguish between framing and metaphorical transfer from source to target, because they take a narrow view of transfer as an action that imposes a new source-derived attribute on the target or strengthens an existing target attribute, thereby effectively making or strengthening a *claim* about the target. In the present article, I mean "transfer" in a way that is sufficiently broad to cover what Lee and Schwarz mean by framing. It can, for instance, mean the transfer of a question (see Section 8.3), some issue for consideration, or a topic focus.

A body of psychological evidence that is particularly interesting from the point of view of this article supports "bidirectional" transfer between metaphorical sources and targets. (For a selection of studies and discussions, see: Anaki & Henik, 2017; Chan, Tong, Tan & Koh, 2013; Denke, Rotte, Heinze & Schaefer, 2016; Dong, Huang & Zhong, 2015; He, Chen, Zhang & Li, 2015; Landau, Meier & Keefer, 2010; Lee & Schwarz, 2012; Schneider, Parzuchowski, Wojciszke, Schwarz & Koole, 2015; Zhong & Liljenquist, 2006. However, there are results contrary to bidirectionality, e.g. Huang & Tse, 2015.) As just one instance, it has been found that, not only do estimates about the physical weight of something such as a book affect estimates of its importance under suitable conditions (Hauser & Schwarz, 2015), but also the reverse is true: in one study, thinking that a USB stick or portable hard drive held important information made participants estimate it to be physically heavier than when they did not think it held important information (Schneider et al., 2015). This suggests that when we think about the importance of something we also (at least sometimes) have corresponding metaphorical thoughts in terms of physical weight of the thing.

Thus, supposing that one starts with a thought in terms of importance, there is (sometimes) some sort of *reverse transfer* that creates a corresponding weight-based thought about that same thing. The notion of reverse transfer will play a central role in this article. Some of the other specific types of reverse transfer suggested by the various works cited above are from importance and power to physical size, power to weight, moral rightness to physical cleanliness, affection to warmth, love and jealousy to certain tastes, suspicion to smell, and hope/despair to brightness/darkness. But I will assume by default that reverse transfer can, in suitable circumstances, happen whatever the sources and targets are.

Reverse transfer has been mooted without extensive detail in the context of Interaction theories of metaphor (Waggoner, 1990). It is encompassed within the blending-theory approach (Fauconnier & Turner, 2008) in that a blend space, formed by developing information from all the input spaces, can in turn cause new information to arise in the input spaces, thus getting the effect of interaction in any direction between the input spaces. The discussion below can be seen as an extension of considerations brought forward by blending theorists, though not itself couched in terms of blending. Reverse transfer is central in the ATT-Meta theory of metaphor understanding and the related AI system (Barnden, 2001a,b, 2006, 2009, 2015, 2016a; Barnden & Lee, 2002).

The particular ramifications of (MT), the idea of metaphorical thought, that this article explores are *Addition of Metaphor during Understanding*, *Discourse Coherence through Metaphorization* (introduced under another label in Barnden, Glasbey, Lee & Wallington, 2004), and an extension and deepening of something I have called the *Anti-Analogy-Extension* thesis (Barnden, 2009, 2015). Addition

of Metaphor during Understanding is a simple corollary of reverse transfer. Given the possibility of reverse transfer, there is in particular no reason to deny *a priori* that it can happen when, for instance, someone is understanding *a literal sentence about* T. An example would be that a sentence about finance, making no allusion to liquid, might be understood with the help of a metaphorical thought couched in terms of liquids, if the hearer knows a MONEY AS A LIQUID metaphorical view. So, understanding of even a literal sentence might involve metaphorical representations. It appears that this point needs to be properly and systematically recognized in accounts of the meaning of sentences, certainly in fields that are not centrally concerned with metaphor, but even within Cognitive Linguistics. For instance, Deliberate Metaphor Theory, one of the most detailed and carefully considered accounts of meaning in Cognitive Linguistics, does not provide for it.

Discourse Coherence through Metaphorization is a special case of the *Addition* point, but arises particularly in the special case of discourse that mixes literal and metaphorical statements about a subject matter.

The *Anti-Analogy-Extension* thesis is in a distinct though complementary vein. It is that when a metaphorical thought about a subject matter T uses elements of the source subject matter that do not have a mapping to T, it is typically the case that there should *not* be an attempt to create such a mapping: rather, what should happen is merely to find an inferential connection between the unmapped elements and elements that do already have a mapping.

The plan of the paper is as follows. Section 2 will make some cautionary remarks about metaphorical bidirectionality, reverse transfer, and related issues of "embodiment." Section 3 will discuss the potential usefulness or otherwise of metaphorical thoughts in reasoning about the world. Section 4 will address the Addition of Metaphor in Understanding. Section 5 will address Discourse Coherence through Metaphorization, and Section 6 the extended Anti-Analogy-Extension thesis. Section 7 will discuss a type of representational holism raised by the Anti-Analogy-Extension thesis. Section 8 engages in some further discussion. It advocates the view of metaphorical understanding and thinking as exercises in fiction building, and uses this to return to the issue of holism. It then changes tack to consider the fact that demonstrations of reverse transfer have been posed as presenting a challenge to Conceptual Metaphor Theory. I argue that this challenge is incorrect, being based on a misunderstanding of what it is that conceptual metaphors provide. Section 9 concludes.

2. Some cautionary remarks

Three cautions about bidirectionality and reverse transfer are in order. First, researchers claiming bidirectionality point out that it does not contradict the fact that linguistic metaphors are often demonstrably asymmetric in the sense that talking of B as A can be infelicitous even though it is felicitous to talk of A as B (Gentner & Bowdle, 2001; Glucksberg, 2001; Way, 1991; Wolff & Gentner, 2011). The fact that a USB stick feels heavier when thought to contain more important information does not license the (non-joking) use of *"This USB stick is extremely important"* to mean that it is weighing down one's rucksack.

Secondly, bidirectionality is often cast as transfer of information from an abstract domain to a concrete domain as well as in the standard direction of concrete to abstract. But this characterization misses the main point and is captures just a typical side-effect of the fact that, in the sort of metaphors studied, the targets tend to be more abstract than the sources. This abstractness difference is particularly strong in the theory of Conceptual Metaphors and primary metaphors. There are good reasons for it, in that more concrete subject matters may be easier to think within. For example, as Lee & Schwarz (2012) note, they tend to have greater "inferential richness and capacity." Indeed, I will appeal to such advantages for some sources based on their relative concreteness below. But the general notion of reverse transfer and hence bidirectionality does not intrinsically involve an abstractness difference at all, least of all for the target to be more abstract than the source.

Thirdly, one must be careful in assessing whether evidence supports reverse transfer of the sort that will be central to this article. For instance, one intriguing study suggested reverse transfer from suspicion to fishy smell, relating to the use of *"being fishy"* or *"smelling fishy"* in English to mean being suspicious (Lee & Schwarz, 2012). But what was demonstrated was merely participants' heightened sensitivity to a fishy smell in, say, a test tube when they are led to think that the experimenter is acting suspiciously. It wasn't the *experimenters or their activities* that smelled fishy to the participants. But surely a reverse-transferred version of the idea that an experimenter is being suspicious is that they or their activity should smell fishy! After all, the point of the metaphor is that if something *"is/smells fishy"* then *that same thing* is worthy of suspicion. More relevant therefore is the case of the USB stick, where it is the stick that both feels heavier and is thought to contain more important material.

Going back to metaphor understanding, there is a particularly strong, "embodiment"- based type of claim about online use of mappings during understanding a metaphorical sentence, especially one whose source wording refers to physical matters, as in *"Mary grasped the idea."* The basic claim is that there is activation of

sensorimotor brain mechanisms that would be activated in engaging in activity, such as physical grasping, described by a literal use of the source subject matter. (For results, theory and review see, e.g.: Bergen, 2015; Desai et al., 2011, 2013; Gibbs, 2006; Gibbs & Matlock, 2008; Hampe, 2017b.) The present article is compatible with such embodiment claims, but is not reliant on them. In principle, one could have metaphorical thoughts that feature physical grasping without engaging any sensorimotor brain circuitry, by representing the physical grasping in a purely symbolic way, and such thoughts are enough for this article.

But also, there are issues about what one means by a sensorimotor brain region. For example, although Desai *et al.* (2011) found that there is some enhanced activation of primary motor cortex in the understanding of metaphorical sentences such as *"Mary grasped the idea,"* their stronger results are more on the activation of secondary regions that relate to action in a less physically detailed, less modally-specific sense; and Desai *et al.* (2013) report that similar but somewhat more complex metaphorical sentences did *not* lead to enhanced activation in primary motor or motor-related areas, but only in the secondary areas. So the results support the idea that metaphorical use of (e.g.) *"grasp"* results in relatively abstract action representations in the brain, and therefore is indeed activating the source subject matter, but provide at best weak support for activation of the more physically specific regions that physical grasping involves or that literal mention of physical grasping stimulates.

Indeed, Casasanto & Gijssels (2015) persuasively argue for comprehensive caution about the idea that the available behavioural and neurophysiological experiments (including those of Desai *et al.*, 2011, 2013, and Lee & Schwarz, 2012) support the stronger forms of embodiment thesis. Casasanto and Gijssels argue that, even though the evidence does support the idea that non-modality-specific brain areas associated with metaphor source concepts are activated by target concepts, it is an open question whether such areas are *multi*modal in a way that still supports embodiment, or instead *a*modal and therefore not indicating any meaty notion of embodiment. But none of this negates the reality of reverse transfer as a phenomenon that does not presume embodiment, and Casasanto and Gijssels stress that "We now know that people activate source-domain representations with a surprising degree of automaticity when they process a variety of target domains."

3. The potential usefulness or otherwise of metaphorical thoughts

First, some preliminary remarks are in order about the nature of the common-sense understanding that someone, Joe, might have of some everyday subject matter, such as household electricity (electrical supply, circuits and appliances), or financial

transactions, or marriage, or events and temporal relationships, or the workings of the mind, or …

For a given subject matter, such as [household] electricity, Joe may have some degree, possibly low or possibly very high, of understanding of that area in its own terms. Such an understanding exists to the extent that (a) he has some concepts that are directly about aspects of electricity, e.g., a concept of electricity as such, a concept of a light switch, or a concept of the voltage of a supply, and (b) he can perform some reasoning that is useful for his purposes and that relies on reasoning tools such as inference rules, simulation mechanisms, or situation exemplars that are directly about electrical matters – or are completely neutral as to subject matter, such as content-unspecific rules of logical deduction, abduction or induction.

Joe may, nevertheless, possess a metaphor schema addressing electricity, such as ELECTRICITY AS A LIQUID (cf. Gentner & Gentner, 1983). Via this schema, electricity is viewed as a liquid that flows through (e.g.) wires as if they were (e.g.) pipes. The schema as held by Joe or some other individual might or might not also include a mapping of voltage to liquid pressure and/or a mapping of size of electric current to amount of liquid flowing, and/or … (So different people might use different sets of mappings to some considerable extent.) Joe's having such a metaphor schema would not detract in any way from his ability to have concepts and reasoning tools that are directly about electricity, or to have episodes of reasoning and communication-understanding that are directly about electricity and do not use the metaphor schema. Directness does not imply complete isolation from metaphor, but rather that the link from the electricity concepts, etc. to what they are about is not itself mediated by metaphorical mappings.

Given these preliminaries, we can consider whether, to what extent, and exactly how it would be useful to Joe to have LIQUID-based metaphorical thoughts when thinking about electricity. The issue depends partly on what particular electrical matters Joe is thinking about and on how adequately he understands electricity in its own terms. It may be that, even though Joe can or does have such metaphorical thoughts, actually his understanding of electricity in its own terms is good enough for his practical purposes. He knows that having the lights on uses energy that costs money; when one light goes out, he can surmise that one light bulb has failed; or when all the lights go out but the other houses in the street are still lit up he can surmise that a contact breaker has tripped. In short, he can deal with many household electrical issues just by using concepts and reasoning tools that are directly about electricity (or are completely generic).

But, even under such conditions, using ELECTRICITY AS A LIQUID to think of the electrical situation in terms of, say, water flow could make some inferencing easier or quicker. For instance, suppose Joe suspects that he is being charged for some electricity that he is not using. He may suspect the electricity is doing what

would normally be described in language as *"leaking."* Joe, as well as bringing to bear whatever knowledge he might have directly about electrical leakage, may also engage in reverse transfer across ELECTRICITY AS A LIQUID to create a metaphorical thought about liquid leaking from a pipe. The latter might prompt him quickly to think that some pipe in the source scenario needs to be wrapped with something that stops water flow, thereby prompting him to think quickly, via metaphorical mappings, about some wire needing more insulation. Depending on his amount of knowledge and past experience with thinking about electricity versus thinking about liquids, the liquid-metaphor-based inferencing could be easier or quicker than inferencing that is directly electrical, even when he is able to effect the latter. Notice also that he might pursue both lines of inference and that they could happen in parallel.

While a point commonly made about metaphors is that they (often) cast a subject matter in terms of a more familiar subject matter, thereby making inferencing easier and quicker, a related point that needs additional emphasis is that the source-based reasoning may also, or instead, be more *confident*, and therefore lead more readily to action.

It is instructive to look also at the case of Joe using a TIME AS SPACE metaphor when thinking about time. (This metaphor is especially useful to consider given that it has played a big role in the embodiment literature, e.g.: Boroditsky, 2000; Boroditsky & Ramscar, 2002.) Suppose Joe sees a problem with a meeting happening at a certain time, and wishes to change the time, while avoiding a clash with various other events. Now, Joe might be able to work out, purely by arithmetical calculation, that one way of solving the problem would be to schedule the meeting for a time that is after the ending time of the last of the other events, but still before some deadline for the meeting. However, it is likely to be much easier, quicker, and more confidence-inducing for him to view the events as laid out spatially on a line and to appeal to common-sense experience with manipulating physical objects in physical space. He can immediately and confidently imagine putting the meeting spatially after all of the events. Indeed, we would probably be surprised if we found out that Joe did *not* do this (whether consciously or unconsciously) and instead proceeded by abstract mathematics.[4]

So, it is conceivable that people may prefer metaphorical inferencing routes when they are available and have proved in the past to provide useful results. But moreover, precisely because a metaphorical route might be easier, quicker and more confidence-inducing, it is even possible that people do not take an available

4. Relevant here is the work by Byrne & Johnson-Laird (1989) on the benefits of using spatial mental models in reasoning. Such models could be used not just for reasoning about the arrangement of spatial objects in their own right but also when they stand for other, e.g. temporal, objects.

non-metaphorical route, depending on how much time they have available, how cognitively loaded they are, how much confidence they have in conclusions so far reached, and so on.

We now consider the case where Joe does not have fully adequate understanding of events/times, electrical matters, or whatever in their own terms to do inferencing that he may be prompted to do. In particular, he may have no direct concept about electrical leakage, and if he is quite ignorant about electricity he may think that when a wall socket is not being used and its switch is on[5] then there is a danger that electricity will seep out in appreciable quantities, just as water would run from an open tap (faucet). So, in suspecting that he is being charged for more electricity than he should be, he may think, by mentally using the ELECTRICITY AS A LIQUID metaphorical view, that he can help the situation by turning all such switches off. If he finds out that this hasn't helped the leakage problem he has an opportunity to learn lessons about electricity!

4. The addition of metaphor in understanding

Let's assume that Joe can have LIQUID-based metaphorical thoughts when thinking about ELECTRICITY, even when he is not currently exposed to any metaphorical utterance or other external expression that uses the ELECTRICITY AS A LIQUID metaphorical view. As we've already discussed, one type of situation that fits this scenario is that Joe is having such thoughts because he encounters an electrical problem in his house.

But surely also, another type of situation that equally fits the scenario is that he is engaged in understanding an utterance like "*The electricity is on,*" which is about electricity but does *not* use ELECTRICITY AS A LIQUID. The mere fact that such an *external* sentence or other expression does not involve that metaphorical view is, in principle, *no reason at all* to think that Joe does not *internally* deploy that view as part of understanding it – if metaphor is claimed to be a fundamental aspect of thought in general. The point here is not merely that some problem-solving phase a short time after hearing the sentence might be framed by the metaphorical view, but also that the very understanding of the sentence might itself be based in part on the view. That is, part of the act of understanding of "*The electricity is on*" might be to construct a metaphorical thought about a liquid flowing in some pipes. Now, it may be that Joe *also* builds a semantic representation that is couched directly in terms of electricity. In that case, plausibly, Joe constructs the direct representation

5. In some countries including the UK some or most wall sockets have nearby switches governing them.

first, and then does a reverse-transfer act to construct the metaphorical thought. But just because the metaphorical thought comes second does not mean it is any less a part of the very understanding of the sentence.

Similarly, part of the act of understanding *"The meeting time has been changed from 3pm to 5pm"* might be to create a metaphorical thought about physical movement of a physical object corresponding to the meeting from one point on a line to another. Again, this thought could be a second representation created by reverse-transfer from an abstract representation about numerical times.

Although we have raised the possibility that the metaphorical thought in the examples above is a "second" representation of the meeting, created from a first, non-metaphorical one, we should consider the alternative possibility that no such non-metaphorical representation is created, and that the *only* one is the metaphorical one. The reason for raising this is clearer with the meeting-time example than with the electrical one. It could well be that any wording about changing the scheduled time of an event bypasses normal non-metaphorical meaning construction and directly triggers a representation in terms of spatial movement and a handling of *"3pm"* and *"5pm"* as if they were physical objects. There is no need for the hearer to construct a non-metaphorical mental representation of the form *Previously the meeting was scheduled for 3pm and then later it was scheduled instead for 5pm.* Even if this representation were at some point constructed, it could well be less important than the metaphorical representation, assuming it is less convenient in ordinary problem-solving tasks about times.

In our examples, irrespective of whether Joe constructs a non-metaphorical meaning representation or not, Joe is *adding* a metaphorical view into the understanding of the sentence in the sense that that view is not used by the sentence itself. Hence the label *Addition of Metaphor in Understanding*. But the phenomenon is broader than indicated by the examples so far. The very same type of consideration also suggests that a metaphorical sentence that uses a particular metaphorical view or views might be understood with the help of an *additional* view or views. The fact that the sentence *"Mary let the time run through her hands"* uses a metaphor of time as a physical substance that can be wasted does not imply that Joe, in understanding it, does not *also* view Mary's situation partly in terms of, say, a TIME AS SPACE metaphorical view. This addition could be useful in that Joe may know that Mary has several time-consuming duties coming up and realizes that she now needs to reschedule something. The additional view is not needed to get the bare, immediate meaning of wastage that *"Mary let the time run through her hands"* conveys, but it could be useful in achieving understanding in a fuller sense, and in particular to achieve coherence between the sentence and other knowledge about Mary that Joe already may have or other sentences in the current discourse about Mary's activities.

Although the experiments on bidirectionality mentioned in the Introduction provide some support for the possibility of Addition of Metaphor during Understanding, I stress that I am not making a prediction that it does happen, or about the circumstances under which it happens, such as whether it tends to happen more when the situation being discussed are relatively complex, obscure or unusual. Instead, I am pointing out that their *possibility* must be encompassed in semantic theory, psycholinguistic experiments on meaning, etc. – if it is claimed that metaphorical thoughts (in the sense of this article) are possible. It could well turn out that there is some mechanism that precludes the theoretically possible Additions or or quickly suppresses them if they do happen, but the point is that one should not simply assume that they are so precluded or suppressed. And if experiments show that preclusion/suppressing happens, then there need to be a theory of why and how they are.

I am not aware of a semantic theory inside or (especially) outside Cognitive Linguistics that systematically takes account of the possibility of Addition, whether by including it or explaining its exclusion (its preclusion or suppression). One movement in this direction, however, is the Gibbs & Santa Cruz (2012) account where the conceptual metaphors used to understand a given metaphorical sentence can include not just those used in the sentence itself but also those left over (with attenuated activation) from use in previously understood sentences.

There are signs from the experimental literature that Additions can be either precluded or quickly suppressed, or that they happen but with relatively weak level of activation. For instance, we can look again at the experiments of Desai et al. (2011). These involved trios of sentences of the following sort: [Lit:] *"Mary grasped the flowers"* / [Met:] *"Mary grasped the idea"* / [Abs:] *"Mary understood the idea."* The experiments used fMRI techniques to examine the brain regions they activated. The intent was to see to what extent sensorimotor brain regions related to (e.g.) physical grasping were activated. The results suggested that both the literal (Lit) cases and the metaphorical (Met) cases stimulated such regions (though recall from the Introduction the question of what this means) and that they did so more than the abstract (Abs) cases. So there may have been partial or complete precluding/suppression in Abstract cases. There were also results in this study and in Desai *et al.* (2013) suggesting that the more familiar the metaphorical wording is, the less that (even secondary) action-related brain regions are activated and the more the simulation looks like that in Abstract cases.

Finally, there is no assumption in this section about levels of consciousness that, for instance, Joe may have about thinking in terms of liquids as an accompaniment to thinking about electricity. In principle, he might sometimes or always be entirely unconscious of it, or he might sometimes or always be vividly conscious of it.

5. Discourse coherence through metaphorization

I have given a special argument elsewhere (originally in Barnden, Glasbey, Lee & Wallington, 2004; see also Barnden & Wallington, 2010) that the understanding of metaphorical discourse can be facilitated by reverse transfers effecting the Addition of Metaphor in Understanding. The argument is that it is sometimes easiest to find coherence between metaphorical stretches and surrounding or interspersed literal stretches by, first, developing a coherent overall scenario from that mix of stretches in terms of the *source* subject matter; it is only after this that forward transfer of information to the target happens. This approach involves reverse-transferring the content of the literal stretches into source terms. That is, the claim is that it can be useful to "metaphorize" literal stretches on the way toward combining their meaning with the metaphorical stretches in order to ultimately to get the full message about the target, rather than working out the target-side meanings of the metaphorical and literal stretches and then combining those meanings.

Consider a variant of an example used above:

(1) *"When all the appliances are switched on, I seem to use up gallons of electricity."*

This sentence consists of two clauses, one a literal one about the switching on and one a metaphorical one about the usage of electricity. If Joe hears the sentence then, assuming he is very familiar with ELECTRICITY AS A LIQUID, it is natural and convenient for him to apply reverse transfer to the meaning of the first clause to build in his mind a scenario where there is a turning-on of water taps (metaphorically corresponding to the switching on of the electrical devices), and the resulting copious water flow causes the using-up of a large quantity of water that is suggested by the second clause. Then, normal, forward transfer to the target side can be done, resulting in a confident conclusion that the turning on the appliances causes strong currents of electricity to arise in the house's wiring. This process easily allows Joe's commonsense knowledge of water to help him confidently to build a coherent overall scenario.

The traditional alternative would be for Joe to find the target-side meaning of the second clause before making it cohere with the first clause. That is, he would mentally translate the notion of using up large quantities of water into terms that are directly about electricity, and then achieve coherence with the electrical switching-on from the first clause.

Joe might be in a position to achieve coherent understanding this way. But, even if so, there may be advantages of speed, ease or confidence in achieving coherence on the source side through metaphorization of the literal stretches, if Joe has greater familiarity with water than with electricity. In particular, strong confidence in the

causal link between turning on the appliances and strong currents of electricity might be more easily obtained this way. Barnden et al. (2004) and Barnden & Wallington (2010) make similar points about other examples.

6. The Anti-Analogy-Extension Thesis

In this section I am concerned with utterances based on familiar metaphorical views but using open-ended forms of expression that transcend what is immediately supplied by the familiar views. This is best brought out by examples such as the following:

(2) *"The managers were getting cricks in their necks from talking up [to some people in power over them] and down [to the managers' subordinates]."*[6]

(3) *"One part of Mary was insisting that Mick was adorable."*[7]

As regards (2), it is common for abstract control relationships, especially in organizational settings, to be metaphorically viewed in terms of relative vertical position of the people concerned (see, e.g., Cian, 2017). However, someone having a crick in their neck is not a matter addressed by this view. Thus the sentence transcends the view.

Let us assume that (2) conveys to the understander that (a) the managers experience annoyance and other emotional stress, and (b) it is difficult for the managers to continue the conversations. Intuitively, the idea is that people can get cricks in their necks from continually turning their heads in markedly different directions (up and down in the example), and that such cricks lead to annoyance, emotional stress, and difficulty in continuing to turn one's head and hence difficulty in continuing with the conversations.

But notice that there is no need at all, in coming up with (a) and (b) during understanding, to work out what it is in *target* terms to have a neck-crick. All that's important is the emotions and difficulty arising on the source side from a real neck-crick, assuming that these emotions and difficulty can be transferred to the target side (see Barnden, 2015, 2016a, for the ATT-Meta proposal about how such

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6. Cited in Goatly (1997, p. 162). The example is from the *Daily Telegraph* newspaper.

7. (3) is an invented example, but is based closely on many real ones. See for example the MIND PARTS AS PERSONS section of the Barnden (n.d.) mental-metaphor database, which contains in particular an example where there are several *"voices"* inside someone and one is *"insisting"* something and another example where *"part"* of someone is *"shouting"* something. Examples (2), (3) and many others have been analysed under the ATT-Meta approach.

transfer happens). In brief, there is no need to seek or create a target-side parallel for the neck-cricks, or in other words to extend the known analogies such as that between verticality and controllingness.

This sort of point extends to very many examples of metaphor, to the extent that I claim that metaphor understanding can fruitfully adhere to an *Anti-Analogy-Extension* Thesis. This says that view-transcending elements of the source subject matter such as the crick in (2) should *not*, normally, be given target-side parallels. In particular, existing analogies should not normally be extended to encompass those elements – these elements should be left unmapped or "unparalleled." Others have proposed such a principle (notably Langlotz, 2006) but it is opposite to the spirit of prominent theories such as Structure-Mapping Theory (Gentner, 1983; Bowdle & Gentner, 2005), which assume that the task is to maximize the extent of analogy and in particular to extend analogies to cover as yet unparalleled items.

In essence, the Thesis views map-transcending items like the neck-cricks in (2) as usually being, merely, tools for achieving certain effects through inferential links to source-side ideas that *can* already be mapped to the target. Usually they should not be taken as signalling the presence of items that exist on the target side. This thesis merely expresses a default, and there can be exceptions; for instance, if someone said *"I want to cure the neck-crick I got in talking up to the managers and …,"* the understander may be impelled to search for something on the target side that is being described as *"the neck crick."*

Let's turn now to Example (3). I take it to rest on two very general metaphorical views that are often used about the mind. First, there is the view of a person or a person's mind as having parts, where furthermore these parts are persons with their own mental states. I call these the "subpersons" of the person, and I call the view *Mind as Having Parts that are Persons*. Note carefully that the division into parts is itself a metaphorical fiction – the view is *not* about objectively-existing parts of the person being metaphorically viewed as subpersons. The point of the view is that if a part (a subperson) of a person P believes (desires, intends, …) X then, intuitively, the whole person P could be said to partly believe it. But what does it mean to partially believe something? The way I cast it is to say that the real person merely has some *tendency to* believe X.[8]

One main representational benefit of *Mind as Having Parts that are Persons* is that it allows different subpersons to have different beliefs or other types of mental state, and may even have beliefs that conflict with each other. This can rise explicitly in sentences that have a form such as *"One part of P believes X, but another part believes Y"* where X and Y conflict. In such a case the whole person P has tendencies

8. Elsewhere I have cast this as the person having a "motive" to believe X, in a very general sense of a reason or some other factor.

to believe various conflicting things, without really *believing* any one of them. But I also claim that the case of conflicting tendencies can arise implicitly, and does so in (3).

The second metaphorical view used by (3) comes into play because the subpersons are portrayed as communicating in natural language. Since what is communicated is some idea that the whole person is entertaining, the additional metaphorical view here is that of *Ideas as Internal Utterances*. This is a very widely used metaphorical view that also often arises independently of *Mind as Having Parts that are Persons* (again, see Barnden, n.d.).

The main connection of this analysis to the Anti-Analogy-Extension Thesis is as follows. There is no need at all to propose that the *"part"* (a subperson) mentioned by (3) corresponds to an identifiable aspect of the real person. Rather, the mention of a part is *merely* a tool for helping to convey in an economical, accessible and vivid manner the possession of a particular, complex sort of mental state by Mary. The tool works because, intuitively, the mentioned *"insistence"* implies by default that some other subperson has claimed that Mick is not adorable, or is the opposite of adorable, giving Mary two different belief tendencies. And, while the notion of insistence may convey that the Mike-is-adorable belief tendency is strong, there is no clear target-side parallel for the insistence action itself, since there is no parallel for the subpersons. And crucially, no such parallels need to be worked out in order to work out the existence of the competing tendencies.

The Anti-Analogy-Extension Thesis is not just about items mentioned overtly in the sentence, such as the mentioned part of Mary and the mentioned insistence, but also to implied items such as the additional, inferred subperson. Indefinitely many things might be implied in source-side terms that do not get, or need to get, or able to get, any parallel in target-side terms.

What is the relationship of the Thesis to previous themes in this article? The answer is that their interaction with the Thesis provides a broadening and deepening of the Thesis to cover metaphorical thoughts not arising from metaphorical sentence understanding. The Thesis as portrayed above is about view-transcending items mentioned in or inferred from metaphorical sentences. But we now observe that if someone, Joe, can spontaneously think using metaphor, then the resulting source-side scenarios that Joe mentally constructs can involve unparalleled source-side items. The earlier focus on reverse transfer may have made it sound as though all the source-side items arise through reverse transfer and are therefore paralleled.

Why might such unparalleled items arise in spontaneous metaphorical thoughts, or similarly in Addition of Metaphor during Understanding? First, one simple answer is that spontaneous metaphor use could be in a daydreaming episode, where Joe develops a source-side scenario in his mind in, possibly, very

creative directions. Not all elaborations of the scenario might have any indirect implications for the target situation, but some could. Secondly, experience with past uses of a metaphorical view might prompt Joe to construct view-transcending items. Suppose he happens to be thinking of a person Sally having conflicting belief tendencies, or is understanding a sentence that literally states that Sally has such tendencies. He may then construct a source-side scenario involving subpersons with contrasting beliefs. Moreover, if he finds that this way of thinking does not achieve some assumed level of mental conflict in Sally, he may adumbrate the source scenario in a way that one might imagine a real interaction being people becoming heated. He could add ways in which the subpersons are loudly arguing with each other, for instance. He can be arbitrarily creative in this sort of way.

Or again, Joe, in spontaneously thinking about managers, could develop a source-side scenario that contains neck-cricks with no correspondence to the target scenario. Further, Joe may mentally develop such a source-side scenario in more creative ways, such as imagining pains in many parts of the managers' bodies, not just their necks, imagining the managers massaging those parts, contorting themselves, etc. These could have consequences about the intensity of the emotional states, their longevity and difficulty of eradication, and the desires of the managers. These conclusions can be mapped to reality. But most of the source-side scenario is not mapped.

7. A type of holism

The Anti-Analogy-Extension Thesis implies that possibly very major portions of a metaphorical thinking or language-understanding episode may not individually have any translation into non-metaphorical thoughts about the target within the person's mind. This is because extensive areas within a source-side scenario – such as an argument between subpersons, or neck-cricks and physical contortions, in some examples above – may not have any mapping into target scenario, but instead merely just indirectly support conclusions about the target through source-side reasoning.

Thus, the source-side scenario is to be regarded not as something that must have a detailed, comprehensive analogy to a target scenario but rather as something that somewhat holistically conveys information about the target scenario. This conveying is, to be sure, done by the use of mappings that pick on specific aspects of the source-side scenario. For example, a mapping might translate the belief of a subperson into a belief tendency of the whole, real person. But any specific aspect of the source-side scenario that is grabbed by a mapping may be the result of inference over large amounts of information within the scenario. Hence, there may be no specific part of a discourse's metaphorical sentence or sentences that can be

said to correspond to a given aspect of the target-side scenario (although this can happen in simple cases of metaphor). For example, going back to (3), an aspect of its meaning not detailed above, but explained in Barnden (2016a), is the explicit conclusion that Mary lacks an ordinary sort of belief that Mike is adorable. This is because she has tendencies not only to believe this but also its negation. This lack does not correspond to any one aspect of (3) but rather arises from the whole of (3), taking into account the implied existence of another subperson who believes Mike not to be adorable.

Similar holism is manifested in the fact that a metaphorical sentence sometimes cannot readily be given its own meaning in terms of the target scenario (Barnden & Wallington, 2010). Rather, it is only as a part of a conspiracy with surrounding metaphorical (or literal) sentences that it helps to convey something about the target. An example used in Barnden & Wallington (2010) is

(4) *"Everyone is a moon, and has a dark side which he never shows to anybody."*
[attributed to Mark Twain by Brians (2003, p. 74)]

This example could just as well have been in the following multi-sentence form, which is just as comprehensible:

(4a) *"Everyone is a moon. Everyone has a dark side which he never shows to anybody."*

I suggest that it is misguided simply to assume, without argument, that a hearer must first derive target-side meanings (i.e., meanings directly in terms of people's natures) for the clause/sentence *"Everyone is a moon"* and a metaphorical meaning for the clause/sentence *"[Everyone] has a dark side which he never shows to anybody"* and then combine these target-side meanings. Rather, the second clause (but *not* the first one) indicates what it is about being a *"moon"* that the hearer should attend to, while it is the first clause that brings moons into the picture (whereas moons are *not* mentioned by the second clause). In the face of this I claim the hearer's best approach, much as in Section 5, is to form a *source*-side scenario on the basis of both clauses, and only then extract implications for the target scenario. In the source-side scenario, the moon from the first clause reinforces the hiddenness from the second clause.[9]

Now, it's certainly true that the second clause could plausibly have been given a metaphorical meaning even if the first clause hadn't been uttered. The understanding process would have just cast the person as *some* physical object that has a dark side not shown to anyone else. So, one can imagine a process whereby the

9. But I will shortly comment about a mistaken assumption about the moon in (4/4a) that may already be troubling the attentive reader!

hearer works out a target-side meaning for the second clause and only later refines or strengthens it in some way by means of the first clause.

But the main point is that it would be quite hard to give the first clause/sentence its own relevant metaphorical meaning, and therefore quite hard to form an integrated understanding by combining target-side meanings for the two clauses. Either it would involve using the second clause for guidance as to what the first one means, in which case there hardly seems any point considering the first clause at all by itself, or the operation would involve taking the clause in isolation of the second, in which case (unless surrounding discourse context could help) we have a severe case of the usual problem of the indeterminacy of metaphor (see, e.g., Stern, 2000). Without the second clause it is wide open what the first clause is getting at. For example, in other contexts it could be construed as saying that everyone is somehow subservient to something that can be metaphorically portrayed as the Earth, or as saying that everyone serves as a source of illumination for the world in times of darkness, or everyone is a symbol of love, or …

Actually, the first clause has a deeper effect than just reinforcing the never-showing in the second clause. The moon also has a bright side, at least some of which we can normally see, and which is extremely salient in a clear night sky. Thus, a more elaborated interpretation of (4) or (4a) could include the notion that everyone also has a side that is (in part) usually very much apparent. This new message cannot come from just the second clause, because although the mention of a dark side weakly suggests a non-dark side, there is no warrant for taking that side to be bright and salient. But, the fact that the message cannot come just from the second clause alone is a not a reason for saying that the first clause should be given its own metaphorical meaning, but is rather a reason to say that a unified source-side scenario should be constructed from both clauses, and then target-scenario meaning should be extracted from that scenario as appropriate. However, I do not have a specific theory about when hearers are pressured to adopt this more holistic approach across clauses/sentences and when they give them separate metaphorical meanings.

Example (4/4a) raises another interesting issue. The example appears to assume that Earth's moon, and a moon in general, has a fixed dark side that cannot be seen, whereas of course in reality the darkness moves round the moon as it orbits the Earth. Indeed, the passage may be mistakenly equating the dark side with the side facing away from the Earth, which *is* a fixed part of the moon. Thus the example provides an example of a fairly common phenomenon, pointed out by other researchers, of the source subject matter of a metaphor being distorted with respect to reality (see discussion and references in Barnden, 2016b).

Language researchers in many disciplines appear to assume virtually without argument that every sentence, including metaphorical ones, must be assigned its own meaning in terms of the situation actually being talked about. However, the

considerations in this article suggest a conjecture that it is merely *typical* that a sentence taken alone can usefully be assigned such a meaning. Rather, meaning can act much more holistically across sentence (or clause) boundaries, and there is no hard syntactic limit as to what sort of segment of discourse might in a particular case be treated most naturally as a unit bearing specific meaning.

8. Further discussion

8.1 Handling metaphor with fictions

In various disciplines, researchers have suggested forms of an approach to metaphor that rests on *fictions*. Basically, what we have often been calling a source-side scenario in this article is relabelled as a fiction. The hearer of a metaphorical sentence uses the literal meaning of the sentence in context to (begin to) construct a fictional scenario expressed partly in source subject-matter terms, such as the scenario of some managers getting neck-cricks by having to turn their heads to talk to different people, in the case of Example (2). The fictional scenario is similar to a partial world as depicted by an ordinary fictional narrative such as a novel. The hearer may then elaborate (fill out) the fictional scenario by means of inference, using knowledge of the source subject matter. Metaphorical meaning arises when the hearer takes aspects of the fictional scenario and transfers them (with suitable modification) to become (alleged) aspects of the target scenario. The fictional-scenario aspects that are so transferred may either have been put there directly by the literal meaning of the metaphorical sentence, or may have arisen through elaboration of the scenario. The created information about the target scenario forms part of the meaning of the sentence for the hearer.

This general characterization fits fiction-based and pretence-based approaches to metaphor in philosophy (see notably Walton, 2004; Egan, 2008; also Yablo, 2001), a suggested enrichment of Relevance Theory accounts of metaphor developed in the field of linguistic pragmatics (Carston & Wearing, 2011), aspects of the "blending" or "conceptual integration" developed within cognitive science (Fauconnier & Turner, 2008), and my own ATT-Meta approach to metaphor (cited above). It is similar to the use of imaginary worlds for poetry understanding (Levin, 1988). But note that there are contrary arguments – for example, Camp (2009; forthcoming) argues that metaphor should not be cast as using fiction or pretence.[10]

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10. In presenting ATT-Meta, elsewhere, I have usually used a weak notion of pretence rather than fiction, and have called the fictional scenario the pretence scenario, but I have not intended a fundamental difference between the two terms.

How can an explicitly fiction-based view of metaphor illuminate this article's themes? An initial observation is about reverse transfer. Reverse transfer brings fiction-based theory of metaphor closer to the theory of fiction in general. Ordinary stories standardly import information about the real world. For instance, if we know that a certain fictional character is intended to correspond to a real person, we would tend to import our knowledge of that person into the fiction (if not contradicted there) suitably amending it to fit the circumstances of the fiction.

And of course forward transfer is often important in ordinary fiction such as novels, short stories and theatrical plays. While such a fiction might be understood purely in its own right, often part of the author's purpose or reader's use of a fiction is to provide illumination of the real world, by a process akin to forward transfer by metaphorical mapping. This is of course especially the case of fictions dubbed as allegories, but it applies much more broadly.

8.2 Holism and indirectness of representation again

Given that the representations in a metaphorical fiction lead by forward transfer to representations that are directly about some situation, for instance one in the real world, then surely they can be regarded as indirect representations of aspects of that situation as well as being direct representations of the fictional scenario. And yet, as we have seen, some/many of the individual, operationally crucial elements of a metaphorical fiction – such as a *"part"* of Mary or an insistence by such a part – may themselves have no mapping to the target side. They only have an indirect functional role with respect to the target via other thoughts constituting the fiction, namely those that do have a mapping into the target. They nevertheless play an important role in representing the target. Thus, mental representation of, for instance, the outside world can be a much more indirect, holistic matter than it is often made out to be.

And even when metaphorical thoughts are accompanied by analogous thoughts directly in terms of the target, the fact that the metaphorical thoughts may allow easier, quicker or more confident thinking than the direct thoughts may confer on the metaphorical thought even more of a right to be dubbed as a mental representation of the target situation – albeit only indirectly of it.

In short, theories of mental representation in all relevant disciplines (linguistics, AI, philosophy, …) need to cater for the point that what a mental representation directly describes is items and situations in fantasy worlds that only have a holistic, metaphorical connection to the real world, and that this phenomenon is not just an outlier but is central to how the mind represents the world – if metaphor is indeed important in thought.

The main strand of theorizing in philosophy that resembles these points is fictionalism (see, e.g., Yablo, 2001). A notable case is fictionalism about numbers

(Leng, 2010; Yablo, 2001). The main intuitive idea here is that numbers – as opposed to numerals, which are marks on paper, patterns of bits in computer memory, etc. – are not objectively existent entities, whether concrete or abstract. Rather, they are just items in a fiction, broadly analogous to entities in a science fiction or fantasy story, where even the categories of things are invented, not just particular items within categories. There are mappings/connections of some sort between numerical language as a whole and the real world, for example via counting and measurement practices, that allows that fictioning to be useful in our thinking about the world, our interactions with the world, and communication with other people. Some types of statement referring to numbers, such as that "*There are two ducks in my fridge*" or "*The number of ducks in my fridge is smaller than the number of major planets in our solar system*" can be mapped in principle to truths about the world and can lead to useful actions upon the world.

Similarly, according to a fiction-based view of metaphor, mental use of metaphor is an exercise in, perhaps highly temporary and idiosyncratic, fictionalism. The fictionalism is especially marked in the case of any elements of the source-side scenario that are not also within the target-side scenario.

Thus, the thrust of this section could be phrased as a claim that our mental representations of the world are fictionalist in a much more sweeping way than provided by fictionalist accounts of specific areas such as mathematics.

8.3 The source of action

Continuing this link to fictionalism, there is also a more extreme version of the holism and indirectness points we have made. In this article so far, even if some thoughts about the fiction are not themselves mapped to the target, their function in the mind is, nevertheless, to link via inference to items that do have a mapping. And we have suggested that actions upon the world would be related to the target-side representations.

However, it is also possible to conceive of a metaphorical fiction in which *nothing* is mapped to target-side representations of (e.g.) the outside world. As for actions, these could be linked directly to the *source*-side representations. For instance, perhaps Joe's *only* resource for thinking about electricity is that it is a liquid flowing within wires, etc. Joe knows nothing about electricity other than what can be approximately captured by this resource, and he has no translation of *any* non-trivial liquid-based thoughts about electricity into any other terms.[11] As long

11. A trivial thought that would be translatable could be of the form *this instance of liquid is this instance of liquid,* which could be translated into *this instance of electricity is this instance of electricity.* I am seeking to confine the discussion to useful thoughts.

as his liquidish thoughts are adequately linked to relevant target-side actions, such as operating a switch, that he needs to take in the world (as well as to source-side ones such as operating a tap), he may be able to act upon the world perfectly well for everyday purposes.

8.4 Back to bidirectionality

The reverse-transfer aspect of bidirectionality has been posed as a challenging puzzle for Conceptual Metaphor Theory (CMT): see, e.g., the discussions in Anaki & Henik (2017), Lee & Schwarz (2012) and Shen & Porat (2017). Conceptual metaphors and primary metaphors are held to be unidirectional in that they project structure "forwards" from source to target but not the other way round, and reverse transfer might seem to violate this. But is a deep challenge really posed, and do the considerations of the present article, if valid, intensify the challenge?

No. First, Lee & Schwarz (2012) rightly point out that the alleged challenge rests on misunderstandings and a simplistic view of CMT. Lee and Schwarz say that the fact that there is a unidirectional projection mechanism does not preclude the existence of other mechanisms that allow bidirectional effects, and they talk about the co-activation of neural subsystems (Lakoff & Johnson, 1999, pp. 55–57) involved in processing the source and target subject matters. Shen & Porat (2017) take Lee and Schwarz somewhat to task for incompleteness in their account. Shen and Porat instead make the more radical claim that contrary to CMT, "unidirectional mappings are no longer regarded as an inherent component of metaphorical relationships at the conceptual level. Instead, … bidirectionality … derives largely from the structure of prelinguistic metaphorical relations, which … are based on a bare association between concepts/domains, with no clear assignment of source and target. The unidirectionality of verbal metaphors … is largely determined by being instantiated in a linguistic form."

Whatever the merits of these authors' responses to the challenge, there is a more fundamental way the challenge is misguided that they do not fully bring out. It is misguided because the reverse flow of information does not intrinsically violate any projective unidirectionality of conceptual metaphors or other sorts of metaphor schema in the first place. The projection of source structure onto the target results in (or strengthens, reaffirms or highlights) a partial parallelism of structure between target and source. For instance, under a TIME AS SPACE metaphor schema, a later-than temporal relationship might be made parallel with a further-along-the-line relationship in space. But, once such parallelism of structure has been created in the mind, there's no reason at all why *specific instances* of structure on either side should not flow to the other side as licensed by that parallelism. For instance, there's no reason at all why the proposition that a particular event is

later than another particular event should not be reverse-transferred to become a proposition about corresponding physical objects being in a further-along-the-line relationship. Such a reverse transfer is not an act imposing some new relationship on the source subject matter or of establishing parallelism between the further-along relationship and the later-than relationship: it is merely an act of *using* that already-established parallelism.

These observations may serve to sharpen a point made by Lee and Schwarz to the effect that the impression of a challenge arises partly from not adequately distinguishing between matters of representation and matters of online processing.

And reverse transfer does not violate the intuitive notion that source items stand for target items and not vice versa. The reverse transfer can just be construed as constructing the source item *that stands for the given target item*. For example, the reverse transfer of a specific instance of later-than merely constructs the specific instance of further-along that stands for that later-than instance. The reverse transfer does not have to be construed as making the later-than instance stand for the further-along instance.

In this vein, common-or-garden appeals to conceptual metaphor frequently seem to rest on some reverse transfer of information. Consider an utterance such as *"The foundations of the theory are crumbling"*, and suppose that this is analysed as a use of the THEORIES ARE BUILDINGS conceptual metaphor (or alternatively, using primary metaphors, in terms of PERSISTENCE IS REMAINING ERECT, where the types of erectness in question is of course that of a standing physical structure.) Unless there are lexicalized metaphorical senses of both *"foundations"* and *"crumbling"* that allow a target-side meaning to be immediately constructed, the hearer presumably must *view the theory as a building (or other standing physical structure)*. Thus, a (possibly unconscious) act of imagining a physical structure corresponding to the theory must first occur in order for the *"foundations"* and *"crumbling"* to make sense. But that imagining is an act of reverse transfer that merely exploits the parallelism that THEORIES ARE BUILDINGS (or PERSISTENCE IS REMAINING ERECT) has previously established.

There is a further consideration. Barnden et al. (2004) point out that there is a type of reverse transfer different from those already alluded to in this article. The additional type is reverse transfer of *questions* about the target scenario. Suppose someone, Joe, is metaphorically thinking about certain time relationships amongst events as spatial relationships. This could be because of hearing a sentence like "*The meeting is very distant*" or "*The meeting was moved forward*" (cf. the experiments in Boroditsky, 2000; Boroditsky & Ramscar, 2002). Now suppose someone asks whether one of the events, E, is later than another one, F. It is perfectly natural then to suppose that Joe mentally reverse-transfers this question to become a question about whether (the physical object corresponding to) E is further along the spatial

line than (the physical object corresponding to) F. This is merely a question about the structure of the specific source-side scenario that Joe is currently entertaining, and in no way conflicts with the sort of projection of structure that conceptual metaphors are said to provide. The point here is not confined to questions posed in language, but could apply to mental questions that come up privately in Joe's mind. Also, questions (or related items such as issues for consideration) could be forward-transferred from source to target.

Of course, excusing one particular theory, CMT, from the alleged challenge does not affect the point that one must still account for the asymmetry of linguistic metaphor (see Section 2). The basic problem is actually not one of some data conflicting with some theory, but rather of two bodies of data – the linguistic data on asymmetry and the psychological data on bidirectionality (reverse transfer) – having a *prima facie* conflict with each other.

9. Concluding remarks

This article has argued that if we take the possibility of metaphorical thoughts, in the sense explained, seriously, and especially the experimentally supported idea that information can be transferred in reverse from target to source, we should also be careful to address the following possibilities in theorizing and in psychological experimentation: (i) that people may use reverse transfer in order mentally to *add metaphor* when understanding discourse, i.e., mentally couch their understanding of what the discourse says in metaphorical terms that are not used in the discourse itself, where this could even involve giving a literal sentence a metaphorical understanding; (ii) that, in particular, cognitive addition is a powerful tool for achieving coherent understanding of discourse through metaphorization of literal parts; and, (iii) from considerations other than reverse transfer, that a radical form of the Anti-Analogy-Extension Thesis holds, recognizing the phenomenon of source-domain items that are crucial to what is inferred about the target but that are not mapped into target terms. The arguments also lead to a more holistic, fictionalist view of discourse meaning and mental representation than is usually entertained.

The article has also briefly argued that bidirectionality of metaphor is not a special threat to Conceptual Metaphor Theory, but rather that together with the asymmetry of much linguistic metaphor is something that any theory needs to explain.

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Separating (non-)figurative weeds from wheat

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While approaches developed to recognize figurative expressions in discourse widely differ with respect to their formalization, most of them aim for the identification of the figurativeness as directly as possible. There is, however, another promising starting point – to turn our back to figurative wheat and attend to non-figurative weeds first, identifying and subsequently eliminating them from further consideration. On the basis of a methodological exercise consisting of several small-scale case studies involving English and Croatian material, we claim that by approaching metaphors in a negative way we can achieve a high success rate while using considerably leaner tools. We also show that the situation with conceptual metonymies seems to be very different, i.e. searching for literal uses first and then for metonymic ones, does not lead to the same success.

Keywords: figurative expression, literal expression, metaphor recognition, metonymy

> *[24] Another parable put he forth unto them, saying, The kingdom of heaven is likened unto a man which sowed good seed in his field: [25] But while men slept, his enemy came and sowed tares among the wheat, and went his way. [26] But when the blade was sprung up, and brought forth fruit, then appeared the tares also. [27] So the servants of the householder came and said unto him, Sir, didst not thou sow good seed in thy field? from whence then hath it tares? [28] He said unto them, An enemy hath done this. The servants said unto him, Wilt thou then that we go and gather them up? [29] But he said, Nay; lest while ye gather up the tares, ye root up also the wheat with them. [30] Let both grow together until the harvest: and in the time of harvest I will say to the reapers, Gather ye together first the tares, and bind them in bundles to burn them: but gather the wheat into my barn.*
>
> Matthew 13

https://doi.org/10.1075/ftl.9.02brd

1. Introduction

The above parable of the wheat and the weeds, or tares, follows the one of the sower and four types of soil, and is usually interpreted as being about the Kingdom of Heaven. But the situation it describes can be applied to many areas, even to quite specific linguistic tasks such as the recognition of figurative expressions. Recognition is, of course, possible only if we have criteria on which we can rely to delineate figurative (or non-figurative) meanings. Although our folk model of language seems to be based on "the assumption of a strict line dividing line separating what is literal from what is non-literal" (Handl, 2011, p. 15), the distinction between the two is not an easy one to draw, as pointed out by Colston (2015: p. 10), Gibbs and Colston (2012: p. 19) and Cruse (2001):

> A distinction is often made between literal and non-literal meanings of (polysemous) words, the assumption being that only one of the readings is literal. While at first sight this distinction seems intuitively clear, on closer examination it is not so straightforward. (Cruse, 2001, pp. 257–258)

It stands to reason to assume that the literal meaning of a figurative expression must at least be an established one. However, established readings are not so easily diagnosed, either. What is more, there may be more than one established meaning, and we would then need a principled way of identifying one, or more meanings that are literal. In search for these we might rely on the chronological order of their attestation in language, assuming that the earliest recorded one is the literal one. We might also take the literal meaning to be the most frequent one. Unfortunately, neither the history of a word's meanings, as recorded in dictionaries, nor their frequency in the corpus, can always point to established and/or literal meanings. Furthermore, it might be the default meaning, that is, the one which comes first to mind when one is confronted with the word out of context. But, as stressed by Coulson and Matlock, empirical research

> refutes the assumption that literal processing is obligatory and necessarily prior to metaphoric processing. Psycholinguists have also challenged the prediction that metaphoric meanings take longer to compute than literal ones by contrasting reading times for both types of statements. (Coulson and Matlock, 2001, p. 297)

Finally, we might suppose that literal meanings are basic in the sense of being the ones from which the others can most plausibly be derived by standard semantic processes, primarily by means of conceptual metaphor and conceptual metonymy. Similarly, Dancygier and Sweetser (2014, p. 4) assume "that *figurative* means that a usage is motivated by a metaphoric or metonymic relationship to some other usage, a usage that might be labelled *literal*," adding that metaphor and metonymy

are not the only motivations for figurative usage. For our immediate purposes in this chapter, we take the literal sense of an expression to be the one that conveys properties and relations that are ontologically and or semantically congruent in a given domain of conceptualization. By necessity, this approach means leaving out lots of metonymic phenomena outside figurativity, but this is in keeping with the predominantly referential function of metonymy.

So what is our figurative wheat, and what is our figurative tare? Following the Biblical logic, we may assume that figurative expressions are desirable, i.e. wheat, and non-figurative ones are undesirable, i.e. tares. correspond to tare. Cognitive linguistic research has developed a number of approaches that promise to recognize and identify figurative expressions in discourse, chiefly conceptual metaphors, but also conceptual metonymies (cf. Berber Sardinha, 2008, 2012; Goatly, 1997; Kövecses, 2015; Markert & Nissim, 2006; Nissim & Markert, 2003; Shutova & Sun, 2013; Shutova, Teufel & Korhonen, 2013; Stefanowitsch, 2004, 2006; Steen, 2007; Steen et al., 2010; Wallington et al., 2003; Leong et al., 2018). Some of these approaches have advertised themselves as being able to achieve a high success rate (and in certain cases even a surprisingly high one) in the more or less automatic and (un)supervised retrieval of figurative expressions in comprehensive texts and corpora of various size. While they widely differ with respect to their complexity, they seem to have one thing in common – they basically aim at separating figurative wheat from non-figurative weeds. In other words, researchers are intent on getting their hands on figurative expressions in as direct a fashion as possible. Judging by what is going on in cognitive linguistic research, figurative expressions are assumed to be wheat, and non-figurative ones are taken to be tares. But note that what is decribed in the above excerpt from the Gospel is just the opposite of the procedure in the approaches we have just referrred to:

> *… gather ye together first the tares, and bind them in bundles to burn them: but gather the wheat into my barn*

The question is whether it is possible to envisage an approach going in the 'tares first' direction. This is exactly what this chapter is about – turning our back to figurative wheat and attending to non-figurative weeds first, identifying it and subsequently eliminating it from further consideration. This may at first sight seem to be a counterintuitive proposal, considering the proportion of the non-figurative weeds in running texts or corpora, i.e. in view of the huge number of literal expressions,[1]

1. We are very well aware of the difficulties in trying to separate the figurative from the literal. For one thing, the metonymic and the literal are not always true opposites, as hinted in Parts 4 and 5 below. In light of this cline between the figurative and the literal, as well as many facets of figurativity, one might be inclined to see a different proportion between the two. We might hedge

exceeding many times the number of potential figurative expressions surrounded by the former.

In Section 2 of this chapter, we give a brief overview of most representative approaches to the identification of figurative expressions, chiefly of metaphors, but also of metonymies, pointing out some of their drawbacks. In the third section we outline the architecture of our "literal-first" approach. The fourth section is a brief outline of problems associated with automatic retrieval of metonymies. Finally, our conclusions and suggestions are outlined in the fifth section.

2. Some approaches to the recognition, identification and extraction of figurative expressions

According to Berber Sardinha (2012), major techniques and tools for retrieving metaphors from corpora can be characterized as either:

i. sampling techniques, or as
ii. census techniques

Sampling is "the selection of a fraction of the total number of units of interest to decision makers for the ultimate purpose of being able to draw general conclusions about the entire body of units" (Parasuraman et al. 2004, p. 333). Consequently, a sampling technique implies selecting a pool of units (normally word types or lemmas) to represent the totality of words in the corpus. Sampling techniques are thus top-down procedures (because the researcher determines in advance what is searched for in the corpus), while census techniques are bottom-up procedures (because the researcher has no preconceived idea about what is being searched for, be it metaphorical expressions, source domains, or target domains).

Top-down sampling techniques can be:

iii. searches for some predefined expression (e.g. MPA (cf. Steen, 2007; Steen et al., 2010), or Metaphor Pattern Analysis (cf. Stefanowitsch, 2006);
iv. search in a corpus for metaphor clusters (it is taken for granted that metaphors tend to be unevenly distributed within a corpus);
v. search for potential metaphors using key words (hoping that metaphorically used lexemes would somehow stand out in terms of their frequency);

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this claim and replace "literal" by something like "non-figurative", but as far as the identification of metaphors is concerned, what we eliminate in the course of our procedure is non-metaphorical, and therefore technically counts as "literal."

vi. search for potential metaphors based on the measure of mutual semantic relatedness of certain adjacent words (hoping that semantic unrelatedness is an indicator of metaphoricity).

Within MPA, Stefanowitsch (2006) discusses the following as possible search strategies based on a predefined search string:

a. search for lexemes related to a source domain,
b. search for lexemes related to a target domain
c. search for sentences containing lexemes characteristic of both domains.

To this we can add the possibility of searching for metaphors on the basis of markers or signals of metaphoricity (as in Wallington et al., 2003, or Goatly, 1997). We witness a whole series of recent articles discussing various metaphoricity signals (Wallington et al., 2003), or tuning devices (Cameron & Deignan, 2003) for figurative meaning. Most of these signals are formal, i.e., they have to do with various structural and lexical phenomena found in the discourse within a certain distance from the polysemous word under consideration.

The starting point for Wallington et al. (2003, p. 1) is thus the fact that "metaphorical stretches of text are often found with certain common and relatively fixed lexical or graphical collocations," which they call *metaphoricity signals*. Their preliminary list of metaphoricity signals is organized into 11 categories: explicit signals of metaphoricity and similarity that are in themselves not metaphorical (i.e. expressions such as *metaphorically speaking, figuratively, symbolically*, etc.); explicit signals of metaphoricity and similarity that are in themselves not metaphorical (lexical items such as *picture, image, model, copy, caricature*, etc.); explicit signals of thinking-of-as where the signals themselves are not metaphorical (verbs such *as think of … as, consider … as, seem like*…, etc.); explicit signals of thinking-of-as, etc., where the signals themselves are metaphorical (e.g. *look/sound/taste like*…); explicit signals of an alternative or special sense being used (e.g. expressions like *in another sense, in a sense, in a way*, etc.); metalinguistic signals, including some that are themselves metaphorical (e.g. *so to speak/say, in a manner of speaking*, etc.); bogus signals of reality, such as *literally, actually, simply put*, etc.; signals of (near-) equivalence, such *as no different to/from, amount to*, etc.; approximative categorizers, e.g. *a kind/sort/type of, a bit of a, the* NP *of*…; signals of quasi-extremity, e.g. *absolutely,…, a tiny/gigantic* NP; contrasters, such as *if not…, not so much as*…; commonization of proper names, e.g. (genitive phrase) (proper name), as in *this country's Picasso.*

Census techniques, on the other hand, are those in which "every population unit is examined" (Parasuraman et al. 2004, p. 359), i.e., researchers have to analyse each token in the corpus. As the corpus in question is usually a running text or a

collection of such texts, these techniques are considered to be discursive, but they need not neccessarily be that.

Probably the best known census method is MIP (Metaphor Identification Procedure, cf. Steen et al., 2010). This is a fairly complex and laborious (but not automatable) technique proceeding in several explicit steps that aim at establishing for each lexical unit in a stretch of discourse whether it is, or is not, used metaphorically in a given context. We need not describe all of these steps in detail, but what is relevant for us is that the entire text is first read by the human researcher(s) (and not by a machine or software!) in order to establish a general understanding of its meaning. Next, lexical units in the text are focused upon. For each lexical unit in the text, its meaning within its context is established and compared with its basic meaning. If the contextual meaning found in the text in question contrasts with the basic meaning but can be understood in comparison with it, the item is marked as metaphorical.

Since every single token is examined in a census approach, a variety of methods of automated metaphor extraction can be classified as belonging here. How far they belong here, and how far they are bottom-up procedures, depends of course on whether they are unsupervised or supervised (and how), and the learning input preparatory to their implementation. In some cases they are based on machine learning that relies on a "gold standard corpus", i.e. a trustworthy corpus with annotations that have been checked and corrected.

Dodge et al. (2015) proceed in a cyclical fashion: they start from a repository of formalized metaphors, frames, metaphor constructions, and metaphoric relational patterns which serve as the input for an automated metaphor extraction system. The analysis of extracted data serves as a means to refine and expand the repository, which in turn improves metaphor extraction results. Shutova, Sun and Korhonen (2010) have devised a system for the detection of metaphors based on a set of seed metaphorical sentences exemplifying a range of source-target domain mappings. The system then performs unsupervised noun clustering in order to harvest various target concepts associated with the same source domain. The clustering motivation centres around the idea that, in contrast to concrete concepts clustering together (i.e., exposing similar behaviour in the sense of exhibiting the clustering of the same contextual cues) due to meaning similarity, abstract concepts tend to be clustered together by association within the same source domain. After the clustering is performed, the system creates a source domain verb lexicon by means of unsupervised verb clustering. Finally, it searches the BNC (British National Corpus) for metaphorical expressions describing the target domain concepts using the verbs from the source domain lexicon. It will be seen that, while the system is claimed to work with an amazing success rate of 0.79, it is severely limited as the seed sentences contain only certain syntactic configurations, i.e. subject-verb

and verb-object sequences. As is well known, metaphors can manifest themselves in other types of configurations or even just as single lexemes in a context that does not contain any other lexeme that might hint at its metaphorical status so that the system cannot go any further.

This system is claimed to be capable of learning analogies involved in the production of metaphors and extending the set of analogies by means of verb and noun clustering and, in this way, is able to recognize novel metaphorical expressions in unrestricted texts. This sense of novelty apparently does not cover innovative metaphors but only some kind of rule-governed analogical extensions. Needless to say, the way the system is to be assessed also depends on how we understand the notion of "unrestricted text." Genuinely unrestricted texts are quite likely to contain errors in their input, long sequences with doubtful boundaries, incomplete grammatical structures, etc. However, the procedure crucially depends on the way the input is grammatically tagged prior to analysis and on the fairly complete grammatical sequences it contains, which may not always be the case.

As reported in David, Lakoff and Stickles (2016), the MetaNet project developed a method for automatically discovering new metaphoric expressions in texts that exploits existing insights about hierarchical organization of conceptual entities underlying metaphorical expressions. The key concept in their analysis is metaphoric cascade – "a hierarchically organized conceptual combination of image-schemas, frames, and metaphors that has been used often enough to become fixed as a single complex entity, though each of its parts continue to occur separately" (2016, p. 214). Their approach makes use of an ontology organized in terms of metaphor cascades, i.e., pre-existing packages of hierarchically organized primary and general metaphors that occur together, as novel instances or applications of metaphors tend to build on, i.e. preserve, inferences from primary metaphors higher in the cascade.

Shutova and Sun (2013) present what they claim to be a novel approach to automatic metaphor identification that is claimed to discover both metaphorical associations and metaphorical expressions in unrestricted texts. Their approach is claimed to require no training – it is not based on any seed, but derives its power from Hierarchical Graph Factorization Clustering. It relies on building a hierarchical graph of concepts connected by their association strength (using hierarchical clustering) and then searching for metaphorical links in this graph. In practical terms, the system attempts to localize differences in the clustering of lexemes for various types of concepts. While lexemes for concrete concepts tend to naturally organize into a hyponymic tree-like structure, abstract concepts exhibit a more complex pattern of associations, with multiple higher-level associates. However, the system again depends on certain syntactic configurations, i.e. on subject-verb and verb-object sequences and therefore presupposes tagging. The system is said to identify valid metaphorical associations for a range of source domains (but

apparently not for all). As the authors admit, the most frequent error is the confusion of source and target when the concepts are closely related (e.g. *parent-child*). The system also experiences difficulties with identifying metaphorical chains.

3. Turning our back to figurative wheat and attending to non-figurative weeds first: Why and how?

As we have just seen in Section 2, the methods reviewed above identify, recognize and extract metaphors more or less successfully. They differ widely with respect to their procedures- – top-down or truly bottom-up, their presuppositions, etc., but what both sampling and census techniques have in common is that they attempt to get directly at figurative expressions. However, as we said at the beginning of this chapter, it is possible to envisage an approach starting from the opposite direction in the sense that we do not attempt to identify figurative expressions directly, in the very first step or steps. As pointed out this may at first sight seem to be a counterintuitive proposal, considering the proportion of the non-figurative "weeds" in running texts or corpora, i.e., in view of the huge number of literal expressions that exceed many times the number of potential figurative expressions. Separating figurative, in particular metaphorical, weeds first, and then attending to metaphorical wheat nevertheless has certain advantages.

From a truly bottom-up perspective, separating metaphorical weeds first, i.e. eliminating noise in the corpus, is not only ideologically better, but also turns out to be a relatively simple task from a methodological point of view, and it also produces better results. When we say that it is a relatively simple task, this is to be understood as requiring fewer or as many steps as the opposite approach, but some of these steps are simpler, while the rest may be equally complicated as in the other approach.

One of the major problems with sampling techniques is that the search query must be predefined (in terms of lexical items associated with the source domain, with the target domain, or with both, as explained above), mostly by using intuition, or some (small-scale) pilot study. This means that there is no guarantee that some of the figurative wheat is not going to slip through the net, as it is set to catch only particular configurations. As a result, we may fail to realize the full scope and range of a conceptual metaphor in the sense of Kövecses (2000). The problem may be particularly acute in the former. Further, we may fail to catch many novel metaphors.

As for census approaches that are automated, similar problems may crop up, depending on their particular input. Moreover, if semantic incongruity is computed on the basis of mutual occurrences in a control corpus containing natural language, any figures we get must by definition be skewed: The control corpus will

unavoidably contain some instances of figurative expressions, so how can it be used to determine semantic incongruity when anything that is used frequently as a metaphor and co-occurs with lexemes typical of the target domain would exhibit a seemingly decreased semantic incongruity with the lexemes in question? As a consequence of this artificially decreased incongruity, the item in question may fail to be recognized as a metaphor candidate. In other words, it would be less successful in recognizing conventionalized metaphors, while performing better in the case of novel metaphorical expressions. We may also futher note the problem of determining semantic incongruity in general: Is semantic incongruity to be understood as an either-or phenomenon, or are there rather degrees of incongruity (in the latter case it would be necessary to somehow measure the distance between ontological domains involved in metaphorical mappings)?

What we propose as our starting step is compiling a list of lexemes that tend to co-occur with a given lexeme when it is used in its basic, literal sense. This set of collocates, typically exhibiting meronymic organization (cf. Winston et al., 1987), would form a sort of a semantic or ontological profile of the lexeme in question. Unlike the prevalent techniques of searching for semantic incongruity, this procedure aims at establishing semantic relatedness or congruity within a text (i.e. establishing textual coherence). In this sense, our approach resembles the data-driven metaphor procedures that acquire a metaphor knowledge base and an isA knowledge base from billions of web pages (Li et al., 2013).

Note that we have shown that some methods of metaphor recognition and identification have tried to do just the opposite, e.g. Berber Sardinha (2007) demonstrates how WordNet::Similarity can be used to compute the semantic similarity between pairs of words. Words are searched for on the WordNet lexical database, their positions are stored and compared, and a score is given to represent how close these positions are. Words that are semantically related tend to appear closer to each other in the WordNet hierarchy than words that are unrelated. The irony of this is that this algorithm computes similarity, but the researchers are interested in dissimilarity, i.e. semantic incongruity.

What we propose is indeed looking for similarity or relatedness. This might sound similar to the so-called Explicit Semantic Analysis (ESA), proposed by Gabrilovitch and Markovich (2007), which is a vectorial representation of text (individual words or entire documents) that uses a document corpus (e.g. Wikipedia) as a knowledge base. But our proposal is much simpler than any approach based on a hierarchical lexical base or ontology (although it can certainly be coupled with these at a later stage). What we suggest as a promising and a fairly reliable source of data for the creation of those semantic profiles are encylopedic articles where all kinds of concepts are defined, explained, and exemplified. Needless to say, Wikipedia seems to be very suitable for that purpose. It can of course always

be enriched by data from thesauri, synonym dictionaries, as well as from lexical taxonomies such as WordNet, or semantic networks such as ConceptNet 5 (http://conceptnet5.media.mit.edu/), DBpedia (http://wiki.dbpedia.org/), or specific domain ontologies such as those found on linked data servers (http://www.ontobee.org/, or Linked Open Vocabularies at https://lov.okfn.org/dataset/lov/). The gist of our approach is to check this independently created semantic profile for every auspicius item in the corpus (running text or collection of texts) against what is found adjacent to the item in question. The window can be of variable size, but it seems that it might be useful and advisable to check as many as 20 to 30 words to the left and to the right. The search is supposed to retrieve multiple skip-grams (bi-grams in which collocates need not be consecutive in the text, but may exhibit gaps with a variable, predefined number of words). This algorithm should be on the lookout for a given number of words from the list, the threshold can be set at a reasonable mark such as between 3 and 5 words from the list. If a sufficient number of these words are found in the context, the item in question is regarded as being most likely used as a literal expression. This can later be confirmed by an algorithm that establishes the (micro-)topic of the text in the corpus unless the corpus is already tagged for that. If the item in question can be sensibly linked to the (micro-)topic of the text under consideration, it is even more likely to be used literally. If it is judged to be literal, the expression is simply discarded and left out of further consideration. Although the whole procedure may be demanding in terms of software and hardware resources, it is in theory available and applicable – all of these algorithms have been developed independently and are more or less widely used (but have to our knowledge never been harnessed together to produce a higher level of synergy).

Once the whole text has been checked in this way and the literal expressions discarded, we are left with a mass of expressions that are quite likely to be figurative. In theory, the method could be applied even in almost real time (the moving wall waiting for a given number of lexemes to be produced that follow the key word) in order to monitor digital texts as they evolve, and even spoken communication, if coupled with speech recognition component (which may demand even more resources).

This procedure may seem rather coarse, but we think it may be used as a robust tool in separating non-metaphorical weeds from metaphorical wheat. The latter can then be subjected to other similar, more sophisticated methods. Due to its utmost simplicity, however, the whole approach can be used with virtually no heavy tools and with hardly any formalization, even by corpus novices.

Let us now, by means of simulation on some concrete examples, illustrate the central part of the approach, which will at the same time demonstrate its practical applicability and scalability. Let us first check how the Croatian lexeme *filozofija* and its English counterpart, *philosophy*, are defined in Wikipedia, i.e., let us extract

the key words used to define the two items. In the article entitled *Filozofija* in the Croatian version of Wikipedia we find key words[2] like:

(1) *filozof* 'philosopher', *bitak* 'being', *biće* 'entity', *mudrost* 'wisdom', *znanje* 'knowledge', *logika* 'logic', *egzistencija* 'existence', *postojanje* 'existence', *moral* 'moral', *um* 'mind', *jezik* 'language', *argument* 'argument', *istina* 'truth', *svijest*; 'consciousness/awareness', *vrijednost* 'value', *etika* 'ethics', *estetika* 'esthetics', *poetika* 'poetics', *epistemologija* 'epistemology', *ontologija* 'ontology', *metafizika* 'metaphysics', *fenomenologija* 'phenomenology', *materija* 'matter', *supstanca* 'substance', *uzrok* 'cause', *svrha* 'goal/purpose', *dijalog* 'dialogue', *sustav* 'system'.

In addition to such key words we also considered their paronyms. We might also add lexemes denoting the so-called named entities, comprising names of people, locations, organizations, etc., such as *Kant, Hegel, Aristotel* 'Aristotle', *Grčka* 'Greece', etc., as well as lexemes related to their academic context.

The analysis of the first 100 random tokens for *filozofija*, retrieved from the journalistic component of the Croatian Language Corpus compiled at the Institute for Croatian Language and Linguistics (http://riznica.ihjj.hr/), shows that it occurs 73 times together with one or more of the lexemes from the list (in the majority of cases with 2–4 items), which indicates that it is most of the time used literally, as illustrated in (2). There are 13 relatively clear cases of metaphorical uses, like (3) below, while the remaining 14 cases are unclear.

(2) *A **filozof egzistencijalizma Karl Jaspers** u svome razmišljanju polazi od tvrdnje da je **filozofija** kod Grka rođena upravo kao potraga za **bitkom**, za **bićem**.*
'And the **philosopher** of **existentialism Karl Jaspers** starts in his thinking from the premiss that Greek **philosophy** was born precisely as a search for **being** and **entity**'

(3) *Primorcima je **filozofija** HSS-a vrlo bliska, jer nije ni lijeva ni desna*
'For the people from the Primorje region the philosophy of the Croatian Peasant Party is very close, because it is neither leftist nor rightist'

The analysis of the first 100 random tokens for *philosophy* retrieved from the British National Corpus shows that it occurs 58 times together with one or more of the lexemes from the comparable list of terms used to qualify and explain philosophy as a field of study or as an academic discipline, which indicates that it is most of the time used literally. In the following illustration, the words that help identify *philosophy* as being used literally are given in bold print, along with *philosophy* itself:

2. These were chosen as nouns found in most dictionary definitions of the items in question.

(4) ***Darwinism*** *was portrayed as a* ***philosophy*** *that reduced living things to automata struggling mindlessly against the physical environment. It exposed the* ***moral*** *dangers of the* ***mechanistic philosophy*** *that had begun with* ***Bacon*** *and had fuelled humankind's drive for dominance over Nature.* ***Lamarckism*** *was part of a rival world view, which stressed the ability of living things to* ***transcend*** *material limitations and which saw* ***Nature*** *as a harmonious whole rather than a scene of constant struggle.*

There are, however, 30 relatively clear cases of metaphorical uses, while the remaining 12 cases cannot unequivocally be assigned to either category. The lexeme *philosophy*is predominantly used metaphorically in business contexts, but there is a range of other target domains as well:

(5) *You just can't level the same accusation at Rickenbacker, since they've always made good stuff. Secondly, Fender were prepared to compromise themselves to try to clobber Tokai by setting up Fender Japan; Rickenbacker's whole* ***philosophy****, on the other hand, is based upon never making guitars anywhere other than under their own roof. And lastly, Tokais were good.*

(6) *Branson, however, continued to work on the boat. Out of the apparent random chaos of the Virgin organisation, a business* ***philosophy*** *– almost an entrepreneurial blueprint – could be discerned.*

(7) *That's why there are minimum weight limits for racing cars. But the trend in the motor industry at large has been in quite the opposite direction to the Chapman philosophy; cars have not become lighter over the years but noticeably heavier and more complex.*

In the Croatian version of the Wikipedia article titled *Oaza* 'Oasis', we find key words like:

(8) *voda* 'water', *vegetacija* 'vegetation', *pustinja* 'desert', *sušni* 'arid/dry', *okoliš* 'environment', we could add to this a list of named entitities, above all geographic names such as *Egypt, Libya, Tunesia*, *Gobi, Kalahari, Namib*, etc.

Among the first 100 tokens of this lexeme randomly retrieved from the journalistic component of the Croatian Language Corpus, we found four examples in which the lexeme co-occurs with *pustinja* 'desert', *voda* 'water' and *sušni* 'arid'. It co-occurs with *vegetacija* and *raslinje*, both meaning 'vegetation', and *pustoš* 'wilderness/desert' in one example, while in one example it is attested together with *pustinja* 'desert' and with place names denoting cities in areas with deserts, such as *Tunesia, Cairo,* or *Alexandria*. Checking further candidates for its literal use, we found that in one example it appears together with *pustinja* 'desert', but on closer inspection it turns out that it is used metaphorically:

(9) … *mjesto utjehe i* ***oaza*** *života u* ***pustinji*** *ovoga svijeta.* [Vj20030822]
'the place of comfort and an oasis of life in the desert of this world'

All the remaining tokens, i.e. over 90%, are instances of metaphorical use. Consider some of the collocations recorded:

(10) *oaza mira* 'oasis of peace', *oaza blagostanja* 'oasis of prosperity', *turistička oaza* 'tourist oasis', *cvjetna oaza* 'floral oasis', *umjetnička oaza* 'artistic oasis', *porezna oaza* 'tax haven, lit. tax oasis', *oaza za razvoj korupcije* 'oasis for the development of corruption', *oaza entuzijazma* 'oasis of enthusiasm', *oaza prostitucije* 'oasis of prostitution', *oaza tišine* 'oasis of silence/quiet'

The results for the English countepart, *oasis*, gained from COCA (Corpus of Contemporary American English) were similar, only four out of the first 100 hits were literal:

(11) a. *A one-block stretch of downtown, nicknamed Electric Avenue, was conceived as an* ***oasis*** *for all types of electric vehicles,…*
b. *… this profoundly conservative and devout city remained a rare* ***oasis*** *of religious and cultural diversity until the mid-1970s.*

By way of control, we could check whether all the candidates for elimination also exhibit topical agreement with the context. If there is discrepancy in this respect, it may be due to the fact that the metaphor in question is used extensively, i.e., it is "explained" and its mappings explicitly spelled out. Consider the following:

(12) *Vatican II simply confirmed in their minds that the older, tighter model of the immigrant, conformist church was not in fact what faith was all about. Vatican II came as a welcome* ***oasis*** *in the desert.*

After this first round of elimination, the remaining candidates for metaphor could be subjected to additional tests used in the literature, e.g., we can search for signals of figurativity (á la Wallington et al., 2003), and also look for lexemes associated with certain source domains, as in Stefanowitsch (2006). These illustrations in fact show that this approach can be applied in the sampling mode, i.e. for searches for metaphorical uses of predefined terms. In comparison with methods like MPA, our approach is technically as simple as possible, it can be used to search within online corpora with the tools available there (COCA for example makes it possible in practice to search for skip-grams, i.e., we can search for at least three items co-occurring, though this is not advertised there). In some cases it is possible to download parts of corpora, for example a 100-million-word collection of samples from BNC, or the four-million-word BNC Baby edition. Further searches can then be performed on these data using various tools for concordancing. For example, if the corpus

happens to be grammatically tagged, it is also possible to use a corpus software interface such as SketchEngine by flexibly generating appropriate corpus language queries (CQL) with Boolean operators. Using the CQL, we can search for simple concordances or defined text structures, i.e. sentences or paragraphs that contain the target word (<s/> containing [lemma="oasis"]). Such a query performed on enTenTen corpus, (v4 2013, with just under 23 billion tokens and more than 1.1 billlion sentences), the largest English corpus in the Sketch Engine, (https://the.sketchengine.co.uk/bonito/corpus/first_form?corpname=preloaded/ententen13_tt2_1;) yielded 63,083 hits (2.8 per million). Needless to say, these included both figurative and non-figurative uses.

In order to identify occurrences that contain lexical expressions profiling literal meanings we combined the target word "oasis" with a lemma that is in meronymic relation with it, such as "desert". In CQL one can search for collocates that are discontinuous, specifying the range of words in between. Our query specified the contextual distance of 0 to 3 words to the left or right from the target word (<s/> containing [lemma="oasis"] containing (meet [lemma="oasis"] [lemma="desert|-Sahara"] −3 3). This resulted in 3,134 hits (0.10 per million). Since *desert* itself is often used figuratively (i.e., the two are part of a cascade in the sense of David, Lakoff and Stickles, 2016), the set of results we got was again a mix of both literal and figurative uses:

(13) a. *The rosy boa lives in arid scrublands, semi-arid shrub- lands, rocky **deserts**, canyons, and **desert oases**.*
b. *As a young boy growing up in the **desert oasis** of Phoenix, Arizona, in the 1960s, I found it difficult to escape the economic and political significance of water.*

(14) a. *Thank you for being an **oasis** in the **desert** of putting profit before the customer.*
b. *Not only is it a football **oasis** in the **desert** of the offseason, but it's also the first chance for fans (and the media in many cases) to see many of …*

In the next query we identified occurrences that profile the meronymic relation *oasis_has_vegetation* with multiple lexemes: *vegetation*, *tree*, *palm*, *green, park* (<s/> containing [lemma="oasis"] containing (meet [lemma="oasis"] [lemma=" vegetation|tree|palm|green|park"] −3 3)). The profiling lexemes were combined using Boolean operator OR. This query returned 3,301 (0.10 per million) occurrences with mixed results, some clear examples of literal use, but many more with extended meanings, especially with lexemes such as *park* referring to a human type of cultivation of oasis:

(15) a. ***Vegetation*** *grows in the desert* ***oasis*** *regions of Morocco.*
b. *The fertilization of so many birds creates an* ***oasis*** *of* ***vegetation*** *growth that is essential for herbivores such as reindeer, goose, and ptarmigan.*
c. *The National* ***Park*** *at Skaftafell is an* ***oasis*** *of* ***vegetation*** *surrounded by glaciers and black sands.*
d. *The diamond-shaped island of Singapore is a magnificent* ***oasis*** *of exotic* ***vegetation****, consisting of various magnificent species of plants.*
e. *to enhance the* ***park*** *by creating a* ***green oasis*** *to benefit local residents*

By combining multiple domains we constructed a more complex query that includes a number of lexemes exhibiting the highly meronymic relation with oasis: <s/> containing [lemma="oasis"] containing (meet [lemma="oasis"] [lemma="desert | water | dry | arid | spring | vegetation | lake | lagoon | pond |waterfall | sand | landscape"] −3 3). The distance between the target and profiling lexemes was specified to min-max 3 words within a sentence. This query yielded 4,241 hits (0.2 per million).

In the similar manner we extracted occurrences with other salient features of oasis, such as: oasis_is_a_place_with *animal* | *drink* | *shelter* (67 hits), a place_for_ experiencing *peace* | *rest* | *peaceful* (815 hits). The ontologically related features with their corresponding lexical expressions can be classified as domain subsets: PLACE, PLACE USED FOR ANIMAL/HUMAN SHELTER, PLACE WITH VEGETATION, PLACE FOR EXPERIENCING REST/PEACE. Figure 1 exemplifies the concept *oasis* and its ontological schema of domains.

By excluding identified meronymically related domains we can harvest expressions with potentially extended figurative meanings. The following query classifies the subsets of literal expression markers within containing clauses and excludes them from the results by using the Boolean operator NOT (!): <s/> containing [lemma="oasis"] !containing (meet [lemma="oasis"] [lemma="desert|Sahara"] −3 3) !containing (meet [lemma="oasis"] [lemma="water|lake|pond"] −3 3) !containing (meet [lemma="oasis"] [lemma=" vegetation|tree|palm|dry|green|park"] −3 3) !containing (meet [lemma="oasis"] [lemma=" animal|drink|shelter"] −3 3) !containing (meet [lemma="oasis"] [lemma=" peace|peaceful"] −3 3) !containing (meet [lemma="oasis"] [lemma=" rest|spa|wellness|hotel"] −3 3). This query harvested 54,861 (2.40 per million) expressions with a mixture of clearly metaphorical meanings (16a-e), as well as smaller portion of weed leftovers, i.e. non-figurative uses (16f).

(16) a. *But with the right colors for kitchens with white cabinets, you can turn your space into a beautiful* ***baking oasis****.*
b. *In the hustle and bustle of New York you will find an* ***oasis of edible relaxation*** *at the Wine & Food Festival.*

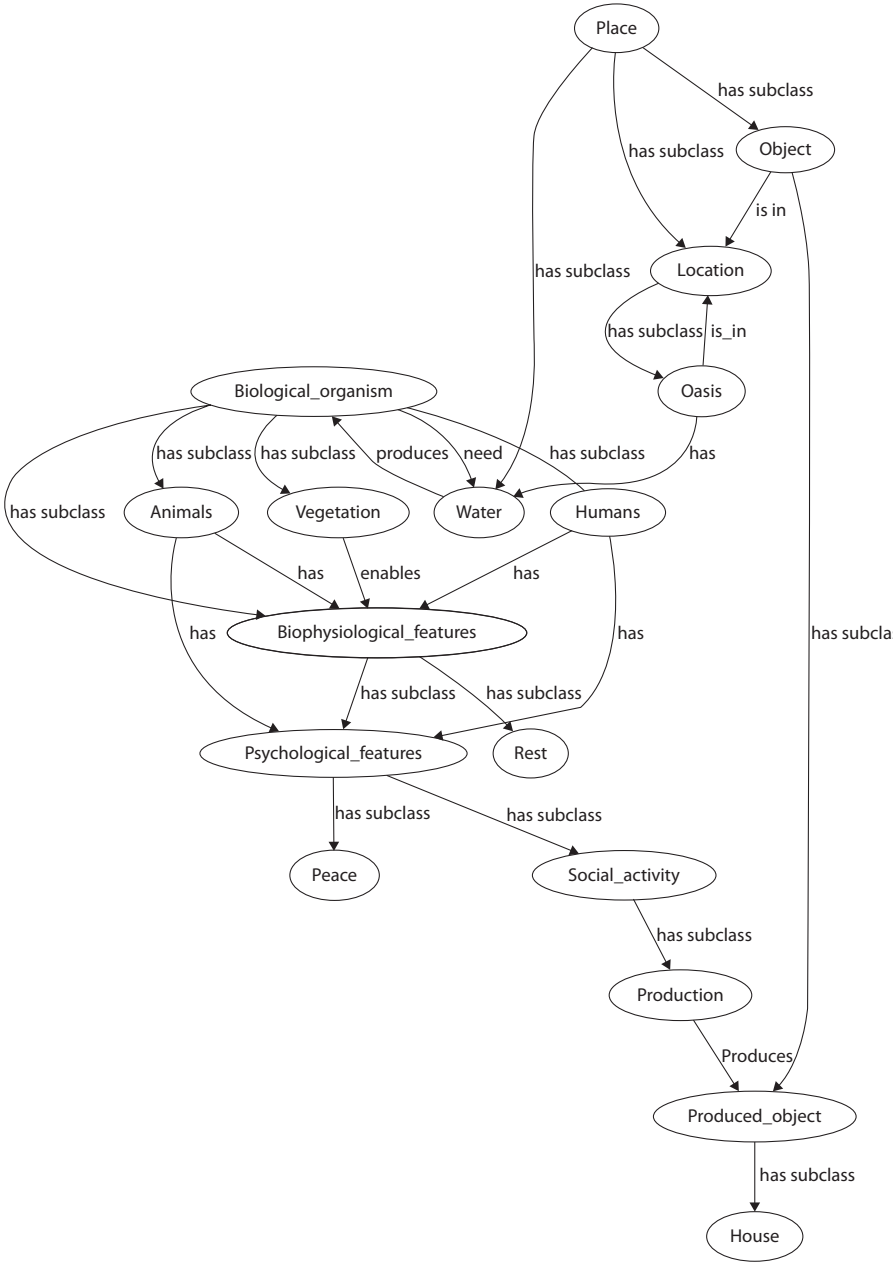

Figure 1. A simple ontological schema of domains related to the concept OASIS

c. *… and so from the center of the concrete jungle towers an **oasis of air-conditioning and credit cards** – the Sheraton Kingston Hotel, the city's uptown,…*
d. *When the sun's hot summer rays are beating down, a backyard swimming pool is a cool, inviting **oasis**.*
e. *Harlow Museum is an **oasis of tranquility**, a centre for researchers, a family day out in the Walled Gardens and much more besides…*
f. *The road for hundreds of miles is lined with these special rock and flag fixtures – all the way through the string of crumbling kasbah towns of the **fertile** Draa Valley **oases** to Zagora.*

The next step in this procedure is to reiterate the process of extracting literal meanings and separating lexemes (such as *fertile*) (16f) to appropriate domain subsets (VEGETATION) that are consequently left out in the search for the metaphorical expressions. The process of classifying lexemes can be coupled with a formal ontological description of the meronymic and metaphoric domains for the given target domain.

A simple variant of our procedure producing an impressive collection of hits when searching for metaphors with a given word in the source domain is to formulate Google queries using Boolean operators. One can search using an operator such as AROUND(n), which will retrieve documents in which the distance between two words is up to *n* words. In our case, operator NOT or – is of particular value. If we search for the Croatian word *oaza*, we get around 5,280,000 hits. Combining wildcards with –, and filtering out some words that apparently contribute to noise, as in:

(17) oaza –vod* –izvor –pustinj* –zemlj* –hotel –apartman –raslinje –restaurant –bistro

we get only 64 deduplicated hits (though we get an initial message that we have 1,610 hits). A manual search of the remaining results gives us, among others, the following:

(18) *oaza mira (i tišine)* 'oasis of peace (and quiet)'
oaza ljepote 'oasis of beauty'
oaza smijeha 'oasis of laughter'
oaza za ljubitelje Interneta 'oasis for Internet lovers'
oaza za ljubitelje serija 'oasis for lovers of serials'
oaza wellnessa 'wellness oasis'
farmaceutska oaza 'farmaceutical oasis'
oaza socijalizma 'oasis of socialism'

A similar search for "minefield"originally yielded 4,570,000 results. The query had to contain the – operator in front of items such as *game*, *film* and *studio* because these turned out to be a significant source of noise, with large number of hits due to a variety of games (drinking game, computer game, etc.) and titles of films (with literary meanings).

(19) minefield –land –mine –explosion –area –war –game –series –film –studio

Although the initial number of hits is quite high, it turns out that there are actually only 590 hits altogether. Checking manually the first 100 hits, we discovered 53 clear metaphorical uses, while the next 100 hits yielded further 68 instances of metaphor, which is roughly 61.5% of the first 200 hits. Some of these metaphorical hits include:

(20) *Post-deal Iran an opportunity but* ***legal minefield*** *too*
Crossing The ***CPG Packaging Minefield***
Budget 2016 a minefield of issues *for Najib*
*Dispelling the "****Burgundy is a minefield****" myth*
Conquering the ***Minefield of Soft Rogue APs in the Enterprise***
Navigating ***the sanctions minefield***
This week is a ***minefield***
Crossing ***the Microaggressions Minefield***
Flag debate ***a cultural minefield***
Navigating ***the ethical minefield***
Minefield for market *with Fed,…*
The federal meaningful use program *remains* ***a minefield*** *that providers are carefully stepping through to avoid losing out on incentives*
a minefield of informed consent
Children and the Internet is an ***ethical minefield***
Tip-Toeing Through a ***Minefield of SUICIDAL Thoughts***
This volatile period for the market will continue with a ***minefield of risk*** *this week*
Walking the ***Minefield****: Understanding Arizona Campaign*
Making your way through ***Medicare's minefield***
Tiptoeing Through ***the Hardware Startup Minefield***
The sanctions minefield
The making of ***a legal minefield*** *on Business Standard*
The Internet of Things: ***A Legal and Professional Minefield***
Pensions *needn't be* ***a minefield*** *if you think ahead!*

In light of such results, this approach indeed makes us aware of the full scope and range of a conceptual metaphor, and that what remains in the net are not only conventional, but also many novel metaphors.

4. A brief note on metonymies

The situation with conceptual metonymies seems to be very different, i.e., searching for literal uses first, and then for metonymic ones would not make much sense. First of all, the borderline between literal and figurative (in the sense of non-literal) does not seem to coincide with the borderline between metonymy and non-metonymy. A large proportion of metonymic expressions that speakers regularly use are not recognized as metonymies because they are not felt to be non-literal (or are only recognized as being not quite literal when speakers are prompted to reflect on their use of language). In short, by trying to establish literal senses first, i.e. congruent in-class and meronymic relations, and then discarding them would, in the case of metonymy, result in throwing too many babies out with the bath water.

However, this does not mean that going directly for metonymies is necessarily a good strategy. As a review of literature seems to corroborate, claims made about automatic and unsupervised retrieval of metonymies in unrestricted texts made in relevant literature (cf. Peirsman, 2006; Shutova, 2009; Shutova et al., 2013) are in sharp contrast to what is being demonstrated in these studies. Such attempts restrict themselves to just a certain type of metonymy at a time, the so-called logical metonymy, or geographical metonymies (as a subtype of named entitities). On top of that, they are based on grammatical tagging, detecting semantic anomaly and/or, on some gold-standard, procedures that are not without problems in view of the fact that the borderline between literal and non-literal is blurred in the case of metonymy.

The approach we propose for finding metaphors in an indirect way cannot be applied here although, in theory, it actually works: If we have arrived, in the second step at metaphorical expressions, then all the metonymies must be in the other set. The only problem is that we have a necessary precondition, but not the sufficient one. The fact that an item co-occurs with a given number of items from the same frame would disqualify it from being considered a metaphor, but not necessarily make it a metonym. The tendency for an item to co-occur with other items denoting concepts from the same frame is only to be expected in light of how the phenomenon is usually characterized in the literature, i.e. as an intra-domain phenomenon. In other words, we must take another step in order to zero in on metonymyies. The practical question is whether to go for non-metonymies first and then check whether what is left are metonymies or not, or go directly for metonymies. However, it is even more important to have some clear and reliable search criteria.

The only way that, in our opinion, might make sense and lead to some success is the one suggested in Shutova et al. (2013), who heavily rely on WordNet structures. However, unlike Shutova et al. (2013), we think that we can get some results even if we do not use complex syntactic tags. In fact, in the case of the logical metonymy

of the type *start/begin/finish* X, we think that metonymy in this case is not predicational, but nominal, and that it can be handled without any direct reference to process verbs as such in the first step.

The most important prerequisite for this is enriching and refining, if not perfecting, the WordNet (or any similar system on the basis of polysemous references a lexical unit can acquire in usage). The idea is that individual entries should be made as rich as possible, which means in the first place that many more senses should be added, together with their hyponyms, direct and inherited hypernyms. To make it clear what is needed let us check what sort of senses we find for *coffee* in the WordNet (see Figure 2) against some authentic data.

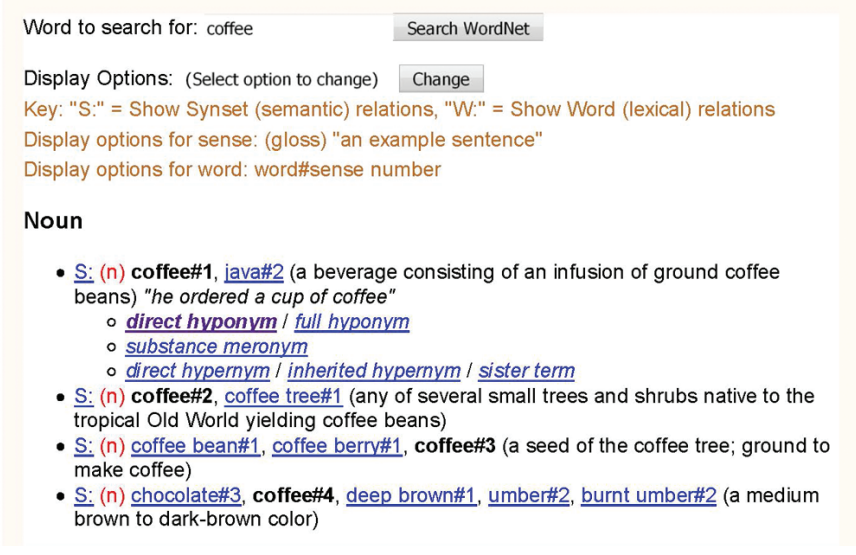

Figure 2. The WordNet entry for *coffee*

(21) a. *Then add 1 heaped dessert spoon of **coffee** per standard cup…* (powder)
b. *Brazil is not only the world's largest coffee producer, it is also the most complex. It turns out everything from mass produced **coffees** that rank among the world's cheapest to elegant **coffees** prized as the world's finest origins for espresso brewing.* (types of coffee beans)
c. *We checked online to see how many types of coffee beverages there are… it turns out, it's quite a lot. Over thirty different types were listed on one website, and more than forty on another. To save us all some time, we will confine this list to the most commonplace **coffees** available, and what many Canstar Blue staff deem the most delicious.* (types of coffee drinks)
d. *And what is that? **Coffee?*** (the sound or the smell of coffee being prepared)

e. *At the television studio the audio man was fitting me for a microphone when he noticed that I had* ***coffee*** *on my shirt.*
f. ***Coffee****: 30-year high*

It is rather obvious that quite a few metonymic senses of *coffee* go unmentioned in the WordNet. The presentation of lexemes denoting various metals, alloys and other materials also leaves a lot to be desired.

In its basic meaning the lexeme *paper* refers to 'a substance made from wood pulp, rags, straw, or other fibrous material, usually in thin sheets, used to bear writing or printing, for wrapping things, etc.' In (22) we find that *paper* can denote a range of objects made of this substance. In the first example of this selection, it is used in a more narrow sense of 'sheet/peace/leaf of the material called paper,' while (22b) is about a piece of paper containing a written or printed statement, i.e. about a document. In (22c) *paper* refers to 'an essay read at an academic lecture or seminar, or published in an academic journal', in (22d) it is a copy of a newspaper, while it is a piece of written schoolwork or a set of examination questions to be answered at one session, or the written answers to these questions in (22e).

(22) a. *Holmes took* ***a paper*** *from his pocket and laid a tenpound note upon the table.*
b. *She handed* ***the paper*** *back to the man and said, "I can't read that."*
c. *When they asked Busemann about it, "his face lit up" and he said, "Oh, you remember, I read* ***a paper*** *on it at the Volta Conference in 1935".*
d. *Easily read* ***a paper*** *on a crowded bus, train, or plane with this trick…*
e. *Two minutes later, Jimmy handed* ***his paper*** *in to the teacher. "Jimmy, how could you possibly be finished with the assignment already?"*

This last sense is missing in the WordNet. The same is true of the conventionalized usage of the lexical unit *paper* to metonymically refer to ESSAY or SCIENTIFIC ARTICLE. However, BabelNet engine names 17 results for the lexeme "paper" (http://babelnet.org/search?word=paper&lang=EN), discriminating between nominal concepts such as 'material made of cellulose pulp derived mainly from wood or rags or certain grasses', 'an essay (especially one written as an assignment)', etc.

Lexemes for metals, which are inherently non-count, can also be used metonymically to refer to a whole range of objects made of that metal. *Lead* can be used to refer to 'any of various, often graphitic compositions used as the writing substance in pencils', and also to a thin stick of that material. Further, it may be used instead of the lexeme *bullet*, 'a metal projectile for firing from a rifle, revolver, or other small firearm, typically cylindrical and pointed, and sometimes containing an explosive,' because it used to be made of lead in the past. The word is also used as a short form of lead weight suspended on a line used to make soundings.

In the specialised jargon of printing *lead* is 'A thin strip of metal used to separate lines of type'.

Let us now consider the following series of examples with *gold*, *silver*, and *bronze*. Lexemes denoting metals/alloys such as *gold*, *silver* and *bronze* are commonly used to denote prize medals made of these materials:

(23) *To have won one **gold** and two **silvers** in those Games was not only phenomenal, it was historic.*

Gold, silver and *bronze* can have additional derived uses motivated by the metonymy under scrutiny. They can be used in the sense of 'gold/silver/bronze coin' (which is further metonymically extended to mean 'price of something'):

(24) *The only US gold coins that he has are a 1883 $20, an 1898 $10, an 1897 $5 and some **silvers** that we still need to sort through.*

Silver, sometimes pure, but more usually as alloy, i.e. mixed with other metals, is used to produce a range of jewelry and valuable household items. Even the artifacts made of materials other than silver but which have a silver coating or plating layer on object are referred to as *silver(s)*:

(25) *Too much polishing can wear down the finish on some **silvers**. Items which are coated or plated should be washed by hand often and polished only once or twice per year. As long as **silver** is cleansed regularly and stored properly, there's no need to polish silver more than once a year.*

Other types of objects may also be refered to metonymically by using names of metals, e.g. sculptures made of bronze:

(26) *The figurine could of course have been cast in one of the local Corinthian colonies, but the possibility also exists that this rudimentary* small bronze was *cast in Corinth itself.*

The senses that the WordNet lists for these three metals/alloys are summed up in Table 1:

Table 1. The senses listed by WordNet

Metal	Medal	Coin	Utensil	Sculpture
gold	–	+	N/A	N/A
silver	+	+	+	N/A
bronze	–	–	N/A	+

The three (greyed out) cells out of eight metonymic uses are missing in the WordNet. It would be desirable that individual entries should be made as rich as possible, by adding all the missing senses and synset relations, which would also increase its systematicity. In some cases even simply harvesting such entries and checking for the presence of items used in the wording of senses within the collocational window might be enough to recognize an item as a metonymy and even assign it to a specific type. But certainly much more could be done if individual senses could be horizontally integrated with some appropriate encyclopedic sources, so that we could access all the items likely to co-occur with the item in question in a given sense, moving, if necessary, downwards or upwards to hyponyms/troponyms and checking their collocations. If all this could be integrated into a hierarchically organized FrameNet, we could be able to use more data on collocations, circumventing the need for syntactic tagging in the corpus. This woud also make it unnecessary to compute statistical rankings, etc.

5. Concluding remarks and outlook

In this chapter we have addressed the issue of recognizing figurative expressions in discourse from an unusual angle. While a number of approaches described in the relevant literature that promise to identify figurative expressions in discourse with various ultimate applications in mind widely differ with respect to the complexity of the formal infrastructure underlying them, they seem to have one thing in common – the focus on getting figurative expressions in as direct a fashion as possible. We have demonstrated in this chapter that it is possible to turn our back to figurative wheat at the beginning of the process and attend to non-figurative weeds first, identifying and subsequently eliminating non-figuratively used expressions from further consideration.

We have also demonstrated the validity and soundness of this proposal putting it to a test in several small-scale case studies involving English and Croatian material, varying in terms of the amount of data from "big data" to fairly limited samples. This methodological exercise shows that we can achieve a surprisingly high success rate while making use of considerably leaner tools in identifying metaphorical expressions.

The situation with conceptual metonymies, on the other hand, seems to be very different, i.e., searching for literal uses first, and then for metonymic ones would not make much sense, the most important reason being that the borderline between literal and figurative (in the sense of non-literal) does not seem to coincide in the majority of cases with the borderline between metonymy and non-metonymy. Trying to establish literal senses first, i.e. congruent in-class and meronymic relations, and

then discarding them, does not always work because in the course of metonymic shifts we very often do not really leave the realm of the literal, i.e., because metonymies are often figurative tares. The prospective way that might in our opinion make sense, to the extent that automatic recognition of metonymy does make sense at all,[3] and lead to some success is the one suggested in Shutova et al. (2013), who heavily rely on synset structures. Enriching and refining, if not perfecting, the WordNet (or any similar system on the basis of polysemous references a lexical unit can acquire in usage) is in our opinion the key element in the identification and/or recognition of metonymies.

Needless to say, what we have presented here is to be understood as a methodological exercise in entertaining an unconventional approach. It may at first sight appear to "kick against the pricks," but it is actually complementary to the dominant trends and may lead to more promising results when the two are coupled. In any event, more testing of the model seems to be necessary, and one way of testing it would be to use a fixed text or a collection of texts and run our procedure side-by-side with one or more of the more traditional approaches.[4]

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3. It makes sense in our opinion only exceptionally, for example, in the case of metonymies leading to potential referential vagueness in discourse, but of course it only makes sense if coupled with the recognition of the sense in question, as in cases of metonymic uses of locative nouns such as *Paris* or *France*, where both can refer to the national government, but the former also to the local government, or an event, while the latter can also, among others, be used to refer to the national team, military forces, etc.

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A multi-level view of metaphor and some of its advantages

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This chapter focuses on the way in which we think about our conceptual system and puts forward a number of questions related to its essential structures in terms of their schematicity. It is proposed that image schemas, domains, frames and mental spaces are interconnected in metaphorical conceptualization. A detailed analysis of the source domain of BUILDING is carried out in order to pin down the kind of distinctions that we may postulate regarding its operation with a view to depicting the functioning of the system. The multi-layered view of metaphor is advanced, which can accommodate many aspects of metaphor and account for a number of metaphor-related phenomena in a unified manner.

Keywords: conceptual metaphors, domain, image schema, frame, mental space

1. Introduction

In conceptual metaphor theory (CMT), there are several issues that may be legitimately raised concerning conceptual metaphors, including the following:

(1) What is the appropriate conceptual structure that participates in metaphorical conceptualization? Is it the notion of domain that is relevant? Or is it the notion of (image) schema? Or is it that of frame? Or is it mental space or scenario or scene?
(2) At which level of generality should we formulate conceptual metaphors? At a very high, schematic level? Or at a very specific, conceptually rich level?
(3) Which linguistic expressions related to a source domain are used metaphorically in relation to a target? And why are many of them not used this way?
(4) Are mappings always unidirectional? Do the mappings always go from source to target? Can they go from the target to the source?

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(5) Are all linguistic metaphors systematic? Are there any "isolated," that is, non-systematic ones? If there are, how can we characterize them in relation to the systematic ones within a CMT framework?

I will argue that these issues are not independent of each other but are closely related. They all have to do with how we think about our conceptual system: in particular, how we think about its essential structures in terms of their schematicity and what kind of distinction(s) we postulate regarding its operation in our attempt to account for the functioning of the system. To demonstrate my points, I will mainly use the source domain of BUILDING.

2. What are the appropriate conceptual structures in CMT?: Image schemas, domains, frames, or mental spaces?

In order to get clear about the general issue of how schematicity (cf. Langacker, 1987) plays a role in metaphorical conceptualization, we need to examine the relationship between image schemas, domains, frames, and spaces. This is important because conceptual metaphors in CMT are usually described as relationships between *domains*. However, as it has been often noticed, to think of conceptual metaphors as a set of mapping relations between two domains leads to a major problem: Source domains typically contain a lot more conceptual material than what is actually carried over to the target domain. Several solutions to the problem have been suggested (e.g., Lakoff, 1991; Clausner and Croft, 1997; Grady, 1997; Kövecses, 2000) and, with the exception of Grady (who postulates primary scenes), they all rely on the notion of domain. The solutions either try to constrain the transfer of source domain materials by means of the schematic structure of the target (e.g., Lakoff, 1991) or try to narrow the source domain itself that participates in the mapping (Kövecses, 2000, 2002/2010).

Domains may assume more abstract conceptual structures that are known as *image schemas*. For example, JOURNEY assumes the more schematic structure of MOTION and, more specifically, SOURCE-PATH-GOAL MOTION (to distinguish it from other types of motion). And some domains may take several image schemas to support them conceptually. For example, the BODY domain is based on the image schemas of CONTAINER, VERTICALITY, STRUCTURED OBJECT, and so on. Domains may also share several image schemas. For instance, the BUILDING domain (in the sense of an enclosed construction), like the BODY domain, is also based on the CONTAINER, VERTICALITY, and STRUCTURED OBJECT schemas.

In her discussion of the difference between domains and frames, Sullivan (2013) defines what she calls "metaphor input domains" as "the cognitive structure

comprising all schematic information potentially available for mapping via a given metaphor" (2013: 22). Furthermore, she suggests that domains consist of *frames* (Fillmore, 1982). Frames involve more specific and conceptually richer information than domains. For example, the BODY domain includes several distinct frames, such as PERCEPTION, INGESTION, and EXERCISING. These frames account for such metaphorical linguistic expressions as *I see what you mean* (PERCEPTION), *digest an idea* (INGESTION), and *a mental exercise* (EXERCISING) (Sullivan, 2013). Together, they make up what is known as the generic-level metaphor THE MIND IS THE BODY (see Johnson, 1987; Sweetser, 1990). The frames in a domain consist of roles and relations between the roles. The roles can be filled by values.

When the roles are filled by particular values in actual discourse in specific communicative situations, we have to do with *mental spaces* (see Fauconnier, 1994). Mental spaces can be structured by one or several different frames. That is, they can be the realizations of a single frame or they can rely on a combination of roles and relations from several distinct frames. Mental spaces are, then, even more specific than frames. At the same time, they are also coherent organizations of experience, just like frames and domains, but they function at a very specific and conceptually rich level.

In brief, image schemas, domains, frames, and mental spaces are all used by conceptualizers/speakers for the purposes of lending organization and coherence to our experience. I take image schemas to be the most schematic and mental spaces the least schematic (i.e. the conceptually richest) cognitive structures that can have this organizing function. They all can, and do, play a role in metaphorical conceptualization. We can represent their relationship in a schematicity hierarchy as follows:

IMAGE SCHEMAS

.....

DOMAINS

FRAMES

MENTAL SPACES

Figure 1. The schematicity hierarchy of image schemas, domains, frames, and mental spaces for metaphorical conceptualization (Dancygier & Sweetser, 2014, propose a similar hierarchy)

Let us take the source domain of BUILDING as an example to demonstrate some of the points above and highlight some additional ones.

BUILDING is an extensive domain with a large number of members (house, cathedral, garage, etc.). The domain can be defined in the following way: Building is a man-made structure typically with walls and a roof that enclose an internal space and that separate and protect it from an external space.

As noted above, BUILDING is a domain that is based on, or characterized by, several image schemas, such as CONTAINER, VERTICALITY, and STRUCTURED OBJECT.

In addition, the BUILDING domain consists of a number of frames. Most obviously, it possesses a CONSTRUCTION frame; a building is something that needs to be built. It also possesses a STRUCTURAL ELEMENTS frame, in which there are certain elements organized in a structured way. Furthermore, it has a frame for the CONSTITUENT PARTS of the building, such as walls, rooms, doors, windows, chimneys, basement, cellar, attic, roof, floors, stairs, and many others. Moreover, the domain of BUILDING consists of a FUNCTION frame that provides information about who uses the building, in what ways, and for what purpose(s). There are no doubt several other frames that make up the domain of BUILDING, but for the present illustrative purposes these four will do: CONSTRUCTION, STRUCTURAL ELEMENTS, CONSTITUENT PARTS, and FUNCTION.

3. Should conceptual metaphors be formulated at a schematic or specific level?

In CMT, conceptual metaphors are typically given at the level of domains or frames (Lakoff & Johnson, 1980; Lakoff, 1993). Domains and frames belong to the level of cognitive organization and analysis of metaphor that Kövecses (2002/2010) calls the "supraindividual" level, as distinct from the "individual" and "subindividual" levels. This is how I distinguished between these levels in *Metaphor. A practical introduction*:

> In conclusion, then, the cognitive linguistic view of metaphor that has been discussed in this book works on three levels: the supraindividual level corresponding to how a given language and culture reflects decontextualized metaphorical patterns, the individual level corresponding to the metaphorical cognitive system as used by individual speakers of a language, and the subindividual level corresponding to universal aspects of various kinds of embodiment. (Kövecses, 2010: 321)

For example, most descriptions of such metaphors as THEORIES ARE BUILDINGS or LIFE IS A JOURNEY in the CMT literature are at the supraindividual level, revealing an entirely decontextualized skeletal cognitive structure. This (assumed or hypothesized) cognitive structure consists of a set of systematic conceptual correspondences, or mappings, between, say, the JOURNEY domain or frame and that of LIFE.

Based on such mappings, we find a number of conventional linguistic expressions that "realize" or "manifest" those mappings. The mappings help us account for the conventionalized meaning of a particular metaphorical expression (as a decontextualized type).

However, in the course of actual cases of metaphorical conceptualization (i.e., when we use linguistic metaphors online in natural discourse contexts), conceptualization takes place at the individual level, and we are dealing with mental spaces, rather than domains or frames. The term "mental spaces" should be understood here broadly, including what Musolff (2006) calls "scenarios." Musolff explains what he means by this term considering two (initial) examples in his paper:

(5) In the long *gestation* of Europe's Economic and Monetary Union – *conceived* in Maastricht 1991, to be *delivered* in Frankfurt 1999 – it suddenly seems likely this week that *the anxious parents*, Germany and France, are expecting a *soft baby euro*. (*The Guardian,* 30 May 1997)

(6) Der Euro kam […], von François Mitterrand und seinem konservativen *Partner* am Rhein kurzerhand *in die Welt gesetzt,* um die Bindung undWiderstandsfähigkeit der Europäischen Union […] zu kräftigen […] (*Die Zeit,* 16 January 2003) [The euro arrived, *brought into this world* by François Mitterrand and his conservative *partner* in Bonn [Helmut Kohl], to strengthen the cohesion and resilience of the European Union.]

Musolff suggests that the source domain for the target, the European Economic and Monetary Union, is that of MARRIAGE PARTNERS and that in the examples "[T]he readers are not only provided with a general schematic frame to understand the order of events and a few causal links between them, but rather with a whole little scene, complete with the presumed "interests" and "biases" on the part of the participants and an evaluative interpretation" (Musolff, 2006: 27). He also makes it clear that what he means by scenario, a concept closely related to Fillmore's (1975) notion of scene, is below the level of Fillmorean frames. Moreover, scenario functions as a rough equivalent to that of mental space.

In other words, what we can see here is that the notions of scenario and mental space (and, as a matter of fact, scene) capture a level of conceptualization that is below that of domains and frames; it is at the individual level, where speaker and hearer (metaphorically) conceptualize objects and events online in a fully contextualized fashion. They employ all the knowledge available to them in the specific communicative situation. This is in stark contrast to what happens at the suprainddividual level, where there is only an imagined and idealized conceptualizer, and the knowledge available to the conceptualizer is limited to the highly schematic and decontextualized conceptual correspondences (associated with decontextualized

(metaphorical) linguistic expressions that can potentially evoke them in context). We can then think of frames as decontextualized conceptual structures in semantic memory.

4. Which source domain items are mapped onto the target?

Now let us look at the commonly cited metaphorical examples that can be found in the CMT literature in connection with the BUILDING source domain. We can begin with Lakoff and Johnson's *Metaphors We Live By*, where we find a large number of linguistic examples for the metaphor THEORIES ARE BUILDINGS, such as the following (Lakoff & Johnson, 1980: 46):

THEORIES (and ARGUMENTS) ARE BUILDINGS
Is that the *foundation* for your theory?
We need some more facts or the argument will *fall apart*.
We need to *construct* a *strong* argument for that.
The argument *collapsed*.
So far we have *put together only the framework* of the theory.

In the *Collins Cobuild's English Guides* by Alice Deignan (1995), the following examples (i.e. linguistic metaphors) can be found for THEORIES ARE BUILDINGS (taken from Kövecses, 2002/2010):

THEORIES ARE BUILDINGS
Increasingly, scientific knowledge *is constructed* by small numbers of specialized workers.
McCarthy *demolishes* the romantic myth of the Wild West.
She lay back for a few moments contemplating the *ruins* of her idealism and her innocence.
Don't be tempted to skip the first sections of your programme, because they are the *foundations on which* the second half *will be built*.
… the advance that *laid the foundations* for modern science.
Our view, he said, is that these claims are entirely *without foundation*.
My faith was *rocked to its foundations*.
The second half of the chapter *builds on* previous discussion of change and differentiation in home ownership.

Given such examples as the above, I suggested that the THEORIES ARE BUILDINGS conceptual metaphor focuses on, or profiles, three aspects of the concept of THEORY (Kövecses, 2002/2010): (1) the aspect of the construction of a theory (as exemplified by *build, construct, put together*); (2) abstract structure (as exemplified by *(without)*

foundation, groundwork, framework, build on, lay the foundations, collapse, demolish, shore up, buttress); and (3) abstract stability or lastingness (as exemplified by *strong, solid, shaky, shore up, buttress, fall apart, in ruins, rock to its foundations, stand or fall*). (Some of the linguistic examples can characterize several different aspects of a concept simultaneously.) In addition, I proposed that such "meaning foci" (that is, the habitually profiled aspects) of BUILDING as creation, abstract structure, and lastingness can be captured by means of mappings. Finally, I also suggested that the BUILDING source domain has a wide scope and applies to "abstract complex systems" in general, not just to the concept of THEORY. In other words, there are the three mappings corresponding to the three meaning foci:

1. building → creation or construction of a complex abstract system
2. physical structure of the building → abstract structure of a complex abstract system
3. physical strength (of the structure to stand) → abstract stability/lastingness (of the complex abstract system)

Essentially, it is these meaning foci that, with the exception of the first, Grady's (1997) primary metaphors also capture: LOGICAL ORGANIZATION IS PHYSICAL STRUCTURE (corresponding to 2) and PERSISTENCE IS REMAINING ERECT (corresponding to 3).

In light of the analysis so far, it seems that the BUILDING source domain participates in the conceptualization of THEORIES by means of two frames within it: CONSTRUCTION and STRUCTURAL ELEMENTS. The CONSTRUCTION frame is based on the first mapping above, "building → creation." The frame utilizes the conceptual elements of the builder, the action or activity of building, and the thing that gets built. Thus, the builder corresponds to the person who creates or constructs the theory, the building action to the creation or construction process that results in the theory, and the thing built to the theory itself. Interestingly, it does not conventionally utilize the materials that are used in the building activity – at least according to the examples given (but see below).

The second frame, STRUCTURAL ELEMENTS, is represented by the second and third mappings above. In these mappings, we have two important structural elements that are related to each other in a particular way, as well as a property that is expected to characterize both the elements and the structural relationship between them. The structural elements are the FOUNDATION and the OUTER SHELL (of the building), the relationship that obtains between them is that the outer shell IS BASED ON the foundation, and the property that characterizes the elements and the relationship between the two is that of STRENGTH. These are the conceptual elements that are utilized in the STRUCTURAL ELEMENTS frame.

The meanings of the conventionalized expressions, the three mappings on which they are based, the two frames that represent the BUILDING source domain, and the source domain with all of its constitutive frames are at the supraindividual level (i.e. in long-term semantic memory), that is, the level where we store decontextualized conceptual information related to BUILDING as a conceptual domain.

The issue we need to consider next is what happens when this body of information is actually used in real discourse at what I called the individual level, where actual people communicate in real contexts characterized by a great deal of specific information available to the participants.

We have seen above that when we study BUILDING metaphors at the supraindividual level (i.e. the level of domains and frames), we find that the frame elements and the metaphorical expressions that are associated with them emerge from two of the constitutive frames in the BUILDING domain: CONSTRUCTION and STRUCTURAL ELEMENTS.

When we make use of these frames in the course of actual cases of online metaphorical conceptualization (i.e. at the individual level), speakers can extend the use of frame elements to new ones. I mentioned above in connection with the THEORIES ARE BUILDINGS (more generally, COMPLEX ABSTRACT SYSTEMS ARE BUILDINGS) metaphor that the conventionally used frame elements in the CONSTRUCTION frame involve the builder, the building process, and the building that gets built. But, clearly, the building materials are also elements within this frame. Given the data above, the building materials are not conventionally used for metaphorical purposes. In addition, since most rational activities (such as building an object) require preparation and planning, the application of the CONSTRUCTION frame can also be extended to such aspects of the building process. I assume that this is what Lakoff and Johnson (1980/2003) refer to as the "extension of the used part" of the metaphor. They exemplify it with the sentence "These facts are the *bricks and mortar* of my theory," where bricks and mortar constitute the frame element of building materials. Additional examples are not difficult to find. A simple Google search returned the following example: "This middle level between theories and concepts allows models to serve a critical function within science; they act as the *bricks and mortar* of a theory and are the basis for how scientists argue" (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3671648/). The use of the CONSTRUCTION frame with the extension to building materials may not be frequent and conventional, but when speakers conceptualize theories metaphorically in actual discourse they may be prompted by the frame to extend its application to this frame element (by way of completing the frame).

Lakoff and Johnson (1980/2003) also mention another example: "His theory has thousands of *little rooms* and *long, winding corridors*." They refer to it as a case in which the metaphor derives from an "unused part" of the source domain. We can

now provide a fuller account of such cases within the framework I am developing here. It can be suggested that in cases like this frame elements from *other than* the routinely or conventionally used frames participate in metaphorical mappings. The cognitive mechanism that seems to be involved can be characterized as follows: Once a source domain (e.g., BUILDING) is used to structure a target (e.g., in our case, the EUROPEAN UNION) by means of conventional source elements (i.e. those in its foci), elements in the target so conceptualized may select elements of the source that fit that target element (but are not conventionally associated with it). In the above example by Lakoff and Johnson (1980), there is no conventional correspondence, say, between long, winding corridors and, say, lengthy but spacious arguments. But the target element (i.e. lengthy and indirect argument) in a specific communicative situation may select a source element that "fits" it.

Again, Musolff (2001) provides several pertinent examples, which I reanalyze here (based on Kövecses, 2005):

> We are delighted that Germany's unification takes place under the European roof.
> (Documentation by the Federal press- and information office, Bonn)
>
> At the moment, the German occupants of the first floor apartment in the 'European house' seem to think that foreigners from outside the continent should be content with living in the rubbish bin.
>
> What does he [Chancellor Kohl] need this house for, after so many years as Chancellor? – Well, it's obvious, he wants to become the caretaker.
> (Die Zeit, May 16, 1997)
>
> [the European house is] a building without fire-escapes: no escape if it goes wrong
> (The Guardian, May 2, 1998)
>
> [it is a] burning building with no exits (The Times, May 20, 1998)

Musolff notes that, given the COMMON EUROPEAN HOUSE metaphor introduced in public discourse in the 1990s, i.e., the EUROPEAN UNION IS A BUILDING metaphor, all kinds of metaphorical expressions showed up in political discourse at the time that were different from the ones presented at the beginning of the section (i.e., were outside the profile, or meaning focus, of the source). In addition to the highly conventionalized linguistic metaphors, such as *lay the foundations, building, buttress, framework*, and so on, journalists and others used novel, unconventional metaphors, such as *roof, apartment, caretaker*, and *fire-escape*.

In light of the suggestions in this chapter, I would like to add a missing piece of the argument to that offered in 2005. As was noted above, at the supraindividual level the BUILDING source domain utilizes the frames of CONSTRUCTION and STRUCTURAL ELEMENTS for establishing mappings between the BUILDING domain and the target domain of COMPLEX ABSTRACT SYSTEMS (including THEORIES and POLITICAL SYSTEMS, such as the EU). At the individual level, however, it appears to

involve both the COMPONENT PARTS and the FUNCTION frames. Roof, apartment, and fire-escape are component parts of buildings, while caretaker has to do with the function of buildings (namely, the function of providing living or working space for people, and that, given this function, a caretaker handles the daily maintenance and operation of the building on behalf of the people living or working there). Thus, while at the supraindividual level of metaphorical conceptualization people seem to be aware of certain specific frames within a source domain that are conventionally dedicated to this purpose, at the individual level we find additional frames that are involved in performing the task. The supraindividual level seems to constrain the use of frames within a domain, whereas the individual level seems to broaden their use. The difference results, in part, from the lack, as opposed to the presence, of information-rich context (as described in Kövecses, 2015a).

5. Do the mappings always go from source to target?

In "standard" versions of CMT, the mappings go from source to target domain, that is, from more concrete to more abstract domains. This unidirectional view of mappings was challenged by conceptual integration theory, or blending (see, e.g., Fauconnier & Turner, 2002). Researchers in blending theory proposed that mappings can also be bidirectional, that is, they can go from target to source, or more precisely, from target to the blended space. What do the examples identified by Musolff in the previous section say about this issue? Consider two of them:

> [the European house is] a building without fire-escapes: no escape if it goes wrong (The Guardian, May 2, 1998)
>
> [it is a] burning building with no exits (The Times, May 20, 1998)

In my own analysis of these new, unconventionalized examples (Kövecses, 2005), I pointed out that, given the main meaning foci of the BUILDING source domain, these unconventional metaphorical expressions should not have occurred (see Section 4). In the same work, I provided the description of a cognitive mechanism that might account for the use of these unexpected items in real discourse (see Kövecses, 2005). I argued, briefly, that once a source domain (e.g. BUILDING) is used to structure a target (e.g., in our case, the EUROPEAN UNION) by means of conventional source elements (i.e. those in its foci), elements in the target so conceptualized may select elements of the source that fit that target element (but are not conventionally associated with it). Although there is no conventional correspondence, say, between the possibility of leaving the EU in the target and the fire-escape in the source, the target element may select the source element if it "fits" it. The cognitive operation that produces such examples may also be regarded as a case of conceptual integration,

where the target domain meaning ("possibility to leave the EU") is blended with the source domain item of fire-escape or exit in the blended space. This means that, at the level of using mental spaces (i.e. at the individual level), mappings can also go from the more abstract domain to the blended space, where an entity can be blended with another entity from the more concrete source domain.

6. Are there any "isolated" metaphors?

As we have seen, there are numerous unconventionalized metaphors in the BUILDING source domain that are "selected" by target domain elements. Such unconventionalized metaphors include *roof, apartment, caretaker, exit, fire-escape*, and others. These are outside the conventional mappings that characterize the BUILDING metaphor at the supraindividual level.

Still different are the linguistic metaphors that are based on the BUILDING domain, but are unrelated to either the THEORIES ARE BUILDINGS or the more general ABSTRACT COMPLEX SYSTEMS ARE BUILDINGS metaphor. For instance, window is in the CONSTITUENT PARTS frame within the BUILDING domain, but unlike, say, fire-escape, it (the word *window*) does not seem to emerge as a metaphor related to the THEORIES or the more general target domain of ABSTRACT COMPLEX SYSTEMS. In this regard, it stands outside the BUILDING → ABSTRACT COMPLEX SYSTEMS metaphor system.

But it can function as a metaphor nonetheless, for instance, in the sense of "chance" (*a window of opportunity*) or "a means of access" (*a window on war*). Similarly, *door* can have the meaning "a means of access" (*a door to success*). The word *ceiling* can have the metaphorical meaning "an upper limit" (*a ceiling on prices*). There are many other examples of this kind. In all of them, we have a metaphorical expression that belongs to a particular domain (such as BUILDING), but its metaphorical meaning lies outside the coherently connected elements that define the associated target domain (for instance, THEORY or ABSTRACT COMPLEX SYSTEMS).

Does this mean that such cases are isolated linguistic metaphors? In one sense, they are, in that they stand outside the system that is based on the conceptual domain of BUILDING in relation to THEORY (or ABSTRACT COMPLEX SYSTEMS), its target. Simply, they are outside the focused-on or profiled frames within the domain. But in another sense, they (like *window, door, ceiling*) are systematic, just like the metaphorical expressions we have seen above. However, they belong to *another* metaphor system. For example, *window* in the sense of "a means of access" belongs to the conceptual metaphor KNOWING IS SEEING. Here KNOWING is "having mental access to something" and in the SEEING source frame we have an object (the window) through which vision (seeing) is possible. The relevant mapping, or

correspondence, within the KNOWING IS SEEING metaphor would thus be: "making vision (seeing) possible → making knowing possible." In other words, at the mental spaces level of actual use the two conceptual metaphors, THEORIES ARE BUILDINGS and KNOWING IS SEEING, can be combined.

But there are even more complex cases than *window*. Some examples appear to belong to the meaning focus of the BUILDING domain (that is, they are based on profiled frames), but on closer inspection they turn out to be unrelated. One such linguistic metaphor is the following: *to build a fortress around something*, as is used in the following passage taken from a longer newspaper article:

> The reasons are no mystery. Public employee unions, in league with compliant state officials, have *built a fortress around* their pension systems. In some cases, constitutional amendments *protect* even the most outrageous pensions.
>
> http://usatoday30.usatoday.com/news/opinion/editorials/story/2012-03-11/public-pensions-private-retirees/53489198/1

Here *build a fortress around something* seems to be a straightforward case of a building metaphor. After all, *building* is a key verb in the domain (within the CONSTRUCTION frame) and *fortress* is a kind of building. And yet, I would argue that it belongs to another metaphor system: PROTECTING SOMETHING IS BUILDING A WALL AROUND SOMETHING.

Thus, even though some linguistic metaphors (such as *window* and *build a fortress around something*) clearly derive from the lexical field of a source domain, they will be independent of a particular conceptual metaphor (like THEORIES ARE BUILDINGS) that is based on that domain. This does not mean, however, that they do *not* belong to another system (like KNOWING IS SEEING or PROTECTING SOMETHING IS BUILDING A WALL AROUND IT). In other words, such examples can be regarded as systematic (with respect to another target) but isolated (from a particular source).

7. Summary and discussion

In light of the observations above, it seems reasonable to propose the following view of how our conceptual system is organized and how this system participates in metaphorical conceptualization: We can distinguish four levels of schematicity (vs. specificity). At the highest level (I am using "highest" only to remain in keeping with the notion of a "top-down" approach), we have IMAGE SCHEMAS, such as CONTAINER, VERTICALITY, FORCE, (STRUCTURED) OBJECT, and many others. These are extremely schematic structures that arise from our most basic embodied experiences. We use them when we encounter objects and events; they are our first guides in conceptualizing experience. IMAGE SCHEMAS function as source domains

in extremely general conceptual metaphors like MORE IS UP, STATES ARE CONTAINERS, EMOTIONS ARE FORCES, and EVENTS ARE OBJECTS.

Below this level, there are DOMAINS. The various domains are conceptually supported by image schemas and they are characterized by a variety of different aspects. For instance, the BODY, as shown by Sullivan (2013), is characterized by ingestion and exercising, among others, for metaphorical purposes. A domain integrates its various aspects into a whole, or, rather, it is the integration of several such aspects. Speakers of a language can identify the whole as a unit in a language/culture. The domain represents a highly schematic experience with a set of aspects organized into a meaningful whole. Domains serve as source domains in such conceptual metaphors as THE MIND IS THE BODY, COMPLEX ABSTRACT SYSTEMS ARE BUILDINGS, EMOTIONS ARE NATURAL FORCES, TIME IS MOTION, and so on. These conceptual metaphors are characterized by more specific experiential content than the ones employing image schemas.

At the next level "down," we have FRAMES. Frames capture the various aspects of domains by elaborating on them. For example, EXERCISING is a frame within the BODY domain and CONSTRUCTION is a frame within the BUILDING domain. The various aspects of domains consist of several distinct elements, called "frame elements" in the terminology of Frame Semantics. In other words, frames consist of different sets of frame elements, that is, sets of entities and relations. As noted above, the various frames jointly constitute domains and are parts of a meaningful whole. Conceptual metaphors that are clearly based on FRAMES include LOVE IS FIRE, KNOWING IS SEEING, UNDERSTANDING IS GRASPING, ANGER IS A HOT FLUID IN A CONTAINER, ACCEPTING IS SWALLOWING, MORALITY IS PHYSICAL STRENGTH, SURPRISING SOMEONE IS UNEXPECTEDLY IMPACTING SOMEONE, and many others.

I suggest that IMAGE SCHEMAS, DOMAINS, and FRAMES are all structures that can be found at what, in previous work, I called the supraindividual level. This is the realm that informs the basic ontology of conceptual systems. These are the structures that we probably have in long-term memory and that provide the conceptual substrate of meaning in general and meaning in language in particular. All the IMAGE SCHEMAS, DOMAINS, and FRAMES put together comprise the conceptual content of language and what we commonly refer to as encyclopedic knowledge (or semantic memory). Importantly, this is the kind of knowledge that can be retrieved from decontextualized language (with the help of what can be termed a lexical approach to metaphorical concepts; see Kövecses, 2015b), and, hence, these conceptual structures are decontextualized themselves.

By contrast, when we use language in real communicative situations, we put this huge amount of tacit knowledge to use in order to achieve particular goals (social, expressive, rhetorical, etc.). The job is performed online in specific contexts by individual speakers who manipulate and modify the conceptual structures according

to their goals. The conceptualization process and the language that is used are, in this case, fully contextualized. It is at this level that we utilize MENTAL SPACES, or SCENES, or SCENARIOS, as suggested by Musolff, that are *not* part of our cognitive and linguistic routine. They are fully specific (their elements are values, not roles), they foreground elements not foregrounded routinely, they bring in new elements from the same frame, they make new inferences and evaluations possible in context, they blend source and target frames, and so on. We have seen a number of metaphorical examples for several of these cases above. In sum, this is a large-scale mobilization of our decontextualized, static, and routine conceptual structures in real-world metaphorical conceptualization in information-rich contexts by means of a large number of cognitive processes that individual speakers perform online. In other words, it is at the level of mental spaces that speakers

– use metaphors online
– use them in a fully contextualized way
– use them with specific socio-pragmatic functions
– add emotional value to them
– create novel metaphors
– create them as a result of contextual influences
– use individual metaphors
– perform conceptual integration
– mix metaphors in the same discourse etc.

My general proposal is that whenever we use metaphors online at the MENTAL SPACES, or individual level, we can only do this by relying on the level of FRAMES, DOMAINS, and IMAGE SCHEMAS, that is, the supraindividual level. This means that the use of a particular linguistic metaphor in context reverberates through the entire system of connections in our knowledge about the world. A metaphor that is used in a specific communicative situation as part of a mental space, or scene, will activate the frame structure to which it is linked, which will, in turn, activate the domain of which the frame is a part, and the activation will reach the image schema that conceptually supports the frame.

This proposal is generally consonant with a number of others in the cognitive linguistic study of metaphor, such as Lakoff's (1991) "invariance principle" and Ruiz de Mendoza's (1998) "extended invariance principle." For example, Ruiz de Mendoza suggests that any kind of high-level structure is to be preserved by lower-level structures. A further constraint on metaphor production (the "correlation principle") by Ruiz de Mendoza and Galera (2014) states that a source domain should be selected in accordance with the implicational structure of the target. In their study of figurative language, Dancygier and Sweetser (2014) make a proposal

that is close to the present one as regards the emphasis they place on different levels of schematicity in accounting for metaphoric language. In addition, the source domains are not only coherent with their targets (or the other way around), but also with context in a broad sense. Elsewhere, I proposed that many metaphorical source domains are coherent with one or more contextual factors. This constraint was called the "pressure of coherence" with the context (see Kövecses, 2005, 2015a). There seems to be abundant evidence for this kind of activation in the experiments conducted by Boroditsky and Gibbs and their colleagues (see, e.g., Boroditsky, 2001; Casasanto, 2009; Gibbs, 2006; Gibbs & Colston, 2012).)

All in all, then, we have the following picture:

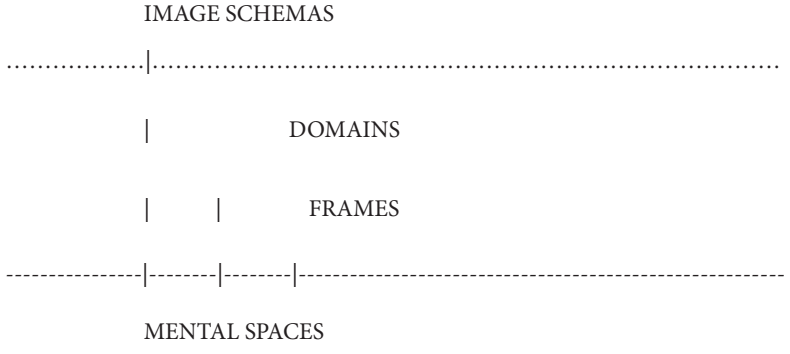

Figure 2. Activation from MENTAL SPACES to FRAMES, DOMAINS, and IMAGE SCHEMAS. (The broken vertical lines indicate activation.)

8. Conclusions

The multi-layered view of metaphor can accommodate many aspects of metaphor as commonly studied. With its help, we can account for a number of metaphor-related phenomena in a unified manner. In particular, we can now answer the questions posed at the beginning of the chapter in the following way.:

– What is the appropriate conceptual structure that participates in metaphorical conceptualization? Is it the notion of domain that is relevant? Or is it the notion of (image) schema? Or is it that of frame? Or is it mental space or scenario or scene?

We saw that all of them do. Frames constitute domains, and domains are supported by image schemas. Mental spaces, or scenarios and scenes, are contextualized on online specifications, elaborations, modifications, and fusions of frames.

– At which level of generality should we formulate conceptual metaphors? At a very high, schematic level? Or at a very specific, conceptually rich level?

Both of them are necessary since the more specific ones are sanctioned by the more schematic ones. If the question concerns which is the highest level that captures *all* the metaphorical expressions for a target, then it is reasonable to postulate several conceptual metaphors in a schematicity hierarchy.

– Which linguistic expressions related to a source domain are used in metaphorically in relation to a target? And why are many of them not used this way?

The answer that applies to most cases is that those expressions are used metaphorically that have to do with the frames that conventionally, or routinely, participate in the mappings from source to target. These frames are in the meaning focus of the source (they are focused on). Those expressions that belong to other frames in a domain are not used metaphorically.

– Do the mappings always go from source to target? Can they go from the target to the source?

The mappings typically go from (concrete) source to (abstract) target, but as we saw in the case of the "fire-escape" example here and as is shown by blending theory, mappings (projections) can be reversed. This kind of reversal, and any mapping other than from source-to-target, can only happen at the mental spaces level, that is, the level where actual, online metaphorical conceptualization is taking place.

– Are all linguistic metaphors systematic? Are there any "isolated," that is, non-systematic ones? If there are, how can we characterize them in relation to the systematic ones within a CMT framework?

As we saw above, some metaphorical expressions appear to be isolated from a conceptual metaphor, that is, to not belong to a particular source domain in relation to a target. However, these linguistic metaphors may be systematic examples of *other* source domains in relation to *another* target. Such metaphors can be called "independent but systematic." It still remains to be seen whether metaphorical examples can be totally isolated or not in the sense that they do not belong to any larger systematic source domain in relation to any target.

The four-layered view of metaphor as outlined above can provide us with a framework within which issues like the ones above can be systematically discussed. The view can also give us insight into a number of additional issues and problems that have been raised and debated in the CMT literature. I briefly mention some of these here.

First, the question of methodology has haunted metaphor researchers for a long time. Given the four-layered view, it is very clear that different methodologies are necessary to study the different levels of metaphor. We cannot expect scholars who work on a particular level to employ methodologies that are appropriate to another level. Second, what is the relationship between Conceptual Metaphor Theory and Conceptual Integration Theory? The answer is straightforward: Blending theory works on the mental spaces level, whereas CMT works on higher levels. Blending relies heavily on the other levels, but CMT is incomplete as a theory without blending as a dynamic, online cognitive operation. (I discuss the relationship between CMT and CIT more extensively and in more depth in a new book (Kövecses, 2020). Third, there is the issue of the deliberateness of metaphors. Deliberate metaphors are rare but do exist. They function at the level of mental spaces. It can be suggested that deliberate metaphors come with a large non-deliberate part at the image-schematic, domain, and frame levels. They are accompanied by a set of systematic "higher-level" metaphors and image schemas. Fourth, metaphor researchers in discourse analysis are often critical of CMT for ignoring the various effects of the use of particular metaphorical expressions. Discourse is of course the prime location where metaphors occur. Cognitively speaking, discourse corresponds to the level where mental spaces function. At this level, metaphors can be given a variety of socio-pragmatic purposes. However, the mental spaces activate and assume all the other levels of metaphorical schematicity hierarchies.

In general, in all of the four ways mentioned above and in others we can see that the study of metaphor can legitimately be pursued on the four levels of metaphor. No level can be singled out as the *only* legitimate one in metaphor studies. Clearly, they function together, and our challenge in the future is to see how this happens.

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PART II

Figurativeness and constructions

Intensification via figurative language

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Figurative language, generally speaking, involves intended meaning; it is employed in order to communicate something beyond the very meaning of the elements of a construction. This is largely accomplished by the incongruence of domains, scripts, frames or entities that participate in the conceptualization and the expression of figuration. Irony, simile, metaphor, hyperbole, or metonymy are witnessed to come to the surface, depending on the degree of incongruity between sources and targets. Each figurative process highlights different degrees of intensification. Intensification seems also to be due not only to the type of figure but to two additional parameters as well: the evocation of more than one figure and the special constructional patterns of the usage involved.

Keywords: constructional patterns, figuration, figurative processes, incongruity, intensification, lexicogrammar, opposition

1. Introduction

A previous study on verbal irony (Athanasiadou, 2017) has inspired this chapter. It has become clear to me that verbal irony does not prompt on its own. There I claimed that the conceptual process of metonymy provides the basis for the elaboration of irony. As one of the definitions of verbal irony involves the reversal of values, I argued that this was due to an underlying metonymy (A CONCEPT FOR ITS OPPOSITE). Moreover, other figures, in particular simile and hyperbole, were also important as seen in the example below, taken from the study mentioned above (2017, p. 209):

(1) Speaker A: *This [mini] skirt suits me perfectly* (a rather fat girl remarks).
Speaker B: *Yeah, right, you look like a toothpick, exactly like your sister*.

In this example, we have an instance of verbal irony grounded on metonymy (THIN FOR FAT), a simile (*like a toothpick*), another metonymy TOOTHPICK FOR SKINNY (the speaker could very well have said *you look skinny*, which would still be ironic),

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a hyperbole (*toothpick* 'extremely thin'). Speaker B's reply is highly intensified and this is made possible by the chaining and interaction of four figures.

Instances of interaction between figurative processes have been noted before, in particular the interaction between metaphor and metonymy in metaphtonymy. Their discussion has revealed that figures are not independent from each other and are not working on their own. The combination of figures must be rooted in prior figurative thought, thus highlighting a very important purpose: that of creating more emphatic and intensified meanings. This has urged me to examine other figures as well and check whether they also combined and if their interaction also produced more intense and emphatic meanings.

The aim of this chapter is to examine the potential advantage the evocation of more than one figure in one and the same construction has. To this effect, particular patterns of constructions will be discussed. The question to be answered is why speakers use this kind of multiple figurative expressions. One of the reasons will be addressed in this chapter, that of intensification.[1] How is intensification achieved? What is it due to?

It will be claimed that intensification occurs in degrees depending (a) on the number of figures and their interaction and (b) on degrees of conflict between domains, frames, scripts, and entities. Incongruity, or even conflict of values, seems to be explicitly or implicitly present in all figures to a greater or lesser degree. Conflict in its various facets and the gradation of conflict seem to pervade almost all figures. Thus, conflicting aspects of figuration deserve to be studied in general. On the other hand, particular constructions facilitate and pave the ground for such multiple uses of figuration. The ensuing discussion will, therefore, mostly focus on complex constructions; it is very likely that multiple figures of thought are involved in the main and subordinate clauses of complex constructions. The discussion will only touch upon other types of constructions, like the ADJECTIVE-NOUN construction and the copula BE construction. This choice is not accidental. While working on publications on figuration it became clear to me that many instances of constructions belonged to these types.

The chapter is organized as follows: Sections 2 and 3 discuss the interaction among figures, which ones are involved and how many of them may occur in a construction. Section 4 is concerned with the incongruity between the source and the target domains of the figures as well as the gradation of intensification due to their incongruity. Section 5 summarises the results of the study and presents some concluding remarks.

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1. Intensification can be defined as the strategy that indexes the speaker's perspective by means of particular lexical entities (Athanasiadou, 2007) thus serving a variety of usage functions. Here, it is claimed that intensification, together with expressivity and emphasis, may also be related to figuration.

2. Interaction between figures in a construction

Figures are rarely employed alone; they are, most of the time, combined with other figures of thought. This is neither new nor negligible. However, one should not ignore the fact that they may, of course, also appear in isolation.

Metaphor has often been discussed in relation to metonymy. The interaction of metaphor and metonymy has initially been noted by Goossens (1990) and described as metaphtonymy. This notion has further been refined by other scholars, in particular Ruiz de Mendoza & Galera (2014, pp. 108–139), taking into consideration every possible combination between the two conceptual processes.[2] The interactional pattern of metaphtonymy, above all, enables the analysis and the interpretation of figurative constructions. Moreover, it lends support to issues of creativity, and additionally licenses the assignment of emphasis and intensification on particular elements of the domains of the two figures involved.

Ironic metaphor and metaphoric irony have been the subject of Colston & Gibbs' (2002) study on how people process identical utterances such as *This one's really sharp! He's really smart!* in different contexts. Are they understood metaphorically or ironically? The authors "suspect that many of the complex meanings readers infer […] arise because of the ways different figurative modes of thought enhance, mute, or nullify one another within and across individual linguistic statements" (2002, p. 75). They also claim that metaphor mutes the ironic meaning, thus attenuating a critical or sarcastic attitude on the part of the speaker.

Carston & Wearing (2011) discuss the interaction of metaphor, hyperbole and simile. *John is a saint* can be hyperbolic, metaphorical or both. They actually investigate the pragmatics of metaphor understanding and show how this differs from the understanding of hyperbole and simile. They claim that "metaphorical uses – like loose uses generally, involve pragmatic adjustment of lexically encoded meaning and result in an ad hoc (occasion-specific) sense or concept whose denotation is broader than that of the lexically encoded concept" (2011, p. 285).

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2. They provide cases of metonymic expansion of the metaphoric source: *He's a wolf in sheep's clothing*; metonymic expansion of the metaphoric target: *Jack Nardi should have known to zip his lip around federal agents*; metonymic reduction of the metaphoric source: *to have a nose for something*; metonymic reduction of one of the correspondences of the metaphoric target: *to win someone's heart.*

They also discuss metonymic complexes, namely metonymic chains, double metonymic expansion, double metonymic reduction, as well as patterns of metaphor – metonymy combinations like double metonymic reduction of the metaphorical source domain: *Jan was the life and soul of the party*; double metonymic reduction of the metaphorical target domain: *I'm crazy about you, Abby, since the first time I laid eyes on you.*

Popa (2010) discusses the interaction of metaphor and irony in terms of which one is prior in the interpretation of an utterance. The following utterances may be understood metaphorically or ironically, and she asks herself whether these are instances of ironic metaphor or metaphoric irony.

(2) You are the cream in my coffee (Popa, 2010, p. 1, from Grice, 1989)

(3) What delicate lacework! (Popa, 2010, p. 1, from Stern, 2000, p. 235)

Popa has been influenced by Stern (2000, p. 235), who provides three different contexts for the interpretation of Example (3). The utterance can be interpreted metaphorically in a context where one praises the calligraphic handwriting. It might be understood only ironically in a context such as commenting on some expensive curtains that your dog has just ripped to shreds. But the utterance can be interpreted both metaphorically and ironically in a context where one tries to decipher some messy handwriting.

In a context of this kind, in which the speaker intended their utterance to be understood both ironically and metaphorically, how should it be described? Is it an ironic metaphor, or a metaphorical irony? Do we first interpret the utterance metaphorically and only then determine its ironic interpretation? Or do we first interpret the utterance ironically and then determine the metaphorical interpretation of the opposed terms? The question is not one of temporal order or psychological processing (although it may have implications for these); the issue is, according to Stern, rather whether one interpretation is conditioned on the other.

I agree with the aforementioned studies but only to the extent that they focus on the contribution of the interaction of the figures involved. From the descriptive point of view, one can claim that no figure has priority over another and no figure is more central than another. Moreover, no figure functions attributively on the other (we meet terms such as ironic metaphor, metaphoric irony, metonymic irony, metonymic hyperbole,…). There are interesting studies such as Popa, 2010 who claims that in the interpretation of metaphor and irony in combination (ironic metaphor), metaphorical meaning is prior to the ironic one. Also Littlemore, 2015 claims that hyperbolic expressions rely on metonymies, (p. 94), and ironic expressions rely on metonymies, (p. 96), as well. This view has also been contended by Brdar-Szabó & Brdar (2010). They analyzed numerous instances of hyperbole as coming into existence due to metaphor or metonymy or to their interaction. I assume that figures work on a par; each one contributes its particular meaning in its own way. Each one performs its special function, with the exception of metonymy, which constitutes the foundation onto which other figures are built.

The starting point of this study is the assumption that the main contribution of multiple figures is to give one's utterance more expressive power, emphasis

and intensity. This is, furthermore, enabled by means of special constructions. Expressivity, emphasis and intensification would be missed if only one figure were employed. Moreover, most of the time, speakers are on purpose ambiguous as to which figurative meaning they wish to evoke. They leave it to their hearers to decide. Here the issue of subjectivity, in the sense of Langacker (1999), is at work. The context is important but, under the subjectivity view, it is the conceptualizer who construes an event or a situation as being inside, close to or outside the event or the situation. This is a very important parameter but I do not intend to go into it.

My study aims at taking a figurative approach to the interpretation of a construction. To this end, specific examples discussed in literature or found in corpora will be used as illustrations. It will be shown that the choice of a particular construction is not random.

3. Constructions

As already pointed out, the chapter's main focus is on complex constructions consisting of a main clause and one or more subordinate clauses. The speaker may draw attention to temporal, conditional or causal links with the situation in the main clause. In such complex constructions the subordinate clause serves as the ground and thus is the backgrounded situation, and the main clause serves as the figure and thus is the foregrounded situation (the terms 'figure' and 'ground' are used here in the sense of Langacker's Cognitive Grammar (1987) and the way they are treated in Radden & Dirven (2007, p. 55). In what follows, what will be discussed is how foregrounded and backgrounded situations work figuratively.

Camp (2012) provides a detailed analysis of four subtypes of sarcasm (perlocutionary, propositional, *like*-prefixed and lexical). But, as will be shown, they are not only ironic and/or sarcastic. Examples (4) and (5) are taken from her work:

(4) Since you've already made so many scintillating points this evening, I think you should let someone else voice their opinion. (2012, p. 592)

The meaning to be conveyed by this sarcastic comment is 'stop talking; you talked a lot and you talked foolishly'. The sarcasm lies in the contrast of meaning between the two clauses: high praise in the subordinate clause and critical advice in the main clause. Many figures in the subordinate and the main clause contribute to their sarcastic and emphatic effect. The adjective-noun pair *scintillating points* refers to very clever and witty, sparkling and flashing remarks. It reflects the conceptual metaphor INTELLIGENCE IS LIGHT EMISSION. *To voice an opinion* in the main clause is based on the metonymy VOICE FOR SPEAKING. The complex sentence thus comprises a

metaphor and an irony in the *since*-clause and a metonymy in the main clause. It is the interaction of the figures in the two clauses that jointly create a highly sarcastic utterance.

The following example illustrates the interaction of irony and metonymy resulting in sarcasm.

(5) Because he's been such a fine friend, I've struck him off my list. (2012, p. 592)

As in the preceding example, the irony derives from the contrast of two clauses again: *being a fine friend* literally denotes a praise and *striking a person off one's list* refers to ending a close relationship. The adjective-noun phrase *fine friend* is often used ironically (it stands for an awful friend), but here its ironic use is also indicated by the main clause. The image conveyed by striking someone off a list involves two instances of metonymy: A PERSON IS USED TO STAND FOR THE NAME OF THE PERSON, and the action of striking a name off list represents ending a friendship, i.e. the metonymy involved is REPRESENTATION FOR REPRESENTED. The sentence is thus understood to mean that the ironically stated reason in the subclause justifies the consequence expressed in the main clause.

It is of special interest to note that the *if*-constructions that are frequently employed figuratively are types of pragmatic conditionals, i.e. identifying or inferencing conditionals.[3]

Example (6) illustrates the identifying type of pragmatic conditional (slightly modified by me to make it sound ironic):

(6) Speaker A: Are you thinking of retiring?
Speaker B: If there's one human species that ought to be put out to pasture, it's Presidents and Prime Ministers.
COB (Athanasiadou and Dirven, 2000, p. 4)

The idiom *put out to pasture* in the sense of 'retire' is based on the tradition of keeping farm animals that are too old to work on an area of land to feed on the grass. Metaphor and irony cooperate in speaker B's reply in his denial of intending to retire. We have the metaphor HUMANS ARE ANIMALS in the *if*-clause and the metaphor POLITICIANS ARE ANIMALS in the main clause. The conflicting metaphors in the two clauses make the irony effectful.

Example (7) is an instance of inferencing pragmatic conditional. It comprises metaphor, simile, hyperbole and, in addition, perhaps irony:

3. (6) and (7) are authentic examples from the Cobuild corpus (COB).

(7) If the super-organism created by a colony of termites can be compared to an antelope, then the disciplined aggressive columns of the army ants must be reckoned to be the insect equivalent of a beast of prey.
COB (Athanasiadou & Dirven, 2000, p. 4)

As Dancygier and Sweetser contend, conditionals "are not in themselves figurative constructions, but they are constructions whose semantics is inherently alternative" (2014, p. 150). In example (7), thinking of a colony of termites as an antelope would not be an instance of metaphor unless we were thinking of an army of ants as a beast of prey. Conditional constructions, thus, can build possible alternative metaphoric construals that enable us to draw inferences about such alternative possibilities. The metaphoric transfer to alternative construals is heightened by the two similes (a colony of termites compared to an antelope and columns of army ants to a beast of prey); they are also instances of hyperbole. The two similes can also be ironic: how can a colony of termites be compared to an antelope and army ants to a beast of prey?

Irony expresses an evaluation by opposing scripts, or by the reversal of values (*A small earthquake of 8.7 on the Richter Scale*), but also by the contrast between counterfactuality and reality scripts:

(8) If I were Jesus' campaign manager, I'd definitely go for that one. (COCA)

In this *if*-construction, the irony lies in the fact that the speaker says something could have happened – implying an alternative – but it is obvious that this runs counter to reality. Additionally, the incongruity in irony lies in the fact that, most of the time, it has a negative impact, that is, it is employed in order to criticize.

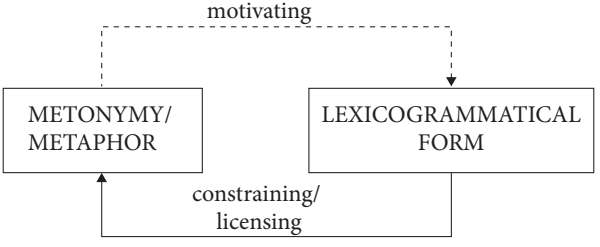
In all examples given above, we have a complex setting of events: *since-, because-* and *if*-clauses followed by their main clauses. We also have the adjective-noun pair (*scintillating points* (4), *fine friend* (5)). It is not coincidental that verbal irony, simile, hyperbole, metaphor, metonymy are enhanced by means of these constructions: subordinate clauses with *if, since, when, because* may figuratively background events hypothetically, temporally, or causally in order to foreground comments in the main clause. Similarly adjectives may assign figurative properties on the nouns with which they occur.

If-constructions, as well as *since-, because-, when*-constructions relate a hypothetical, temporal or causal domain with the domain of the main clause. All combinations are possible. There may be a metaphor in the subclause and another metaphor in the main clause (6), an irony and a metaphor in the subclause and a metonymy in the main clause (4). This constructional organization maps not only similar, but basically contrastive, opposing and incongruous material, thus rendering the communicative output extremely emphatic.

We tend to call an utterance ironic, metaphoric, etc. and are inclined to leave aside the important contribution and support by other figures. However, the fact that such complex constructions are so emphatic and intense is due to multiple contributions of more than one figure. It has been suggested, in the present chapter, that particular constructions (complex sentences and the adjective-noun pair) are frequently recruited by speakers as a fruitful framework for figurative construals.

The discussion of figurative processes on the basis of constructional meaning may ultimately be profitable both for the figures and the constructions. Conceptually, the figures motivate the lexicogrammar by means of polysemy or by constructions that allow their expression. Lexicogrammar, in turn, licenses or constrains various figures.

Panther and Thornburg (2009, p. 36) suggest the "mutual dependency of metonymy/metaphor and lexicogrammar", as demonstrated in the Figure below. I would like to extend their proposal to apply to all figures, not only to metaphor and metonymy.



Figuration motivates lexicogrammatical forms, as has been shown from the particular instances discussed so far. In their turn, they either constrain or license figuration, depending on the grammatical construction.

4. Conceptual incongruity and intensification

Intensification, in addition to the interaction of figures in a construction, is moreover achieved by degrees of conflict between domains, frames, scripts, and lexical entities. The type and the extent of incongruity between domains, scripts, frames or single lexical entities is a matter of degree. The gradation varies from impossible ends of a scale and reversal of values, through conflict and extreme opposition, to dissimilarity and incongruity.

Kittay (1987, p. 69) was the first to define metaphoricity as a matter of conceptual incongruity. She even asserts that incongruity is a prerequisite for metaphor. In *Juliet is the sun*, a human living entity is equated with a non-human lifeless entity.

Dancygier & Sweetser (2014) talk about asymmetry, and Barnden (2008) talks about unparalleled creativity.

If the central function of metaphor is understanding (Lakoff and Johnson, 1980, p. 36), creativity and novelty seem to serve another important function. Both functions involve a mapping between dissimilar domains, thus the speaker's attempts to find correlations in experience in order to create bridges linking these dissimilarities (Lakoff (1987) and Kövecses (2009), among many others, talk about such correlations). In the case of metaphor, the relationship between the two domains, source and target, involves varieties of contrast between concrete and/or abstract material. Most of the time, the domains or entities related are incongruous, as in *My lawyer is a shark* or *Science is a glacier*, and we sometimes need to stretch our imagination to achieve similarity. The resemblance between the material in the source and the target is not anticipated; the elements compared can be conflicting and surprising. In fact, the metaphorical expression is even more surprising when the dissimilarity between the two domains is extreme. Moreover, metaphors may have a positive valence but they may also have a negative one; they may make good insults, as Camp (2015) says. Examples like *He is a pig, He is a bulldozer, This lawyer is a shark* are typical instances discussed in the metaphor literature.

What allows metaphor to combine two dissimilarities is the linguistic organization of the construction: A IS B. The mapping between A and B is established by this construction. This motivates the hearers to find parallels between the material of the source domain and the material in the target domain. By equating them, one is led to draw an analogy even if this is not always possible, especially in the case of novel metaphors.[4] As Stern says (2000, p. 147), "metaphors assert similarities". Casasanto (2014) even claims that such predicative constructions are so entrenched that the mappings do not emerge from experience but from entrenched linguistic usage.

Whereas metaphors tend to achieve similarities between incongruous frames or domains, similes provide explicit comparisons, which probably makes us expect only a minimum of incongruity.

Yet, in similes two dissimilar domains are linked on the basis of potential similarity.[5]

In Moder's (2008) discussion of narrow-scope (focusing on aspects of the entity and having an attributive function) and broad-scope similes (having a relational function and being closer to metaphors) the common feature is comparison between an entity and a standard of comparison. Similes are very vivid and may

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4. For instance, the novel metaphor discussed in Radden et al., *Philosophy is the wallpaper of the mind* requires effort to be understood, if at all (2007: 11).

5. It needs to be noted that similes do not always involve two domains. *Jane is as strong as a lion* is figurative, but *Jane is as strong as her father* is not.

sometimes be hyperbolic. When they are hyperbolic, there is no similarity any more, there is only simulation of a concrete concept to an abstract one. *Like* contributes to the need to link source and target.

Some of the typical ways similes are signaled are by means of *like, as, as if, as..as*, or, as seen in (7), by means of *be compared to.*[6] Comparisons with *like* can exhibit emphatic ways of being sarcastic, as for instance the *like*-prefixed sarcasm in Example (9) below, provided by Camp (2012, p. 612):

(9) *Like (as if) that's a brilliant idea.*

The intensity of sarcasm would be missed if *like* weren't employed.

Some further instances of simile combined with a variety of other figures can be seen in the examples in (10) pulled from BNC:

(10) a. *My pain is unbearable, she said, her voice thickened with salt like the Dead Sea.*
b. *I ran after them like a demon and I'd do it again, Iris said yesterday.*
c. *She was beginning to feel queer and sick; it was as if the sand hills were moving, swinging under her feet, and the sky going noiselessly round.*
d. *She is as remote from me, as strange, as if she belonged to another time.*

Similes are contrasted to metaphors on the basis of their construction: *My lawyer is a shark* is a metaphor, *My lawyer is like a shark* is a simile. Both involve comparisons, but similes involve explicit comparisons while metaphors evoke similarities, which, as argued, are perceived due to metaphorical construals.

The following metaphor provided by Carston and Wearing (2011, p. 284) illustrates the A IS B construction:

(11) *My younger brother is a prince*

The metaphoric use of *prince* is based on the attributes that characterize a prince: He may have a noble character, may be spoiled, may be charming and good-looking. From this point of view it could be seen as a simile if we take Gentner & Bowdle's (2001) view that similes reflect attributes of entities. As they argue, in similes we primarily have the mapping of specific attributes. Yet, *a prince* is a metaphor due to the construction in which it occurs. But the decision whether it is to be seen as an instance of metaphor or simile is a matter of subjectivity: the speaker leaves it up to the hearer to focus on the particular figurative meaning of *prince*. As Moder says (2010, p. 318) "one of the primary distinctions between similes and metaphors

6. It should be kept in mind that different types of reasoning processes are involved in the ways similes are expressed. Comparison is just one such instance.

may lie in the cognitive cues provided to the hearer", in other words, the hearer may be based on the similarity of attributes without context support or the context may enable the mapping.

The grammatical slot occupied by *like* is crucial in this respect. Though metaphor and simile are close, their different constructional patterns reflect the difference. *Like*-similes, according to Glucksberg (2001), are generally open-ended in terms of their interpretive possibilities. *Like* opens the source options for mappings onto the target, and in this way the incongruity is larger than expected. For this reason, we very often have a second construction that follows the *like*-construction. Its function is not only to further elaborate the interpretation of the simile but also to narrow its openness. For instance, in Example (1), the simile *you look like a toothpick* does not seem to be adequate; another construction following it *exactly like your sister* is indispensable (also see Sullivan 2013: 111).

It needs to be noted that similarity or dissimilarity is a matter of how something is perceived, the purpose normally being to achieve intensification and express emphasis.

In metonymy, there is a cognitive asymmetry between parts and wholes. Metonymy allows us to assign prominent and salient meanings to a concept, broaden and narrow a concept, and even make reference not only to similar but also to opposite entities of a concept (see also this discussion in Athanasiadou, 2017). Vosshagen (1999) discussed opposition as a metonymic principle, and Panther & Thornburg (2012), among others, discussed the example: *You are a fine friend* and argued that *fine* carries both its literal meaning and the opposite one for the sake of special communicative prominence, namely to be ironic. They also argue that "since words may spontaneously evoke their opposites (2012, p. 161), a broad view of antonymy is taken".[7]

One might say that metonymy defuses the conflicting incongruity between entities: We deal with entities that belong to one and the same domain, after all, which, under the traditional view of metonymy, can paradigmatically be substituted. I agree with Panther and Thornburg viewing cases of antonymy on the paradigmatic axis.

Irony is the "culmination" of incongruity. The speaker expresses an evaluation by referring to an opposing script, by using overstatements and hyperboles, or by saying less than what is meant, an understatement, (in a very expensive shop: *it is a bit expensive here).* But even in irony, where we have the maximum degree of incongruity between what is said and what is meant, there are situations where,

7. They even claim that instances of irony are cases of auto-antonymy, a particular kind of polysemy where the same referent has two opposite senses. *Cleave* meaning 'cut apart' and 'bring together' or *shelve* in *shelve a plant* and *shelve the wardrobe*.

instead of the reversal of values, we have reinforcement and emphatic highlighting of contiguous entities for the sake of intensification:

(12) Speaker A: *I wouldn't like performing in a church because people will get distracted by me and not pay attention to the sacredness of these days.*
Speaker B: *This is what we call "modesty" ladies and gentlemen.*[8]

The ironic intensity of Speaker B is highlighted by emphatic elaboration through flattering and praising Speaker A. Speaker B does not provide an opposite value; instead, s/he echoes and further elaborates on Speaker A's wording.

5. Concluding remarks

Different types of figurative processes can be combined effortlessly and very productively within the framework of constructional organization. Figures are not evoked independently but form part of a network with other figures. A construction can be called metaphoric, metonymic or ironic, but there is a whole network of other figures, backgrounded or foregrounded. They play an extremely important role: they all contribute to more emphatic and intense constructions.

The incongruity between source and target may be resolved by means of constructions. There is nothing in common or there are different subjective interpretations between science and glacier in *Science is a glacier* or between job and jail in *My job is a jail*. What brings them together is the particular construction. By means of the construction, people start thinking of attributes that characterize glaciers and could apply to science. The A IS B construction is so deeply rooted in our conceptualization that it allows the linking of dissimilar domains. Figurative processes, then, due to incongruity, can achieve intensification, which, in turn, contributes to creativity and novelty.

Intensification occurs in degrees and it constitutes a central function in all figures. Starting from metonymy as a means of defusing the conflict by restoring links even between antonymous entities, the cognitive operation of opposition governs the selection of one entity to ironically stand for another in order to create special effects. Similes, by means of the *like*- or *as*-construction, establish a similarity (hyperbolic or not) between dissimilar entities, and this again is done for the sake of intensification. The special ironic communicative effects are not only encouraged

8. (12) is a translated example from a Greek show. This particular function of irony, that of further elaborating on what is said, has been presented (Athanasiadou, ms) in the 1st International Conference of Cultural Linguistics, 20–22/7/2016, Prato, Italy.

by the reversal of positive and negative values; intensification can be achieved by the reinforcement of such values.

Grammatical constructions are meaningful. The meaning component of the constructions has the potential to evoke figuration. I have mostly focused on the complex setting of events and only peripherally on the adjective-noun pair and even less on other constructions like the copula BE construction and the *like*-comparison construction. They all lend themselves to construct emphatic figurative construals. Multiple figures intensify meanings; their contribution, however, remains to be tested empirically. It may be the case that a particular figure could be highlighted by a speaker while other figures may escape notice. In any case, grammatical patterns with figures in interaction are selected by speakers in order to achieve intensification.

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Falling to one's death in multiple landscapes
From blending to typology

Cristiano Broccias

This paper discusses whether *He fell to his death* is a possible counterexample to Goldberg's (1995) Unique Path Constraint, which bans simultaneous motion in multiple landscapes in caused motion/resultative constructions. On the face of it, *He fell to his death* involves the blending of motion in a physical landscape (as hinted at by *fell*) and motion in a metaphorical landscape (dying is conceptualised as telic motion). A possible solution to this apparent violation is the claim that *He fell to his death* is not an instance of the resultative construction and/or that *to his death* is metonymic for the place where one is presumed to have died. This paper argues that neither option is feasible: the example at hand instantiates the resultative construction and metonymy is not relevant. Instead, our ability for blending intimately connected facets of a complex event and the satellite-framed nature of English are held to be decisive factors for the licensing of the example under discussion.

Keywords: resultative, metonymy, Unique Path Constraint, blending, verb-framed language, satellite-framed language

1. Introduction

A recent controversy between Broccias and Iwata (see Broccias, 2013, 2014 and Iwata, 2014a, 2014b) concerns, among other things, the analysis of the example in (1):

(1) He fell to his death.

Three main questions arise in connection with it.

Firstly, does (1) code motion in multiple landscapes (see Goldberg, 1995 on the use of this term)? This seems intuitively to be the case. *Fell* describes downward telic motion in physical space (the physical landscape). *To his death*, on the other hand, points to motion in another landscape, a metaphorical one, where dying

https://doi.org/10.1075/ftl.9.05bro

is conceptualized as telic motion (A CHANGE OF STATE (to die) IS A CHANGE OF PLACE), as is signalled by the goal preposition *to*.

Secondly, can *to his death* be classified as a resultative phrase (see Beaver, 2012; Broccias, 2003; Goldberg, 1995, among many others)? In other words, is death interpreted as the result of the action of falling? Broccias (2013, 2014) argues that this is indeed so, while Iwata (2014a) disputes this view.

Thirdly, can *to his death* be analysed as a metonymic phrase, as was originally suggested by Goldberg (1991)? Under such an analysis, *to his death* would stand for "the place where one dies" or "is presumed to die", as is also argued by Iwata (2014a), *contra* Broccias (2013).

The interconnectedness of these three questions and their further ramifications will become apparent from the detailed discussion below, which elaborates on Broccias (2013, 2014), who dismisses the role of metonymy in the analysis of (1).

The paper is organized as follows. Section 2 deals with the question of whether multiple landscapes are accessed in (1). Section 3 discusses whether *to one's death* can be categorized as a resultative phrase. Section 4 tackles the issue of whether a metonymic analysis of *to one's death* is warranted by considering a number of criteria, namely, the degree of access to the alleged metonymic target (Section 4.1); possible metaphoric interpretations of *death* (Section 4.2); how the alleged metonymic target can be "revealed" syntactically (Section 4.3); what the analysis of examples related to (1) that differ from it in terms of either the verb or the PP used can tell us about the metonymic approach (Sections 4.4 and 4.5). A summary of the various strands of evidence is offered in Section 4.6. Section 5 highlights the importance of interlinguistic variation in the analysis of (1) by discussing the relevance of the distinction between satellite and verb-framed languages to the case at hand. Finally, Section 6 draws the conclusions by underlining the crucial importance of blending and the satellite-framed nature of English for the licensing of (1).

2. Multiple landscapes

As was briefly remarked above, the interpretation of (1) rests on two "kinetic landscapes", a physical one, where downward motion takes place, and a metaphorical one, where the event of dying is conceptualized as telic motion. Crucially, these two landscapes appear to be blended into a single construction, which refers simultaneously to both physical motion (a fall) and a change of state (to die). This is represented diagrammatically in Figure 1, which should be largely self-explanatory and is inspired by the blending diagrams of Fauconnier and Turner (2002). The event of falling and that of dying can be regarded as two input spaces that are merged

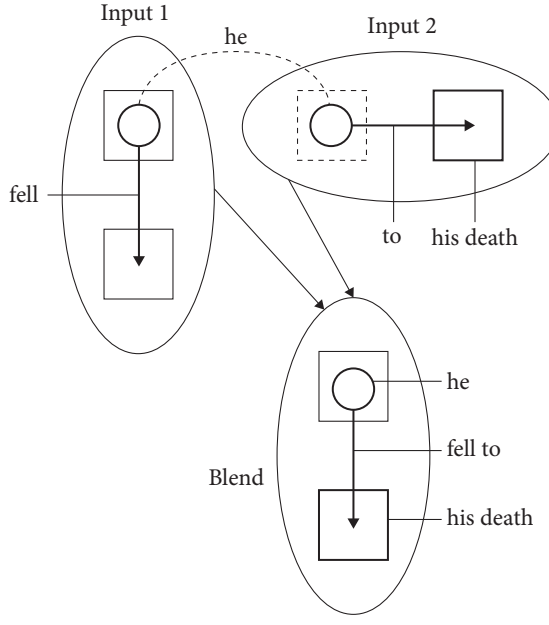

Figure 1. A (simplified) blending analysis of *He fell to his death*

into a blend that contains elements projected from both.[1] The entity undergoing the physical downward motion and the change of state is the same and is what the pronoun *he* refers to. The two types of motion, represented by means of the two arrows in the two input spaces, are merged together in the blend, where the physical

1. The generic space has not been shown in Figure 1. It would correspond to a diagram for motion without any specification as to its orientation (i.e. whether motion is horizontal or vertical) and nature (i.e. whether physical or abstract). It should also be observed that Figure 1 is a much simplified representation of the conceptual import of (1) because it does not show explicitly the metaphorical nature of death as telic motion. That is, *to his death* itself should be analysed as a blend of two input spaces, one pertaining to physical telic motion and the other to change of state. Further, it should be pointed out that the dashing and heaviness of the contour lines of the boxes are intended to represent their relative salience. Thus, the most salient location/state, death, is shown as the box with the heaviest contour lines. The contour lines for the two boxes in the *fell* input space, representing the source and target of motion, are lighter because both the source and the target of motion are less salient than the fate suffered by the referent of the pronoun *he*. Whereas *death* is mentioned explicitly in the syntax, the source and target are optional (e.g. *He fell to his death* (*from the fourth floor*), *He fell to his death* (*into the crater*)), see also Section 4.1. Further, the contour lines for the source in the *to his death* input space would correspond to the state of being alive, which is not particularly salient – hence the dashed lines employed – in the sense that it is not expressed explicitly in the syntax. Finally, *to* has only been shown in Input 2 although it is also relevant to Input 1.

target of motion, shown as the lower box in the *fell* input space (Input 1), has been replaced by the target from the *to one's death* input space (Input 2), namely the box standing for *his death*.

There seems to be little doubt that, taken at its face value, (1) involves the simultaneous activation of two conceptual landscapes which are kinetic and telic. If this is indeed the case, then the existence of (1) may be problematic in the light of Goldberg's (1995) Unique Path Constraint (UPC). According to the UPC,

> [i]f an argument X refers to a physical object, then no more than one distinct path can be predicated of X within a single clause. The notion of a single path entails two things: (1) X cannot be predicated to move to two distinct locations at any given time t, and (2) the motion must trace a path within a single landscape.
>
> (Goldberg, 1995: 82)

In the case at hand, X is the entity referred to by the pronoun *he*, whose motion does not trace a path within a single landscape as two landscapes were argued to be involved. There is an important caveat, however. The UPC applies to both caused-motion and resultative constructions so that, if (1) is not a caused-motion/resultative construction, the UPC does not necessarily apply. This is precisely the line of reasoning appealed to by Iwata (2014a, 2014b)[2] and will be explored in some detail in the next Section, where I will argue that *to one's death* is a resultative phrase so that the UPC should apply.[3]

3. *To one's death* is not a result phrase, or is it?

Although it is intuitively fairly uncontroversial to assume that the person's death results from his fall in (1), Iwata (2014a, 2014b) contends that this is not correct. His claim is based on a further constraint that resultatives are expected to satisfy, alongside the UPC (note that Iwata (2014) uses the term "result phrase" instead of "resultative phrase"):

> […] *to one's death* significantly departs from true result phrases: It is well-known in the literature on resultatives that "the change of state must occur simultaneously with the endpoint of the action denoted by the verb," [and this would not be the case in (1), CB] a constraint known as the Aspectual constraint in Goldberg (1995, p. 194). The only conclusion that can be safely drawn, therefore, is that *to one's death* is not a result phrase. (Iwata, 2014b: 147)

2. Iwata does not seem to distinguish between the caused motion and the resultative constructions. Hence, his use of the term "resultative" covers both cases.

3. The UPC has been subjected to scrutiny also by Matsumoto (2013), to whom I will return at the end of this paper in Section 5.

Iwata (2014b) thus contends that (1) cannot be a true resultative because death does not (necessarily) occur simultaneously with the endpoint of the falling event. This contention rests on two key assumptions that need to be explored in more detail. Firstly, it is necessary to clarify what is meant by "result(ative) phrase". Secondly, in the case of "true" resultatives, it must be shown that no counterexamples to the simultaneity constraint exist. These two tasks are taken on in the next two subsections.

3.1 Defining result(ative) phrases

As was remarked above, Iwata uses "result" in "result phrase" to mean "resultative". As the latter is the more current term, I will opt for it in the rest of the discussion. The classic definition of "resultative phrase" is to be found in Levin (1993), who defines it as "an XP which describes the state achieved by the referent of the noun it is predicated of as a result of the action named by the verb" (Levin, 1993: 101).

If this definition is applied to (1), then the answer to one of the three questions posed at the beginning, namely whether *to one's death* is a resultative phrase, is bound to be affirmative. The PP *to one's death*, which instantiates the XP in the definition above, describes the state (death) achieved by the referent of the noun phrase is it predicated of (*he*) as a result of the action named by the verb (*fall*). This is also apparent from cases such as (2):

(2) a. [H]e died from a fall from the fourth floor of a Holiday Inn balcony.[4]
b. A deadly fall from the fourth floor.

(2a) is semantically equivalent to *He fell to his death*. The use of the preposition *from* in *from a fall* in (2a) makes it clear that falling is construed as a cause of death.[5] Similarly, *to fall to one's death* can be nominalized into *a deadly fall*, as in (2b), which illustrates the "causing death, or fatal injury; mortal, fatal" meaning of the adjective *deadly*, see s.v. *deadly* adj. 4a in the *Oxford English Dictionary*.

Although *to one's death* satisfies the classic definition of "resultative phrase", Iwata suggests that *to one's death* is not a "true" resultative phrase because it occurs in a construction that violates the Aspectual Constraint on resultatives. Obviously, if additional constraints are needed to define a resultative phrase, then these should be part and parcel of the definition of what counts as a resultative phrase in the first place. Nevertheless, one could excuse the absence of the Aspectual Constraint from

4. From: http://www.nwctrail.com/1042/news/2-nwc-student-dies-during-spring-break/#sthash.JyFF4zAg.dpuf (last access: 29/10/2016).

5. Of course, it could be argued that this cause is construed metaphorically as a locative source because of the use of the spatial preposition *from*.

Levin's definition as being due to advances in our understanding of resultativeness. The Aspectual Constraint is related to Goldberg's (1995) work, which is, after all, subsequent to Levin's (1993) definition. In spite of this, the next Subsection will try to show that there are no uncontroversial grounds for adding the Aspectual Constraint to the classic definition of resultative phrase.

3.2 The role of simultaneity

It is not difficult to come across fairly uncontroversial instances of resultative constructions where the change of state does not occur simultaneously with the endpoint of the action denoted by the verb, *pace* Iwata (2014b) and Goldberg (1995). This point had already been made by Broccias (2003: 148–152), but it may be useful to repeat a few of the relevant examples, which appear in (3) and (4) below.

(3) [headline] Student stabbed to death
[text] He was treated by a paramedic and taken by helicopter to hospital, but he died soon afterwards.
(*The Guardian*, 14th September 1999)

(4) a. He danced his feet sore.
b. Sally talked her throat dry.
c. Sally sprayed her skin soft.

It would be difficult not to analyse *to death* in (3) as a resultative phrase (see also Lemmens, 1998: 25 for a similar example in Dutch). Still, the text of the article specifies that death occurred some time after the stabbing event took place. Similarly, in (4a), the feet probably began to be sore some time after the dancing event came to a close and, in (4b), Sally's throat may have become dry some time after the event of talking came to an end. Even clearer is (4c), where the product used by Sally to make her skin soft must have taken some time to take effect so that simultaneity between the endpoint of the action of spraying and the change of state does not hold. Not to classify these examples as resultatives, when they clearly describe states resulting from the verbal events, because they do not (necessarily) satisfy the Aspectual Constraint, would be odd. Rather, it is important to separate the definition of resultative phrase from the Aspectual Constraint. In fact, it is easy to see where the Aspectual Constraint comes from and why confusion may arise as to its use as a parameter for the identification of resultatives. As is pointed out by Broccias (2003: 151), the Aspectual Constraint just paraphrases one of the features of the conceptual model underpinning the existence of the resultative construction, namely Langacker's billiard-ball model (see e.g. Langacker, 1991: 13). In this model, the interaction between entities is described in energetic terms so that the exertion

of a force upon an object (e.g. by a billiard ball colliding with another) results in an immediate consequence (e.g. the impacted-upon ball moves). This is what the (transitive) resultative construction is all about. For example, in (4c) the two subevents of spraying one's skin and the skin becoming soft are blended into a billiard-ball model conceptualization, where the skin is an "energy sink" in Langacker's terminology, thus undergoing change. Simultaneity pertains to the billiard-ball model conceptualisation, not to the temporal unfolding of the cause-effect chain in the "real" world. It thus does not seem relevant to the characterization of the notion of resultative phrase (in transitive resultative constructions) whether simultaneity in the real world occurs or not. The billiard-ball blend requires simultaneity but this is a matter of construal and may be at odds with the existence of a time lag in the real-world sequence of its constitutive subevents. Crucially, if simultaneity is irrelevant to the identification of transitive resultative constructions, then there is no reason why it should instead matter in intransitive examples such as (1).

In sum, on the basis of Levin's (1993) classic definition and the role of construed vs. "objective" simultaneity in examples such as (3) and (4), it is safe to conclude that *to one's death* in (1) is indeed a resultative phrase. Nevertheless, this does not mean that *to one's death* is always a resultative phrase, as will be observed in Section 4.5. But it is now necessary to investigate the third main question posed by (1), namely whether *to one's death* can be analysed as a metonymic phrase.

4. *To one's death* as a metonymy

As was shown above, if *to one's death* is treated as a resultative phrase, then a problem ensues in connection with the UPC because motion in two landscapes seems to take place in (1) and this is banned by the UPC. Nevertheless, even if *to one's death* is viewed as a resultative phrase, the violation of the UPC may turn out to be apparent rather than substantial. Iwata, like Goldberg (1991) before him, claims that *to one's death* is a metonymic phrase that stands for "the place where one is presumed to die". Iwata (2014b) writes:

> But if *to ones* [sic] *death* is not a result phrase, what is it, then? Iwata (2014[a]) argues that *death*, being a deverbal noun, reifies a process (i.e. *die*). The reified process as a whole stands for the place where one is presumed to die.
>
> […] Thus *to one's death* indeed metonymically stands for the place where one is presumed to die, in accordance with Goldberg (1991). (Iwata, 2014b: 147)

It follows that, if *to one's death* stands for a place, then metonymy guarantees motion in one landscape (the physical one) rather than two (the physical one and the metaphorical one) and, hence, no violation of the UPC ensues.

It must be observed, however, that Iwata contends that "*to one's death* does not express a location alone, and in fact [Iwata, 2014a] presents evidence for stating so: As a matter of fact, there is evidence that one's death does not express a location pure and simple. First, death may be pluralized" (Iwata, 2014b: 149). A relevant example is (5), where, obviously, a paraphrase along the lines of "the people jumped to the places where they died" would not make much sense because the place where the people are presumed to die is roughly the same for all of them. The plural *deaths* is simply due to the fact that more than one person suffers fatal consequences.

(5) The Valley Bridge […] became notorious for people jumping to their deaths.
(Iwata, 2014b: 149, Example (50b))

The behaviour exhibited by *to their deaths* in (5) may lead one to ask whether *to one's death* really points to a location after all (i.e. whether *to one's death* is truly metonymic). For the sake of clarity, let us, first of all, assume that the whole PP *to one's death* is the alleged metonymic source: as the first quotation from Iwata above shows, Iwata is not clear whether the metonymic source is the PP *to one's death* or just the NP *one's death*. Next, one is faced with the task of exploring whether a metonymic analysis of *to one's death* can be defended, in spite of examples such as (5), which show that a purely spatial interpretation is not (always?) plausible.

In order to come to a sound conclusion about the nature of *to one's death*, it is first of all necessary to agree on what counts as a metonymy. There is agreement among leading scholars in metonymy research (see e.g. Barcelona, 2011 and Bierwiaczonek, 2013) that the metonymic target must be salient. Barcelona (2011) writes that the "target is […] activated" and Bierwiaczonek (2013) observes that metonymy "provides access to […] the target". Similarly, Iwata (2014a: 27) claims that "[t]he spatial location of a reified process is highlighted". It is thus necessary to ask whether the alleged metonymic target (the place of one's death) is indeed highlighted by the use of *to one's death*. In what follows, in addition to discussing this, I will also consider other types of evidence that may bear on the issue of the metonymic analysis of *to one's death*, namely metaphoric influences, target addition, verb variation, similarity to other PPs, and, finally, ecological motivation.

4.1 Access to the target

In order to introduce the issue of access to the alleged metonymic target, it may be useful to consider the following still from a James Bond film (*Skyfall*) where a character by the name of Patrick "falls to his death", as the caption says.

Figure 2. A still from *Skyfall* illustrating the use of *to one's death*[6]

Intuitively, what the picture seems to highlight is not the location where Patrick will end up but, rather, the fact that he is falling from a very tall building so that one is left in no doubt about the fatal consequences of his fall. Although the confirmation (or rebuttal) of this intuition is left to experimental psychologists, further evidence of a more linguistic kind may convince the sceptical reader that *to one's death*, as it is used in (1), does not highlight a location at all. In June 2015, two stowaways hid themselves in the wheel well of a plane due to fly from Johannesburg to London. As the plane approached London and deployed its landing gear, one stowaway fell out of the plane's wheel well and his lifeless body was later found on a London office. This tragic news was reported in (at least) two alternative ways, which are reproduced in (6) and (7).

(6) Stowaway fell to death from plane on to London office after 8,000-mile flight.[7]

(7) Stowaway dies after falling from plane on to London office after 8,000-mile flight. (*The Guardian* alert,[8] 19th June 2015)

Note that (6) and (7) make up a sort of "minimal pair". *Fall* is a matrix verb in (6) while it is a noun used as the object of the preposition *after* in (7); *death* is the object of the preposition *to* in (6) while its verbal cognate *die* is the matrix verb in (7). The sentences in (6) and (7) are functionally equivalent and clearly show that *to fall to one's death* does not mean "to fall to the place where one is presumed

6. See http://jamesbond.wikia.com/wiki/Patrice (last access: 29/10/2016).

7. See http://www.theguardian.com/uk-news/2015/jun/19/stowaway-fell-to-death-plane-london-shop-heathrow-richmond (last access: 29/10/2016).

8. *The Guardian* alert was a free smart phone service that alerts readers to major stories.

to die" but, rather, "to die after falling". In other words, *to fall to one's death* is not used to activate (using Barcelona's definition of metonymy above) or access (using Bierwiaczonek's definition) or highlight (using Iwata's characterisation) the location where one ends up dead. If the locative target needs to be activated/accessed/highlighted, this is done by means of a locative PP such as *on to London office* in (6) and (7).

4.2 Metaphoric motion

At the outset of this paper, it was claimed that (1) relies upon the metaphor A CHANGE OF STATE (to die) IS A CHANGE OF PLACE, as is signalled by the goal preposition *to*. On closer inspection, however, other metaphoric mappings may turn out to be relevant. For example, it is fairly common to conceptualize death as an animate entity (the Grim Reaper comes to mind in this respect) and one may come across examples such as (8) and (9):

(8) How often had he leaned on that low stone wall, and read the strange inscriptions in various tongues over the graves of mariners from distant countries who had met with their death on this rocky coast?[9]

(9) Marching into the jaws of death. Haunting Mail photo of troops launching doomed Afghan assault.[10]

Although (8) and (9) do not contain the verb *fall*, they both evoke a kinetic scenario. In (8), the mariners end up on the rocky coast and their death is metaphorised as an animate entity that one can meet. In (9), instead of a verb of vertical motion (*fall*), a verb of manner of motion (*march*) in the context of horizontal kinesis is employed. I will have to say more about this type of example later (see Section 4.5 below). For our present purposes, it suffices to observe that death is again conceptualized as an animate entity and a dangerous one at that. Examples such as (8) and (9) show that the metaphorisation of death as a (dangerous) animate entity may occur in motion scenarios. Thus, it makes sense to hypothesize that *to one's death* in (1) activates further metaphoric mappings alongside A CHANGE OF STATE IS A

9. See https://books.google.it/books?id=VLWuykTY_y4C&pg=PA190&lpg=PA190&dq=%22and+read+the+strange+inscriptions+in+various+tongues%22&source=bl&ots=_svsxdOl-2C&sig=T2Z8UCQ_68Yh3siLUR3zFQZuvzQ&hl=en&sa=X&ved=0ahUKEwimjKC267zJAhUGqA4KHc4-CWwQ6AEIIzAA#v=onepage&q=%22and%20read%20the%20strange%20inscriptions%20in%20various%20tongues%22&f=false (last access: 29/10/2016).

10. See http://www.dailymail.co.uk/news/article-3164484/Mail-photo-troops-launching-doomed-Afghan-assault-s-inspired-two-works-art.html (last access: 29/10/2016).

CHANGE OF PLACE. That is, similarly to (8) and (9), *to one's death* may evoke the "personification" of one's death. In sum, even if metonymy in (1) were involved, metaphor may also play an important role, which is tantamount to claiming that *to one's death* highlights death, not the place where one is presumed to have died.

4.3 Revealing the target

Although Iwata (2014b) contends that *to one's death* is metonymic in that it stands for and highlights the "place where one is presumed to die", he regards a substitution analysis of metonymy as discredited among cognitive linguists. In his view, *to one's death* is not simply equivalent to, and hence replaceable with, the "place where one is presumed to die". He just claims, following for example Langacker (2008: 69), that metonymy involves a shift in profile. In the case at hand, *to one's death* would involve a shift from death as a process to the spatial location where death occurs. Even ignoring the fact that it is questionable, as I tried to point out above, to claim that *to one's death* highlights the place of death, it must clearly be possible to "reveal" the target in one way or another if metonymy is used, since metonymy relies on the activation of a target. Crucially, in "clear" metonymic examples, the target can be revealed by manipulating how the source is coded. For example, in the case of referential metonymy, the source may be replaced – this is the substitution view criticised by Iwata – with the target as in (10), or the source may become a modifier of the target as in (11), or the target mat be added as a complement of the source as in (12):

(10) a. Westminster backed airstrikes against Isis.
b. The MPs backed airstrikes against Isis.

(11) a. The red shirts won.
b. The players in the red shirts won.

(12) a. She drank a glass.
b. She drank a glass of red wine.

In the case of (1), the alleged metonymic target can be expressed by means of a PP that either precedes or follows the PP *to one's death*, as in (13) and (14), respectively (the alleged targets are underlined in these two examples).

(13) Two other friends […] fell to their deaths under Tube trains in separate incidents in 2010 and 2012.[11]

11. See http://www.dailyrecord.co.uk/news/scottish-news/scot-young-death-russian-crime-4807798 (last access: 29/10/2016).

(14) The body is discovered the next morning, and it is presumed the man fell into the hole to his death.[12]

Iwata (2014b) contends that in cases such as (13), the "the reified process [i.e. death, CB] may be modified by" a PP. He illustrates this point by means of examples such as (15).

(15) In the dark, panic-stricken by what she'd done, she ran down the wrong passage, towards the sea instead of towards the land, slipped and fell to her death on the rocks below. (From Iwata, 2014b: 148, example (48))

In other words, Iwata analyses *on the rocks below* as a modifier of *her death* in (15). This means that *under Tube trains* should also be regarded as a modifier of *their deaths* in (13). Although this analysis may be on the right track for (13) and (15), it is clearly implausible for (14). Firstly, note that the alleged modifier (*into the hole*) precedes the PP (*to his death*) where the alleged modified element (*his death*) is found. Secondly, observe that a goal preposition (*into*) is used, which makes the analysis of *into the hole* as a modifier of *his death* problematic anyway (cf. *his death into the hole* vs. the more plausible *his death in the hole*). Clearly, *into the hole* is a dependent of *fell* not *death* in (14). This explains both its position before *to one's death* and the use of the dynamic preposition *into*.

Also, (14) demonstrates that the alleged target (e.g. *into the hole*) can occur simultaneously and independently of the alleged source (i.e. *his death*). This, however, is not a hallmark of metonymy as is currently understood, which requires replacement or structural modification in order for the target to be "revealed", as in (10)–(12) above. (13) and (14) are, instead, reminiscent of Langacker's profile/active-zone discrepancy (see Langacker, 1990: 90) examples such as (16):

(16) a. Your dog bit my cat.
b. Your dog bit my cat on the tail.

Langacker (1990) points out that while the nominal expressions *your dog* and *my cat* profile whole entities, only a part of the dog and a part of the cat were involved in the biting event, namely the dog's teeth and, say, the cat's tail, which is expressed explicitly in (16b) by means of the PP *on the tail*. Langacker calls the dog's teeth and the cat's tail active zones. These are the concepts that "participate directly in a given relation" (Langacker, 1990: 190).

12. See https://en.wikipedia.org/wiki/What's_the_Matter_with_Helen%3F (last access: 29/10/2016).

Crucially, although Langacker does not draw a clear distinction between active zones and metonymy, analysts such as Bierwiaczonek (2013) differentiate between the two. In (16), for example, the part of the cat that is bitten (the active zone) is not salient but can be specified by means of a further PP (e.g. *on the tail*). Note that in (16) the active zone (the tail) can be brought to light simultaneously and independently of the "source" (the cat). This is similar to what is observed in (14), where the PP *into the hole* makes explicit an otherwise "vague" location presupposed by the expression *to fall to one's death*. In other words, *to one's death* like *my cat* in (16) does not, on its own, provide access or highlight a target (i.e. the target is not salient) but, rather, presupposes a non-salient target that can be accessed or highlighted only through explicit mentioning.

4.4 Verb variation

So far I have tried to argue that to view *to one's death* in (1) as a metonymy is problematic. This does not mean that a metonymic analysis for *to one's death* is necessarily implausible in all cases. For example, if the kinetic scenario involves horizontal rather than vertical motion, as was the case in (1), then a metonymic analysis may be more feasible. A few examples are offered in (17) to (21).[13,14]

(17) Manchester police deaths: Lured to their deaths in an 'act of pure evil' [headline]
Two female police officers were murdered in cold blood after being lured into an ambush and gunned down in the worst atrocity against the police for almost half a century.[15]

(18) Nepal blizzards: Trekkers 'herded to deaths', claims survivor. [headline]
A British survivor of a Himalayan storm which killed at least 29 people has claimed trekkers were "herded to their deaths" by ill-equipped guides.[16]

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13. Similar examples are to be found in Iwata (2014a). However, he does not relate them explicitly to horizontal motion and concludes that these metonymic examples (but see the text above for more discussion of the use of this term for such instances) show that *to one's death* is always metonymic, which I have tried to argue is not in the case of vertical motion with the verb *fall*.

14. As was observed by a reviewer, a major difference between horizontal vs. vertical motion is that, with the former, the entity that moves must engage in the motion event for it to take place.

15. See http://www.telegraph.co.uk/news/uknews/crime/9551735/Manchester-police-deaths-Lured-to-their-deaths-in-an-act-of-pure-evil.html (last access: 29/10/2016).

16. See http://www.bbc.com/news/uk-england-south-yorkshire-29657797 (last access: 29/10/2016).

(19) Marched to their deaths: Sickening ISIS slaughter continues as 250 soldiers captured at Syrian airbase are stripped then led to the desert for mass execution.[17]

(20) According to Scott's diary, before Oates exited the tent and walked to his death, he uttered the words "I am just going outside and may be some time."[18]

(21) As he walked to his death he looked up at the window of the chamber in which Laud was confined, and saw the archbishop waiting for him there.[19]

Just to illustrate, in (17) a paraphrase along the lines of "the two police officers were lured to their place of death" would work fine and this also holds true of the remaining examples. Despite this, the observations made above in connection with (1), namely the fact that the alleged metonymy *to one's death* does not seem to highlight the (alleged) locative target – what is highlighted is obviously death – and the fact that the (alleged) target, if expressed, cannot always be analysed as a modifier of *death* but rather as an argument of the verb, stand. Thus, even in (17)–(21), an active zone analysis turns out to be more plausible than a metonymic analysis. The location where death occurs can be "revealed" by adding a locative phrase such as *to the desert* in (19); otherwise, the location remains non-salient. Finally, it is worth pointing out that in these cases of horizontal kinesis, *to one's death* cannot be categorized as a resultative phrase in the sense that the verb does not express the cause of death. Still, motion in multiple landscapes occur and this must be accounted for.

4.5 Other prepositional phrases

Although this paper deals with the phrase *to one's death* to investigate motion in multiple landscapes, other phrases can be recruited to do so. Consider, for example, (22), where *murder* instead of *death* is found:

(22) Six people, including a 15-year-old girl and three other teens, were arrested Tuesday in the murder of 15-year-old Florida boy Seath Tyler Jackson, who was lured to his murder by text message.[20]

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17. See http://www.dailymail.co.uk/news/article-2736764/Marched-deaths-Sickening-ISIS-slaughter-continues-250-soldiers-captured-Syrian-airbase-stripped-led-desert-mass-execution.html (last access: 29/10/2016).

18. See https://en.wikipedia.org/wiki/Lawrence_Oates (last access: 29/10/2016).

19. See https://books.google.co.uk/books?isbn=144727170X (last access: 29/10/2016).

20. See http://www.cbsnews.com/news/six-arrested-in-brutal-murder-of-fla-boy-seath-tyler-jackson (last access: 29/10/2016).

A similar phrase conveying the notion of disappearance/death is the phrase *to oblivion*, which is used in the following headline, reporting on the plane crash in the French Alps caused by a Germanwings pilot in March 2015:

(23) Descent to Oblivion: The Death Wish of a Germanwings Co-Pilot.[21]

More interesting, however, is the PP *to safety*. Although the *Oxford English Dictionary* characterizes the use of *safety* in this phrase as "[t]he state of being protected from or guarded against hurt or injury; freedom from danger" (see s.v. *safety*, I.1.a), the *Longman Dictionary of the English Language* paraphrases *to safety* as "to a place of safety",[22] thus apparently advocating a metonymic analysis. The examples given in the latter dictionary include the following:

(24) a. Thirty thousand people fled to the safety of the capital.
b. Firefighters led the children to safety.
c. They reached safety seconds before the bomb went off.

As is evident from (24c), the locative meaning can also be found with the noun *safety* on its own, without the goal preposition *to*. Despite the paraphrase offered in the dictionary, a profile/active zone analysis is also appropriate here because *safety*, on its own, does not highlight the location attained but, rather, the state (of safety) one ends up in. The location arrived at can be coded in a variety of ways. In (24a), it is expressed by means of the dependent PP *of the capital*, an option which is not possible with *death*. Other options include patterns that were already observed for *death*, as is shown in (25) (the relevant patterns have been underlined).

(25) a. For seeing his forces routed, Triarius took all the able-bodied men from among the survivors and fled to safety in Roman-controlled Cappadocia.[23]
b. As Henry's commissioners approached the castle, Sir John fled to safety to Skipton Castle whilst Adam attempted to evade the King's agents by hiding on Witton Fell.[24]
c. [H]e flies the Tardis alongside her cab, and she leaps inside to safety.[25]
d. Ridge School in Takoradi, the port where she first stepped ashore to safety.[26]

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21. See http://www.spiegel.de/international/europe/the-germanwings-crash-and-the-pilot-who-caused-it-a-1025914.html (last access: 29/10/2016).

22. See http://www.ldoceonline.com/dictionary/safety, sense 4 (last access: 29/10/2016).

23. See https://books.google.co.uk/books?isbn=1429904372 (last access: 29/10/2016).

24. See http://www.castlesfortsbattles.co.uk/bolton_castle.html (last access: 29/10/2016).

25. See http://aminoapps.com/page/doctor-who/christmas-special-series-the-runaway-bride-2014-11-12t17-21-41z (last access: 29/10/2016).

26. See http://www.unhcr.org/print/3b66ce692.html (last access: 29/10/2016).

In (25a), the PP *in Roman-controlled Cappadocia* could be analysed as a modifier along the lines of Iwata's proposal. By contrast, in the remaining examples, the locative phrase is clearly an argument of the verb. The goal preposition *to* is used in (25b) and the adverbial expressions *inside* and *ashore* precede *to safety* in (25c) and (25d). As was argued above, with the exception perhaps of (25a), these patterns would be unusual as means of revealing the metonymic target.

Continuing the exploration of PPs other than *to one's death* that are used to evoke motion in multiple landscapes, one can come across instances of motion where a metonymic analysis is clearly implausible, even more so than with *to one's death*. Consider (26), which is also mentioned in Broccias (2013):

(26) Wingman daredevil falls from 37,000 feet […] into the history books.[27]

This headline is about a wing suit jumper who broke the record for the longest, farthest and highest wing suit jump. (26) combines motion in two landscapes, one is the physical landscape and the other is the metaphorical landscape where, as in (1), A CHANGE OF STATE (to become famous, here) IS A CHANGE OF PLACE. Obviously, it makes no sense to claim that *into the history books* in (26) stands for the location reached by the jumper. Rather, the conceptual justification for (26) is of a metaphorical nature, as was the case in the examples discussed above. Becoming famous is conceptualized as motion "into the history books" and metaphorical motion and physical motion are blended in (26).

A similar example is (27), where it makes no sense to claim that *to victory* stands for the finishing line. If anything, it is the (reaching of) the finishing line that stands for victory.

(27) Mark Cavendish got his first Tour de France success in almost two years as he sprinted to victory on stage seven.[28]

4.6 Interim conclusion

I have shown that motion in multiple landscapes cannot be explained away by invoking metonymy. If a metonymic analysis is appealed to, then one cannot fail to note that there are (a) cases such as (26) and (27), where *into the history book* and *to victory* are used respectively, that are not amenable to such an analysis; (b) cases that may be metonymic only under certain circumstances (viz. *to one's death* with

27. See http://www.dailymail.co.uk/news/article-2161531/Wingman-daredevil-falls-37-000-feet--history-books.html (last access: 29/10/2016).

28. See www.bbc.co.uk/newsround/33492240 (last access: 29/10/2016).

verbs of horizontal motion); (c) cases such as *to safety* in (24) for which a (potentially) metonymic analysis appears to be viable. This variability clearly shows that metonymy cannot be the conceptual justification for the occurrence of motion in multiple landscapes. Further, I have pointed out two serious issues with a metonymic analysis. Firstly, there is no obvious sense in which the prepositional phrase used "highlights" the (alleged) metonymic target. In fact, in cases such as *to victory* in (27), it is the attained location that seems to provide access to victory. Secondly, the alleged target can be added to the alleged source without any structural modification of the alleged source, which is not what is typically found in clearly metonymic examples. On balance, the evidence suggests that a more appropriate analysis for the cases at hand, even those that are at first sight "metonymic", should invoke Langacker's profile/active zone discrepancy. However, this still does not solve the puzzle of the existence of examples coding motion in multiple landscapes. This issue is addressed in the next Section.

5. Ecological motivation

Although (1) may look "exceptional" in that motion in two landscapes is evoked, (1) is in fact a fairly run-of-the mill member of the family of caused motion and resultative constructions. As is well-known from Talmy's work (e.g. Talmy, 2000), the wider use of these constructions in Germanic languages such as English than, for example, in Romance languages is to be related to the satellite-framed nature of the former versus the verb-framed nature of the latter. While languages such as English, German and Swedish typically encode the manner of motion by means of the main verb and the path of motion by means of a satellite or adjunct (e.g. *Sally limped into the room*), languages such as French and Italian typically encode the path of motion by means of the main verb and the manner of motion by means of a satellite (e.g. Italian *Sally entrò nella stanza zoppicando*, lit. "Sally entered into the room limping"). This characterization can also be extended to resultative cases (assuming that the two constructions can be distinguished), where the verb expresses the means or manner by which a certain state, as specified by a PP or an AP, is attained (e.g. *Sally rocked the bay to sleep*, *Sally wiped the table clean*).[29]

29. It is interesting to observe that, alongside verbs of vertical and horizontal motion such as *fall* and *walk*, *to one's death* can also be combined with verbs of sound emission such as *scream* as in (i):

(i) … alas, every single one of them was driven over the cliff, screaming to their deaths on the razor crags below. (*Doctors*, BBC One, 08/02/2019)

Obviously, the distinction between satellite and verb-framed languages should be interpreted as a general tendency rather than a hard and fast rule implying that the patterns found in one type of language are impossible in the other type. Thus, as we have already seen, alongside (1), we also find examples such as (2a), repeated here as (28), where the result (death) is coded through the verb and the cause/means is coded through an adjunct (*from a fall*):

(28) [H]e died from a fall from the fourth floor of a Holiday Inn balcony.

Alongside intralinguistic evidence, interlinguistic comparison is quite instructive here because it reveals the nature of (1) as a typical instance of the caused motion/resultative family. Let us consider how the tragic event mentioned in Section 4.1 was reported in the news in two other Germanic languages (German and Swedish) and two Romance languages (French and Italian):

(29) Blinder Passagier stürzt mutmaßlich aus Flugzeug in den Tod.[30] (German)
"(lit.) Stowaway falls apparently from aircraft into the death."

(30) En fripasagerare [sic] föll mot döden från ett British Airways-plan.[31] (Swedish)
"(lit.) A stowaway fell into the death from a British Airways plane."

(31) Un passager clandestin fait une chute mortelle après s'être agrippé à un Boeing 747 sur plus de 12,000 km – mais un autre a survécu.[32] (French)
"(lit.) A stowaway makes a deadly fall after clinging to a 747 Boeing over more than 12,000 km – but another has survived."

(32) Un passeggero clandestino muore cadendo da un aereo della British Airways.[33] (Italian)
"(lit.) A stowaway dies falling from a British Airways aircraft."

While German and Swedish, like English, depict the event of dying in motion terms, French expresses the consequence of the fall by means of the adjective *mortelle* ("deadly", see also (2b) above for English), which modifies the noun *chute* ("fall"),

30. See http://www.tagesspiegel.de/weltspiegel/london-blinder-passagier-stuerzt-mutmasslich-aus-flugzeug-in-den-tod/11941882.html (last access: 29/10/2016).

31. See www.aftonbladet.se/nyheter/article20994101.ab (last access: 29/10/2016).

32. See http://www.nouvelordremondial.cc/2015/06/19/un-passager-clandestin-fait-une-chute-mortelle-apres-setre-agrippe-a-un-boeing-747-sur-plus-de-12000-km-mais-un-autre-a-survecu/ (last access: 29/10/2016).

33. See http://www.ecolibero.it/2015/06/un-passeggero-clandestino-muore-cadendo-da-un-aereo-della-british-airways/12159 (last access: 29/10/2016).

and Italian expresses the result by means of the tensed verb *muore* ("dies") and the cause by means of the verbal adjunct *cadendo* ("falling").

In sum, this interlinguistic evidence shows that we are justified in treating (1) as a member of the caused motion/resultative family, and that to interpret *to one's death* as a metonymy is rather suspicious. Both intralinguistic and interlinguistic data point to the fact that *to one's death* just highlights death, not the place of one's death.

6. Conclusions

At the outset, I posed three questions concerning (1), namely (a) whether (1) involves motion in multiple landscapes, (b) whether *to one's death* is a resultative phrase and (c) whether *to one's death* is a metonymic phrase standing for "the place where one is presumed to die". I have argued that motion in multiple landscapes is indeed evoked in (1) and that *to one's death* is clearly a resultative phrase in (1), while this may not be the case in other instances where verbs other than *fall* are used (e.g. with *walk* in (21)). Finally, I have tried to show that a metonymic analysis of *to one's death* is problematic and that this phrase is better analysed as an instance of Langacker's profile/active zone discrepancy. More generally, even interpreting metonymy in a broader sense (so as to include active zones) and considering PPs other than *to one's death*, I have pointed out that motion in multiple landscapes maps onto a metonymic continuum, from cases such as *to safety*, which are easy to interpret as evoking a locative target, through cases such as *to one's death*, where a locative target is probably activated only under certain circumstances (e.g. with horizontal kinesis), to cases such as *into the history books*, which are clearly not metonymic. This shows that metonymy (however broadly construed) cannot be the explanation for the "exceptional" status of (1): motion in multiple landscapes does not necessarily rest on metonymy (broadly construed). Rather, the occurrence of (1) hinges on the satellite-framed nature of English and our ability to reason metaphorically so that different landscapes can be blended together. Crucially, in (1), falling and dying are two different but strongly correlated facets of a complex event. Here, I would like to point out that this observation is thus not dissimilar from the conclusion that Matsumoto (2013) arrives at concerning the simultaneous occurrence of spatial and non-spatial phrases in caused motion/resultative constructions such as *I sliced the cheese into thick pieces into the bowl*, where both physical motion (*into the bowl*) and metaphorical change (*into thick pieces*) are evoked, which would also constitute a violation of the UPC. He argues that violations of the UPC are possible "when [the spatial and non-spatial phrases] are a part of a

single line of the development of a change" (Matsumoto, 2013: 26). This is exactly what we observed in connection with (1), even though this example contains only one non-spatial phrase and motion is expressed by means of the verb: falling and dying are intimately related and constitute a single line of change. Our ability to evoke and manage multiple landscapes simultaneously if they are intimately connected, coupled with the satellite-framed nature of English, is what allows for the existence of (1): to explain (1) away purely in metonymic terms instead results in classificatory and conceptual problems and should thus be avoided.

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Metaphorical adjective-noun phrases in German journalese

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The study explores metaphorical adjective-noun phrases (ANPs) and describes the semantics behind the polysemous structure of ANPs. The data for the research have been collected in German newspapers. The whole ANP-construction provides an overall figurative frame and tends to influence the metaphorical use of the adjective in that construction. As the study shows the same syntactic structure can refer to different metaphorical or literal predications. The role of the context is also discussed as well as the nature of the adjective in the ANP.

Keywords: nominal phrase, metaphorical, adjective-noun, journalese, German

1. Introduction

Non-native speakers of German can be struck by the number of figurative phrases in German newspaper articles and especially in headlines. Non-literal nominal phrases composed of an attributive adjective with a noun (ANP) belong to recurrent lexicalization patterns in journalese as they are compact and vivid ways of expression which aim at attracting the reader's attention to the text.[1] For the reader they constitute an interpretation challenge, not only because of their conciseness, but also because such phrases are characterized by semantic incompatibility between the adjective and the noun, the meaning of the ANPs has to be inferred, as illustrated by the following short list of ANPs, *politische Safari*[2] ('political safari'; Die Welt, 08.07.1982), *politisches Tauwetter* ('political thaw weather'; Die Welt,

1. It is not the purpose of this contribution to deal in detail with figurative language in newspapers and the role of headlines, therefore we refer to the studies by Evans (1974), Kniffka (1980), Spiegl (1966) and Yergaliyev et al. (2014).

2. The data are part of a larger sample of examples collected by the author in different newspapers. See the following section about the quality of the papers.

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24.04.1982), *die soldatische Frau* ('the soldier-like woman'; Die Welt, 5.05.2016), *sozialdemokratisches Gesicht* ('socio-democratic face'; Hamburger Abendblatt 12.3.2015). A closer look at such ANPs also reveals that the same syntactic structure [adjective + noun] is polysemous and can instantiate different predications. E.g. in *politisches Tauwetter* some political events are conceptualized as meteorological events, whereas in *die soldatische Frau* a different predication is meant, namely that the woman is a soldier.[3] In spite of the structural similarity of the examples, "the semantic contribution of the adjectives to a phrase cannot be explained by a uniform function" (Strohner and Stoet, 1999: 195; see also Bickes, 1984: 80 and Neubauer, 1977: 234). Up to now little has been done to systematically explore the conceptual structure of the polysemous ANP structure. The present contribution aims at describing the possible semantics of metaphorical ANPs with a larger collection of data, thereby focusing on the nature of the adjective on the one hand and the metaphorical elaboration on the other. To do so, it starts from the framework of conceptual metaphor theory, originally inspired by Lakoff & Johnson (1980), which defines metaphor as the mapping of a source domain on a target domain. The metaphorical mapping is based on similarity. Some ANPs also instantiate metonymy, in which case the relation between two domains is said to be one of contiguity, i.e. part for whole or one component of a domain stands for another component (see the details in Section 4).

The paper is structured as follows. Section 2 zooms in onto former research on (metaphorical) ANPs. Inspired by Sullivan's (2013) study and by conceptual metaphor theory, Section 3 introduces the theoretical framework for the exploration of the data, which are described in full length and in detail and classified in Section 4. This section further focuses on the role of the context in understanding metaphorical ANPs, dealing more specifically with visual contexts in the form of pictures which sometimes accompany the press articles. Section 5 further examines the nature of the adjectives most frequently used in metaphorical ANPs. A quick glance at the examples shows that many adjectives used in (metaphorical) ANPs are derivations from nouns with productive suffixes, e.g. *polit-isch* ('political'), *tunes-isch* ('Tunesian'), *König-lich* ('royal'), or *atom-ar* ('atomic'). Denominal adjectives are particularly suitable for their use in metaphorical ANPs. Finally, Section 6 summarizes the main findings and discusses some perspectives.

3. Of course we need the context to be able to interpret these examples. We discuss them in full length and with the context in Section 4.

2. Former research on metaphorical adjective-noun phrases

Earlier studies in (metaphorical) adjective-noun phrases (Aarts & Calbert, 1979; Fries, 1952; Meyer, 1988; Neubauer, 1977; Warren, 1984) already recognized that "the predicational value is not the same in all adjectives and that it may vary according to the noun that an adjective co-occurs with" (Aarts & Calbert, 1979: 81). These earlier studies tried to capture the structural polysemy of ANPs with the description of 'semantic (or contextual) features' associated to the adjectives (Aarts & Calbert, 1979; Meyer, 1988): "The common role of the adjectivization is to attribute a property (PA) to the entity designated by the noun rector (ENr), that is to say to characterize it" (Meyer, 1988: 193; translation from French). This view on the role of adjectives with nouns is very narrow and inadequate, especially when it comes to describing metaphorical ANPs which are characterized by semantic incompability, either between the adjective and the noun, or between the ANP within the sentence or with its larger context.

By contrast, more recent research (Coulson, 2006; Sullivan, 2013; Sweetser, 1999; Tribushinina, 2011) has shown that the adjectives in the (metaphorical) nominal phrases are often non-predicating, which means that they do not express a property characteristic of the nominal concept. This is illustrated among others by Sweetser's (1999: 129–130) discussion of examples like *usual suspects* or *likely candidates* and further by Coulson's (2001: 134) metonymical example *hot lid* referring to the lid for paper cups that contain hot drinks like coffee or tea. But, as already pointed out by Sweetser (1999), the mere differentiation between predicating and non-predicating adjectives does not allow to account for the large amount of different ANPs, let alone non-literal nominal phrases. Following Fauconnier and Turner's (1996 and 1998) idea of mental spaces, Sweetser further argues that the constituents of ANPs are characterized by a mapping in the form of a blend of different mental spaces. Thus, the interpretation of an ANP like *red ball* "requires blending of two input spaces, one contributed by *red* and the other by *ball*, to create a coherent blended space." (1999: 139) The interpretation of such phrases is easier when the constituents of the ANP belong to compatible mental spaces. In *red ball* a color is a possible characteristic of an object like a ball. More problematic are non-literal uses of adjectives and nouns in one phrase. In her description of the metaphorical example *intellectual sleeping pills* referring to sermons Sweetser (1999: 144) claims that the hearer who tries to find an interpretation for this ANP will have "to blend the space involving sleeping pills with some space involving the intellect rather than the body" (1999: 144). Although the concept of a blend between two domains motivates the possible combination of an adjective with a noun which are semantically incompatible, blending theory does not allow to go further than that, i.e. determine the respective roles of the adjective and the noun

in the metaphorical predication. The framework of Conceptual Metaphor Theory allows for more systematicity as it starts from the 'X is Y'-predication and looks at the linguistic realization of this predication. That is why we rather rely on this framework for the analysis and classification of the data.

3. A cognitive linguistics framework for the exploration of ANPs

It is the merit of Sullivan (2013) to have proposed a more fine-grained analysis of ANPs which integrates several frameworks and descriptive concepts. Like most studies on adjective-noun combinations, Sullivan (2013) starts from the distinction between predicating vs. non-predicating adjectives, which she illustrates respectively with the examples *beautiful princess* (predicating) vs. *electrical engineer* (non-predicating) (2013: 7). The predicating adjective expresses properties characterizing the noun, e.g. 'the princess is beautiful', whereas the non-predicating adjective refers to a specific domain (see also Croft 2003). Thus, an electrical engineer is not an engineer who is electrical, but one who is specialized in electricity issues. This leads Sullivan (2013: 7) to adopt Sweetser's (1999: 144) term "domain adjective" to qualify non-predicating adjectives. Domain adjectives have also been called "classifying adjectives" (Warren, 1984: 241), they (sub)classify the entity described by the noun according to the area that characterizes it. Thus, the adjective in *electrical engineer* refers to the area in which the engineer is working. Geckeler (1971: 241) rather speaks of "relational adjectives" because there is a relation between the adjective and an underlying ground morpheme – which is a noun in most cases. Geckeler (1971: 241) establishes some further characteristics of relational adjectives: they cannot build a comparative form or express grading, they cannot be used with diminutive or augmentative suffixes and cannot be used in a predicating way (see also Bolinger, 1967). Considering that at the conceptual level metaphors are defined as mapping one domain onto another one, the term "domain adjective" is preferred in this paper because it can refer to the notion of metaphorical domain as well (see the definition of this term hereunder).

As already observed in the introduction, the surface structure of ANPs is polysemous. This leads Sullivan (2013) to distinguish between two construction types with different constructional semantics for the ANPs. The nominal phrase with a predicating adjective like *beautiful princess* is a so-called "predicating modifier construction" (2013: 7) because the adjective indeed modifies the semantics of the noun. By contrast, a non-predicating example like *electrical engineer* is a "domain construction" (2013: 7) as it contains a domain adjective. This distinction is especially relevant for the analysis of metaphorical ANPs. In the predicating modifier construction, the adjective and the noun are both used literally, they are

semantically compatible. In domain constructions a metaphorical adjective can appear with a literally used noun or inversely, a literal adjective is used with a metaphorical noun (see Section 4 for more details).

Non-predicating domain constructions are often more difficult to understand. In order to process their meaning Sullivan (2013) suggests to look at the zone (or facet of an entity) which is being activated (Langacker, 1987: 272) in the specific domain construction. Langacker (1987: 272) points to the fact that

> [e]ntities are often multifaceted, only certain facets being able to interact with a particular domain or play a direct role in a particular relationship. Those facets of an entity capable of interacting directly with a given domain or relation are referred to as the active zone of the entity with respect to the domain or relation in question.

Activated zones are context-dependent, e.g. when one speaks of a car, different aspects of a car can be involved, like the car as transportation vehicle in the sentence *Mary picks her children from school by car.* Or one thinks of the 'machine/engine' dimension when one says *I had to bring my car to the garage as it completely broke down.* The definition of the different facets of an entity is dependent on our encyclopedic knowledge about categories around us. According to Fillmore (1982) this knowledge is organized in frames. In the car example above, this means that there are several frames which can be associated with such an 'object'. More specifically, the car as a transportation means evokes a frame with a driver, persons or objects being transported, a trajectory, a possible source and a goal. This frame includes further information, e.g. about the driver who must have a driving license, the roads and the signs, the speed, etc. In adjective-noun combinations too the adjective can refer to a specific active zone of the entity described by the noun. Let us look at a few examples.

(1) *Politisches Tauwetter in Budapest* [H][4]
Lit. 'Political thaw weather in Budapest' (Die Welt 24.4.1982)
Größerer Spielraum der Kirche möglich / Vermittelt Ungarn zwischen den Blöcken? [ST]
Lit. 'Greater latitude of the church possible / Does Hungary mediate between the blocks?'

4. The data are part of a larger sample of examples collected by the author. Because the interpretation of each example – as shown in the following sections – is dependent on the context in which the ANP appears, the following abbreviations are used to specify whether the example appears in a headline [H] or in the following text [T]. Moreover, [ST] is used to specify the subtitle which sometimes accompanies the headline and which may facilitate the understanding of the ANP.

Einiges deutet darauf hin, dass der Vatikan und die Kirchenführer und damit die katholische Kirche in Ungarn künftig mehr Handlungsfreiheit haben werden als bisher. […] Dies deutet darauf hin, dass Ungarn in Zukunft ähnlich wir Rumänien eine gewisse Vermittlerrolle zwischen den Ländern beider Blöcke spielen möchte. [T]

Lit. 'There are indications that the Vatican and church leaders, and thus the Catholic Church in Hungary, will in future have more freedom of action than before. […] This indicates that in the future, similar to us, Hungary would like to play a certain intermediary role between the countries of both blocs.'

(2) *Die soldatische Frau* [H]
Lit. 'The soldier-like woman' (Die Welt, 5.05.2016)
Dass Frauen stark sind und auch kämpfen können, geschenkt. In der Bundeswehr geht es um Kitas und schwangere Soldatinnen. [ST]
Lit. 'That women are strong and can also fight, this we know. The German army is concerned with day-care centres and pregnant female soldiers.'

Our knowledge of the frames of politics (Example (1)) and the military (Example (2)) allows mental access to the activated zone of the ANPs. More concretely, the political frame – as many examples in journalese refer to political issues – includes information about actors called politicians, elections, laws, the parliament, political parties, issues to be discussed, votes, etc. As our examples are drawn from German newspapers, more specific knowledge of the frame related to German politics is needed as illustrated by the following example,

(3) *Der Regierung fehlt sozialdemokratisches Gesicht* [T]
Lit. 'Government lacks socio-democratic face'
(Hamburger Abendblatt 12.3.2015)
Was aber der SPD vor allem fehlt, ist ein Gesicht, eine Persönlichkeit. Kurt Beck ist dies in den Augen der meisten Deutschen nicht. Selbst die Genossen stehen mehrheitlich eher zu Angela Merkel als zu ihrem eigenen Parteivorsitzenden. [T]
Lit. 'But what the SPD is missing above all is a face, a personality. Kurt Beck is not that in the eyes of most Germans. Even the comrades are majority to Angela Merkel rather than their own party chairman.'

This frame includes knowledge about the election of chancellors, the specific parties in Germany, etc. As is shown hereunder frames play a major role in the understanding process of metaphorical ANPs. The difficulty with metaphorical ANPs depends on the fact that the zone activated by the domain adjective does not necessarily refer to expected properties of the zone activated by the noun. Thus, in Example (3) the zone activated by the adjective refers to a political party by personification which at first sight has nothing to do with a person's face. As the present study focuses on

'metaphorical' ANPs, it is necessary to briefly present the theoretical framework selected for the description of metaphors. In the introduction metaphor has been described as a mapping of (an element or an aspect of) a source domain onto (an element of) a target domain. The mapping is based on a similarity relation, i.e. 'X is Y'. The understanding process of metaphors thus consists in recognizing both domains involved as well as the mapping between both domains. Syntactically, the metaphor can be expressed in various ways, viz. with appositions in which no copula is used, e.g. *His politics*, *a roller coaster*! or in noun phrases with genitive complements, e.g. *He has a wealth of ideas* (Lakoff & Johnson, 1980: 48). Even compounds can realize a part of the metaphorical mapping, e.g. *Zitronenmond* ('lemon moon'), *Kirschmund* ('cherry mouth') (Schmid, 2012).[5] Against this background the main issue related to the interpretation of metaphorical ANPs in the framework of Conceptual Metaphor Theory is to define the ANP-internal metaphor, i.e. see which roles are played respectively by the adjective and the noun and recognize the contribution of the construction. Theoretically there are several possibilities:

i. The adjective is used literally and the noun is metaphorical.
ii. Inversely, the adjective can be metaphorical and the noun used literally.
iii. Both adjective and noun are literal, but the whole ANP construction refers to the source domain for a target domain referred to by the larger context.

The ANP provides an overall figurative constructional frame and tends to influence the metaphorical use of both the adjective and the noun in the ANP. Section 4 deals with the different possibilities in detail.

4. A semantic and conceptual study of metaphorical ANPs

As already explained in Section 1, it is the aim of this paper to analyze the semantics that can be conveyed by the polysemous syntactic structure ANP and to offer a more fine-grained analysis of the possible instantiations of this structure. The data for the present study have been collected in German journalistic texts selected by the author in the daily newspapers *Die Welt* and *Das Hamburger Abendblatt* and the weekly newspaper *Die Zeit*.[6] The use of metaphorical ANPs is widespread in all three newspapers in spite of their different style registers, *Die Welt* and *Die Zeit* being better quality papers than the local *Das Hamburger Abendblatt*.

5. For further syntactic possibilities and examples see Schmid (2012).

6. For the sake of completeness some more examples have been extracted from other German texts like the television magazine *Funk Uhr*.

For our analysis we start from the constituents of the ANP and we examine whether they are used literally or metaphorically, whether the adjective is predicating or not and which domain (source or target) is instantiated by the adjective and noun. These criteria allow to classify the examples. Let us look at the different categories in detail.

4.1 Adjective [literal] + noun [metaphorical]

Most metaphorical ANPs in German journalistic texts belong to this category. All the ANPs in this category are non-predicating, they consist of a domain adjective used literally and combined with a metaphorical noun which conceptualizes the source domain, as illustrated by (4) and (5).

(4) *Sozialdemokratischer Flirt mit den Grünen* [H]
Lit. 'Social democratic flirt with the Greens' (Die Welt, 10.06.1982)
SPD-Frauen, Jusos und Hamburgs Ex-Bürgermeister Klose raten zu Verhandlungen über Zusammenarbeit mit der GAL. [ST]
Lit. 'SPD women, Jusos and Hamburg's ex-mayor Klose advise negotiations on cooperation with the GAL.'
Auf der Suche nach einer regierungsfähigen Mehrheit wächst bei Sozial-demokraten in Hamburg der Wunsch, es doch mit der Grün-Alternativen Liste (GAL) zu versuchen. [T]
Lit. 'In the search for a governing majority of Social Democrats in Hamburg grows the desire to try it with the green alternatives list (GAL).'

(5) *Politisches Tauwetter in Budapest* [H]
Lit. 'Political thaw weather in Budapest'
Größerer Spielraum der Kirche möglich/ Vermittelt Ungarn zwischen den Blöcken? (ST)
Lit. 'Greater latitude for the church possible/ Does Hungary mediate between the blocks?' (Die Welt, 24.04.1982)
Einiges deutet darauf hin, dass der Vatikan und die Kirchenführer und damit die katholische Kirche in Ungarn künftig mehr Handlungsfreiheit haben werden als bisher. […] Dies deutet darauf hin, dass Ungarn in Zukunft ähnlich wir Rumänien eine gewisse Vermittlerrolle zwischen den Ländern beider Blöcke spielen möchte. [T]
Lit. 'There are indications that the Vatican and church leaders, and thus the Catholic Church in Hungary, will in future have more freedom of action than before. […] This indicates that in the future, similar to us, Hungary would like to play a certain intermediary role between the countries of both blocs.'

The adjective refers to the target domain, it is itself grounded in a metonymy which motivates the link between the property expressed by the adjective and the target domain that it stands for. The identification of the target domain and the conceptual metaphor in such ANPs constitutes a challenge for the reader. This can only happen by referring to the frames about the concepts expressed by the adjective and further by the nominal context – sometimes also by further contextual clues – in the ANP. For instance, several examples of ANPs contain the adjective *politisch* (Example (5)) which activates a specific frame about political events (see description of this frame in Section 3). The adjective *sozialdemokratisch* (Example (4)), evokes the same political frame, while focusing on political parties. In this sense, both examples (4) and (5) refer to the same frame, but they elaborate on different active zones of politics.

In the same way, information about the source domain is also structured in frames. In Example (5) *Tauwetter* ('thaw weather') refers to the source domain which concerns METEOROLOGICAL EVENTS. The information about this source domain includes knowledge about the disappearance of obstacles like snow or ice, a more relaxed situation for the traffic or for persons moving, the travelling situation getting better or easier, and so on. Hence, the mapping of *Tauwetter* ('thaw weather') onto *politisch* ('political') – which is itself a metonymy for political events – refers to the idea of a more relaxed situation in politics. The context *in Budapest* brings some more clues about the country with the relaxed situation, namely Hungary.

An interesting example is (6) where two ANPs realize the same frame of a dog (once as a whole and then with its bodypart), but also the same political frame as target domain with the words *kommunistisch* and *sozialistisch* as in Example (4) and (5):

(6) *Auch bei den Parlamentswahlen von 1977 wirkte Mitterrand noch wie die Geisel der französischen K[ommunistischen] P[artei]; der kommunistische Schwanz schien mit dem sozialistischen Hund zu wackeln.* [T]
Lit. 'Even in the 1977 parliamentary elections, Mitterrand still acted like the hostage of the French Communist Party; the communist tail seemed to wiggle with the socialist dog.' (Die Zeit, 15.05.1981)

In this example the source domain ANIMALS is mapped upon political events as the target domain, which is referred to with the communist party and the socialist president Mitterrand.

Journalistic texts contain a rich trove of examples with different metaphorical source domains for political issues or events as target domain, as illustrated by

(7) *Politischer Brückenbau über den Kanal* [H]
Lit. 'Political bridge building over the Channel' (Die Welt, 12.09.1981)
Mitterrand wünscht Schutz des EG-Marktes auch vor Produkten aus den USA [ST]
Lit. 'Mitterrand also wishes to protect the EC market from products from the USA'

(8) *U-Bahn-Fahrt wird zur politischen Safari* [H]
Lit. 'Underground-journey becomes a political safari' (Die Welt, 08.07.1982)
Im Berliner „Untergrund" gibt es immer wieder Probleme [ST]
Lit. 'In the 'underground' of Berlin there are repeatedly problems'

(9) *Sozialdemokratischer Flirt mit den Grünen* [H]
Lit. 'Social-democratic flirt with the Greens' (Die Welt, 10.06.1982)
SPD-Frauen, Jusos und Hamburgs Ex-Bürgermeister Klose raten zu Verhandlungen über Zusammenarbeit mit der GAL [ST]
Lit. 'SPD women, Jusos and Hamburg's ex-mayor Klose advise negotiations on cooperation with the GAL'
Auf der Suche nach einer regierungsfähigen Mehrheit wächst bei Sozialdemokraten in Hamburg der Wunsch, es doch mit der Grün-Alternativen Liste (GAL) zu versuchen. [T]
Lit. 'In the search for a governing majority of Social Democrats in Hamburg grows the desire to try it with the green alternatives list (GAL).'

ISSUES IN POLITICS are seen as a BUILDING PROCESS (e.g. 7), as AN ADVENTURE (Example (8)), or as HUMAN RELATIONS (Example 9). In this last example the domain adjective refers to an agent, namely to the socio-democratic party.

The next examples do not concern politics, they refer to different target domains,

(10) *Die soziale Zeitbombe tickt unüberhörbar* [H]
Lit. 'The social time-bomb ticks unmistakably'
Ausländer / Heute beträgt der Anteil in Frankfurt rund 22 Prozent – und seine Zahl steigt ständig weiter an [ST]
Lit. 'Foreigners / Today the share in Frankfurt is around 22 percent – and its number continues to rise steadily' (Die Welt, 11.03.1981)

(11) *Porträt des Autors, der Nachkriegsdeutschland in einem literarischen Röntgenbild fixierte* [ST]
Lit. 'Portray of the author, who recorded after-the-war-Germany in a literary x-ray picture' (Die Zeit, 23.10.1981)

Example (10) illustrates the conceptual metaphor ARGUMENT IS WAR, whereas Example (11) realizes the primary[7] metaphor KNOWING IS SEEING. This last example also instantiates the source domain MEDICINE for the target domain LITERATURE.

Before we close this sub-section we want to discuss an interesting example which shows how important it is to analyze the construction-internal predication of the ANP.

(12) *Königliche Arbeiterin* [H]
Lit. 'Royal worker' (Die Zeit, 19.03.1982)

At first sight and without further context – which is the case when the ANPs build short headlines as in this example – this ANP construction will be understood as predicating and literal, i.e. (12) as *Die Arbeiterin ist königlich* ('The worker is royal' = behaves like a queen). With the first sentence of the article, namely *Ist die Tätigkeit der englischen Königin Arbeit?* [T] (Lit. 'Is the activity of the English Queen work?') the example has to be reinterpreted. The text describes the many duties of Queen Elisabeth II who is not a worker, but who works hard. As a consequence, Example (12) has an equative meaning, i.e. 'Die Königin ist eine Arbeiterin' with the adjective referring to the target domain and the noun to the source domain. By contrast with the other examples discussed in this category, the adjective in Example (12) is not the metonymical expression of the target domain, but instantiates the target domain as such. The apparently literal ANP instantiates in fact an underlying metaphorical predication.

4.2 Adjective [metaphorical] + noun [literal]

Examples of ANPs in which the adjective realizes the source domain for the target domain expressed by the noun can also be found in journalistic texts, they are favored in headlines. Let us look at some examples:

(13) *Mörderischer Besuch* [H]
Lit. 'Murderous visit' (Funk Uhr, 6.12.2009)

(14) *Ein mörderischer Pfleger* [H]
Lit. 'A murderous carer' (Hamburger Abendblatt, 27.02.2015)

Without any contextual clue, both examples of ANPs are understood as predicating and not metaphorical – just like Example (12) in the above category –, e.g. (13) *Der*

7. The term 'primary metaphor' has been introduced by Joseph Grady (1997) to qualify conceptual metaphors that belong to our basic experience as human beings.

Besuch ist mörderisch ('The visit is murderous').[8] Example (14) can be understood as *Der Pfleger ist mörderisch* ('The carer is murderous'). With the extended context though, the examples have to be reinterpreted as follows:

(13′) *Der Besuch ist ein Mörder*
Lit. 'The visit(or) is a murderer'
TV-Krimi. 5 Mio. Zuschauer sahen im Nov. 2009 „Die Seele eines Mörders", die erste Verfilmung eines Batya-Gur-Krimis. [ST]
'Lit. TV thriller. 5 million viewers saw "The Soul of a Murderer" in Nov. 2009, the first film adaptation of a Batya Gur thriller.'

In the same way, the headline *Ein mörderischer Pfleger* ('A murderous carer') (Example (14)) can be reinterpreted as *Der Pfleger ist ein Mörder* ('The carer is a murderer') when reading the first sentence of the subtitle:

(14′) *Im Prozess gegen den ehemaligen Klinikmitarbeiter Niels H., der mindestens fünf Menschen umgebracht hat, fiel am Donnerstag das Urteil: Lebenslang und eine besondere Schwere der Schuld.* [ST]
Lit. 'In the trial against the former clinic employee Niels H., who killed at least five people, the verdict was passed on Thursday: lifelong and a particular severity of guilt.'

With the contextual clues it becomes clear that examples (13) and (14) have a literal meaning, the apparent metaphoricity of the ANPs results from the constructional process. These examples are not really metaphorical. In this sense they are different from Example (12) *Königliche Arbeiterin,* an apparently literal ANP which instantiates a metaphorical predication, i.e. 'Die Königin ist eine Arbeiterin'.

The following example also contains the adjective *mörderisch* ('murderous'), but has to be interpreted differently:

(15) *Mörderisches Musical am English Theatre gefeiert* [H]
Lit. 'Murderous musical celebrated at the English Theatre'.
(Hamburger Abendblatt 25.04.2015)
Schon 1929 nutzte Patrick Hamilton den Mord als Vorlage für sein Stück „Rope", Alfred Hitchcock drehte darüber 1948 seinen Thriller „Cocktail für eine Leiche". [T]
Lit. 'As early as 1929 Patrick Hamilton used the murder as a model for his play "Rope", Alfred Hitchcock turned 1948 his thriller "Cocktail for a corpse".'

8. In a figurative sense, *mörderisch* ('murderous') can be used with the meaning of 'straining', e.g. the visitors are very straining.

With a closer look at the context – especially the expression *English Theatre* – we can understand what is precisely meant: the ANP is neither predicating, the musical not being murderous, nor can it be interpreted as examples (13) and (14) above, namely **ein Mörder ist ein Musical* (*A murderer is a musical'). What is referred to in this example is the plot of the musical which deals with a murder, i.e. the adjective *mörderisch* ('murderous') is again an autonomous denominal adjective which refers metonymically to the plot of the musical (metonymy: PART FOR WHOLE). The ANP is not predicating and its metaphoricity results from the combination of the denominal adjective with the noun in the ANP which is characterized by semantic incompatibility.

The following Example (16) can be interpreted in the same way as Example (15):

(16) *Himmlisches Vergnügen mit „Sister Act"* [H]
Lit. 'Divine/Celestial pleasure with "Sister Act"'
(Hamburger Abendblatt, 05.12.2010)

In this example the ANP is accompanied by a prepositional phrase which refers to the musical "Sister Act". In this film, the actress Whoopi Goldberg plays the role of a nun who cheers up the other nuns in the convent with her music. Now we can understand the motivation behind the word *himmlisch* ('celestial') as nuns are supposed to be representatives of God in heaven on earth. *Himmlisch* activates a specific frame, with which God, nuns, and convent are associated. The adjective *himmlisch* is the metonymical expression of the nuns who play a role in the musical "Sister Act". The film brings a lot of fun, this motivates the use of *Vergnügen*.

The importance of the context for the understanding of ANPs is again obvious in the following example:

(17) *Lesen – ein prickelndes Erlebnis* [H]
Lit. 'Reading – a sparkling experience' (Hamburger Abendblatt, 28.04.2015)
Kritiker Denis Scheck erhielt den „Champagne-Preis für Lebensfreude" aus der Hand Frank Schätzings [ST]
Lit. 'Critic Denis Scheck received the "Champagne Prize for joie de vivre" from Frank Schätzing's hand'

In this example the necessary information to remotivate the meaning of the ANP is quoted in the subtitle: *Champagne-Preis für Lebensfreude* ('Champagne prize for joie de vivre'). Champagne is a sparkling drink, the link between *prickelnd* and 'champagne' is again metonymical. When you drink champagne, you are supposed to experience some pleasure, this motivates the use of *Erlebnis* in the ANP.

The discussion of the examples in the categories 4.1 and 4.2 reveals that metaphoricity can be elaborated in different ways in ANPs. Either there is a semantic incompatibility between the adjective and the noun, the adjective referring to the

target domain and the noun to the source domain (see category 4.1). Or the ANP is apparently metaphorical (category 4.2). In this case no metaphorical mapping is being expressed but the construction looks as if it were metaphorical. Both categories 4.1 and 4.2 are construction-internal metaphors. The following category looks at construction-external metaphors.

4.3 Adjective + noun [metaphorical]

The nominal phrase as a whole can represent the source domain, as illustrated in Example (18):

(18) *Die Börse – Seherin, launische Dame oder hysterische Frau?* [H]
Lit. 'The stock market – prophetess, lunatic lady or hysterical woman?'
(Die Welt 25.2.1983)

The target domain is the stock-market, the 'lunatic lady' or the 'hysterical woman' is the linguistic expression of the source domain as a whole. In this case the adjective is predicating the noun. This personification metaphor is based on a metonymy as stock exchange rates are known to fluctuate, to be unpredictable. The following example illustrates at its best the conceptual metaphor ARGUMENT IS WAR and further the 'dueling' frame, which is at play in this metaphor:

(19) *Mit teutonischem Breitschwert* [H]
Lit. 'With Teutonic broadsword' (Die Zeit 15.5.81)

This headline comes with the following text and can only be understood with this text:

> *Erster Eindruck: Mitterand und Giscard fechten ein Duell aus, das den Betrachter aus der Bundesrepublik Deutschland verwirrt. So plump und grobschlächtig und allgemein, ganz wie im eigenen Land, hatte er sich die Debatte nun wirklich nicht vorgestellt. (…) Statt mit maliziös gespitztem Florett schlugen die Franzosen mit teutonischem Breitschwert aufeinander ein…* [T]
>
> Lit. 'First impression: Mitterrand and Giscard fight a duel that confuses the viewer from the Federal Republic of Germany. He had not really imagined the debate to be so clumsy and coarse and general, just like in his own country. (…) Instead of a maliciously sharpened foil, the French beat each other with a Teutonic broadsword…'

The ANP *teutonisches Breitschwert* as a whole is the expression of the source domain for a target domain which deals with the language of politics. The metaphorical ANP is embedded in a larger context which is based on the 'dueling' frame. The expressions *fechten* ('fight with a sword'), *gespitztem Florett* ('sharpened foil'), or *schlugen* ('beat') all sustain the same frame. The adjective *teutonisch* is predicating.

ANP-external metaphors are characterized by a predicating adjective – which is not a domain adjective – combined with a noun. Both constituents are semantically compatible, they can refer to the source domain as a whole for a target domain referred to by other elements of the context.

4.4 Contextual information with pictures

It has become clear that the role of the context for the correct interpretation of the ANPs is often essential. Up to now only verbal contexts have been discussed. Sometimes newspapers add pictures to the texts, they can sustain the understanding of the ANPs. Here is an example:

(20) *Titanische Kämpfe* [H]
Lit. 'Titanic fights' (Welt am Sonntag, 04.10.2015)

This example is the headline to an article with a picture of the actress Kate Winslet. Without reading the article, *Titanische Kämpfe* could be understood literally, i.e. as a predicating phrase. The adjective is lexicalized with the meaning of exceptional strength, size, or power and thus is compatible with the noun *Kämpfe*. But the picture of Kate Winslet, who played in the famous film "Titanic", associated to this headline guides the reader to another interpretation. The adjective is derived from the name of the ship and film. As to the motivation for the use of the word *Kämpfe* ('fights') in this context, it is necessary to read the following article. It deals with the actress's trouble (realized as 'fights') with her several marriages. Thus, the headline *Titanische Kämpfe* can be interpreted as one of the examples described in Section 4.1 in which the domain adjective is the metonymical expression for the actress, i.e. FILM FOR ACTRESS.

Another example is

(21) *Mausige Weihnachtsgeschenke* [H]
Lit. 'Mausy Christmas presents' (Die Welt 19.12.2016)

Example (21) *Mausige Weihnachtsgeschenke* ('Mausy Christmas presents') appears with the picture of the well-known little cartoon mouse which plays the main role in "Die Sendung mit der Maus" ('The programme with the mouse'), a series for children on German television. Thus, the denominal adjective *mausig* directly refers to this little mouse, it is the metonymical expression for the series with the mouse. The adjective is not predicating, but a domain adjective for the series. It reminds of Example (15) *Mörderisches Musical am English Theatre gefeiert* (Lit. 'Murderous musical celebrated at the English Theatre') and the other examples of category 4.2 quoted above. It is not metaphorical.

Verbal and pictorial clues can be combined as illustrated by the following example:

(22) *Die soldatische Frau* [H]
Lit. 'The soldier-like woman' (Die Welt, 5.05.2016)

Example (22) refers to women who become soldiers. This can be interpreted when looking at the subtitle of this headline:

> *Dass Frauen stark sind und auch kämpfen können, geschenkt. In der Bundeswehr geht es um Kitas und schwangere Soldatinnen.* [ST]
>
> Lit. 'That women are strong and can also fight, this we know. The German army is concerned with day-care centres and pregnant female soldiers.'

A picture representing a female soldier carrying a baby sustains the interpretation. This example reminds of Example (12) *Königliche Arbeiterin* (Lit. 'Royal worker'; Die Zeit, 19.03.1982), which is equative and not metaphorical.

We close this section with the discussion of a last complex example which 'plays' with the possible meanings of the adjective in the nominal phrase, e.g.

(23) *Dosierte Freiheit* [H]
Lit. 'Dosed freedom (= in dosis)'
"Tzisch" – warum der Schluck aus dem Weißblech überlebt hat [ST]
Lit. '"Tzish" – why the sip from the tinplate survived'
(Hamburger Abendblatt, 18.08.2004)

The attributive adjective *dosiert* is the perfect participle of *dosieren* ('to dose', 'to divide into doses'). Literally, the nominal phrase would mean something like 'freedom which you get in small doses'. But with the accompanying picture depicting beer cans, the reader gets another clue as *dosiert* also contains the noun *Dose* which refers to cans, especially for beer or other soft drinks. The use of *dosiert* in this sense though is not common, one would rather use a prepositional phrase, e.g. *in Dosen* ('in cans').

There is further a subtitle, namely *Schluck aus dem Weißblech* ('gulp out of the tin plate'), which refers to the beer cans with the metonymy MATERIAL OF THE CANS FOR THE CANS. But still, it is necessary to read the text to understand what is meant with the noun *Freiheit* ('freedom') and connect the information in the text with our knowledge about the use of cans as containers for drinks in Germany. Some years ago, cans were supposed to be replaced by glass bottles for ecological reasons. The text reports about the new authorization to sell drinks in cans again, this motivates the use of *Freiheit* ('freedom'). In this example the metaphoricity

Figure 1. Picture of beer cans next to the text about *Dosierte Freiheit* (Hamburger Abendblatt, 18.08.2004)

of the ANP emerges from the use of a denominal adjective which refers to a polysemous noun either with the meaning of 'cans' or of 'dosis'. This last example illustrates how encyclopedic knowledge and verbal and pictorial clues are combined (for further details, see also Pérez Sobrino's (2015) study on multi-modality with metaphors).

To summarize, the ANPs we have just discussed are complex nominal phrases which require some metalinguistic reflecting to understand them. By contrast with the examples discussed in the category 4.1, e.g. *politisches Safari*, the ANP is not characterized by a semantic incompatibility between the noun and the adjective. As a consequence, the reader is first being misled as s/he will understand such examples as predicating constructions. But the adjective is denominal and so it refers to a noun. The metonymical association has to be identified as in (16) *Himmlisches Vergnügen,* (17) *Prickelndes Erlebnis* or (20) *Titanische Kämpfe*. Example (23) *Dosierte Freiheit* is not only characterized by a metonymy but further by a metalinguistic reinterpretation of the word *dosiert*. Consequently, the surprise effect for the reader is achieved (1) by the combination of a 'disguised' domain adjective with a noun in one construction and (2) by the derivational status of the adjective which represents another word class, namely a noun. The adjective can be defined as a 'fake' adjective in such constructions. The next section examines the nature of the adjective more closely.

5. The nature of domain adjectives

The description of the different types of ANPs in Section 4 has uncovered some differences in the nature of the adjectives in German non-predicating ANPs. Because the adjectives are domain adjectives, it does not surprise that most adjectives are derived ones. Indeed, domain adjectives are the metonymical expression of a concept mostly expressed by another word class, namely nouns. Accordingly, ANPs with simplex adjectives are not so frequent as they are mostly predicating and hence not autonomous. Still, among simplex adjectives, color adjectives are recurrent in journalese, which is understandable as they can be domain adjectives, as illustrated by the following examples:

(24) Die Zeiten der grünen Clownerie sind vorbei [H]
Lit. 'The times of the green clowning are over' (Die Welt, 12.08.1982)
Die Mehrheit im Landesvorstand der Grünen Liste – etwa 400 Mitglieder – akzeptierte dann auch den Vertrag „mit Bauchschmerzen", wie ein Vorstandsmitglied formulierte. Die „Zeit der Clownerie" sei nämlich vorbei. Wenn man in den Landtag einziehen wolle, würden Argumente und nicht der Handstand auf der Tagungsordnung stehen. [T]
Lit. 'The majority on the regional board of the Green List – about 400 members – then accepted the contract "with abdominal pain," as a board member formulated. The "time of clowning" is over. If you wanted to move into the state parliament, arguments and not the handstand would be on the agenda.'

(25) *Schmidt soll mit Breschnew über den „Gelben Regen" sprechen* [H]
Lit. 'Schmidt should talk with Breshnew about the "yellow rain"'
Die Versuche der Sowjets mit Giftgas / Gasraketen und chemische Kampfstoffe [ST]
Lit. 'The Soviet attempts with poison gas / gas rockets and chemical warfare agents' (Die Welt, 25.11.1981)

(26) *Fluß des „Weißen Goldes" gerät ins Stocken* [H]
Lit. 'Flow of "white gold" comes to a standstill'.
Italien/Der Marmor wird allmählich von anderen Materialien verdrängt [ST]
Lit. 'Italy: Marble is gradually replaced by other materials'
(Die Welt, 01.09.1981)

Either do they refer to the colors of political parties, like in Example (24) where *grün* refers to the ecological party in Germany[9] by metonymy. In this ANP the adjective

9. Colors characterize different political parties, i.e. black for the German Christian Democrats (CDU), red for the socialists (SPD) or yellow with a touch of pink for the liberal party (FDP), to name the most common parties.

is the metonymical expression of some activities by the ecological party which are seen as clowning. This example could be classified in the category described in Section 4.1. In Example (25) *gelb* ('yellow') refers to the color of the pollution resulting from the use of chemical weapons in some Asian countries. The rain is indeed yellowish, therefore this example is not metaphorical, but literal. By contrast, 'white gold' in Example (26) refers to marble which is quoted in the subtitle: *Italien/ Der Marmor wird allmählich von anderen Materialien verdrängt* ('Italy: Marble is gradually replaced by other materials'). The whole ANP is the metaphorical expression of the source domain for marble. This example corresponds to type 4.3.

But most attributive adjectives in the ANPs are denominal, i.e. derived from nouns with productive German suffixes, e.g. *polit-isch* ('polit-ical'), *himml-isch* ('celest-ial'), *König-lich* ('roy-al'), *sozi-al* ('soci-al'), as seen in the above examples. Other suffixes are also possible, e.g.

(27) *Die soziale Zeitbombe tickt unüberhörbar* [H]
Lit. 'The social time-bomb ticks unmistakably'
Ausländer/Heute beträgt der Anteil in Frankfurt rund 22 Prozent – und seine Zahl steigt ständig weiter an [ST]
Lit. 'Foreigners/Today, the share in Frankfurt is around 22 percent – and its number continues to rise steadily' (Die Welt, 11.03.1981)

(29) *Konjunkturelle Bremsspuren dämpfen Leasingwachstum* [H]
Lit. 'Economic braking marks reduce the leasing growth'
(Die Welt, 19.04.1983)

Admoni (1970) observes that compared with other languages the amount of 'relational' (or domain) adjectives is rather low in German as they are somewhat "fremdartig" ('unfamiliar, strange') (1970: 145). This claim is not totally unmotivated: First, German is known to be a synthetic language (De Knop, 2015: 295; Hinrichs, 2004; Primus, 1997; Würstle, 1992) which favors compound ways of expression (see Gaeta & Schlücker, 2012). Accordingly, ANPs as more analytical expressions are in competition with compounds. Secondly, as stressed by Geckeler (1971; see also Kalik 1967) relational adjectives do not refer to a property expressed by the adjective itself, but to another ground morpheme. The meaning of the whole ANP with such relational adjectives is not obvious or unequivocal. This is even more obvious in cases of metaphorical ANPs with domain adjectives. But still, relational or domain adjectives are quite common in newspapers,[10] especially in metaphorical ANPs and they are very suitable to express different semantic and conceptual predications – as Section 4 has shown.

10. Having said this, we cannot provide any figures proving this claim. But this intuition relies on the amount of examples collected in newspapers.

6. Conclusions

The fine-grained study of the ANPs has shown that several dimensions and theoretical concepts are needed if we want to describe the semantic and conceptual variety of nominal phrases with an attributive adjective in a precise way. The distinction between predicating vs. non-predicating attributive adjectives is essential for the interpretation of metaphorical phrases. Non-predicating adjectives are domain adjectives which can either refer to the target domain of the conceptual metaphor (see the category described in Section 4.1). By contrast, in some cases the domain adjective refers to the source domain (category in Section 4.2). It is often necessary to recognize the metonymy which characterizes the link between the domain adjective profiling one aspect and the domain itself. This shows that metaphors are strongly interwoven with metonymy as the adjective often expresses a part of the metaphorical predication by metonymy.

The polysemous structure of ANPs can express different predications characterized by various properties. There can be a semantic incompatibility between the non-predicating literal adjective and the metaphorical noun, as instantiated in *sozialdemokratisches Gesicht* (Example (3) in category 4.1). By contrast, an example like (12) *Königliche Arbeiterin,* which seems to be literal at first sight, instantiates a metaphorical predication in which the domain adjective refers to the target domain and the noun to the source domain. The ANPs of category 4.2 contain a predicating adjective, which seems to be metaphorical in the ANP. They appear with a noun which is used literally. These ANP-constructions instantiate a literal predication, the metaphoricity results from the constructional process. The description of the different categories has revealed that the polysemous ANP can instantiate many different predications, either literal or metaphorical.

The interpretation of metaphorical ANPs is not always straightforward. The difficulties result from the following aspects:

1. The adjective is often non-predicating, this leads to a semantic incompatibility between the attributive adjective and the noun with which it appears. Sometimes this semantic incompatibility is simply due to the combination of the adjective with a noun, although it does not refer to a metaphorical predication.
2. The syntactic sequence does not necessarily reflect the semantics of the predication. This is particularly obvious with the examples in category 4.2.
3. As part of the metaphorical predication, the domain adjective refers to a specific domain by metonymy.
4. Finally, because the adjective in the metaphorical ANPs is often the result of denominal derivation, it refers to a noun which represents a domain. It is the construction which constrains the adjectival form of the domain.

No need to say that the context (verbal and/or visual) and our encyclopedic knowledge in the form of frames play a major role in the interpretation process of (metaphorical) ANPs.

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Metonymy meets coercion

The case of the intensification of nouns in attributive and predicative constructions in Spanish

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Drawing on Cognitive Construction Grammar (Goldberg, 2006), this chapter furnishes a usage-based analysis of coercion involving the intensification of a *prima facie* non-gradable category, such as nouns. Our data analysis reveals that, in present-day Spanish, intensifiers (e.g. *muy* 'very', *bastante* 'very', *completamente* 'completely', *totalmente* 'totally', etc.) can felicitously combine, in attributive and predicative contexts, with proper and common nouns connected with fairly disparate semantic areas such as celebrities, animals, internet, music, etc. In these cases, the intensifier coerces the noun into encoding a positive or negative property through a GENERIC FOR SPECIFIC metonymic parameterization (Ruiz de Mendoza Ibáñez and Pérez Hernández, 2001). The analysis proposed here can nicely capture the semantico-pragmatic commonalities in these two environments, while also accommodating the non-alternation of *muy* ('very') with other intensifiers in lower-level predicative configurations with a concessive interpretation.

Keywords: Cognitive Construction Grammar, intensifier, subjectivity, concession, constructionalization

1. Introduction

Emerging uses of the intensifier (or, alternatively, a degree modifier, Quirk et al., 1985; Fuentes Rodríguez, 1991, 2006) *muy* 'very' in present-day Spanish are particularly productive in the "X *es muy* N(=A)" construction (e.g. *Es muy Madonna* 'It is very Madonna'), in which the noun slot with a predicative adjective function in the predicative adjective slot (henceforth N(=A) slot, as in *Es muy ochentero* 'It is very eighties-like') necessarily involves metonymic inferencing.[1] In the data

1. Coercion of this kind can be taken to be very productive in other Romance languages such as French. See Lauwers (2014a, 2014b, 2018) for a constructionist account of nominal coercion in instances such as *C'est très théâtre, c'est-à-dire très faux* ('It is very theatre(-like), that means very fake').

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scrutinized in this chapter, which consists of naturally-occurring tokens attested in Google, metonymy involves using a category to refer to a member of the category, as in "She forgot to take the pill", where "the pill" refers to a specific type of pill, namely, "the contraceptive pill" (Kövecses and Radden, 1998, p. 53). Examples of this kind have been handled as instances of the CATEGORY FOR A MEMBER OF THE CATEGORY metonymy (Kövecses and Radden, 1998, p. 53) or, in the terminology adopted here, of the GENERIC FOR SPECIFIC metonymy (Ruiz de Mendoza Ibáñez and Pérez Hernández, 2001; Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014).[2]

The target construction analyzed in this chapter conveys a positive or negative forceful assessment by the speaker/writer of a given person, entity, event or state of affairs, with some interpretations exhibiting a higher degree of conventionalization than others, thus pointing to the crucial role that subjectivity plays in shaping its semantico-pragmatic and discourse-functional properties. From a syntagmatic viewpoint, this construction under scrutiny instantiates a stepwise, gradual transition from noun to adjective in the N(=A) slot (e.g. *Es muy Madonna* < *Es muy ochentero*) and can be said to give rise to a family of (sub)-constructions. Our analysis also reveals the existence of paradigmatic sets with other intensifiers (e.g. *muy* 'very', *bastante* 'quite', *completamente* 'completely', *totalmente* 'totally', *demasiado* 'too', etc.) in predicative and attributive contexts, which can be satisfactorily handled as instances of constructional change and/or constructionalization (Traugott and Trousdale, 2013; Trousdale, 2018).

The structure of this chapter is as follows: Section 2 outlines a general overview of Cognitive Construction Grammar (Goldberg, 2006). Section 3 briefly examines the relevance of metonymy, subjectivity and parameterization in shaping the most distinctive semantico-pragmatic hallmarks of nouns coerced by the intensifier(s) under scrutiny in this paper in attributive and predicative contexts. Section 4 examines in some detail the relevance of coercion (Michaelis, 2001; Gonzálvez-García, 2011a) to account for the existence of varying degrees of compatibility and thus acceptability of nouns modified by intensifiers in attributive and predicative contexts in present-day Spanish. Section 5 spells out the specifics of why the emerging uses of intensifiers surveyed in this chapter qualify as a case of incipient constructionalization (Traugott and Trousdale, 2013; Trousdale, 2018). Section 6 provides a fine-grained analysis of the types of metonymies that can be posited within the "X *es muy* N(=A)" construction in present-day Spanish. Finally, Section 7 summarizes the main findings and singles out some areas ripe for further future research.

2. The Google data on which this chapter draws was extracted and compiled over the period January 25, 2017-March 31, 2017.

2. An overview of Cognitive Construction Grammar

For current purposes, the central assumptions of Cognitive Construction Grammar (Goldberg, 2006) (CCG henceforth) and other cognitively-oriented constructionist approaches can be summarized as follows (see Butler and Gonzálvez-García, 2014). Grammatical constructions are recognized to be key free-standing theoretical entities with explanatory power, in contrast to the merely taxonomic status assigned to these in mainstream generative grammar. Drawing on CCG, the term "construction" is understood in the present chapter as defined by Goldberg:

> Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts of from other constructions recognized to exist. In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency.
> (Goldberg, 2006, p. 5)

CCG fully endorses the usage-based model (Langacker, 2000; Bybee, 2010, *inter alios*), which claims that language users store an impressive amount of item-specific knowledge, including relative frequencies of usage, and draw generalizations in the form of form-function patterns from the available input. This ties in with the assumption that constructions are learned on the basis of such an input, together with domain-general processes including attentional biases, principles of cooperative communication, general processing demands, and categorization processes. In addition, it is fully consistent with the finding that constructions have real psychological plausibility for language users and foreign language learners (Bencini and Goldberg, 2000; Valenzuela and Rojo, 2008; Eddington and Ruiz de Mendoza Ibáñez, 2010; Baicchi, 2015).

In this connection, it is important to bear in mind Langacker's observation that "lower-level schemas, expressing regularities of only limited scope, may on balance be more essential to language structure than high-level schemas representing the broadest generalizations" (Langacker, 2000, p. 3). Thus, lower-level configurations which may involve specific items, such as idioms (e.g. *ponerse el mundo por montera* 'to swing the world by its tail', *tener (a alguien) en gran estima* 'to hold (somebody) in high regard') are considered just as important as the more abstract configurations (e.g. the resultative construction, the passive construction, etc.). In constructionist approaches in general and CCG in particular, grammar can be best viewed as a massive network of interrelated constructions of varying degrees of generality/specificity and morphosyntactic complexity (from words to idioms to more abstract patterns such as argument structure constructions, topicalization, passive, etc.). In the words of Goldberg (2006, p. 18), "it's constructions all the way down".

A representative sampling of the inventory of constructions in English (and their Spanish counterparts) is reproduced in Table 1.[3]

Table 1. Examples of English constructions and equivalent Spanish counterparts, varying in size and complexity (based on Goldberg, 2006, p. 5)

Morpheme	*anti-*, *pre-*, *-ing* pre-N (e.g. *prepedido* 'pre-sell')	*anti*-N (e.g. *antinuclear* 'antinuclear'), *-ando/-iendo* (e.g., *caminando* 'walking', *riendo* 'laughing')
Word	*avocado*, *anaconda*	*idiosincrasia* ('idiosyncrasy'), *democracia* ('democracy')
Complex word	*daredevil*, *shoo-in*	*cambiachaquetas* ('turncoat'), *caradura* ('cheeky')
Idiom (filled)	*going great guns*	*ponerse el mundo por montera* ('to swing the world by its tail'), *prometérselas muy felices* ('to have high hopes')
Idiom (partially filled)	*jog <someone's> memory*	*¿Por qué no intentarlo?* 'Why not try it?', *tener (a alguien) en gran estima* 'to hold (somebody) in high regard')
Covariational Conditional	The Xer the Yer (e.g. *The more you think about it, the less you understand)*	*Cuanto* X, *expresión comparativa* Y 'Cuanto X, comparative expression Y' (e.g. *Cuanto más lo pienso, más dudas tengo* 'The more I think about it, the more doubtful I am'), *Cuanto antes, mejor* ('The sooner, the better'))
Resultative	Subj Obj OBL AP/PP (e.g. *Joe painted the barn red*)	Subj, V, DO, SXCOMP (e.g. *Dejó el plato bien limpio* ('He left the dish clean'), *Raid los mata bien muertos* ('Raid kills them stone dead'))
Passive	Subj Aux VP PP (PPby) (e.g. *the armadillo was hit by a car*)	Subj, (Auxiliary + Past participle), Prepositional Phrase (e.g. *El alumno fue premiado por el profesor* ('The student was awarded a prize by the teacher')

CCG subscribes to the view that "the primary function of language is to convey meaning" (Lakoff, 1987, p. 583). The conception of semantics advocated in CCG is based on speakers' construals of situations rather than on objective truth conditions. Thus, we can assume with Langacker (1991, p. 12) that "[w]hen we use a particular construction or grammatical morpheme, we thereby select a particular image to structure the conceived situation for communicative purposes."

3. The reader is referred to Boas and Gonzálvez-García (2014) for further reference on the theoretical and practical implementations of constructionist approaches to the analysis of Romance languages in general and Spanish in particular.

On the Goldbergian constructionist view (Goldberg, 1995, 2006), the language system is regarded as a structured, hierarchical inventory of constructions in which more basic (or high-level) constructions inherit features from more specific (or low-level) constructions. To this end, inheritance hierarchies are posited to capture generalizations on the vertical and horizontal relations between both levels in the constructicon.

3. On the role of subjectivity, metonymy and parameterization

Intensifiers carry subjectivity and expressivity (Athanasiadou, 2007; see Scheibman, 2002, pp. 1–16; Verhagen, 2005; Englebretson, 2007; Nuyts, 2012, *inter alios*, for different definitions of subjectivity). For current purposes, subjectivity is understood as "the way in which natural languages, in their structure and normal manner of operation, provide for the locutionary agent's expression of himself and his own attitudes and beliefs". (Lyons, 1982, p. 102). The fact that intensifiers encode expressivity is not surprising if we bear in mind Bolinger's (1972, p. 20) observation that "[i]ntensification is the linguistic expression of exaggeration and depreciation". The expressive potential of intensifiers can be seen, among other things, in the impossibility of combining an intensifier with an inflected superlative form, whether adjectival or nominal (e.g. *amabilísimo* 'most kind', * *muy amabilísimo*, lit. 'very most kind'; *los futbolísimos* 'those who love football very much', * *los muy futbolísimos*). Moreover, the expressive power of intensifiers is particularly obvious in cases in which the intensifier can serve hyperbolic purposes, as in *El iPad es muy iPad y mucho iPad* ('The iPad is a big ton of an iPad').[4]

Most of the literature on metonymy is drawn on the basic tenets of Lakoff and his collaborators that in metonymy "a mapping occurs within a single domain, and that there is a "stand for" relationship" (Lakoff and Johnson, 1980, p. 36). However, the Lakovian definition of metonymy is refined by Kövecses and Radden (1998, p. 39), who define it as a "cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the same domain, or ICM [Idealized Cognitive Model]" (material in brackets added).

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4. In this connection, it should be noted that instances of coerced N(=A) can be felicitously combined with the superlative expression *lo más* N ('the most N') with a hyperbolic reading: *'Vienes o voy' (…) es un gran track, de cuando el eurodance y el beat se apoderaban de la radio, de producción muy noventera, y si me preguntan, es lo más Madonna que le he escuchado, así que, Strike a pose.* ''Vienes o vas' is is a great track, typical of those days when eurodance and beat took over radio stations, with a very nineties-like production, and if you ask me, it's the most Madonna thing that I have heard him sing, so Strike a pose.'

Ruiz de Mendoza Ibáñez and Díez Velasco (2002, pp. 496–497) argue that there are two possible situations in a metonymic mapping: (i) one in which a whole domain, or matrix domain, stands for one of its sub-domains (as in the previous example "pill" stands for "the contraceptive pill"), and (ii) another in which a subdomain stands for its corresponding matrix domain (e.g. "All hands on deck", where by "hands" we refer to sailors who do hard physical work by virtue of the hands playing an experientially prominent role). Specifically, Ruiz de Mendoza Ibáñez and Díez Velasco (2002) refer to the former as cases of target-in-source metonymy and to the latter as cases of source-in-target metonymy. These authors view a matrix domain as a unitary framework of reference for a number of domains, which are parts of it. Thus, for instance, "hand", "elbows" and "wrist" all share the same matrix domain, that is, the notion of "arm" (Ruiz de Mendoza Ibáñez and Díez Velasco, 2002, p. 497). However, these two types of metonymic mappings can be seen to correlate with the two types of referential metonymy. Source-in-target metonymies involve domain expansion, that is, they give full access to the matrix domain by means of one of its sub-domains. By contrast, target-in-source metonymies involve domain reduction, which results in the subsequent highlighting of a relevant part of the domain (Ruiz de Mendoza Ibáñez, 2000).

Paradis (2008) concurs with Traugott and Dasher (2002, p. 35) that metonymy is crucially instrumental in language change. Specifically, Paradis contends that "[c]hange proceeds from non-conventionalized mapping between lexical items and their readings construed through a particular focus of attention that is contextually motivated" (2008, p. 332). In addition, the process of meaning change is regarded as a continuum from non-conventionalized to conventionalized form-meaning pairings. In this connection, it should be emphasized that Paradis's quote is consonant with the views expounded above on metonymy as based on contiguity expansion and reduction operations, where parameterization is a special case of the latter.[5]

Finally, let us briefly dwell on parameterization. Ruiz de Mendoza Ibáñez (2011) refers to parameterization as a cognitive operation involving cases where "the hearer is presented with a vague characterization that has to be pinned down in context" (2011, p. 116). Ruiz de Mendoza and Galera Masegosa (2014, p. 95) further argue that parameterization is

5. In this connection, an important asymmetry between the English tokens of the "X *is so* N(=A)" construction (Gonzálvez-García, 2014) and its "X *es muy* N(=A)" counterpart in Spanish should be noted. The elements eligible for occurrence in the A slot in the English construction show, on the whole, a higher degree of conventionalization than in Spanish, where the interpretation of the coerced element depends to a considerable extent on contextual parameterization and linguistic cueing.

> often the outcome of the application of the high-level metonymy GENERIC FOR SPECIFIC. This operation has the ability to make generic structure stand for more specific configurations. The natural side effect of the application of this metonymy is the adjustment of conceptual representations to *textual* and *contextual* requirements. The reason for its application is usually one of cognitive economy on the part of the speaker to the extent that the speaker places the burden of adjustment on the hearer's shoulders. (emphasis added to the original)

Therefore, parameterization is grounded in world knowledge and is cued by the linguistic expression (Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014, p. 205). On this view, parameterization could be taken to be "the specification of general conceptual material on the basis of textual and contextual information." (Ruiz de Mendoza and Galera Masegosa, 2014, p. 205).

As Ruiz de Mendoza Ibáñez (2011) rightly observes, the multiple senses of the word "good" illustrate the relevance of non-metonymic parameterization. More specifically, they instantiate a case in which a generic[6] lexical item can stand for a more specific one: "good, as in *a good person* ('kind'), *good feelings* ('tender'), *a good computer* ('high-quality'), *a good time* ('pleasant'), and *a good life* ('virtuous, admirable')" (Ruiz de Mendoza Ibáñez, 2011, pp. 116–117, emphasis in original). Following Ruiz de Mendoza Ibáñez and Galera Masegosa (2014, p. 142), it can be stated that we can parameterize from "good" to "kind", "high-quality", "pleasant", "virtuous" and so forth, because we perceive kindness, high quality, pleasantness, virtuousness, etc., as something positive and desirable, just like being good. Therefore, each of the senses of "good" qualifies as a cued interpretation of a vague characterization in the light of world-knowledge and/or contextual information, and all of these senses convey a positive assessment by the subject/speaker of a given person, entity, situation or event.[7]

Beyond the lexical level, parameterization has been shown to be operational at the illocutionary and discourse levels (see Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014, pp. 205–214 for further details).

At the illocutionary level, Ruiz de Mendoza Ibáñez and Galera Masegosa (2014, p. 213) contend that "the generic-level structure is not parameterized but only checked for consistency with the low-level structure of the situation in question." Thus, for instance, "I'm thirsty" can activate the part of the Cost-Benefit cognitive model according to which if someone is affected by a negative state of affairs

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6. In line with Ruiz de Mendoza Ibáñez (2011) and Ruiz de Mendoza Ibáñez and Galera Masegosa (2014), the term "generic" is taken in this chapter to mean 'semantically underspecified/vague'.

7. Paradis (2000) observes that adjectives are semantically underspecified and that we cannot grasp their full meaning potential in isolation, which lends further support to the need to invoke contextual parameterization for the actual interpretation of (polysemous) adjectives.

(i.e. feeling thirsty), other people could be expected to help him or her. Moreover, upon the inferential activation of the relevant subdomain of the same level (i.e. a change into a positive state of affairs for the speaker), the hearer will need to make recourse to a specific state of affairs spelling out how the state of affairs in question should be modified (for example, by giving the speaker something to drink).

Finally, at discourse level, parameterization can be taken to underlie semantic relations of (i) specification, (ii) exemplification, (iii) evidentialization, (iv) time, and (v) location (Ruiz de Mendoza and Galera Masegosa, 2014, pp. 209–213; see also Ruiz de Mendoza Ibáñez and Gómez González, 2014 for an even more comprehensive account of discourse relations). In the case of specification (e.g. "And let me tell you something: the whole thing stinks to high heaven", Ruiz de Mendoza and Galera Masegosa, 2014, p. 209), the parameterization makes use of the GENERIC-SPECIFIC propositional model. However, it should be emphasized that metonymy is not active here, since all information is encoded in an explicit way through an apposition relationship in which the second appositive elaborates the meaning of the first. In exemplification (e.g. "Other Nobel laureates have been nitwits, for instance Lord Russell", Ruiz de Mendoza and Galera Masegosa, 2014, p. 209), parameterization operates on the basis of an overt (cued) selection of the exemplifying items. Evidentialization ("This threat is continuing to this day, as is evidenced by the recent attacks in Indonesia and Israel", Ruiz de Mendoza and Galera Masegosa, 2014, p. 210) is based on the EVIDENCE-CONCLUSION cognitive pattern. More specifically, the evidence adduced (i.e. the recent attacks in Indonesia and Israel) serves to parameterize the generic statement encoded in the conclusion (i.e. the continuity of the threat of terrorism). Parameterization of time relations can be, according to Mairal Usón and Ruiz de Mendoza Ibáñez (2009, p. 176), of two types: (i) temporal contiguity (e.g. "Where does Holden go right after he leaves the bar?", Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014, p. 211) and (ii) temporal overlap (e.g. "Dad abandons daughter in hot car while he goes swimming", Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014, p. 211) (see Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014, p. 211 for a summary of the different kinds of parameterization underpinning the processing of temporal relations). Finally, in the case of place relations, parameterization proceeds through fixing and relating (see Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014, p. 212 for a summary of parameterization in spatial relations). The former involves specifing the exact location (e.g. "Kevin's mom's in the room", Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014, p. 212). The latter, as in the case of time relations, can be further broken down into spatial contiguity (e.g. "I […] found it where my geosenses [sic] said it would be", Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014, p. 212) and spatial overlap (e.g. "Sharissa Thule was below the window", Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014, p. 212).

4. The coercion of nouns in attributive and predicative contexts in Spanish

Drawing on CCG (Goldberg, 2006), this chapter furnishes a usage-based analysis of cases of coercion (i.e. the resolution of a conflict between lexical and constructional denotata; Michaelis, 2011; Gonzálvez-García, 2011a) involving the intensification of a *prima facie* non-gradable category, more specifically a noun, as in (1):

(1) *Y la cuestión es que Gaga* ***es muy/ bastante/ completamente/ totalmente Madonna***
And DEF.F.SG question be.PRS.3SG COMP Gaga[NAME] be.PRS.3SG very quite completely totally Madonna
'And the thing is that Gaga is very/quite/completely/totally Madonna'

In (1) the intensifiers *muy* ('very'), *bastante* ('quite'), *completamente* ('completely') and *totalmente* ('totally') combine with a celebrity name and coerce the name into having an adjectival construal. The categorial conversion in question is licenced by the high-level metonymy ENTITY FOR PROPERTY (or, to use a more explicit formulation, ENTITY FOR ONE OF ITS PROPERTIES), since we mention *Madonna* to actually refer to a property associated with Madonna. The semantico-pragmatic interpretation of this adjectival construal depends on the specific attribute or property associated by the speaker/writer in question to that object in a given context. Thus, in (1) *Madonna* is taken metonymically to refer to a highlighted property associated with this celebrity. More specifically, given that there is no overt cueing by the speaker/writer guiding its interpretation, *Madonna* could be understood as having a positive meaning, roughly similar to 'cool', 'stylish', 'sexy', etc., if uttered/written by someone who really likes Madonna.[8] By contrast, it could also be construed as having a negative import, thus meaning something like 'vulgar', 'silly', 'lame', etc., if the speaker/writer does not actually like Madonna.

The analysis of our database reveals that, in addition to proper nouns of several types (i.e. celebrities, brand names, cities, countries, movies, songs, TV shows, etc.), intensifiers (or, alternatively, degree modifiers) of the kind in (1) can felicitously combine with a considerable number of common nouns connected with fairly disparate semantic areas such as animals, events, internet, institutions, music, etc. In these cases, the intensifier coerces the noun into encoding a positive or negative property about a given entity/person/event through a GENERIC FOR SPECIFIC metonymic parameterization (Ruiz de Mendoza Ibáñez and Pérez Hernández, 2001; see also Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014 and Brdar and Brdar-Szabó, 2017 for an account of coercion in terms of metaphor and

8. The reader is referred to example (4) for a more explicit version of the metonymic coercion of this proper noun with overt linguistic cueing.

metonymy).[9] At a morphosyntactic level, coercion here involves the impossibility of the noun to co-occur with articles and determiners (e.g. * *El nuevo iPad es muy un iPad*, Lit. 'The new iPad is very an iPad'; * *Mariano Rajoy es muy un zorro*, Lit. 'Mariano Rajoy is very a fox') and the development of adjective-like properties, such as the feasibility of occurrence in predicative and attributive contexts as well as in the comparative of superiority and superlative forms. At a semantico-pragmatic and discourse-functional level, coercion involves a meaning shift, through parameterization and linguistic cueing, from the referential or denotational meaning of the noun to a specific property of the entity pinned down by the speaker/writer as being salient in the light of world knowledge and/or supporting contextual requirements. Very often, overt linguistic cueing, sometimes even in conjunction with parallel metonymic configurations, is deliberately used to guide the reader/hearer as to what the specific meaning intended by the writer/speaker is in that specific context.

Coercion of a nominal element through an intensifier can occur in present-day Spanish in attributive contexts, as in (2), as well as in predicative contexts, as shown in (1), (3), and (4):

(2) *Letizia ofrec-ió* ***un look muy/ bastante Óscar***
Letizia[NAME] offer-INDFPRET.1SG INDF.M.SG look very quite Oscar
'Letizia offered a very/quite Oscar look'

(3) *Es-o* ***son-ó muy/ bastante "Cuarto Milenio"***
DIST-N.SG sound-INDFPRET.3SG very quite Cuarto Milenio[NAME]
'That sounded very/quite "Cuarto Milenio"'

(4) *Te* ***veo muy/ bastante/ completamente Madonna…***
ACC.2SG see.PRS.1SG very quite completely Madonna
muy ochenter-a
very eighties-F.SG
'I see you very/quite/completely Madonna, very eighties'

In (2) the intensifier coerces a noun denoting an event (i.e. Hollywood's Academy Awards ceremony, where the best award is the Oscar statuette) into an adjectival, evaluative construal. The intensifier triggers metonymic inferencing because we

9. It would also be plausible to state that the reductions to a single positive or negative property (or related bundles of properties) triggered by parameterization in a way resembles the formation of a sort of local, online paragon-like entitities. I owe this observation to Mario Brdar. The validity of this observation is also grounded on the fact that coercion of a noun *via* an intensifier may be combined with *como* ('like') (*Es como muy Madonna* Lit. 'It is like very Madonna'), thus showing that there can certainly be a felicitous combination of metonymy and simile in Spanish (see Ruiz de Mendoza Ibáñez and Galera Masegosa, 2014, pp. 266–276 for further discussion of simile and resemblance operations). The interaction of metonymy in this construction with other figures of speech, such as hyperbole, is discussed in 6.4 (see also footnote 4).

mention a world-famous object to refer to a property or perhaps to a cluster or properties associated with that object (OBJECT FOR PROPERTY). Our knowledge of the world tells us that most people think that the Academy Awards ceremony is glamorous, elegant and classy and this is why a positive feature of this kind would perhaps be the preferred interpretation for the coerced noun in (2). However, given an adequate supporting context in which the speaker/writer is a (strong) detractor of Hollywood and the Oscar paraphernalia, the characteristic assigned would be negative (e.g. 'way too stereotyped', 'too formal', etc.).

In (3) the intensifiers combine with the name of a famous Spanish TV show that deals with paranormal phenomena (*Cuarto Milenio*). The intensifiers activate an EVENT FOR SALIENT CHARACTERISTIC metonymy whereby we mention the name of the TV show to actually refer to a prominent property associated with the show in question (e.g. 'strange', 'weird', 'spooky', etc.).[10]

Example (4), while showing the same type of metonymic inferencing as in (1), differs from it (as well as from (2)–(3)) in one important respect: through the use of syntactic parallelism, the speaker/writer juxtaposes the constructionally coerced celebrity's name with the adjective *ochentera* ('eighties-like'), thus providing linguistic cueing on the intended interpretation of the celebrity's name.[11] This contributes to resolving, at least in part, the semantic underspecification of the attribute resulting from metonymic inferencing. However, a fully-fledged working out of the actual semantico-pragmatic import of the constructionally coerced celebrity's name will ultimately depend on the actual context in which this construction is attested, and more specifically, on whether the speaker/writer actually likes the music style of the eighties or not.

Instances of the kind in (1)–(4) need to be distinguished from lower-level configurations where the element intensified is part of the concessive construction "*por muy* NP *que sea*", as in (5):

(5) a. ?*Felipe VI* ***es*** ***muy rey de España***[12]
Felipe VI[NAME] be.PRS.3SG very king of Spain[NAME]
'Felipe is very much the king of Spain'

10. An important terminological clarification is in order at this stage. The labels ENTITY FOR PROPERTY, OBJECT FOR PROPERTY, EVENT FOR CHARACTERISTIC are but alternative labels for the same basic phenomenon: entities and states of affairs can stand for their constituting elements and/or characteristic properties.

11. As Ruiz de Mendoza Ibáñez (2017, p. 143) explicitly argues, linguistic cueing, understood as a cognitive operation, basically consists in affording contingent access to conceptual structure related and/or consistent with that of the cueing item and its semantico-pragmatic associations.

12. In line with the conventions used in CCG, the # sign is used to reflect the fact that the combination in question is, under normal circumstances, unacceptable.

b. *El rey no deb-ería contest-ar así,* ***por muy /***
DEF.M.SG king NEG should-COND.3SG answer-INF that.way for very
****bastante/ *completamente rey de España que sea***
quite completely king of Spain[NAME] COMP be.PRS.SBJV.3SG
'A king should never answer that way, no matter how powerful as the king of Spain he may be'

In example (5a) *muy* 'very' combines with a noun phrase with an overwhelmingly identifying rather than characterizing value (i.e. "Felipe VI is the king of Spain" vs. "Felipe VI is a good king of Spain") (see further Halliday and Matthiessen, 2004, pp. 219–229; Quirk et al., 1985, pp. 741–743, *inter alios*, for the distinction between identifying and characterizing attribution). The decidedly identifying construal holding between "Felipe VI" and "the king of Spain" may at least in part explain why a gradable construction with *muy* ('very') yields an unfelicitous result. In (5b), as a consequence of a grammaticalization process, the intensifying meaning of *muy* 'very' is bleached in favour of a more grammatical function as a focusing subjunct or a highlighting device. The development of this grammatical function is favoured among other things by the occurrence of *muy* in a highly constrained context from a morphosyntactic viewpoint (i.e. as part of a lexically-filled-in construction, *por muy* X *que ser*-subjunctive) as well as a semantico-pragmatic standpoint (i.e. an asserted proposition with a concessive value) (see Traugott, 2003, p. 645 for a compatible context-induced view of grammaticalization). As a consequence of this grammaticalization process, *muy* undergoes a generalization of meaning and can felicitously combine with nominal elements, regardless of whether these are characterizing (i.e. *Por muy buen rey de España que sea*, … 'Even if he is a very good king of Spain') or identifying (i.e. *Por muy rey de España que sea*, … 'Even if he is the king of Spain').

Since CCG uses a non-monotonic inheritance system, it can successfully capture the commonalities among the two types of intensification with nouns in attributive (cf. (2)) and predicative (cf. (1), (3), (4)) contexts, especially the fact that the nouns are construed subjectively and need to be interpreted as instances of the GENERIC FOR SPECIFIC metonymy. In addition, it can also accommodate the fact that, in the concessive configuration (cf. (5a–b)) and as a result of a grammaticalization process (Bybee, 2003 and references therein), *muy* ('very') behaves more as a focusing element than as an intensifier, which explains its non-alternation with other intensifiers (e.g. *bastante* 'quite', *completamente* 'completely', *totalmente* 'totally', etc.) and the selection of a wider range of NPs than in its non-grammaticalized counterpart.[13]

13. The interested reader is referred to Elvira (2005) for a similar analysis for *aunque* '(al)though' in Spanish.

5. The gradable construction with *muy* ('very') as an incipient case of constructionalization

The convergence of *muy* ('very') with other boosters in predicative as well as attributive contexts can be adduced in support of the role of both formal and functional analogy in the establishment of coherent token sets (Fischer, 2007, p. 138), thus paving its way to constructionalization (Traugott and Trousdale, 2013; Trousdale, 2018).[14] Thus, consider (1) and (6a–d):

(6) a. *La canción es* ***un tema completamente***
DEF.F.SG song be.PRS.3SG INDF.M.SG topic completely
Madonna, *es lo que deb-ió hac-er*
Madonna[NAME] be.PRS.3SG DEF.N.SG REL must-INDFPRET.3SG do-INF
en "Bedtime Stories" y no le sal-ió.
in Bedtime Stories and NEG DAT.3SG INDFPRET.3SG
'The song is a completely Madonna one. She should have done this in "Bedtime stories" and it did not turn out well'
https://foros.fotech.cl/topic/192626-madonna-nuevo-cobra-rebel-heart-mientras-esperamos-el-nuevo-disco-de-la-reina-del-pop-escogeremos-la-mejor-cancion-de-su-disco-mas-reciente-inmune-holy-water-eliminadas-inside-out-y-wash-all-over-me/page-84

b. *Madonna* ***est-á siendo tan Madonna***
Madonna[NAME] be.AUX-PRS.3SG be.GER so Madonna[NAME]
que cans-a
COMP tire-PRS.3SG
'Madonna is being so Madonna that it makes you sick and tired'
https://jenesaispop.com/2012/03/27/102627/madonna-contesta-a-deadmau5/

c. *Al* ***ver*** *a la* ***inigualable reina del pop***
to.DEF.M.SG see.INF OBJ DEF.F.SG unmatched queen of.DEF.M.SG pop
cumpl-ir 50 año-s "tan bien manten-id-o-s", tan estilos-a *y*
turn-INF 50 year-PL so well keep-PTCP-M-Pl so stylish-F.SG and
tan Madonna, *es imposible no pregunt-ar-se…*
so Madonna[NAME] be.PRS.3SG impossible NEG ask-INF-REFL.3SG
¿qué est-aré haciendo yo?
what be-FUT.1SG do-GER 1SG
'After seeing the incredible queen of pop turn 50 and look so good for her age, so stylish, so Madonna, it is impossible not to wonder… what am I doing?'
http://tu.taconeras.net/tag/madonna/

14. Aarts (2007, p. 106) argues that the feasibility of a predicative use and an attributive use are two criterial features for the condition of adjective-hood in English. The same claim can be taken as valid for present-day Spanish, as shown by the perfect acceptability and productivity of configurations of the kind illustrated in this chapter.

d. – *Durante el espectáculo procur-o* ***ser más***
during DEF.M.SG show endevour-PRS.1SG be.INF more
Madonna que la propi-a Madonna
Madonna[NAME] than DEF.F.SG own-F.SG Madonna[NAME]
'During the show, I aim to be more Madonna than Madonna herself'
https://es-es.facebook.com/notes/…/240931595948801/

Example (6a) instantiates an attributive use of the intensifier coercing *Madonna* within a complex NP (i.e. *un tema muy Madonna* 'a very Madonna song'). In this context, the intensifier triggers a GENERIC FOR SPECIFIC metonymic inferencing process in which *Madonna* is taken to refer to a salient attribute connected with Madonna. In this particular example, in the absence of more specific linguistic cueing, the parameterization of this attribute could be glossed as something like 'personal'. In (6b) we find a predicative use in an intensive construction in which *Madonna* is coerced by *tan* ('so') in a correlative comparative construction (i.e. *tan Madonna que cansa*, 'so Madonna that it makes you sick and tired'). In this case, *tan* ('so') gives rise to an inference based on the GENERIC FOR SPECIFIC metonymic inferencing, whereby *Madonna* ends up conveying an adjectival construal. In the absence of more specific linguistic context, *Madonna* could be felicitously glossed as something like 'eccentric'. In (6c), *Madonna* combines with *tan* ('so') in a predicative context in a secondary predication frame, conveying an attribute of the direct object (i.e. *la inigualable reina del pop* 'the incredible queen of pop'). As in the previous cases, the intensifier prompts a metonymic GENERIC FOR SPECIFIC inferencing by means of which *Madonna* conveys an outstanding property connected with Madonna. In this specific context, that property could be pinned down as 'young, lively'. Finally, (6d) illustrates the coercion of *Madonna* in an attributive context within a comparative of superiority construction.[15] Again, *Madonna* is taken metonymically to refer to a specific property associated with this famous singer. In the light of the specific context in which this metonymic use is attested, the property in question could be glossed as 'authentic, genuine'.

15. Feasibility of occurrence in the comparative of superiority and superlative forms is considered by Aarts (2007, p. 106) and Denison (2010, p. 107) to provide incontrovertible evidence of adjective-hood in English. The validity of this observation can be duplicated for the Spanish counterpart construction under scrutiny in this chapter.

6. A fine-grained analysis of the "X *es muy* N(=A)" construction in present-day Spanish

This section offers a fine-grained semantic analysis of the nominal elements in the N(=A) slot of the "X *es muy* N(=A)" construction. It must be borne in mind that all the nominal elements attested here express a positive or negative evaluation by the speaker/writer of a given person, entity, event or state of affairs. In addition, all the cases under discussion here qualify as instances of target-in-source metonymy, and more exactly, as cases of the GENERIC FOR SPECIFIC metonymy discussed in Section 2 in which a salient property of a given person or object is parameterized as a positive or negative attribute in the light of world knowledge and, in some cases, in the light of contextual features, too. The specifics of the taxonomy of metonymies at work in this construction are summarized in Table 2.

Table 2. Taxonomy of metonymies in the "X *es muy* N(=A)" construction in Spanish

METONYMY		EXAMPLES
i.	CELEBRITY/ CHARACTER/ PROPER NAME FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT CELEBRITY/CHARACTER/PERSON	*Es muy Zapatero/Madonna/María* 'It is very Zapatero/Madonna/María'
ii.	ANIMAL FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT ANIMAL	*Es muy zorro* 'He is very cunning' (lit. 'very fox')
iii.	BRAND NAME FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT BRAND NAME	*Es muy iPad/Instagram* 'It is very iPad/Instagram'
iv.	COMPANY FOR ITS HALLMARK POLICY/STYLE	*Es muy Coca Cola* 'It is very Coca Cola'
v.	TIME FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT TIME	*Es muy siglo XXVIII/XXI* 'It is very XXVIII/XXI century'
vi.	PLACE FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT PLACE	*Es muy Amsterdam/Gotham City* It is very Amsterdam/Gotham City
vii.	MUSIC (STYLE/SONG) FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT TIME	*Es muy jazz/emo* 'It is very jazz/emo'
viii.	SPORT EVENT FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT SPORT	*Es muy Copa de Europa* 'It is very Cup of Europe'
ix.	BODY PART FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT BODY PART	*Es muy teta* 'She is very tit'
x.	FOOD FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT FOOD	*Es muy jamón/donut* 'It is very ham/very donut-like'
xi.	ITEM OF CLOTHING FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT ITEM	*Es muy corbata* 'It is very tie'
xii.	INSTITUTION FOR STEREOTYPED BEHAVIOR ATTRIBUTED TO PEOPLE ASSOCIATED WITH THE INSTITUTION	*Es muy universidad alemana* 'It is very German university'

(*continued*)

Table 2. (*continued*)

METONYMY		EXAMPLES
xiii.	LOCATION FOR INSTITUTION FOR LIFESTYLE OF PEOPLE ASSOCIATED WITH THE INSTITUTION	*Es muy Yale/Harvard* 'It is very Yale/Harvard'
xiv.	EVENT FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT EVENT	*Es muy Halloween* 'It is very Halloween'
xv.	TV SHOW FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT TV SHOW	*Es muy Cuarto Milenio/Cuéntame* 'It is very Cuarto Milenio/Cuéntame'
xvi.	MOVIE FOR HIGHLIGHTED PROPERTY ASSOCIATED WITH THAT MOVIE	*Es muy "Lo que el viento se llevó"* 'It is very 'Gone with the wind'"

6.1 Celebrity names

(7) *Ferreras* ***es*** ***muy*** ***Zapatero,*** *le* *gust-a*
Ferreras[NAME] be.PRS.3SG very Zapatero[NAME] DAT.3SG like-PRS.3SG
trabaj-ar *sólo* *con* *mujer-es*
work-INF only with woman-PL
'Ferreras is very Zapatero, he likes working only with women'
www.vertelevisivos.es/viewtopic.php?f=1&t=16400&start=450

In (7), a celebrity name (i.e. the surname of former president of the Spanish Government, José Luis Rodríguez Zapatero) is used metonymically to refer to a salient attribute associated with this politican. In this case, explicit linguistic cueing tells us that the intended meaning here is something like 'very supportive of women'. The motivation for the speaker choosing this referent perhaps has to do with the fact that José Luis Rodríguez Zapatero was the first President of the Spanish Government who over the period 2008–2010 appointed more women than men as prime ministers. In turn, this feature is attributed to Antonio García Ferreras, a well-known Spanish journalist and TV presenter, who, just like former president Zapatero, can be considered an outspoken defender of women's rights.

6.2 Animals

(8) *Mariano Rajoy* ***es*** ***muy*** ***zorro,*** *otr-a* *cosa*
Mariano Rajoy[NAME] be.PRS.3SG very fox, another-F.SG thing
es *que* *sea* *eficaz*
be.PRS.3SG COMP be.PRS.SBJV.3SG efficient
'Mariano Rajoy is very cunning; whether he is efficient, that's a whole different thing' https://audioboom.com/boos/3576798-gustavo-bueno-mariano-rajoy-es-muy-zorro-otra-cosa-es-que-sea-eficaz

Example (8) qualifies as an instance of the ontological metaphor PEOPLE ARE ANIMALS (Lakoff and Turner, 1989). In this connection, it should be noted that, as Ruiz de Mendoza Ibáñez (1998, 2000) has rightly observed, metaphors whose meaning implications cluster around a single correspondence (i.e. animal behavior maps onto human behavior) are amenable to being used referentially, which facilitates the creation of a "stands for" connection between source and target. This would in turn explain the fact that the ontological metaphor in question serves as the basis for the resulting GENERIC FOR SPECIFIC metonymic parameterization which is at work in this semantic type as well as in the other types within the taxonomy detailed in this section.

At a higher level of delicacy, in (8), the intensifier *muy* ('very') combines with the name of an animal, namely, *zorro* ('fox'). In the Spanish language and culture, the fox is strongly profiled as being cunning. There is an experential basis that licenses this ontological metaphor. Foxes are as cunning as human beings. A fox behaves in a way that resembles the behavior of a cunning person, thus making it possible to figuratively treat the behavior of foxes and the behavior of cunning people as on a par. Then, the GENERIC FOR SPECIFIC metonymy singles out a salient attribute of foxes, namely, being cunning.

6.3 Place names

(9) *La habitación* ***es muy Ámsterdam*** *con*
DEF.F.SG room be.PRS.3SG very Amsterdam[NAME] with
pint-ad-a-s y graffiti-s. Solo un baño para 8–10 persona-s,
paint-PTCP-F-PL and graffiti-PL only one bathroom for 8–10 person-PL
aunque modern-o, es-o sí
although modern-M.SG DIST-M.SG yes
'The room is very Amsterdam, covered with graffitti. It has only one bathroom for 8–10 people, albeit a modern one' https://www.tripadvisor.es/ShowUserReviews-g188590-d238577-r173291865-Bob_s_Youth_Hostel-Amsterdam_North_Holland_Province.html

In (9), the name of a city, namely, *Amsterdam* is coerced into an adjectival construal through the intensifier *muy*. This intensifier triggers a metonymic interpretation in which *Amsterdam* is taken to refer to a salient property associated with that city. In this case, the meaning of *Amsterdam* is parameterized through explicit linguistic cueing as something like 'alternative style', with a negative overtone (as hinted by the recognition encoded in the *aunque* concessive clause that the style in question is nonetheless modern). However, this example adds a further twist to the dynamics of parameterization in this construction. In (9) it can be argued that the

'alternative style' interpretation is triggered by the actual words, *pintadas y graffitis*, which evokes a particular atmosphere of freedom, hippy life, drugs, etc. Actually, we might think that *pintadas y graffitis* metonymically stand for a particular lifestyle, which would make it a parallel metonymy, the two converging on one, the second one guiding the former.[16]

6.4 Brand names

(10) *Sólo le falt-a dec-ir que el iPad*
only DAT.3SG be.missing-PRS.3SG say-INF COMP DEF.M.SG iPad[NAME]
es muy iPad *y much-o iPad*
be.PRS.3SG very iPad[NAME] and much-M.SG iPad[NAME]
'He could have added that the iPad is a big ton of an iPad'
www.muycomputer.com/2015/11/11/tim-cook-surface-book

Example (10) is particularly interesting from a constructionist point of view, since the intensifier construction with *muy* ('very') is followed by a paratactic phrase with the noun in question reduplicated and intensified by *mucho* ('much'). This qualifies in CCG as a partially-filled in construction in the sense outlined in Table 1 ("X *es muy* X *y mucho* X", "X *es muy*/* *bastante*/* *completamente* X *y mucho*/* *totalmente*/* *definitivamente* X"). From the standpoint of meaning, this configuration qualifies as an instance of hyperbole, which, for current purposes, can be defined as a figure of bold exaggeration (Ruiz de Mendoza and Galera Masegosa, 2014, p. 46).[17] As in the previous cases, the intensifier coerces the name of the brand name in question into an adjectival construal. We mention *iPad* to refer metonymically to a salient attribute connected with that brandname. In this case, our encyclopaedic knowledge of the world tells us that iPad is a world-famous and thus highly desirable brand of tablets. This positive attribute is further enhaced through the hyperbolic tone conveyed by the "*es muy* X *y mucho* X" configuration, meaning something like 'one of the best tablets one could possibly have'.

16. The idea that metonymies may sometimes work in unison has been explored in Tartu and is mentioned in some form in Brdar (2018a, 2018b). Further research should be carried out in this area in the future.

17. The interested reader is referred to Peña Cervel and Ruiz de Mendoza Ibáñez (2017) for a more detailed analysis and discussion of hyperbole than can be afforded here.

6.5 Company names

(11) *En cuanto a lo demás, los camarer-o-s sonrí-en, que*
in relation to DEF.N.SG else DEF.M.PL waiter-M-PL smile-PRS.3PL REL
se agradec-e, y te llam-an por tu nombre
PASS appreciate-PRS.3SG and ACC.2SG call-PRS.3PL for POSS.2SG name
*¡es-o **es** **muy** **Coca-cola** también!*
DIST-M.SG be.PRS.3SG very Coca-cola[NAME] too
'As far as everything else is concerned, the waiters smile to you, which is nice, and they call you by your name. That's very Coca Cola too!'
www.yelp.es/list/franquicias-valencia

In (11) the intensifier *muy* ('very') combines with the name of a company, namely, Coca Cola. The mention of the brand name is taken to stand, metonymically, for a specific property associated with its hallmark policy/style. In this particular case, the paramaterization of this property is done in the light of encyclopaedic knowledge that tells us that this is an internationally renowned and consequently good company. A smile and being called by your first name stand metonymically for being treated personally, which explains in the first instance why *Coca Cola* is construed as a near synonym of "personal". In addition, everyone likes getting personal attention, which is ultimately understood, in the light of encyclopaedic and contextual information, as a positive attribute.

6.6 Internet

(12) *El diseño no **es** **muy** **Facebook** que*
DEF.M.SG design NEG be.PRS.3SG very facebook[NAME] COMP
dig-amos
say-PRS.SBJV.1PL
'The design is not, let's say, very Facebook' www.applesfera.com/…/facebook-presenta-paper-su-propio-lector-de-no…

In (12) the intensifier *muy* ('very') coerces a name connected with the social networks such as "Facebook" into an adjectival construal.[18] The mention of the name of this social networking site is used metonymically to stand for a property associated

18. It should be noted that positive polarity is considerably more frequent in the English tokens of the "X *is so* N(=A)" construction (Gonzálvez-García, 2014) and its "X *es muy* N(=A)" counterpart in Spanish. However, phrasal negation is possible after the intensifier in this English construction (e.g. "That's so not what a man does"), while this type of negation automatically yields an ungrammatical result in Spanish (i.e. * *Eso es muy no Madonna*).

with it. Since most people consider Facebook user-friendly and easy to use, that property could be parameterized in terms of our encyclopaedic linguistic knowledge along those lines in this particular context.

6.7 Characters (whether real or fictional)

(13) *Andrés Escribano dar-á mucho que habl-ar. Él,*
Andrés Escribano[NAME] give.FUT-3SG much REL talk-INF 3SG
ahondador y call-ad-o, se sonrí-e por
inquirer and be.quiet-PTCP-M.SG PRONOMCLITIC.3SG smile-PRS.3SG for
*dentro. **Es muy Don Quijote y muy fray Juan de***
inside be.PRS.3SG very Don Quijote[NAME] and very friar Juan de
***la Cruz**…*
la Cruz[NAME]
'Andrés Escribano will attract great attention. An inquirer and a quiet person, he smiles to himself. He is very Don Quixote and very Father John of the Cross'
www.biblioteca2.uclm.es/Biblioteca/CECLM/GregorioPrieto…/14–06–1998.pdf

In (13) the intensifier coerces the names of two well-known characters in the Spanish cultural, one fictional (Don Quixote) and another real (Juan de la Cruz). In these two cases, the mention of these two names is taken metonymically to refer to a property commonly associated with these characters. In the light of encyclopaedic knowledge, the metonymic coercion of *Don Quixote* could be glossed as meaning something like 'idealistic/quixotic', while that of *Juan de la Cruz* could be pinned down as 'mystic'.

6.8 Time

(14) *"**Muy siglo diez y ocho** y muy antigu-o y muy modern-o;*
very century ten and eight and very old and very modern-M.SG
audaz, cosmopolita". Hac-e cien año-s mor-ía
bold cosmopolitan be.ago-PRS.3SG a.hundred year-PL die-IMPPRET.3SG
Rubén Darío, el gran renovador de la poesía
Rubén Darío[NAME] DEF.M.SG great renewer of DEF.F.SG poetry
en español…
in Spanish
'Very 18th century, very old-fashioned and very modern; bold, and cosmopolitan. Rubén Darío, the great innovator of Spanish poetry, died a hundred years ago'
https://www.facebook.com/babeliaelpais/posts/1314196598606782?fref

In (14) the intensifier is superimposed onto a nominal element with a past time reference. The use of the temporal reference is metonymically taken to convey a property associated with the time period denoted. In Spanish, just like in English (see Gonzálvez-García, 2014 and references therein), metonymical uses of nouns with a past time reference are conventionally associated with a negative assessment (i.e. 'old-fashioned', 'outdated'). The validity of this parameterization is explicitly confirmed through explicit linguistic cueing, first through the reformulation of *muy siglo diez y ocho* ('very eighteenth century') as *muy antiguo* ('very old-fashioned') and then through its contraposition with *muy moderno* ('very modern').

6.9 TV shows

(15) *Amb-a-s parte-s tendr-án que ced-er, ayud-ar-se*
both-F-PL part-PL have.FUT-3PL to give.in-INF help-INF-RECIPROCAL
y aprend-er. Tod-o est-o ***es*** *muy real,* ***muy***
and learn-INF all-M.SG PROX-N.SG be.PRS.3SG very real very
Cuéntame
Cuéntame[NAME]
'Both parties will have to give in, help each other and learn. All this is very real, very Cuéntame' www.blogcuentame.com/2016_01_01_archive.html

Example (14) illustrates the coercion of the name of a famous TV show, "Cuéntame" ("Do you remember when?"), into the expression of an adjectival construal. The mention of the TV show to actually convey an outstanding property of this TV show points to the fact that metonymic inferencing is actually at work in the interpretation of this configuration. Anyone familiar with this TV show knows that "Cuéntame" actually succeeds in recreating very realistically some aspects of Spanish life from the 60s onwards. In addition, explicit linguistic cueing through juxtaposition of the coerced nominal expression with a near-synonym (*muy real*) corroborates the positive value intended, thus giving rise to a parallel metonymy of the kind discussed in 6.3.

6.10 Events

(16) *Letizia ofrec-ió* ***un look muy Óscar****, por*
Letizia[NAME] offer-INDFPRET.3SG INDF.M.SG look very Oscar[NAME] for
obra y gracia del diseñador Felipe Varela
work and grace of.DEF.M.SG designer Felipe Varela[NAME]
'Letizia offered a very Oscar look, thanks to the work of designer Felipe Varela'
http://www.rtve.es/noticias/boda-real/inglesa/directo2/

Example (16) shows the coercion of a noun encoding an event in metonymic terms, as discussed previously in relation to Example (2).[19] However, it should be noted that the explicit linguistic cueing in (16) (in particular the mention of an internationally renowned designer such as Felipe Varela) could be taken to point to a positive interpretation (i.e. 'stylish', 'elegant', 'refined').

6.11 Music (style/lyrics)

(17) *Es un Jazz asequible pero* ***es muy Jazz***
be.PRS.3SG INDF.M.SG jazz accessible but be.PRS.3SG very jazz
'This is a very accessible kind of jazz, but it's very jazz'
https://11870.com/pro/jazz-bar

In (17) the intensifier combines with a noun denoting a music style. Through the use of a GENERIC FOR SPECIFIC metonymy, the noun in question ends conveying a salient attribute connected with that music style. In this case, it is instructive to remember that a lot of people think that jazz music (just like classical music) is elevated higher than other forms of music. Explicit linguistic cueing, in particular the juxtaposition of the coerced expression with the adjective *accessible*, can be taken to indicate a negative property (e.g. 'obscure', 'cryptic', etc.).

6.12 Movies

(18) *Padrastr-o e hij-o charl-ando, felic-es después de*
Stepfather-M.SG and son-M.SG chat-GER happy-PL afterwards of
un rencuentro muy 'Sonrisas y lágrimas'
INDF.M.SG reunion very Smile-PL and tear-PL
'Stepfather and son chatting, happy after a very 'Smiles and tears' kind of reunion' www.lecturas.com/…/ghvip-en-directo-se-abre-el-gran-hotel-balneario-g…

In (18) the intensifier is superimposed onto a nominal expression conveying the title of a famous movie (i.e. "Smiles and tears"). In this example, the name of a movie is used to refer to a salient feature connected with this movie. Most people would agree that this drama film is quite emotional and/or moving to tears, regardless of whether they actually like the film or not, and this is what would guide the parameterization of the value assigned to the property derived from the metonymic inferencing at work here.

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19. It should be noted, however, that "Oscar" is the name of the statuette that stands for the award, which stands for the event in which the award is given to actors, film directors, etc.

6.13 Institutions

(19) *Y ni un bocadillo, ni un-a copa.* ***Muy universidad aleman-a***
And not.even INDF.M.SG sandwich, not.even INDF-F.SG glass. very university German-F.SG
'And not even a sandwich or a drink. Very German university'
https://books.google.es/books?isbn=8484722929

Example (19) illustrates the case in which the intensifier coerces a noun denoting an educational institution, namely, a German university, into expressing a property. In this case, reference is made to a German university to actually refer, metonymically, to the stereotyped behavior attributed to those individuals who are somehow affiliated with that institution. In this particular example, explicit linguistic cueing contributes to pin down in context the property deriving from this metonymic inferencing as 'austere'.

6.14 Specific institutions

(20) *Calderón* ***es muy Harvard*** *y es-o es buen-o*
Calderón[NAME] be.PRS.3SG very Harvard[NAME] and DIST-M.SG be.PRS.3SG good-M.SG
'Calderón is very Harvard and that's good' www.myplainview.com/article_6deee864-f054-5486-995b-02c87c5ad79a.html

In (20), *muy* ('very') combines with a noun denoting a specific educational institution, namely, Harvard university. In this example, *Calderón* refers to Felipe Calderón Hinojosa, who was the President of the Government of Mexico from 2006 to 2012. Calderón was at some point invited to lecture at Harvard and this is what motivates the use of the name of this institution in this context. Harvard University is, as we know, one of the top-ranking universities in the world. In this case, our encyclopaedic knowledge of the world, together with the linguistic cueing provided in the actual example, enable us to conclude that the metonymic interpretation of *Harvard* could be pinned down here as something like 'prestigious'.

In 6.14 and 6.15 we find predicative uses of double metonymy (Ruiz de Mendoza Ibáñez, 2000). More specifically, in line with Ruiz de Mendoza Ibáñez and Pérez Hernández (2001), it could be argued that we have a complex metonymy chain: The name of the location for the institution in that location for the academic body associated with the institution for the prestige of the academic body for the quality of their teaching. In practice language users probably take a conventionalized

conceptual shortcut and reduce the chain to the most relevant items: LOCATION FOR INSTITUTION FOR ATTRIBUTES OF THE INSTITUTION.[20]

6.15 Food

(21) *Cre-o que a día de hoy,* ***soy muy jamón****. Me*
think-PRS.1SG COMP to day of today be.PRS.1SG very ham REFL.1SG
sacrific-o, sí, porque cre-o que val-e
sacrifice-PRS.1SG yes because think-PRS.1SG COMP be.worth-PRS.3SG
la pena. Esper-o que la valga.
DEF.F.SG pity expect-PRS.1SG COMP OBJ.3SG be.worth.PRS.SBJV.3SG
Doy de mí todo lo que pued-o dar, (…)
give.PRS.3SG of DAT.1SG everything DEF.N.SG REL can-PRS.1SG give.INF
'I think that to date I'm very ham [i.e. I'm worthy]. I sacrifice myself, indeed, because I think it's worth it. I hope it will be worth it. I stretch myself as much as I can' http://mendezmanuelteam.blogspot.com.es/2016/01/huevos-o-jamon.html

Example (21) illustrates the combination of the intensifier *muy* ('very') with a noun denoting an item of food, namely, ham. The intensifier coerces metonymically the noun in question into an adjectival construal. Because ham is highly valued in the Spanish culture, it is plausible to assume that the property deriving from the metonymic inferencing could be parameterized as 'worthy'. This interpretation is explicitly corroborated through the linguistic cueing reproduced in the original example.

6.16 Sports

(22) *El inicio culé* ***fue***
DEF.M.SG beginning of.DEF.M.SG.Barcelona.football.team be.INDFPRET.3SG
muy copa de Europa *durante los últim-o-s año-s*
very cup of Europe[NAME] during DEF.M.PL last-M-PL year-PL
'The beginning of the Barcelona football team was very Cup of Europe over the last few years'
www.rondoblaugrana.net/2015/09/que-no-pase-nada-2.html

20. Ruiz de Mendoza Ibáñez and Pérez Hernández (2001: 337) provide a very similar example of metonymy-guided coercion: "There is a lot of America in what she does", where "America" stands for "American behavior and lifestyle", thus qualifying as a case of the OBJECT FOR ATTRIBUTE(S) metonymy. However, this example also instantiates a metonymic chain: LOCATION FOR COUNTRY FOR PEOPLE FOR STEREOTYPED PEOPLE'S ATTRIBURES (lifestyle, behavior, values, etc.).

Example (22) shows the coercion through *muy* ('very') of a noun encoding a major sport event, namely, the Champions League. As in the other cases discussed in this paper, the name of the event in question is mentioned to actually refer in metonymic terms to a salient property associated with that event. In this connection, our knowledge of the world tells us that the Champions League is one of the most prestigious and most popular sport events not only in Europe but also world-wide. By virtue of this, the metonymic inferencing deriving from the coercion of this noun could be specifically interpreted in this context as something like 'important, eventful'.

6.17 Clothes

(23) *Si Único tiene un carácter muy elegante, muy*
if Único[NAME] have.PRS.3SG INDF.M.SG character very elegant very
tens-o, muy direct-o, yo lo llam-o "britis", porque
tense-M.SG very direct-M.SG 1SG ACC.3SG.N call-PRS.1SG British because
también ***es*** *muy formal,* ***muy corbata***
too be.PRS.3SG very formal very tie
'If Único has a very elegant, very tense, very direct character, I call it "britis", because it's also very formal, very tie' http://www.clubdevinos.es/vertical-de-vinos-valbuena-vegasicilia-uec-catedral-analitica-sensorial/

In (23), the intensifier combines with a noun conveying an item of clothing, in this case a tie. More specifically, this nominal element is used metonymically to stand for a feature commonly associated with the item of clothing denoted by the nominal element in question. Since we normally associate a suit and a tie to a formal situation, that feature can be specifically described in this context as 'formal'. This interpretation is actually borne out by the specific linguistic cueing that explicitly precedes the occurrence of the coerced noun.

6.18 Body parts

(24) *Es-a chic-a no te va a entend-er,* ***es***
DIST-F.SG girl-F.SG NEG ACC.2SG go.PRS.3SG to understand-INF be.PRS.3SG
muy teta
very tit
'That girl is not going to be able to understand you, she is very slow'
http://www.significadode.org/teta.htm

Example (24) is particularly interesting for our purposes here because it unambiguously shows that a countable noun (e.g. *teta* 'tit') has been coerced into expressing an adjectival, evaluative construal (i.e. *lenta* 'slow'). In this case, a part of the body (i.e. *teta* 'tit') is mentioned to refer to a property associated somehow with that body part. In all the examples attested in our database, the meaning conventionally assigned to this metonymic use can be glossed as 'silly', 'stupid', or 'retarded'.[21]

The data examined in this section corroborates the view that the nouns eligible for occurrence in the N(=A) slot, including countable ones, are indeed construed in the constructions under scrutiny here as adjectives, which do not normally occur with determiners (Denison, 2010, p. 108) (e.g. * *Es muy un iPad*', (lit.) 'It is very an iPad'; * *Mariano Rajoy es muy un zorro*, (lit.) 'Mariano Rajoy is very a fox'; *Mariano Rajoy es (un) zorro*, (lit.) 'Mariano Rajoy is (a) fox'). This is fully consonant with the view defended in Gonzálvez-García (2011a) that, *pace* Ziegeler (2007, 2010), coercion is not superfluous and cannot be simply accounted for in the light of metaphoric and metonymic extension in general (see also Ruiz de Mendoza Ibáñez and Mairal Usón, 2008 for a similar position).

It should be made emphatically clear that the taxonomy of metonymies reproduced in Table 2 consists of sister subcases of the PROPERTY FOR ENTITY (HOLDING SUCH PROPERTY) metonymy or of the ENTITY FOR A (SALIENT) PROPERTY metonymy. In all the cases reproduced in Table 2, the adverb *muy* ('very') acts as the metonymy trigger through a cueing cognitive operation. Without the presence of this trigger, which makes the construction partially-filled (see Table 1), some of these metonymies would be ontological metaphors, more specifically those that make use of animal categories (e.g. *Es muy zorro* (lit.) '(He) is very fox' > *Es un zorro* (lit.) '(He) is a fox').

In addition, a quick look at the semantic types of nouns which can occur in the N(=A) slot suffices to show that these gravitate around an increasingly globalized system of beliefs and attitudes towards what/who is considered good, positive, nice, cool, sexy, desirable, etc., and what/who is regarded as negative, lame, stupid, retarded, tardy, useless, a failure, etc. In short, the choice of the semantic types modified by *muy* ('very') in this construction lend further credence to Bybee's

21. An important contrastive observation with respect to the "X *is very* N(=A)" construction is in order here. As noted in Gonzálvez-García (2014, p. 286), female sexual organs (e.g. "titties") can occur in the N(=A) slot, albeit with a positive interpretation (i.e. 'nice', 'cool'). By contrast, English also allows other nouns denoting male/female sexual organs (e.g. "ass", "butt"), which are not felicitously attested in the Spanish counterpart construction. As Mario Brdar (personal communication) has pointed out to me, perhaps the motivation for the negative meaning attached to this noun in Spanish may lie in the fact that being (sexually) attractive, due to female curves, is in a folk theory a synonym for being dumb (cf. also "not just a pretty face" in English).

(2003) contention that subjectivity is central to "the kind of things human beings talk about and the way they choose to structure their communications" (Bybee, 2003, p. 622).

By way of interim conclusion of this section, an important observation is in order regarding the comparison of the taxonomy of metonymies in the "X *es muy* N(=A)" construction in present-day Spanish and "X *is so* NP(=A)" (e.g. "That's so Obama") outlined in Gonzálvez-García (2014). Interestingly enough, the inventories of semantic types attested in the N(=A) slot in these two constructions are very similar. However, the English counterpart allows for nouns denoting money (e.g. "money", "cash"; "Shia LaBeuf is so money!", Gonzálvez-García, 2014, p. 284) or even symbols encoding this idea (e.g. "$"), which are handled as an instance of the metonymy MONEY FOR THE BEHAVIOR TYPICALLY ATTRIBUTED TO PEOPLE WHO HAVE MONEY. Combinations of this kind yield an unfelicitous result in the corresponding Spanish construction. This supports Croft's (2001) contention that argument structure is not only construction-specific but also language-specific.

7. Closing remarks and outlook

I have provided a fine-grained analysis of the "X *es muy* N(=A)" construction in present-day Spanish. In harmony with the definition of construction invoked in CCG, two essential non-compositional features can be pinpointed as distinctive hallmarks of this construction: (i) the noun in the N(=A) slot necessarily involves metonymic inferencing, and (ii) the noun in question can be bare or determiner-less, even if it is countable, as shown, for instance, in (21) and (24). The construction analyzed here serves to provide a positive or negative assessment by the speaker/writer of a given person, entity, event or state of affairs, with some interpretations exhibiting a higher degree of conventionalization than others. From a syntagmatic viewpoint, the construction under scrutiny here can be seen as instantiating a stepwise, gradual transition, rather than an abrupt conversion, from noun to adjective in the N(=A) slot (Denison, 2010) (e.g. *Es muy Madonna* < *Es muy ochentero*). Moreover, the finely-nuanced analysis of extended uses of *muy* ('very') in the "X *es muy* N(=A)" construction has revealed the emergence of paradigmatic sets at varying levels of generality/specificity involving not only *muy* ('very'), but other intensifiers such as e.g. *bastante* 'quite', *completamente* 'completely', *totalmente* 'totally', *demasiado* 'too', etc., in predicative as well as attributive contexts. In the case of predicative contexts, the frequency of these paradigmatic sets is considerably higher for two reasons: First, virtually every noun belonging to all seventeen semantic types identified in this paper and summarized in Table 2 can occur in the N(=A) slot. Second, different types of intensive (or complex-transitive) verbs other than

ser 'be', such as *sonar* 'sound', *empezar* 'begin', *terminar* 'end', *ver* 'see', or *encontrarse* 'consider oneself sth', etc., can fill in the verb slot in this construction.

Future research needs to address the role of metonymy in predicative and attributive configurations in which the element in the N(=A) slot is a prepositional phrase introduced by *de* ('of') (see Fernández-Leborans and Sánchez López, 2015) within the family of gradable constructions with *muy* 'very' in Spanish, as illustrated in (25a)–(b):

(25) a. *Mahou 5 Estrellas 2015- La Mahou que mejor te*
Mahou[NAME] 5 star-PL 2015 DEF.F.SG Mahou REL best DAT.2SG
ha sab-ido. ***Soy muy de Mahou*** [22]
PFVAUX.PRS.3SG taste-PTCP be.PRS.1SG very of Mahou[NAME]
'Mahou 5 stars 2015 – the best Mahou that you have ever tasted. I like Mahou very much' https://www.youtube.com/watch?v=tpt3jr1H7do

b. *Blanca Suárez:* ***Soy muy de hac-er el idiota****"*
Blanca Suárez[NAME] be.PRS1SG very of do-INF DEF.M.SG idiot
Blanca Suárez: 'I often/usually like acting the fool'
http://shangay.com/blanca-su%C3%A1rez-soy-muy-de-hacer-el-idiota

In (25a) the intensifier coerces a prepositional phrase whose complement is a noun denoting a beer brand name, namely, *Mahou*. In this particular case, we mention the brand to refer to the product (i.e. "beer"). In turn, the product is taken metonymically to stand for a specific action (i.e. 'drinking a beer') and then for a generic action (i.e. 'drinking beer'). The final step would be the one in which the reference to the generic action of drinking beer is taken to refer metonymically to the agent that performs that action regularly.

Example (25b), like (25a), features a prepositional phrase, but the complement of the preposition is not a nominal element but a nominal infinitival clause (i.e. *hacer el idiota* 'act the fool'). In this case, we also mention a generic action (i.e. 'hacer el idiota') to convey metonymically the agent that performs that action regularly. In other words, the examples in (25a)–(25b) illustrate the ACTION FOR AGENT FOR AGENT'S HABIT OF PERFORMING THE ACTION metonymic chain.

At a higher level of granularity, the examples in (25a)–(25b) aptly illustrate what Michaelis (2011) calls stativizing constructions. Interestingly enough, this author observes that many kinds of constructions, including those which are not necessarily aspectual, impose aspectual constraints on the verbs with which they combine. Specifically, Gonzálvez-García (2011a, p. 1310) observes that coercion of a nominal infinitival clause preceded by *de* through an intensifier (e.g. *muy* 'very',

22. It could be argued that a configuration of this kind is a shortened version of *Soy muy de beber Mahou* ('I often/usually like drinking Mahou').

más 'more') is feasible in lower-level configurations involving secondary predication in present-day Spanish, as in (26) (see also (6c)):

(26) *Yo te hac-ía muy/ más de beb-er cerveza*
1SG ACC.2SG do-IMPPRET.1SG very more of drink-INF beer
'I thought you were the kind of guy who likes drinking beer'

Following Michaelis (2011) and Gonzálvez-García (2011a), it is possible to treat the instances of coercion in (25a)–(b) and (26) as cases of stativizing constructions, in which the nominal element (whether a noun or a clause) after *de* ('of') encodes a habit, understood as a characterization of the subject (see Fernández Leborans and Sánchez López, 2015, p. 95 for a similar position). The stativizing nature of these gradable configurations can be shown, among other facts, by the impossibility of combining these gradable configurations with (i) the progressive construction, (ii) the perfective construction, and (iii) an adverbial expression with a punctual interpretation rather than a habitual one, as illustrated in (27)–(28) (see Gonzálvez-García, 2011a, pp. 1311–1316 for further discussion and Fernández Leborans and Sánchez López, 2015, pp. 90–95 for a similar line of argumentation):

(27) a. #*Soy muy de est-ar hac-iendo el idiota*
be.PRS.1SG very of be-INF do-GER DEF.M.SG idiot
b. #*Soy muy de haber hecho el idiota*
be.PRS.1SG very of PFVAUX.INF do-PTCP DEF.M.SG idiot
c. *Soy muy de hacer el idiota los fin-es de*
be.PRS.1SG very of PFVAUX.INF DEF.M.SG idiot DEF.M.PL end-PL of
semana/ justo ahora*
week just now
'I usually like acting the fool on weekends/*right now'

(28) a. #*Te hac-ía muy de est-ar beb-ien do cerveza*
ACC.2SG do-IMPPRET.1SG very of AUX-INF drink-GER beer
b. #*Te hac-ía muy de haber beb-ido cerveza*
ACC.2SG do-IMPPRET.1SG very of PFVAUX.INF do-PTCP beer
c. *Te hac-ía muy de beb-er cerveza los*
ACC.2SG do-IMPPRET.1SG very of drink-INF beer DEF.M.PL
fin-es de semana/ justo ahora*
end-PL of week just now

Future research should address the points of convergence and divergence between coercion through an intensifier in intensive constructions without a stativizing nature (such as (1), among others, see Gonzálvez-García, 2011b for a fuller picture) and those with a habitual reading (such as (25a)–(b)). The analysis of constructional relations in the constructicon could be further maximized by taking into account

instances of coercion with secondary predicates without a stativizing nature (such as (6c)) and those with a habitual construal (such as (26)).

In the previous pages I hope to have demonstrated that coercion and metonymic inferencing (including double metonymies and metonymic chains) interact in a dynamic, yet principled way in determining the semantico-pragmatic and morphosyntactic properties of the noun in the coerced N(=A) slot. The evidence provided in this paper corroborates Harder's (2010, p. 247) contention that "[…] it is not a matter of the priority of syntax over semantic content, but of the ubiquitous collaboration between bottom-up conceptual build-up and top-down assignment of function." The interaction between coercion and metonymy should be acknowledged as playing an essential role in that process of ubiquitous collaboration if we want to arrive at a more comprehensive understanding of the phenomenon of slot-determined meaning.

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PART III

Figurativeness, pragmaticity and multimodality

Sources of pragmatic effects in irony and hyperbole

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How persuasion is accomplished by speakers who use hyperbole and irony, in response to accusations of wrong-doing, was investigated in three experiments. Results confirmed a predicted dissociation – when accused speakers exaggerate denials (e.g., "I have never, ever stolen anything from this store"), they look relatively guilty compared to using no exaggeration (e.g., "I did not steal from this store"). But when accused speakers exaggerate *ironic* denials (e.g., "Oh sure, I have always, stolen everything from this store"), they are perceived as comparatively innocent relative to using no exaggeration. This dissociation is also not due to differences in hyperbolizing-toward-zero, versus hyperbolizing-toward-infinity, a difference which can affect pragmatic effects leveraged by hyperbole (Colston & Keller, 1998). The results are interpreted as demonstrating the operation of psychological figurative comprehension and influence mechanisms both in parallel to and independent from similar pragmatic mechanisms found in some theories of linguistic pragmatics (e.g., Relevance Theory).

Keywords: hyperbole, irony, persuasion, Relevance Theory, figurative language, extreme case formulation, accusation denial, positive cognitive effect, pragmatic effect, cognitive side-effect, pragmatic theory

1. Introduction

In a widely viewed television news panel program, "Morning Joe", broadcast from the United States by MSNBC (August 27, 2012), guest panelist Chris Matthews accused U.S. Republican Party Chairman Reince Priebus and his party of playing the "race card" against Barak Obama in the 2012 U.S. presidential race. Through demonstrably false television ads about welfare work-rule changes, and a resurrection by republican candidate Mitt Romney, through a flippant comment made a few days before the broadcast, of the false insinuation that Barak Obama was

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not born in the United States, Matthews alleged that the Republican Party was attempting a "foreignization" of the President. "Cheap shots about Obama being a foreigner is the thing your party's been pushing". Chairman Priebus responded to the birthplace issue,

> We've gotten to a place in politics that any moment of levity, is totally frowned upon…
>
> …it's a moment of levity, everybody gets it.
>
> Every person, myself, starting in February of last year, as soon as I became Chairman of the RNC, Mitt Romney continuously has said, this President was born in this country, it's a non-starter, it's a dumb issue, it's a distraction, forget about it.

Later, guest panelist Tom Brokaw continued the accusation, although less forcibly, arguing that many allegations of foreignness concerning President Obama, " '…he's a Muslim, he's a socialist, he's not American…' ", that arose from republicans during the debates and primaries earlier in the year, were not refuted by the Republican Party. Priebus again responded, interrupting Brokaw and adding pauses and stress for emphasis,

> I refuted it… *every*… *single*… *time*. I betcha *twenty* times on TV.

Two things are particularly interesting for psycholinguistic purposes in these responses. The first is the degree to which the accused speaker is using hyperbole, frequently involving **extreme case formulations** (or, **ECFs**), (Colston, 2007), in an attempt to refute the accusations (e.g., some emphases added: "*Any* moment…", "is *totally* frowned upon…", "*Everybody* gets it…", "*Every* person…", "*as soon as* I became Chairman…", "Romney *continuously* has said…", "*every… single*… time", "I betcha *twenty* times…").[1] The second observation is the effect of such usage on hearers. Evidenced in the broadcast was a reaction by people in the studio who were clearly unpersuaded by the Chairman's responses (demonstrated through enthusiastic applause and murmurings by audience and staff in response to the continuing accusations after Priebus's denials). Still other people reacted as if strongly persuaded by the Chairman's responses (panel members being aghast at the continuing accusations). Some of these reactions likely stem from participants'/audience members' political affiliations and leanings, as well as identification with and resistance to some of the aggressive and dismissive tone of the speakers. But one can still note the differential influences of the Chairman's

1. Please consult Norrick's (2004) distinction among hyperbole, extreme case formulations and overstatement. The usage here is intended to describe a speaker using extreme case formulations for the purposes of achieving hyperbole. But other distinctions are possible.

response style on the people present – some were persuaded by the Chairman's responses, others were not.[2]

Understanding how figurative language accomplishes different pragmatic effects, such as the attempted addressee and audience persuasion via hyperbole in the "Morning Joe" response examples, has emerged as an important avenue of contemporary multidisciplinary empirical research. The resulting findings from this now decades-long search have also fallen into two general approaches. One seeks to explain the pragmatic meaning products accomplished by figurative language through holistic pragmatic-theoretical approaches such as Relevance Theory (Sperber & Wilson, 1995; Wilson & Sperber, 2012). These theories attempt to define broad processing as well as cognitive and pragmatic principles, for instance, optimal relevance, contextual assumptions, and positive cognitive effects. These principles can apply to all forms of figurative, and indeed nonfigurative instances of speech or text, to explain the derivation of pragmatic meaning. Other more piecemeal approaches attempt to note particular pragmatic processes that might reside in only one figurative form, or within a family of figurative forms, but that will not necessarily apply to all figurative language or all language.

The following discussion is designed to demonstrate that broad pragmatic approaches such as Relevance Theory need to more thoroughly incorporate the myriad of other more piecemeal mechanisms that can influence figurative meaning in order to fully explain the resulting meaning products. We additionally argue, though, that Relevance Theory is quite successful at accounting for at least some of these mechanisms. But whether *all* such idiosyncratic mechanisms can be most efficiently subsumed under relevance theoretic or other broad pragmatic processes of comprehension, remains an open question.

2. The relevance of hyperbole: The case of accusation denials

Accusation denials, much like those observed in the "Morning Joe" example, were selected for use in the present study because, by their nature, they involve an extremely salient, contender explanation for why a speaker might talk figuratively. In an accusation denial, a speaker has been accused of something (in our studies,

2. Indeed, one could speculate these different audience responses toward this one televised conversation was a catalyst in the resurrection of media fact-checking and interviewee challenging in the 2012 U.S. Presidential race, coinciding as they did with the onset of the party conventions and given the episode's widespread rebroadcast and viewing. The widely noted increase in press dishonesty-outing, across the political spectrum (Blow, 2012) following this broadcast could indeed have stemmed in part from people's interpretations of these particular accusation responses.

some form of wrong-doing), and then makes an utterance that seeks to refute that insinuation. Any deviance from standard confirmations or disconfirmations of standing contextual assumptions by this speaker thus has a ready explanation at hand – the deviance is due to the speaker actually being guilty.

So one relatively straightforward test of relevance-like pragmatic processes is to have speakers use some kind of figurative language in an accusation denial, a usage which does not seem supported by contextual assumption information, and then assess the degree to which hearers think the speaker is guilty and thus lying, relative to a baseline where speakers use comparable non-figurative responses in the same situations. This is the strategy of Experiment 1 – participants are asked to assess the relative guilt/innocence of accused speakers making accusation denials with and without the presence of figurative language. The prediction is speakers using figurative language will be seen as relatively guilty in comparison to speakers not using figurative language in their accusation denials, assuming that no other reasons for the speaker's use of figurativeness are present (see, among others, Yandell, 1979; Holtgraves & Grayer, 1994 for similar accounts without figurative language).

The kind of figurative language selected for this comparison is hyperbole. Hyperbole was chosen because it is one of the simplest types of figurative or indirect language – essentially, in its most basic form, a speaker merely overstates the magnitude of some outcome or event, frequently through the use of ECFs (Colston, 2007; Hsiao & Su, 2010; Norrick, 2004; Orthaber & Márquez-Reiter, 2011; Sidnell, 2004). Hyperbole would thus pose an optimal test of a relevance theoretic process in figurative language, as it violates standard contextual assumptions only to a minimal degree.

Experiment 2 is designed to assess whether hyperbole will be persuasive if, unlike Experiment 1, a reason exists for the speaker's use of the hyperbole. Experiment 2 thus asks participants to make similar relative guilt/innocence judgments on speakers making accusation denials with and without the presence of hyperbole, as in Experiment 1. But Experiment 2 utilizes *ironic* accusation denials. The prediction here is for an opposite pattern as in Experiment 1 – speakers using hyperbolic ironic language will be seen as relatively innocent in comparison to speakers using non-hyperbolic ironic language. This reversal from the predicted outcome of Experiment 1 is because the presence of irony can provide *a reason for the use of hyperbole,* at least in the present case – the hyperbole is acting to enhance the variety of ironic mechanisms of persuasion.

The prediction for Experiment 2 stems from some idiosyncratic processes in verbal irony including pretense, humor, and mastery display (other mechanisms may play a role here as well). Some of these mechanisms, intrinsic by some accounts to verbal irony comprehension (see Gibbs & Colston, 2007), may be subsumed by

Relevance Theory comprehension processes (i.e., computation of positive cognitive effects) during comprehension. For example, verbal irony's typical form achieves derision or belittlement of referent propositions or situations by injudiciously lauding those propositions/situations, but allowing that praise to be seen as a transparent pretended portrayal (Clark & Gerrig, 2007; Sperber, 1984; Williams, 1984). Speakers can also leverage humor and mastery display in using verbal irony to enhance persuasion (Colston, 2015b, 2019; Gibbs, 2000; Gibbs & Colston, 2002; Gibbs & Colston, 2012; Gibbs & Izett, 2005; Ritchie, 2005; Roberts & Kreuz, 1994). Were a speaker to then hyperbolize pretend praise, an enhancement of perceived derision should ensue, along with other mechanisms at work in the irony, and thus an accused speaker, in enhancing the belittlement of their alleged guilt, would appear relatively innocent.

3. Experiment 1

Experiment 1 presented 30 undergraduates with 16 appropriately counterbalanced, randomly sorted, short stories, each depicting the participant questioning another person about a wrong-doing (e.g., the participant, as a supervisor at some business, asking an employee about overstocking some shipping packages). In half the stories, the accused speaker responded with nonfigurative, non-hyperbolic denials ("No, I put two bowls in each package"), the remaining stories used nonfigurative hyperbolic denials, constructed by inserting ECFs into the non-hyperbolic versions of the stories ("No, I never put anything but two bowls in each package", NOTE: counterbalancing prevented both versions of the same story to be seen by participants). Participants rated each speaker's guilt/innocence likelihood on an 11-point scale ranging from "definitely guilty" (coded as 1) to "definitely innocent" (11).

3.1 Participants

Thirty undergraduate students from a Midwestern U.S. University participated as part of a Psychology course requirement. None of the participants took part in any other tasks reported in this study.

3.2 Materials

Sixteen stories, written by the experimenters depicted the participant questioning an acquaintance, known by the speaker but ambiguously identified (e.g., a "co-worker") about some moderately negative wrong-doing (e.g., overstocking

items in shipping packages). In each story, the participant was described such that they would have a reason for questioning the other person (e.g., the participant was a shift supervisor). In one version of the story, the questioned speaker replied with a straightforward, nonfigurative statement denying their having committed the wrong-doing (e.g., "No, I put two bowls in each package."). The other version of the story used the same statement as version 1, but inserted two or three ECFs to make the denial statements hyperbolic (e.g., "No, I never put anything but two bowls in each package.").

The stories were organized into two printed sets. Set one used the non-hyperbolic versions of half the stories, and the hyperbolic versions of the other stories. Set two reversed the versions of the stories from set one. An equal number of participants received each set, resulting in counterbalancing of the items across participants. The order of the stories in each set was random. Instructions were printed on a coversheet.

Beneath each story was an 11 point rating scale with the anchor labels "definitely guilty" (coded as 1) and "definitely innocent" (coded as 11). Participants were instructed to mark each scale to indicate their perception of the speaker's innocence/guilt for that particular story.

3.3 Design and procedure

The design was a simple one-variable within-participants manipulation with type of accusation denial response manipulated as the independent variable (non-hyperbolic vs. hyperbolic) – i.e., each person received both levels of the manipulated variable, non-hyperbolic and hyperbolic denial utterances, thus serving as their own control. Rated perceived guilt/innocence of the speakers was the dependent variable.

Participants were met in the lab facility by undergraduate research assistants who distributed the printed booklets, read aloud the instructions for the task, and answered any questions by the participants. One or two unrelated tasks were also completed by the participants, in a random order. Participation took place individually or in small groups, in a non-descript quiet lab room equipped with desks and chairs. Participants were debriefed and released upon completing the tasks.

3.4 Results and discussion

Results revealed that hyperbolic denials were perceived as indicating more guilt ($M = 5.47$) than non-hyperbolic denials ($M = 6.23$), $t_1(29) = 2.87$, $p < .01$; $t_2(15) = 3.12$, $p < .01$; $d = .68$. These results are shown in Figure 1.

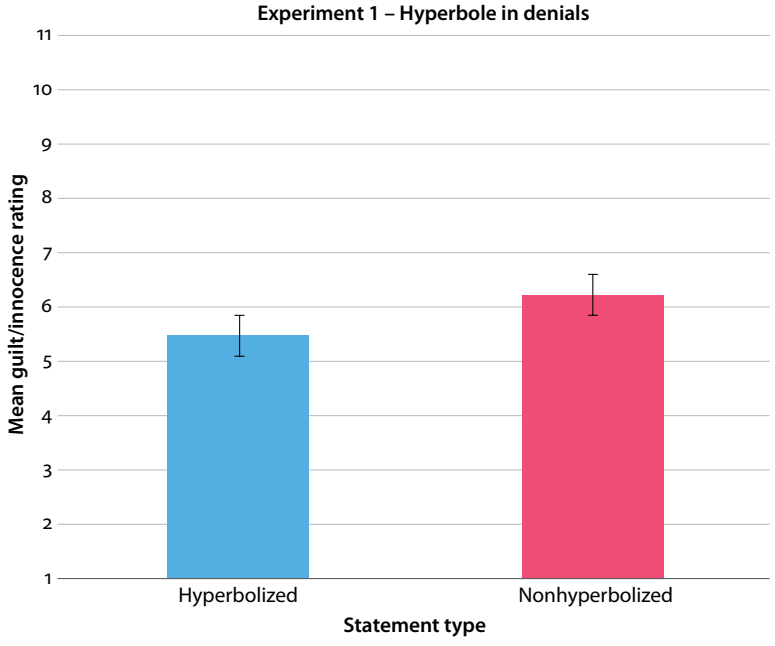

Figure 1. Mean guilt /innocence ratings ("definitely guilty" – coded as 1; "definitely innocent" – coded as 11) of speakers' responding to accusations of wrong-doing, as a function of response hyperbole (Experiment 1)

The results confirmed the predicted finding that hyperbole, when used in accusation denial situations without an obvious reason for the presence of the hyperbole, is perceived by hearers as indicative of the speaker's guilt. Relative to using accusation denials without hyperbole, speakers using hyperbole in accusation situations are seen as more guilty.

4. Experiment 2

Experiment 2 tested thirty different undergraduates in an identical design to Experiment 1, except half the stories depicted the speakers responding to accusations (e.g., inserting the wrong ink cartridge in a photograph printer) with *ironic*, non-hyperbolic denials using standard irony markers like, "Of course", ("Of course I did. I wanted the pictures to be ruined."), the remaining stories had the speakers use *ironic*, hyperbolic denials, constructed by inserting ECFs into the non-hyperbolic versions ("Of course I did. I wanted each picture to be totally and completely ruined."). Participants rated each speaker's guilt/innocence likelihood using the same scale as Experiment 1.

4.1 Participants

Thirty undergraduate students from a Midwestern U.S. University participated as part of a Psychology course requirement. None of the participants took part in any other tasks reported in this study.

4.2 Materials

Sixteen stories, written by the experimenters depicted the participant questioning an acquaintance, known by the speaker but ambiguously identified (e.g., a co-worker) about some moderately negative wrong-doing (e.g., inserting the wrong ink cartridge in a photograph printer). In each story, the participant was described such that they would have a reason for questioning the other person (e.g., the participant was a shift supervisor). In one version of the story, the questioned speaker replied with an ironic, but non-hyperbolic, statement denying their having committed the wrong-doing (e.g., "Of course I did. I wanted the pictures to be ruined."). The ironic statements used standard irony markers to make the irony apparent. The other version of the story used the same statement as version 1, but contained two or three ECFs to make the ironic denial statements hyperbolic (e.g., "Of course I did. I wanted each picture to be totally and completely ruined.").

The stories were organized into two printed sets. Set one used the non-hyperbolic versions of half the stories, and the hyperbolic versions of the other stories. Set two reversed the versions of the stories from set one. An equal number of participants received each set, resulting in counterbalancing of the items across participants. The order of the stories in each set was random. Instructions were printed on a coversheet.

Beneath each story was an 11 point rating scale with the anchor labels "definitely guilty" (coded as 1) and "definitely innocent" (coded as 11). Participants were instructed to mark each scale to indicate their perception of the speaker's guilt/innocence for that particular story.

4.3 Design and procedure

The design and procedure was the same as in Experiment 1, excepting the present experiment manipulated the type of *ironic* accusation denial response as the independent variable (non-hyperbolic vs. hyperbolic).

4.4 Results and discussion

Results revealed that hyperbolic ironic denials were perceived as indicating less guilt ($M = 6.57$) than non-hyperbolic ironic denials ($M = 5.58$), $t_1(29) = 5.17$, $p < .001$; $t_2(15) = 3.71$, $p < .01$; $d = .63$. These results are shown in Figure 2.

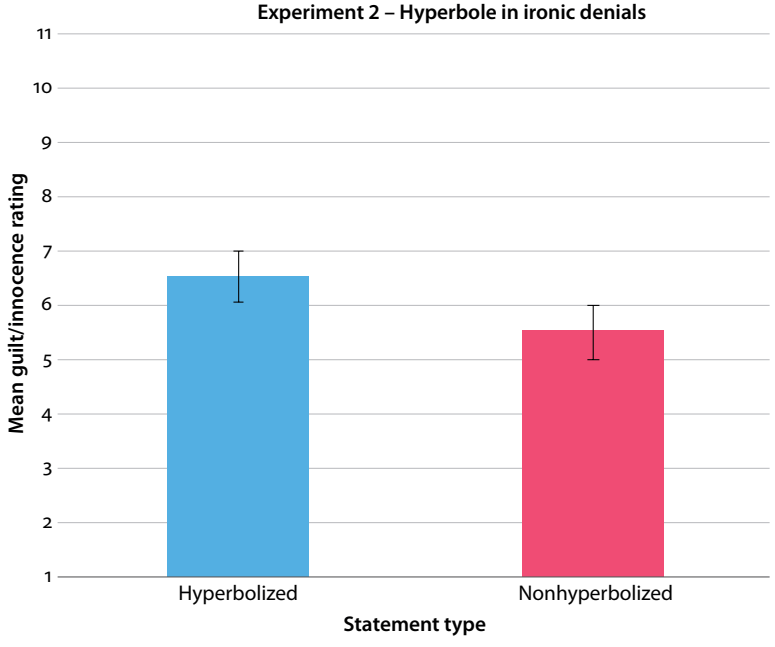

Figure 2. Mean guilt /innocence ratings ("definitely guilty" – coded as 1; "definitely innocent" – coded as 11) of speakers' *ironically* responding to accusations of wrong-doing, as a function of response hyperbole (Experiment 2)

The results of Experiments 1 and 2 confirmed the predictions for a dissociation – when an accused speaker exaggerates a direct denial, she looks relatively guilty (compared to using no exaggeration). But when an accused speaker exaggerates an ironic denial, she looks innocent relative to no exaggeration.

Before delving more deeply into how pragmatic theories may or may not subsume the persuasive mechanisms of irony and hyperbole to arrive at this dissociation, though, an alternative explanation to the findings in the first two experiments first needs to be addressed. In creating the ironic hyperbolic and ironic non-hyperbolic items used in Experiment 2, an experimental confound was inadvertently formed. The first experiment, by virtue of using direct accusation denials, had nearly all the hyperbolic comments exaggerated toward zero, or ***hyperbolized***

down. For instance, a speaker denying an accusation of having done X in one instance, typically replies that they have *never* done or *never* would do X in *any* circumstances. For most of the hyperbolic comments in the second experiment, however, this direction was reversed. Most comments exaggerated toward infinity, or ***hyperbolized up***. For example, a speaker ironically denying an accusation of having done X in one instance, typically replied that they *totally* do X *all the time*.

Previous research has demonstrated that the direction of hyperbole can have an effect on the pragmatic functions of comments using hyperbole. Hyperbolizing down (toward zero) is constrained relative to hyperbolizing up (toward infinity) and thus the degree to which comments that hyperbolize down can accomplish some functions is also limited. For instance, comments that hyperbolize down are rated as constrained in their ability to express surprise, relative to comments that hyperbolize up. Upwardly hyperbolized comments can increase the ease with which people can interpret that the speakers using the hyperboles are expressing surprise (Colston & Keller, 1998).

Experiment 3 will thus mirror the strategy of Experiment 1, but will use utterances that all hyperbolize up rather than down. If the dissociation in Experiments 1 and 2 is due to the constraint gradient of hyperbole, then the results of Experiment 3 should resemble those in Experiment 2. If the original result of Experiment 1 is replicated, however, then the hyperbole constraint gradient alternative hypothesis can be discounted.

5. Experiment 3

Experiment 3 tested a different set of undergraduates in an identical design to Experiment 1, except the present experiment used nonfigurative hyperbolic denials that hyperbolized up rather than down ("No, I always put exactly two bowls in every package."). Participants rated each speaker's guilt/innocence likelihood on the same 11-point scale used in the other experiments.

5.1 Participants

Eighteen undergraduate students from a Midwestern U.S. University participated as part of a Psychology course requirement. None of the participants took part in any other tasks reported in this study.

5.2 Materials

Sixteen stories, written by the experimenters depicted the participant questioning an acquaintance, known by the speaker but ambiguously identified (e.g., a co-worker) about some moderately negative wrong-doing (e.g., overstocking items in shipping packages). In each story, the participant was described such that they would have a reason for questioning the other person (e.g., the participant was a shift supervisor). In one version of the story, the questioned speaker replied with a straightforward, nonfigurative statement denying their having committed the wrong-doing (e.g., "No, I put two bowls in each package."). The other version of the story used the same statement as version 1, but inserted two or three ECFs that hyperbolized up, to make the denial statements hyperbolic (e.g., "No, I always put exactly two bowls in every package.").

The stories were organized into two printed sets. Set one used the non-hyperbolic versions of half the stories, and the hyperbolic versions of the other stories. Set two reversed the versions of the stories from set one. An equal number of participants received each set, resulting in counterbalancing of the items across participants. The order of the stories in each set was random. Instructions were printed on a coversheet.

Beneath each story was an 11 point rating scale with the anchor labels "definitely guilty" (coded as 1) and "definitely innocent" (coded as 11). Participants were instructed to mark each scale to indicate their perception of the speaker's innocence/guilt for that particular story.

5.3 Design and procedure

The design and procedure were identical to Experiment 1.

5.4 Results

Results revealed that hyperbolic denials (that hyperbolized up) were perceived as indicating more guilt ($M = 5.24$) than non-hyperbolic denials ($M = 6.17$), $t_1(29) = 2.98$, $p < .01$; $t_2(15) = 2.56$, $p < .05$; $d = .43$. These results are shown in Figure 3.

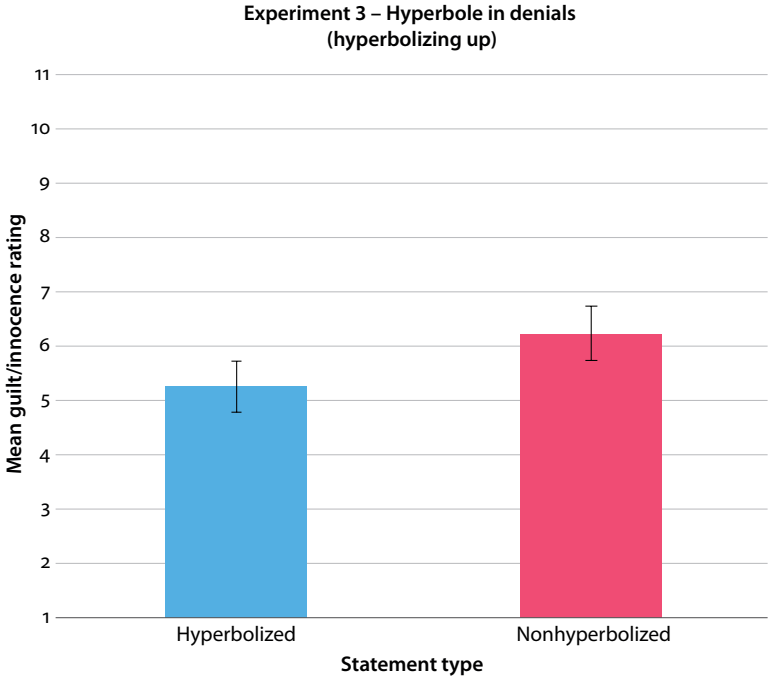

Figure 3. Mean guilt /innocence ratings ("definitely guilty" – coded as 1; "definitely innocent" – coded as 11) of speakers' responding to accusations of wrong-doing, as a function of response hyperbole (hyperbolizing up), (Experiment 3)

6. General discussion

To summarize, Experiments 1 and 2 revealed a dissociation – accused speakers exaggerating **direct** accusation denials looks relatively *guilty* compared to using no exaggeration (i.e., are less persuasive). But accused speakers exaggerating **ironic** denials look *innocent* relative to using no exaggeration (i.e., are more persuasive). Experiment 3 eliminated the explanation that the dissociation was driven by the directions of hyperbole – although Experiment 1 used predominantly hyperboles that exaggerated down (e.g., "I have never taken anything…") and Experiment 2 used hyperboles that predominantly exaggerated up (e.g., "I am always, continuously…"), the same pattern as Experiment 1 was found in Experiment 3 with hyperboles that exaggerated up (e.g., "I have always been completely…").

A claim has been made that these results demonstrate the need for inclusion of specific figurative comprehension mechanisms into pragmatic theory, in order to account for the dissociation observed. To elaborate on this claim, first consider an interpretation of a Relevance Theoretic account of comprehension of different accusation denials.

6.1 Non-ironic denials

Imagine first, two interlocutors in an accusation denial situation with non-ironic denials being used. One of the people, Ruiling, questions the other person, Manuel, about some act of wrong-doing (e.g., leaving an oven on overnight at a restaurant). At the conclusion of Ruiling's question to Manuel about the error, there are likely a few contextual assumptions in place (presented in brackets):

> [a response is expected] + [a **denial** or **confession** response is expected]

Based on the shared knowledge that questions demand responses, the first contextual assumption is that a response from Manuel is expected. Based on the content of Ruiling's question regarding whether Manuel committed the error, the second assumption is that Manuel's response will be either a confession or a denial of that accusation. If Manuel then makes the comment:

> No, I turn the oven off when I'm finished with it.

Ruiling can readily compute the positive cognitive effects (PCE) that confirm the contextual assumptions at hand:

> PCE – confirmation of expectation of response
> AND
> PCE – confirmation of expectation of **denial** response

along with a likely additionally-computed positive cognitive effect regarding Manual's state of guilt/innocence:

> PCE – Manuel is innocent

which constitutes the comprehension of the utterance. Putting all of the above together we have:

> [a response is expected] + [a **denial** or **confession** description is expected] + "No, I turn the oven off when I'm finished with it." =
> PCE – confirmation of expectation of response
> PCE – confirmation of expectation of **denial** response
> PCE – Manuel is innocent

However, had a comparable but hyperbolized response been uttered by Manuel instead:

> No, I always turn the oven completely and totally off when I'm finished with it.

additional positive cognitive effects could possibly get computed in order to satisfy optimal relevance. Some of these positive cognitive effects might occur similarly across different final interpretations of the utterance, but others might diverge into different distinct sets. Consider first the likely communal ones:

PCE_1 – ALWAYS…COMPLETELY AND TOTALLY*
(broadening explicatures, denoting WITH CERTAINTY)
PCE_2 – the accusation violates the speaker's expectations and preferences
PCE_3 – the speaker wishes to express this dissatisfaction
PCE_4 – the speaker draws attention to the violation by inflating it

The first contextual effect (PCE_1) is a standard solution to hyperbole-as-ECF by some relevance theorists – the hearer computes as a broadening explicature the semantic equivalent of the post hoc category to which the ECFs belong, which in the current case denotes, WITH CERTAINTY (Wilson & Carston, 2007; Carston & Wearing, 2011). The following three contextual effects (PCE_2 – PCE_4) then reflect the inflation hypothesis of hyperbole (Colston, 1997a, 2007; Colston & Keller, 1998) that hyperbole expresses a violation of expectations/preferences by inflating their deviation from reality. At this point though, the remaining positive cognitive effects may diverge into something like the following three sets:

Set A (innocence 1)
PCE_5 – the speaker is upset at this accusation
PCE_6 – the speaker is upset because he has a long record of not making such errors
PCE_7 – the speaker is referring to this long record as evidence that he did not commit the present error
PCE_8 – Manuel is innocent

Set B (innocence 2)
PCE_9 – the speaker is perhaps nervous because of this accusation
PCE_{10} – the nervousness is because the speaker fears the consequences of making such an error
PCE_{11} – these consequences are vivid and very salient for the speaker
PCE_{12} – the vividness/salience of the consequences is because the speaker is worrying that the belief of his guilt is erroneously and irrevocably set in the mind of the accuser
PCE_{13} – Manuel is innocent

Set C (guilt)
PCE_{14} – the degree of inflation exceeds the relatively small deviation of the original inquiry from expectations/preferences
PCE_{15} – "the lady doth protest too much, methinks" [3]
PCE_{16} – speaker is GUILTY

3. This is not a strict claim that the hearer would compute a positive cognitive effect representing the Shakespearian quote (Shakespeare, 1984), although that is certainly possible. Rather the hearer would compute the more general notion expressed by the quote that an overzealous denial of the wrong-doing, computed in PCE_{14}, without having any other reason for existing, typifies guilt.

Now these sets are of course not necessarily complete, one can easily quibble about their detailed content, the nesting of the computed positive cognitive effects, their sequence, etc. One could also propose many other possible groupings of positive cognitive effects. But the three sets above seem to be the most reasonable and likely default situations in which the speaker could be: (1) The speaker is innocent and earnestly trying to convince the addressee of this, hence the hyperbole, (2) The speaker is innocent but is afraid that he will be *mistakenly* found guilty, hence the hyperbole, and (3) The speaker is guilty and lying to get out of it, is fearful about getting caught and thus hyperbolizes.

The prediction that the experimental participants would opt for the final interpretation 3 (Set C – guilt) stems from the relative parsimony of that explanation in justifying the hyperbole's presence. The contender possibility of the speaker's guilt is salient given the accusation situation. There also exists no corroborating evidence in the context to bolster final innocent interpretations 1 or 2 (i.e., the speaker has a nervous personality, the speaker is overly sensitive, the speaker tends to believe others think ill of him, etc.). So interpretation 3 seems the most direct route to achieving optimal relevance.

6.2 Ironic denials

Now imagine the same interlocutors in a similar accusation denial situation with *ironic* denials being used. Here again, at the conclusion of Ruiling's accusatory question to Manuel:

> Did you spill this lotion on the floor?

at least two contextual assumptions would be in place:

> [a response is expected] + [a **denial** or **confession** response is expected]

Were Manuel to use an ironic (non-hyperbolic) denial, defined for present purposes as a non-hyperbolic denial with a standard irony marker, "Of course":

> Of course. I throw bottles of lotion on the floor.

Ruiling would again readily compute the positive cognitive effects that confirm the contextual assumptions at hand, along, most likely, with an elaborate set of additional positive cognitive effects:

> [a response is expected] + [a **denial** or **confession** description is expected] + "Of course. I throw bottles of lotion on the floor." =
>
> PCE_{17} – confirmation of expectation of response

PCE_{18} – the speaker thinks the accusation is ridiculous
PCE_{19} – the speaker expresses this attitude by pretending to find the accusation laudable
PCE_{20} – the portrayal of someone espousing the ridiculous accusation belittlingly characterizes that person/perspective
PCE_{21} – the portrayal renders the accusation more ridiculous
PCE_{22} – the speaker intends the addressee to recognize the pretense
PCE_{23} – the discontinuity between the propositions in the pretended laudable accusation (that the speaker is guilty) and implied reality of the situation (that the speaker is innocent), is humorous
PCE_{24} – the speaker is displaying a surplus of cognitive resources in having the wherewithal to create an ironic and humorous response in the current accusation situation
PCE_{25} – the enhanced ridiculousness of the accusation of the speaker's guilt, the humorousness of the situation, and the surplus cognitive resources displayed by the speaker are all evidence of the speaker's innocence
PCE_{26} – confirmation of expectation of **denial** response
PCE_{27} – Manuel is innocent

Here again, one could easily and perhaps endlessly debate the particular positive cognitive effects that would be computed in such a comprehension, how they might be nested or ordered, etc. Such a debate could also certainly be influenced by many additional factors like intonation (e.g., had the speaker stressed the word "I" in his comment, other positive cognitive effects related to that emphasis would doubtless have occurred, for instance that Manuel thinks another worker is a far likelier suspect). But the point remains that, according to several accounts of irony comprehension (see Gibbs & Colston, 2007; Colston, 2015a), something like the three mechanisms contained in the list of positive cognitive effects above, (1) pretense, (2) humor, and (3) mastery display, could very likely be involved in influencing the resulting meaning (Clark & Gerrig, 2007; Colston, 1997b, 2002; Colston & O'Brien, 2000a, 2000b; Gibbs, 2000; Gibbs & Colston, 2002, 2012; Gibbs & Izett, 2005; Ritchie, 2005; Roberts & Kreuz, 1994; Sperber, 1984; Williams, 1984). Also as mentioned previously, these three particular mechanisms are by no means an exhaustive list. One could also readily include parts or the entirety of other proposed mechanisms in irony, or indeed many kinds of general figurative language comprehension (e.g., echo/mention/reminder of norms/expectations/desires, etc., tinge, stereotypes of occupations of speakers, use of private keys, ingratiation, etc.), (see Gibbs & Colston, 2007 for a review of these mechanisms). We have only discussed the three listed purely for the sake of brevity.

Given the presence of these potential irony mechanisms, however, the addition of hyperbole to ironic denials should act very differently compared to an addition of hyperbole to non-ironic denials – a claim borne out by the present study's findings.

Hyperbole in non-ironic denials faces the full onslaught of the relevance theoretic process of optimizing relevance which would most likely render the hyperbole a guilt indicator (see "Non Ironic Denials" above), unless, again, there is some reason for the hyperbole's presence. But with ironic comprehension mechanisms in action, hyperbole would instead likely serve to enhance those mechanisms, resulting in a strengthening of perceived *innocence*.

Thus, the positive cognitive effects above for non-hyperbolic irony would most likely be enhanced with the addition of hyperbole to the ironic comment:

> Of course. I always throw bottles of lotion all over the floor.
>
> [a response is expected] + [a **denial** or **confession** description is expected] + "Of course. I always throw bottles of lotion all over the floor." =
>
> PCE_{17^*} – confirmation of expectation of response
> PCE_{18^*} – the speaker thinks the accusation is ***very*** ridiculous
> PCE_{19^*} – the speaker expresses this attitude by pretending to find the accusation ***very*** laudable
> PCE_{20^*} – the portrayal of someone espousing the ridiculous accusation ***strongly*** belittlingly characterizes that person/perspective
> PCE_{21^*} – this renders the accusation ***even*** more ridiculous
> PCE_{22^*} – the speaker intends the addressee to recognize the pretense
> PCE_{23^*} – the discontinuity between the propositions in the pretended laudable accusation (that the speaker is guilty) and implied reality of the situation (that the speaker is innocent), is ***very*** humorous
> PCE_{24^*} – the speaker is displaying a surplus of cognitive resources in having the wherewithal to create a ***very*** ironic and ***very*** humorous response in the current accusation situation
> PCE_{25^*} – the enhanced ridiculousness of the accusation of the speaker's guilt, the humorousness of the situation, and the surplus cognitive resources displayed by the speaker are all ***strong*** evidence of the speaker's innocence
> PCE_{26^*} – confirmation of expectation of **denial** response
> PCE_{27^*} – ***strong*** belief that Manuel is innocent

6.3 Relevance and pragmatic effects

This brings us to the question of whether pragmatic accounts like Relevance Theory alone can handle the variety of positive cognitive effects brought about by different uses of figurative language, such as different persuasion patterns when hyperbole is added to non-ironic versus ironic accusation denials, argued and empirically demonstrated above. The first point to make, perhaps obviously-so given the immediately preceding discussion, is that the relevance theoretic mechanism of positive cognitive effect computation *can* encompass a variety of purported irony

comprehension mechanisms offered by different irony accounts. Again, details concerning the particular effects, their nesting, order, etc., aside, Relevance Theory supplies a very useful framework for disassembling some regularly occurring, as well as idiosyncratic, particular aspects of irony comprehension, including, among others, pretense, humor and mastery display. It also can model analogous mechanisms in hyperbole such as inflation.

The question for purposes here then is whether those mechanisms, just labeled as "regularly occurring", are all *best* described with pragmatic relevance theoretic mechanisms. Could it be more parsimonious and cognitively economical to consider other ways in which some positive cognitive effects might be effectuated – ways involving automaticity, schematization, parallel processing and/or emergent meaning (see Colston, 2015a, for a fuller treatment of different causes of pragmatic effects)?

Consider first the contrast effect mechanism of verbal irony. In some instances of verbal irony (e.g., sarcasm) speakers will typically make false positive statements that reflect preferences or desires (e.g., saying, "Nice weather") to create a contrast with the usually more negative current reality (e.g., freezing rain), without an overt belittling portrayal of a fictitious or target speaker. Indeed, contrast effects produced by juxtaposing positive referent propositions/situations with current negative reality can render that reality particularly negative (Colston, 1997b, 2002; Colston & O'Brien, 2000a, 2000b). In other instances of "ironic restatement" (Colston, 2000), speakers will repeat false statements made by others, perhaps including irony markers, to contrast those statements with the truth of reality (e.g., repeating a speaker's erroneous comment, "Oh sure, 9/11 definitely, 'happened when Clinton was U.S. president!' ").[4] In both of these cases, the speaker does not just contrast statements and reality, but she additionally creates a contrast *effect*, in that she shifts the perception of the irony target toward the extreme negative, relative to being considered without ironic commentary. In the sarcasm example, the current reality of freezing rain is made to look even more negative (relative to the positive comment, "Nice weather"), and in the ironic restatement case, the erroneousness of the stated idea (and perhaps the ignorance of its proponent) is made to look even worse (in relation to the heightened validity feigned in the pretend agreement).

The main point for present purposes is that these contrast effects are ubiquitous in cognitive functioning, and are rooted in perceptual processes that are rapid, non-sequential, parallel, a-linguistic and largely automatic. Consider a simple contrast effect based in vision. If the left and right halves of a flat white panel (e.g. a

4. One could also consider ironic restatement a form of indirect echo in that a speaker repeats another speaker's comment, and in so doing alludes to a commonly held fact the repeated comment got incorrect (e.g., under which U.S. Presidency the 9/11 attacks occurred).

wall) are colored a *slight* difference in brightness, and if their boundary is a straight line, a *large* difference in perceived brightness between the two halves will occur in a perceiver with normal vision. But if the boundary between the halves is occluded (e.g., a narrow strip of tape covers the boundary), the perceived difference will greatly diminish and possibly disappear. Put differently, the perception of the right half will darken to the extent that, (1) the adjacent left half is lighter and (2) the two halves are juxtaposed.

These contrast effects are nearly instantaneous and quite compelling, and most importantly, do not require separate or sequential perceptions of the, (1) different halves, (2) backgrounds and foregrounds, (3) differences between the halves, etc. Rather they simply emerge directly and rapidly from a system that attempts to create an immediate percept from all the information available. Some aspects of the contrast effects in verbal irony comprehension (and many other areas of cognition) are also very likely derived in this fashion and thus may not be best encapsulated by a sequence of computed positive cognitive effects until optimal relevance is satisfied, akin to what was described above concerning the positive cognitive effects spurred by verbal irony. That speech unfolds linearly in time may lead us to search for a similarly based sequential computation system, but some effect computation may just arise from more basic systems that are non-sequential, like contrast effects in perception.

An additional argument concerns an apparent violation of the spirit of Relevance Theory with regard to cognitive efficiency/economy. The brilliance of the notion of optimal relevance for a communication system is that it couples the desire to maximize the amount/density of information leveraged in an utterance, with an equal desire to minimize the effort/energy expended to derive that information. It would thus seem contingent on such an account to allow automation- and schematization-of-meaning conveyance mechanisms outside of positive cognitive effect computation proper. These mechanisms, by their nature, enhance the dual goals of more meaning and less effort. Moreover, were the positive cognitive effect computation system of Relevance Theory to have to solely handle all the distinguishable mechanisms proposed for irony comprehension (or any figurative comprehension), rapid and efficient derivation of pragmatic meaning would seem compromised given the extent and complexity of those mechanisms.

In addition to the contrast effect mechanism just discussed, verbal irony also falls into reasonably predictable and frequently observed common patterns that could afford a great deal of efficiency via schematic representation. Sarcasm (e.g., state the expected/desired/preferred situation, to contrast those with reality), ironic praise (e.g., pretend to insult someone, to actually praise them), ironic restatement (e.g., restate an erroneous comment, to highlight its deviance from accuracy), self-deprecation (e.g., putting oneself down, to get people to like you), all fit this

description, as do other forms of verbal irony and figurative language in general. To argue then that each comprehension of verbal irony requires the sequential computation of a complex set of positive cognitive effects, when many may just be stored and then activated schematically, would seem to go counter to one of the strengths of the Theory – its embracement of cognitive efficiency. Indeed, given the complexity and richness of positive cognitive effects that arguably *do* occur under relevance theoretic mechanisms when irony is comprehended (i.e., the idiosyncratic effects that differ from situation to situation), the extent to which some basic mechanisms of irony comprehension could be offloaded to automatic, schematic, etc., mechanisms, the more efficient the system would be.

This brief speculation concerning Relevance Theory's account of the pragmatic products of irony and hyperbole comprehension is not intended as a criticism on the tenets of Relevance Theory proper. The twin ideas of the Cognitive-, and Communicative-Principles of Relevance along with the elegance of the positive cognitive effect and optimal relevance mechanisms we feel are extremely powerful ideas that are greatly advancing the attempt to understand pragmatic meaning derivation in language. We do wish, however, to elicit greater discussion on the *scope* of positive cognitive effects in accounting for all pragmatic products. Since many psychological comprehension explanations contain processes (e.g., cognitive, as well as embodied, social, emotional and others) that may at least partially circumvent the relevance theoretic positive cognitive effect computation mechanism or other similar pragmatic theoretical processes, in contributing to meaning, perhaps we ought consider them a category in their own right, perhaps as *cognitive-, embodied-, social-, etc., side-effects*.

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Metaphorical interplay of words and gestures in the Catholic liturgy

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This chapter analyzes selected Catholic liturgical rituals as motivated by verbal and gestural metaphors. Lakoff and Johnson (2003/1980) claim that the conceptual systems of religions are of metaphorical nature. The Catholic liturgy contains a number of gestures and movements used in worship, for instance, kneeling, bowing, raising hands, standing up, joining hands together, prostrating, beating oneself in the chest, or washing the hands. These gestures are often accompanied by specific spoken formulas, which express humiliation before God, regret for one's sins, submission to God, readiness to listen to God's word, or response to His will. The aim of this Chapter is to show that in line with the claim that metaphor is a multimodal phenomenon (Forceville, 2009), it is possible to interpret the interplay of words and certain liturgical gestures as metaphorical.

Keywords: Catholic liturgy, conceptual metaphor, monomodal metaphor, multimodal metaphor

1. Introduction

The aim of this chapter is to analyze the interaction of words and gestures used in the Catholic liturgy with the assumption that they constitute modes of conceptual metaphor. The study is based on the claim that conceptual metaphors can be expressed in various modes of communication, which include not only words, but also pictures, sounds, gestures, as well as smells and tastes (Forceville, 2009). In numerous cases, these modes may interact with each other in the expression of metaphorical thoughts, giving rise to the so-called *multimodal metaphors*.

The study focuses on the liturgy of the Holy Mass, which is regarded as the most important liturgical rite in the Roman Catholic Church (*CCC*, 1993, points 1324–1327). The research questions we intend to answer in this study are: Which metaphors are expressed via gestures or combination of gestures and words in the

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Catholic liturgy? Which gestures are used in the Mass as modes of metaphors? Which of those gestures can function as modes of metaphor on their own and which of them are used in combination with words? Following dictionary definitions, the notion of *gesture* in the present study is understood as a motion of one's head, one's hands, or one's body as a whole, made to express or emphasize thought (*CED*, 2014; *AHD*, 2016). This means that not only those gestures that are produced only with one's hands or other parts of one's body are analyzed, but also movements and postures of one's body as a whole. In fact, the same understanding of liturgical gestures can be found in *The Roman Missal* itself (2011, p. 29) as well as in works devoted to liturgical gestures (Forstner, 2001, pp. 17–23; Blachnicki, 2015, p. 36).

The Chapter has the following structure: Section 2 discusses the notions of monomodal and multimodal metaphors within the framework of cognitive semantics. Section 3 provides an overview of linguistic studies devoted to the Catholic liturgy. Section 4 discusses the role of gestures in the Catholic rituals. The presentation of the metaphors involving gestures in the liturgy starts with the GOD IS UP metaphor in Section 5. Personifications of GOD in the Catholic liturgy are illustrated in Section 6. Section 7 discusses the metaphors of SIN in the liturgy, and Section 8 presents metaphors of THE CHRISTIAN LIFE in the Mass.

2. Monomodal and multimodal conceptual metaphors

Since the central claim of Conceptual Metaphor Theory is that people's pervasive use of verbal metaphor reflects the fact that we think largely metaphorically, it can be claimed, as argued by Forceville, that "metaphor should manifest itself not just in language but also via other modes of communication, such as pictures, music, sounds, and gestures" (Forceville, 2009, p. 19). A *mode* of communication is defined by Forceville as "a sign system interpretable because of a specific perception process" (ibid., p. 22). Perception processes could be based on our five senses. Accordingly, we might list the following modes: (1) pictorial signs, (2) written signs, (3) spoken signs, (4) gestural signs, (5) aural signs, (6) musical signs, (7) olfactory signs, (8) gustatory signs, and (9) haptic signs.

Furthermore, Forceville (ibid. pp. 23–25) distinguishes between *monomodal* and *multimodal* conceptual metaphors. In the former type of metaphor, the target and the source domains are exclusively or predominantly rendered in one mode. The most obvious examples are *verbal metaphors* found in spoken and written discourse. A very frequent type of monomodal metaphor is also *visual metaphor*, expressed by means of pictorial signs. A good example provided by Forceville is A CAT IS AN ELEPHANT metaphor, which may be used in an animated film, where the cat is depicted with a trunk-like snout, or moving in an elephant-like manner,

without producing any sound or words accompanying the scene.[1] However, the same metaphor in the same cartoon can be expressed as a *multimodal metaphor*, that is, as one whose target and source domains are represented in different modes. For instance, in addition to its pictorial representations, the cat may make a trumpeting sound, using the mode of sounds. We can also imagine combining the visual and aural representation of that metaphor with verbal signs, when, for instance, another character in the film shouts "Elephant!" to the cat, which is being metaphorically presented as an elephant.

As claimed by Müller and Cienki (2009, p. 298), the use of spoken language "is inherently a process of multimodal communication, involving not only the oral production of sounds and its aural reception, but also the production of various kinds of bodily motion in space, which the addressee can perceive visually". In this view, the consequence of the multimodal character of metaphors used in spoken language is that the gestures accompanying our speech allow us to identify manifestations of metaphorical source domains (ibid., p. 321). However, it bears emphasizing that not all gestures that accompany speech are metaphorical in nature. McNeill (2005, pp. 38–41) distinguishes four kinds of gestures: (1) *iconics*, which present images of concrete entities or actions; (2) *beats*, which beat time along with the rhythm of speech; (3) *deictics*, which point at specific entities or places; (4) *metaphorics*, which present images of the abstract. Cienki (2008, p. 10) notices that the degree of conventionality of metaphors expressed by means of gestures varies from conventionalized gestures, such as the thumbs-up gesture, to novel gestures used only in particular situations. Interestingly, to Langacker (2008, p. 249), the existence of metaphorical gestures in communication, both conventionalized as well as the novel ones, confirms the cognitive-semantic claim that metaphor constitutes a fundamental aspect of conceptual organization.

3. Linguistic studies on the Catholic liturgy

The term *liturgy* refers to the public worship of God performed by the Church. Etymologically, the word *liturgy* means 'any service done for the common welfare of the people'. It is derived from Greek λειτουργία (leitourgia) and composed of λειτος (leitos), an adjective meaning 'pertaining to the people' (λαός – laos), and ἔργον (ergon), a noun meaning 'work' (Miller, Krouse, & Austin, 2002, p. 727). The liturgical rituals in the Catholic Church include sacramental worship, especially the

1. Obviously, in the examples presented here the pictorial metaphor A CAT IS AN ELEPHANT is based on metonymy: The trunk-like snout or the elephant-like movements constitute salient characteristics of elephants, leading the viewer to perceiving the cat as an elephant.

sacrament of the Eucharist, commonly called the Holy Mass, but also the other six sacraments celebrated in the Roman Catholic Church: baptism, confirmation, confession, anointment of the sick, marriage, and ordination to the priesthood. Furthermore, the Catholic liturgy encompasses the so-called *liturgy of the hours*, which is based on prayers with psalms and biblical readings, as well as some non-sacramental rituals, such as special blessings and the funeral rite (*CCC*, 1993, points 1066–1690).

Liturgical language and rituals can be found among topics that attract interests of various scholars, including linguists. For instance, Crystal (1964, p. 152) observes that, from the formal-linguistic point of view, liturgical texts can be characterized by the use of special grammatical words and inflections (e.g. *thou, brethren*), special lexical words (e.g. *vouchsafe, behold*), vocative structures with *O* (e.g. *O God*), unusual word order (e.g. *…he, having eaten, went…*), special subjunctive and imperative forms (e.g. *The Lord be with you; Glory be to the Lord*), and distinctive idioms (e.g. *who livest and reignest*). However, it has also been noticed by Crystal (ibid.) that the tendency to preserve the archaic and formulaic language forms in liturgical texts is prone to changes triggered by the changing expectations of the believers and attitudes of the Church authorities toward the liturgy.

Next, from a socio-linguistic point of view, Crystal (1990, pp. 124–138) discusses the various functions of liturgical language. The author lists five different language functions in the language of the Catholic Mass: *informative*, which is about giving others information (e.g. during the introductory rite or the homily); *identifying*, which means signaling to others our personal, ethnic, or social identity (e.g. while making the sign of the cross or during the introductory greeting); *expressive*, which concerns revealing our emotions through language (e.g. in the penitential rite); *performative*, which relates to bringing about the effects of one's words used (e.g. in the acts of absolution, and consecration of the bread and wine); and *historical*, concerned with summarizing the past and preserving it (e.g. in the Bible readings). Interestingly, the other functions taken into consideration by Crystal seem to be absent from the texts used in the Catholic liturgy, including the *aesthetic* function, which means using language for its own sake, such as playing with words and having fun; the *heuristic* function, which involves speaking aloud while we are thinking out a problem; and the *social* function, when we are engaging in a purely social use of language.

The research into liturgical language has been also based on Austin's Speech Act Theory (1962). In his views, in certain types of utterances, called *performative utterances*, language has the power to change reality. Speech Act Theory has been successfully adapted in analyzing the liturgical rituals of sacraments: For instance, when the priest pronounces certain canonical formulas, such as the absolution formula during the sacramental confession ("I absolve you"), it is believed that what that sentence means really happens (Duffy, 2005, pp. 214–219).

When it comes to a cognitive perspective, religious language seems to be an extension of everyday conventional language. It is claimed that the conceptualization of religious experiences is based on the same mechanisms as the conceptualization of any other abstract domain, such as LIFE, LOVE, TIME, EMOTIONS, and such highly elaborated fields as ART or SCIENCE (Kuczok, 2014, p. 254). In their seminal work on conceptual metaphor, Lakoff and Johnson state that "the conceptual systems of cultures and religions are metaphorical in nature" (2003/1980, p. 40). Furthermore, Kövecses (2011, p. 353) claims that a cognitive-linguistic analysis of religious discourse reveals our reliance on the ordinary to make sense of our experience outside the ordinary with the hope to meet the divine. The application of cognitive semantics to the analysis of religious language is also mentioned by Crystal (2018, pp. 7–8) in his presentation of the history of theolinguistics, a branch of linguistics that specializes in the study of religious language and discourse. An illustration of using cognitive linguistics in the analysis of the Catholic liturgy can be the study described by Sweetser (2000, p. 314): The author discusses the role of conceptual blending in human performative rituals, whose function is to bring about a desired state of affairs as a result of performing a physical or a linguistic act. An example provided by her is the liturgical ritual of the Holy Communion: The consumption of the bread and wine, which represent the Body and Blood of Christ. Through conceptual blending, the ritual is conceptualized as leading to the union between the human and the divine: The act of consumption has a performative function, bringing about the union between a human being and God.

4. Gestures in the Catholic liturgy

Although the Catholic liturgical rituals have been changing throughout history of the Church, their present state has been shaped after the reforms inspired by the Second Vatican Council (1962–1965). The nature of the Catholic rituals is that there is little space for spontaneity and creativity during Church service: The order of the ritual, the words and formulas used, along with gestures produced by participants are determined by official regulations. Any changes or modifications, for instance in order to comply with some local traditions or sensitivity, require official approval from the Church authorities. It is worth adding that the gestures used in the liturgy are not random or arbitrary, but most of them have a very long history, dating back to the beginnings of the Church around two thousand years ago.

The *Catechism of Catholic Church* (1993, point 1153), states that "a sacramental celebration is a meeting of God's children with their Father, in Christ and the Holy Spirit; this meeting takes the form of a dialogue, through actions and words". In this dialogue, the faithful address God in their prayers, express their thanks to

him, praise him, show regret for their sins, express their faith, or ask him for grace, and he answers them through the words of the Bible or through the actions and words of the priest, who represents Christ, the Son of God. The aim of the liturgical dialogue is to bring people salvation (Blachnicki, 2015, p. 5). The consequence of the fact that the liturgy is a dialogue is that liturgical rituals, like any form of spoken communication, can be perceived as a combination of words and gestures. Moreover, the Catechism states that "the symbolic actions are already a language, but the Word of God and the response of faith have to accompany and give life to them" (*CCC*, 1993, point 1153). The special role of gestures used in the liturgy has also been emphasized by Guardini (1998, p. 24), who states that "the bodily movements, the actions, and the material objects which it employs are all of the highest significance". The author claims that, thanks to the combination of words and gestures, the Catholic rituals are capable of expressing a truth more strongly and convincingly than the mere word of mouth.

However, despite the fact that a remarkable number of studies have been devoted to liturgical language and gestures, most of them focus on their symbolic meaning and interpretation (e.g. Forstner, 2001; Donghi, 2009; Blachnicki, 2015). It seems that little attention has been paid to the metaphorical nature of these gestures and their interplay with words as modes of conceptual metaphors.

5. The GOD IS UP metaphor in the Catholic liturgy

The first metaphor that seems to be frequently expressed by means of gestures combined with words in the Catholic liturgy is the GOD IS UP metaphor. It belongs to the so-called *orientational metaphors*, which constitute part of the spatial organization of people's lives (Lakoff & Johnson, 2003/1980, pp. 15–18). It bears emphasizing that the metaphor based on the UP-DOWN opposition is strongly connected to the values people attribute to the reality as conceived by them: Usually, things that are positive are UP, while those that are negative are DOWN (Krzeszowski, 1997, p. 137). The conceptualization of GOD as BEING UP is rooted in the language of the Bible, where people look for God's help upward and believe that he watches the world from above (e.g. Psalms 121: 1; Psalms 80: 14) (Kuczok, 2009, p. 163). During the celebration of the Mass, the metaphor can be noticed in the gesture performed by the priest, who is supposed to keep his arms raised throughout the so-called Eucharistic Prayer that follows the words "Lift up your hearts", to which the participants in the ceremony respond by saying: "We lift them up to the Lord" (*RM*, 2011, p. 48). Forstner (2001, p. 329) emphasizes that the gesture of raising hands was widespread in various religions in the ancient times, when praying people often extended their hands toward the place where, as they believed, their god lived,

desiring to touch or contact it. Guardini (1956, p. 13) comments on this gesture, saying that "when the soul is entirely open to God with every reserve done away with and every passage of its instrument unstopped, and it flows at the full outward and upward, then the hands are uplifted and spread apart with the palms up to let the river of the spirit stream out unhindered". Since in the liturgy GOD is conceptualized as BEING UP, the UP-DOWN metaphor gives rise to the metaphors PRAYING IS TURNING UPWARD and REACHING GOD IS MOVING UPWARD.

Another good example of expressing these metaphors by means of gestures is raising the consecrated bread and wine up, as if they were an offering made to God by the priest, who at the same time says: "Through him, and with him, and in him, O God, almighty Father, in the unity of the Holy Spirit, all glory and honor is yours, for ever and ever" (*RM*, 2011, p. 49). On yet another occasion, in one of the versions of the rite of consecrating the bread and wine, the priest raises his eyes while saying: "he took bread in his holy and venerable hands, and with eyes raised to heaven to you, O God, his almighty Father, giving you thanks, he said the blessing, broke the bread and gave it to his disciples" (ibid., p. 308).

In line with this way of thinking of God in the Mass, THE COMING OF THE HOLY SPIRIT is metaphorically expressed as COMING DOWN. When blessing the bread and wine during the Holy Mass, the priest says: "You are indeed Holy, O Lord, the fount of all holiness". Next, he joins his hands and, holding them extended over the offerings, says: "Make holy, therefore, these gifts, we pray, by sending down your Spirit upon them like the dewfall" (ibid. p. 646).

It is important to notice that in all the examples presented in this section the metaphors GOD IS UP, PRAYING IS TURNING UPWARD, and REACHING GOD IS MOVING UPWARD are expressed multimodally, through an interaction of words in gestures used during the Catholic Mass.

6. Personifications of GOD in the Catholic liturgy

Personification is a type of conceptual metaphor in which the source domain of the mapping is a human being, and non-human entities can be comprehended in terms of human motivations, characteristics and activities (Lakoff & Johnson, 2003/1980, pp. 33–34). In the Roman Catholic liturgical rituals it is possible to identify three metaphorical personifications referring to God: GOD IS A KING, GOD IS A TEACHER, and GOD IS A CLOSE FRIEND.

The GOD IS A KING metaphor is rooted in the biblical language, where he is depicted as sitting on the throne like a monarch (e.g. Isaiah 6: 1–2), and ruling over the whole world and people (e.g. Psalms 97: 5; I Samuel 12: 12) (Kuczok, 2009, pp. 158–159). The complementary metaphor, CHRISTIANS ARE GOD'S SUBJECTS, is

reflected in the liturgy in a number of gestures: Kneeling, joining hands together, bowing, and in prostration, which means lying down on the floor face down. The gesture of bowing can, for instance, be observed when the deacon, who is to proclaim the Gospel, bows profoundly before the priest, asks for the blessing, saying in a low voice: "Your blessing, Father". The priest replies: "May the Lord be in your heart and on your lips, that you may proclaim his Gospel worthily and well, in the name of the Father, and of the Son, and of the Holy Spirit." The deacon signs himself with the Sign of the Cross and replies: "Amen" (*RM*, 2011, p. 523). In fact, in the Catholic liturgy, two different types of bowing are used, both of them based on the same metaphor: the bow of the body and the bow of the head. In the described scene of the Holy Mass, the deacon is supposed to bow profoundly before the priest, that is, to make a bow of the body. The priest gives the deacon his blessing. The second type of bowing, the bow of the head, should be made "when the three Divine Persons are named together and at the names of Jesus, of the Blessed Virgin Mary, and of the Saint in whose honor Mass is being celebrated" (ibid., p. 63). Additionally, it is said in *The Roman Missal* that the priest makes a slight bow when he pronounces the words of Jesus Christ during the consecration of the bread and wine (ibid.). Thus, we can say that bowing in the Catholic liturgy expresses the metaphors GOD IS A KING and CHRISTIANS ARE SUBJECTS multimodally. Kneeling also shows that man needs to humble down before God like a subject before a mighty ruler. It is practiced by the participants in the liturgy of the Eucharist during the consecration of the bread and wine. They are supposed to kneel and observe what the priest is doing at the altar, without using any words or formulas (ibid., p. 29). Thus, the metaphors GOD IS A KING and CHRISTIANS ARE GOD'S SUBJECTS are expressed monomodally, via gestures only. In the Catholic rituals, it is actually possible to distinguish between kneeling, i.e. resting on the knees for some time, as in the example provided above, and genuflecting, i.e. bending at least one knee to the ground for a moment (Forstner, 2001, pp. 18–19). Genuflecting can be seen, for instance, after the rite of consecration, when it is made by the priest (*RM*, 2011, p. 29). Both kneeling and genuflecting have the same function and can be seen as expressing the same gestural metaphors in the liturgy. The deepest humiliation is expressed in the liturgical gesture of prostration. It appears in the Catholic liturgy during the ceremonies of Good Friday, when the priest enters the church in silence and lies down on the floor face down at the beginning of the ritual (ibid., p. 314). In this situation, the gesture expresses the metaphors GOD IS A KING and A CHRISTIAN IS GOD'S SUBJECT monomodally. Another gesture that expresses these metaphors is joining hands together, which is made by the priest and the deacon in the liturgy at various moments, usually while saying certain prayers. For example, after the introductory rites to the Eucharist, the priest calls upon the congregation to pray, saying, with hands joined: "Let us pray" (*RM*, 2011, p. 46), so the discussed metaphors are

expressed multimodally. The gesture comes from the medieval German custom of showing respect: A vassal approached his liege lord with his hands joined together in order to receive land. The Church adopted this lay tradition as the gesture seemed proper to express people's allegiance to God (Forstner, 2001, p. 20).

The next personification, GOD IS A TEACHER, can be seen in the Catholic liturgy in the sitting posture taken by the congregation while listening to the readings from the Bible or to a sermon, which is supposed to explain the meaning of God's Word to the faithful (*RM*, 2011, p. 523). Thus, the God is a teacher metaphor is complementary with the CHRISTIANS ARE GOD'S STUDENTS metaphor. Forstner (2001, p. 20) states that we sit while relaxed. The author connects the liturgical sitting with the biblical scene with Mary of Bethany, who sat down at the feet of Jesus in order to listen to his words (Luke 10: 39). In the Mass, the metaphors GOD IS A TEACHER and CHRISTIANS ARE GOD'S STUDENTS are expressed monomodally, as no words or formulas accompany the sitting posture during the liturgy.

The GOD IS A CLOSE FRIEND metaphor in the Catholic liturgy can be identified in the gesture of kissing the altar by the priest at the beginning and at the end of the Mass, as well as the *Book of Gospels* used during the Mass. Forstner (2001, p. 21) claims that kissing as a liturgical gesture is an expression of love, and Donghi (2009, p. 101) says that the gesture "is felt particularly by the religious person to express the desire of communion with the transcendent". Although the altar and the *Book* are not God, both these objects metonymically represent God himself: The altar is the place of commemorating Christ's Last Supper, and the *Book* contains the Word of God.[2] Since no words accompany the gesture of kissing the altar (*RM*, 2011, p. 30), the gesture expresses the metaphor GOD IS A CLOSE FRIEND monomodally. However, when kissing the *Book of Gospels* after reading from it during the Mass, the priest or deacon kisses the *Book*, saying quietly: "Through the words of the Gospel may our sins be wiped away" (ibid., p. 525). Thus, here we can talk about the multimodal character of the metaphor GOD IS A CLOSE FRIEND. Kissing also appears in the adoration of the cross in the liturgy celebrated on Good Friday, when the priest and all the other participants in the ritual approach the crucifix and kiss it in silence (ibid., p. 330). Here again, the crucifix metonymically represents God. Thus, the gesture of kissing the cross can be treated as a monomodal expression of the metaphor GOD IS A CLOSE FRIEND.

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2. We can talk here about metonymic representations of God, and interaction of metaphor and metonymy in the way the gesture of kissing is used in the Catholic liturgy. Perhaps metonymy can be identified in a number of other gestures used in the Holy Mass. However, the proper treatment of the metonymic conceptualizations involved in liturgical gestures and their interaction with metaphors would require conducting an independent study. Our Chapter focuses on the metaphorical mappings present in the Catholic liturgy.

7. Metaphors of SIN in the Catholic liturgy

In the Catholic liturgy, the notion of SIN is conceptualized metaphorically and expressed by means of special gestures. First of all, SIN in the Mass is metaphorically perceived as SLEEPING. This metaphor is rooted in the Bible, where Christ calls his disciples to stay awake and watch themselves, and he warns them against falling to sleep because they might miss his coming and commit a sin of failing him in this way (Matthew 24: 42–51). Thus, from the metaphorical point of view, DOING RIGHT is understood as BEING AWAKE, while SIN is perceived as SLEEPING. During the Mass, this metaphor of SIN can be identified in the gesture of striking one's breast during the penitential rite: *The Roman Missal* (2011, p. 515) says that, during that rite, all recite together the formula of general confession: "I confess to almighty God, and to you, my brothers and sisters, that I have greatly sinned, in my thoughts and in my words, in what I have done and in what I have failed to do", and, striking their breast, they say: "through my fault, through my fault, through my most grievous fault". As Guardini comments on the meaning of that gesture: "The blow also is to wake us up. It is to shake the soul awake into the consciousness that God is calling, so that she may hear, and take his part and punish herself. She reflects, repents and is contrite" (Guardini, 1956, p. 18). Following that interpretation of the gesture of striking one's breast, it is possible to identify here another metaphor: THE SOUL IS THE BODY. People strike their breast in order to wake up their souls and start watching themselves. Since the gesture of beating one's breast is used together with words, the metaphors DOING RIGHT IS BEING AWAKE, SIN IS SLEEPING, and THE SOUL IS THE BODY are expressed multimodally in the Catholic liturgy.

Another metaphor of SIN expressed in the mode of gestures in the Catholic liturgy is SIN IS DIRT. This metaphor is rooted in the Bible, where DOING RIGHT is often perceived as BEING CLEAN, while SIN is conceptualized as UNCLEANLINESS (e.g. Proverbs 20: 9) or DIRT that needs to be washed away (e.g. Psalms 51: 2). The metaphor can be found in the gesture of washing hands, which is done by the priest before the Eucharistic Prayer, involving the consecration of the bread and wine. The liturgical instruction says that the priest, standing at the side of the altar, washes his hands, saying quietly: "Wash me, O Lord, from my iniquity and cleanse me from my sin" (*RM*, 2011, p. 530). A similar gesture, expressing the same meaning, is sprinkling the congregation with holy water. It may be made as part of the penitential rite at the beginning of the Holy Mass: The priest blesses the water, using a special prayer, in which he asks God, who "willed that through water, the fountain of life and the source of purification, even souls should be cleansed and receive the gift of eternal life", to "bless this water, by which we seek protection on this your day". Then, he takes the aspergillum, and sprinkles the faithful with the water (ibid., pp. 1453–1455). Here, again, SIN is metaphorically conceptualized as

DIRT that should be cleansed. In both those moments during the Mass, when the priest sprinkles the faithful with water or when he washes his hands, the metaphors DOING RIGHT IS BEING CLEAN and SIN IS DIRT are expressed multimodally through a combination of words and gestures.

8. Metaphors of THE CHRISTIAN LIFE in the Catholic liturgy

We can notice that certain gestures used in the Catholic liturgy metaphorically express the understanding of what it means to be a Christian, that is, to live a Christian life. First, walking during the liturgy, for example, at the beginning of the Mass, can be perceived as a mode of instantiating the metaphor THE CHRISTIAN LIFE IS A JOURNEY. In the instruction concerning the beginning of the Eucharist in *The Roman Missal* (2011, p. 513), we read: "When the people are gathered, the priest approaches the altar with the ministers while the Entrance Chant is sung". Actually, the JOURNEY metaphor seems to be prevalent in the Christian discourse, as shown, for instance, by Kuczok (2014, pp. 98–117): Understanding of THE CHRISTIAN LIFE AS A JOURNEY is considered to be an extension of the conceptual metaphor LIFE IS A JOURNEY, which is a very common way of our conceptualization of LIFE. In fact, since the procession aims at the altar, which can metonymically stand for GOD, we can claim that the walking at the beginning of the Holy Mass expresses the metaphor THE CHRISTIAN LIFE IS A JOURNEY TO GOD. This metaphor is expressed multimodally, as a combination of movements and words sung in the Entrance Chant.

Another liturgical gesture that is worth our attention is the standing position of the members of the congregation in various parts of the Mass, for instance, during the introductory rites, while the Gospel is proclaimed, during the Profession of Faith and Universal Prayer, and most of the Eucharistic Prayer (*RM*, 2011, pp. 29). The metaphor expressed by means of standing is an example of orientational metaphor: BEING A CHRISTIAN IS UP. Guardini (1956, p. 16) comments on that liturgical bodily posture, saying that "We may feel at times a sort of constraint in kneeling. One feels freer standing up, and in that case standing is the right position". As claimed by Forstner (2001, p. 20), the upright position of a standing person expresses alertness and attention, as well as readiness to serve, fulfill orders, or start a journey. As the author suggests, that bodily posture may also be connected to rising from the dead, which, in the Catholic faith, is a Christian's future thanks to Christ's resurrection. Since the standing position of the faithful is combined with using various spoken formulas, the metaphor BEING A CHRISTIAN IS UP is expressed multimodally.

9. Conclusions

The study presented in this chapter has shown that the gestures used as modes of expressing metaphorical meaning in the Catholic Mass can be classified into two categories. The gestures in the first group interact with words to cue sources of multimodal metaphors. Here, we can list standing, walking, bowing, joining hands, raising hands, extending hands over something, raising the bread and wine, raising eyes, kissing, washing hands, sprinkling people with water, and beating one's breast. Those gestures in combination with words express such metaphors as GOD IS UP, REACHING GOD IS TURNING UP, PRAYING IS MOVING UPWARD, COMING OF THE HOLY SPIRIT IS COMING DOWN, DOING RIGHT IS BEING AWAKE, SIN IS SLEEPING, THE SOUL IS THE BODY, DOING RIGHT IS BEING CLEAN, SIN IS DIRT, GOD IS A KING, A CHRISTIAN IS GOD'S SUBJECT, GOD IS A CLOSE FRIEND, THE CHRISTIAN LIFE IS A JOURNEY TO GOD, and BEING A CHRISTIAN IS UP. The second category of liturgical gestures cue sources of conceptual metaphors on their own, creating monomodal metaphors. In this group we can list sitting, kneeling, and prostrating. The metaphors expressed via those gestures encompass such mappings as GOD IS A TEACHER, CHRISTIANS ARE GOD'S STUDENTS, GOD IS A KING, and A CHRISTIAN IS GOD'S SUBJECT.

To sum up, the Catholic liturgy reveals itself as a form of human activity that is abundant in metaphors concerning the abstract sphere of religious notions, expressed by means of gestures or combinations of gestures with words. In fact, the research into the multimodal metaphors in the liturgy could be continued and developed with the studies of how the other modes cue metaphorical sources. For instance, the liturgical music, the interplay between sounds and silence, the smells of the incense, the taste of the bread and wine received as the Holy Communion, or the use of light and darkness in certain Catholic liturgical rituals should be expected to give rise to metaphorical meanings. Furthermore, it would be worth attention to compare the types of metaphors expressed by means of gestures in the Catholic liturgy with those that can be found in the rituals of other Christian denominations: Orthodox and Protestant churches, as well as those non-Christian religions that also have a tradition of worship rituals.

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PART IV

Typology of figures and cognitive models

Figures of speech revisited

Introducing syntonymy and syntaphor

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The aim of the paper is to add the terms and concepts of synecdochic metonymy (syntonymy) and synecdochic metaphor (syntaphor) to the traditional typology of figures of speech. It is argued that the two additional terms are useful as they cover important intermediate categories of transfers of meaning between synecdoche, understood as vertical transfer based on various levels of taxonomy, and two other "master tropes", namely metonymy and metaphor. The proposed concepts and terms may not only help identify and designate certain borderline cases of figurative language, but also add precision and adequacy to the analyses of lexical polysemy. They may also contribute to a cognitive account of catachresis.

Keywords: metonymy, metaphor, synecdoche, master tropes, polysemy, catachresis, basic level

1. Between synecdoche and metonymy – syntonymy

In the famous passage from Aristotle's *Rhetoric*, quoted below, all well-known figurative transfers of meaning were considered as metaphor.

> Metaphor is the application of a strange term either transferred from the genus and applied to the species, or from the species to the genus, or from one species to another, or else by analogy.

Aristotle's view was quickly abandoned, however, as it became clear that transfers of meaning based on the relations between genus and species, species and species, and analogical concepts differ significantly and each of them deserves not only a separate definition and description, but also its own term. Accordingly, classical rhetoric, whose main representative is often considered Quintilian (1 A.D) with his *Institutio Oratoria*, distinguished three master tropes: metaphor (based on

https://doi.org/10.1075/ftl.9.10bie

analogy), metonymy (based on contiguity) and synecdoche (based on genus–species[1] and part–whole relations) (see e.g. Ziomek, 1990; Nerlich, 2010). This tripartite division survived for a long time. However, with Roman Jakobson's influential metaphor-metonymy dichotomy (cf. Jakobson and Halle, 1956/64), the traditional synecdoche was included in metonymy. As a result, both genus–species and part–whole relations began to be regarded as metonymic, the tradition still very much alive in Lakoff and Johnson (1980), who explicitly referred to PART-FOR-WHOLE synecdoche as a kind of metonymy, Kövecses and Radden (1999), who included *pill* used for *birth-control pill*, clearly a genus–species relation, in their list of metonymies, and in the work of Barcelona (2000). Halliday (1985, Chater 10) separated synecdoche from metonymy but continued to define it in terms of PART–WHOLE relations. On the other hand, in the 1970s and 1980s a number of scholars associated with Group μ in France and Todorov (1979) resurrected the classical tradition and emphasized the role of synecdoche at the expense of metonymy (see the discussions in Ziomek, 1990 and Nerlich and Clarke, 1999). It seemed that the terminological confusion was finally resolved with the realization, voiced emphatically by Burkhardt (1996), Seto (1999, 2003) and Nerlich and Clarke (1999, 2010), that PART–WHOLE relations, as other relations based on contiguity, are essentially qualitative, i.e. they involve associated entities or concepts which are of different kinds, whereas genus–species relations, based on set-inclusion, are quantitative, i.e. they involve classes of entities which differ in the number of their members, whereby the smaller class is included in the bigger class. Thus, it became obvious that what Seto referred to as category-relations (c-relations) and entity-relations (e-relations) give rise to two very different kinds of transfer of meaning and, consequently, should be regarded as different figures of speech. The new typology of figures of speech, reminiscent of the classical three master tropes theory but consistently based on the distinction between c-relations and e-categories, was proposed by Nerlich and Clarke (1999) and is reproduced below in Figure 1.

Although the new approach to the distinction between synecdoche and metonymy seemed to be based on solid cognitive foundations, most cognitive linguists have refused to accept it and continue to use the term "metonymy" in its broad sense, including the transfers of meaning based both on e- and c-relations. This

1. It should be borne in mind that the term genus–species relation used by Aristotle and throughout this paper, and indeed in most of the literature on the subject, is in itself metonymic and stands for any general-particular relation based on various taxonomies (but see footnote 15). Probably the best known of these taxonomies is the one used in biology, where several levels are distinguished, starting from Domain, through Kingdom, Phylum, Class, Order, Family, and ending in Genus and Species as the most specific levels. Thus, e.g. using the noun *animal* to refer to a dog is an instance of KINGDOM FOR SPECIES transfer.

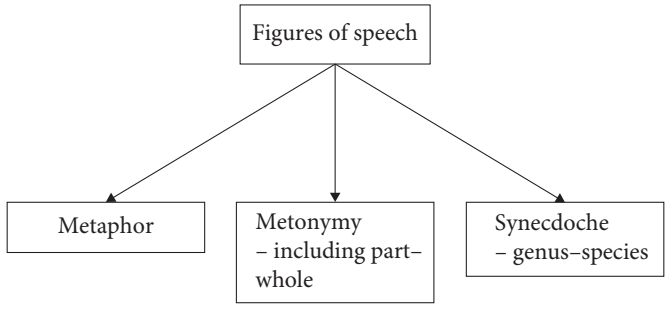

Figure 1. General typology of figures of speech according to Nerlich and Clarke (1999)

view was also endorsed by Peirsman and Geeraerts (2006) in their prototype model of metonymic patterns, although they admitted that "we should be careful not to range the hyperonym and hyponym pattern [i.e. genus–species relation – BB] too rapidly with metonymy. In any case, we seem to have reached the borderline of metonymy with hyperonym and hyponym pattern: to the extent that it is a metonymy at all, it is a highly specific and peripheral case" (Peirsman and Geeraerts, 2006, p. 308).

Those who still consider the genus–species transfer as metonymic tend to mark its special status in its name. For instance, Ruiz de Mendoza and Galera Masegosa (2014) call it simply GENERIC FOR SPECIFIC metonymy, while others resort to modifying the term "metonymy" by some sort of qualifier. For instance, Dancygier and Sweetser (2014) refer to the metonymy based on genus–species (i.e. hyperonym–hyponym) relations as "category metonymy" and oppose it to "frame metonymy".

The situation in which most cognitive linguists refuse to accept Seto's and Nerlich and Clarke's separation of synecdoche from metonymy is all the more surprising since genus–species transfers in fact defy most definitions of metonymy used in cognitive literature. For instance, if we consider Kövecses and Radden's (1998) definition, which says that metonymy is "a cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the same domain, or ICM", it would be odd to argue that pill and contraceptive pill are two different, independent components of the ICM of, say, CONTRACEPTION. Likewise, Taylor's (1989, p. 123) definition, which says that "the essence of metonymy resides in the possibility of establishing connections between entities which co-occur within a given conceptual structure", seems to exclude genus–species relations as these relations are there as a matter of their meaning, as one entails the other, and no connections between them need be established.

Finally, Barcelona's schematic, i.e. the most general, definition of metonymy excludes genus–species transfers as well. The definition is:

> Metonymy is an asymmetric mapping of a conceptual domain, the source, onto another domain, the target. Source and target are in the same functional domain and are linked by a pragmatic function, so that the target is mentally activated.
> (Barcelona, 2011, p. 52)

The reason why the genus–species transfer is excluded from Barcelona's definition is that there is no mapping since in this kind of relation one domain (the species) is always extensionally included in the scope of the other (the genus) and no pragmatic function is necessary to activate them. This in turn points to the most critical difference between synecdoche on the one hand, and metaphor and metonymy on the other: unlike metaphor and metonymy, synecdoche does not represent change of literal designation, but only change of the level of schematicity of literal designation, e.g. from the level of animal to the level of dog, and from the level of dog to the level of terrier, poodle, Alsatian, etc. Therefore, it seems perfectly justified to subscribe to Burkhardt's, Seto's, and Nerlich and Clarke's proposal and develop it further. One step in this direction is Koskela (2011), who analyzes genus–species relations in terms of Croft's (2006 [1993]) theory of metonymy as domain highlighting but resorts to the traditional terms "broadening" and "narrowing" and simply refers to the result of those transfers as "vertical polysemy".

Another attempt to further support Nerlich and Clarke's and Seto's separation of synecdoche from metonymy is Bierwiaczonek (2013), where I defend it by elaborating on Seto's arguments and showing that genus–species transfer, i.e. synecdoche, is based on the conceptual relation of hyponymy, i.e. the kind-of relation, while ordinary metonymy is based on various sorts of meronymy (or partonymy), i.e. the part-of relation, and thus has different logical properties, e.g. a hyponym entails its hyperonym, which is not the case in ordinary metonymic source-target relations, usually characterized by what Panther and Thornburg (2003) call "contingency".[2] Thus, the unique properties of the genus–species transfer result from the fact that, extensionally, the target is included in the vehicle (i.e. the set of poodles is included in the set of dogs), while intensionally, the meaning of the vehicle is included in the meaning of the target (i.e. each breed of dog has at least some of the distinguishing semantic properties of the more general concept of DOG + its own idiosyncracies). I pointed out, however, that there are systematic borderline cases which combine close associative links with taxonomic relations. These are cases where one lexeme denoting category C1 is used for another category C2, where C1 and C2 are both sisters of a higher category CX, which is a basic or below-basic level category, e.g. when *Mercedes* is used for another kind of car or *Shakespeare* is used for another

2. The criterion of contingency seems to be partly suspended in various extensions based on the metonymy MATERIAL FOR PRODUCT, e.g. *paper, glass, iron*, etc.

playwright. I suggested that this kind of transfer should be dubbed "synecdochic metonymy" – "synecdochic" because it involves transfer based on the genus–species relation, and "metonymic" – because the target and vehicle are conceptually contiguous, being both members of the same higher category CX. For ease of reference, I suggest that the term synecdochic metonymy be blended to a shorter but almost equally transparent term "syntonymy".

The phenomenon of syntonymy shows that we should distinguish two kinds of synecdoche, namely, the specializing GENUS FOR SPECIES synecdoche proper (more traditionally known as specialization) and the generalizing SPECIES FOR GENUS syntonymy (traditionally known as generalization).[3] The reason why we need those two terms is that the two kinds of transfer have radically different properties and the reason why I am proposing the term "syntonymy", rather than generalization, is that it reflects better not only the upward movement of the transfer on the taxonomic tree but its metonymic motivation as well. Let us consider the two notions in somewhat greater detail.

The more common specializing synecdoche is represented by using a more general term to refer to a more specific concept, e.g. *pill* for 'contraceptive pill', or *house* for 'public house', or *vehicle* for 'car' (for short: GENUS>SPECIES).[4] An important aspect of this kind of specializing synecdoche is that it is always literally true, since the target sense entails the sense of the vehicle, i.e. any true sentence about a pill is true of a contraceptive pill as well but not the other way round.[5] The generalizing synecdoche, i.e. syntonymy, is different in this respect in that it involves a shift from a more specific to a more general sense (for short: SPECIES>GENUS), so the more general target does not entail a single more specific vehicle. This may seem

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3. Interestingly, the direction of transfer is often ignored in a special synecdoche known as antonomasia, whereby the name of an outstanding member of a category C is used for the whole category C (a special case of syntonymy to be discussed below) or, conversely, a general category term is used for a unique outstanding member of that category, e.g. *the little corporal* for Napoleon I, *Führer* for Adolf Hitler, or *the Boss* for Bruce Springsteen – all cases of synecdoche proper, although the species is reduced to a single referent.

4. *The City* for *the City of London* is another example but it is more complex as it is usually used metonymically for 'commercial and banking centre of England' (through metonymy LOCATION FOR INSTITUTION).

5. This means that, in fact, synecdoche is usually non-figurative at all because it does not involve any transfer of meaning. In a sense, it becomes figurative when the obvious (often basic subordinate level) term is available but is not used, giving rise to implicatures based on the maxim of Quantity and adding emotive value to the expression, e.g. referring to a well-known judge by *that man* (cf. Ziomek, 1990: 175). See Nerlich (2010: 312-313) for more comments on the rhetorical motivations and effects of specializing synecdoche.

surprising because the terms result from what Cruse (2000) calls "autosuperordination" and are thus homophonous, e.g. the meaning of the noun *cat*, which usually denotes the species of 'domestic cat' (*felis catus* or *silvestris catus*) may be raised to the level of the biological family FELIDAE, which includes pantherines like jaguars, leopards, lions, and tigers, as well as felines, such as caracal, cheetah, lynx, pumas, and wildcats. Given the two senses of *cat*, i.e. cat S (species) and cat F (family), the sentence *Bill has two cats* (F) does not entail *Bill has two or at least one cat* (S), he may have only a lion and a lynx.

Syntonymy occurs in two varieties. In the first one, let us call it "category syntonymy" (c-syntonymy), a lower term denotes a category which stands for the whole category C to which it belongs, e.g. *man,* in the sense of 'male human being' may stand for the whole category of HUMAN BEING, *cow* may stand for the whole category BOVINE QUADRUPED, *cat* may stand for the whole category of FELIDS, etc. Examples in the domain of artifacts are not hard to find either, e.g. for some speakers, in Polish the word *szampan*, which is an adaptation of the French *champagne,* often stands for all kinds of SPARKLING WINE. Likewise, until recently *adidas* was used in Polish to stand for all kinds of SPORTS FOOTWEAR or the eponymous *junkers* still often stands for the whole category of GAS BOILERS.[6] In the other variety of syntonymy, let us call it "paragon-based syntonymy" (p-syntonymy), a lower term, usually a unique paragon (cf. Lakoff, 1987), stands for an axiologically marked subcategory of C to which it belongs, e.g. *Mozart* stands for a subcategory of musicians, namely, EXTREMELY TALENTED MUSICIANS, *Hitler* stands for the subcategory of RUTHLESS DICTATORS, etc. Since the transfer is based on the metonymy PARAGON OF CATEGORY C FOR WHOLE CATEGORY C, which involves, broadly speaking, species>genus mapping, as discussed above, the term "paragon-based synecdochic metonymy", or p-syntonymy, seems to be justified.

An important aspect of syntonymy is that it uses an already existing taxonomy but transfers the name of one of its members as a new lexical label for it (e.g. *junkers* for 'gas boiler') or modifies already existing taxonomies by adding a new level to them and providing a label for it (e.g. *Shakespeare* for the category of GREAT PLAYWRIGHTS). For instance, the resultant enriched taxonomy of writers can be represented as follows:

6. This kind of generalizing transfer has been given a somewhat jocular name "brandonymy" by a well-known columnist Bob Kyff, who introduced it as follows: "So I propose a brand new term: "brandonym." […] I hereby define 'brandonym' as "a brand name commonly used to designate an entire category of similar products." (Bob Kyff in The Hartford Courant, Wednesday, August 9, 1995 quoted by Nerlich, 2010). As we have seen, brandonymy is just one kind of syntonymy.

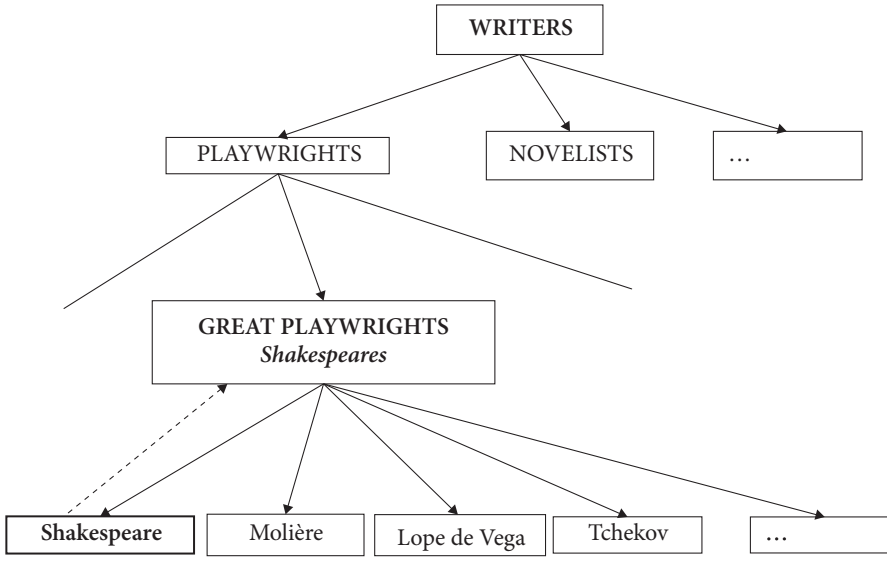

Figure 2. Syntonymic extension of the taxonomy of writers (based on Bierwiaczonek, 2013)

To show the explanatory potential of the proposed analysis, let us compare it with an attempt to account for the 'great playwright' sense of *Shakespeare* solely in terms of metonymy, without taking into account the taxonomy in which it is conceptually embedded, which was suggested by Ruiz de Mendoza and Galera Masegosa's (2014, p. 114) analysis of *Humboldt is the Shakespeare of travelers.* Their analysis is reproduced below:[7]

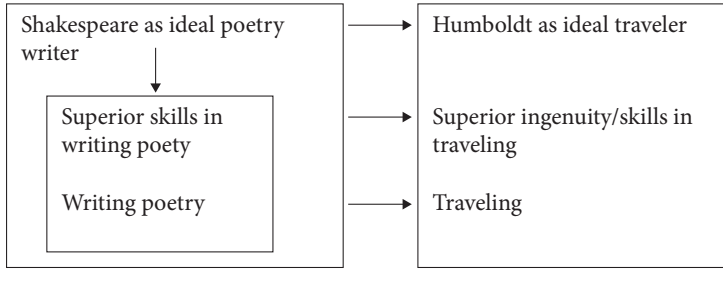

Figure 3. Ruiz de Mendoza and Galera Masegosa's (2013, p. 114) analysis of *Humboldt is the Shakespeare of travelers*

7. Apparently, Ruiz de Mendoza and Galera Masegosa's and my conceptual frames of *Shakespeare* are somewhat different. They take him primarily as an outstanding poet, whereas for me he is above all a genius of playwriting.

According to Ruiz de Mendoza and Galera Masegosa, in the expression in question, the name *Shakespeare* is used metonymically as it stands for some properties of the stereotyped concept of Shakespeare, namely, the fact that he wrote poetry and exhibited superior ingenuity and skill in this art. Thus, the whole expression can be accounted for in terms of metonymic reduction of *Shakespeare* to some of his salient properties. The analysis is correct but insufficient. In particular, it fails in two respects. First, it fails to account for the grammatical recategorization of *Shakespeare* from the proper noun to the common noun, with its usual singular-plural and definite-indefinite distinctions. Second, it fails to actually represent the analogy in the relationship between Shakespeare, as a paragon, and other writers on the one hand, and Humboldt and other travelers on the other.[8] Of course, the other writers are not explicitly mentioned in the sentence *Humboldt is the Shakespeare of travelers*, but they are evoked as part of the XYZ blend, as discussed by Fauconnier and Turner (2002). These two inadequacies of Ruiz de Mendoza and Galera Masegosa's analysis can be avoided if the syntonymic relation between the literal referential and the categorial senses of *Shakespeare* are accepted.[9] The blending account of sentence *Humboldt is the Shakespeare of travelers,* may look as in Figure 4.

The above analysis, based on the paragon-based syntonymy of *Shakespeare*, shows that the taxonomic structure of PLAYWRIGHTS, with Shakespeare as their paragon, is mapped onto the relationship between Humboldt and other travelers. The PLAYWRIGHTS input space implies that beside being a paragon, metonymically standing for literary excellence, *Shakespeare* may be at the same time construed as a common noun denoting a subcategory of GREAT PLAYWRIGHTS (second level of the taxonomy). It also follows from Figure 4 that for speakers who accept the mapping and indeed construe Humboldt as the paragon of travelers, his name may also be used as a common noun denoting the subcategory of GREAT TRAVELERS.

If syntonymy is recognized as an important figure of speech mediating between more standard cases of metonymy and synecdoche, the resultant modification of Nerlich and Clarke's typology of figures of speech shown in Figure 1 may look as in Figure 5.

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8. Ruiz de Mendoza and Galera Masegosa (2013) seem to be aware of those aspects of the meaning of the expression in question (see their comments on p. 168), but do not offer any way of representing them.

9. Of course the foregoing analysis does not preclude strictly metonymic uses of *Shakespeare* in sentences like *I find Shakespeare rather difficult*, where *Shakespeare* stands for the contents of his plays and/or style.

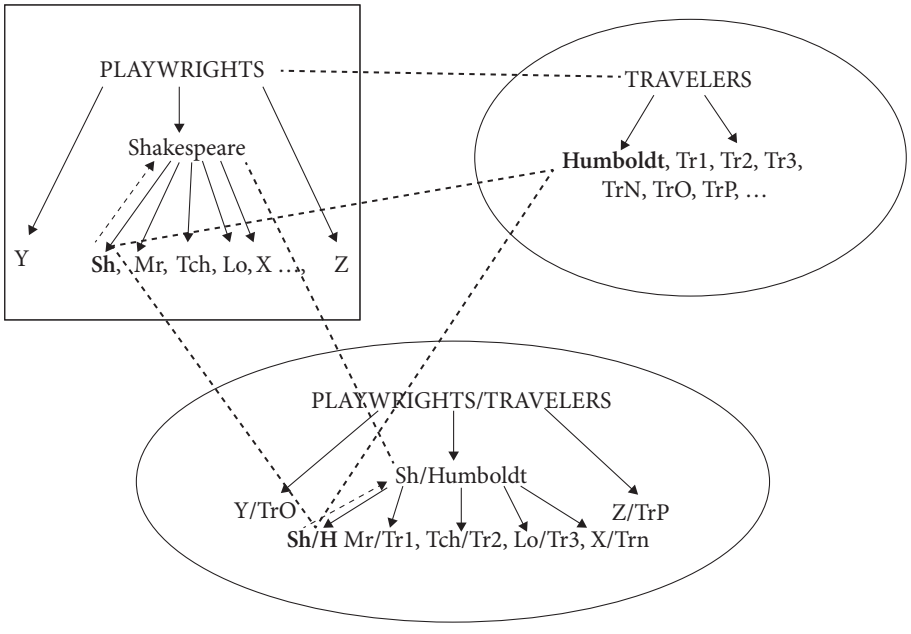

Figure 4. Sentence *Humboldt is the Shakespeare of travelers* represented as an XYZ Construction. The abbreviations of names of playwrights in the Shakespeare space refer back to Figure 2: Sh for *Shakespeare*, Mr for *Molière*, Tch for *Tchekov*, Lo for *Lope de Vega*. Tr stands for *Traveler*. The box around the taxonomy of PLAYWRIGHTS indicates that the taxonomy, including Shakespeare as its paragon, is fairly well established, while the elliptical shapes of the other two spaces indicate that they are novel conceptualizations

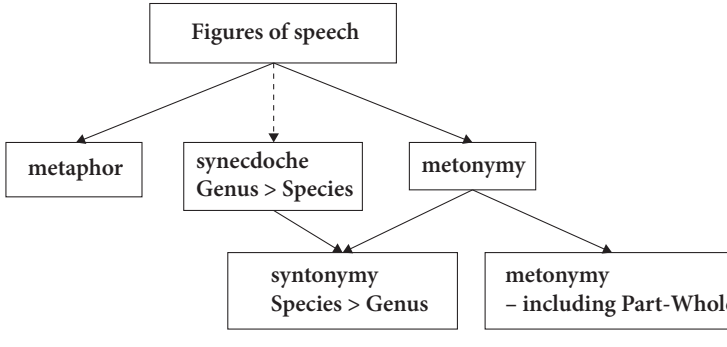

Figure 5. Extended general typology of figures of speech

The dashed line pointing to synecdoche in Figure 5 indicates that the figurativeness of synecdoche involves just various levels of literal vertical specialization and must satisfy special conditions to count as figurative at all (see footnote 5), whereas the other tropes involve horizontal extensions as well.

2. From analogy to syntaphor and metaphor

As we have already seen in the quote from Aristotle, the transfer of meaning from one word/concept to another may be motivated by analogy. Aristotle never mentioned the levels or distances of those analogies, but what modern theory of metaphor has established is that the term metaphor applies to the cases when the two concepts are quite distant, i.e. the source and the target are supposed to belong to two different conceptual domains or frames, as opposed to metonymy, which is restricted to mappings within a single domain or frame (cf. Lakoff and Turner, 1989; Dancygier and Sweetser, 2014). If we confine ourselves to the area of lexical semantics, such metaphoric mappings result in rather common extensions of meaning of lexical items from their more concrete and familiar, and often historically earlier, senses to more abstract and historically more recent metaphoric senses. Thus, a number of familiar parts of the body have acquired non-bodily, often mechanical or technological senses, e.g. *face* has acquired the senses of 'dial of a clock' and 'flat side of a hammer', *hand* has acquired the sense of 'indicator of time in a clock', *leg* has acquired the sense of 'vertical supportive part of a table', etc. Verbs can be metaphorically extended in the same way as well, e.g. *run*, which prototypically designates 'rapid motion on legs', can be extended to denote the sense of 'mechanical movement of an engine'.

However, analogy does not pertain only to such impressive cross-domain extensions.[10] As Fauconnier and Turner (2002) pointed out, analogy is one of the "vital" relations, which operates on every level of cognitive structure – from highly abstract mappings between totally different domains, like VERTICALITY and

10. In the description of the concept of analogy in *Wikipedia* the following meaningful passage can be found: "It has been argued that analogy is 'the core of cognition'. Specific analogical language comprises exemplification, comparisons, metaphors, similes, allegories, and parables, but *not* metonymy." However, there is also an important kind of metonymy involving analogy (or similarity), namely so called "representational metonymy", usually REPRESENTATEE FOR REPRESENTATION, e.g. *Tony Blair is on the left hand side of the photo*, discussed extensively by Barnden (2010). Although I believe there are important differences between metaphor and representational metonymy in terms of a causal link and dependence of the representatee and representation, this metonymy no doubt does lie somewhere between the prototypical metonymy and metaphor.

VALUE or BULDING and THEORY, to the most ordinary cases of categorization based on more or less "literal" similarity.[11] For instance, as Geeraerts (2014: 194) observes, all examples of "prototype-based categorial structure (…) involve relations of similarity – literal or figurative similarity – between the readings involved." Thus, there seems to be a cline from maximally literal "calling a spade a spade", through various more and less extended designations based on different degrees of analogy to the most distant metaphors, based on similarities between distinct conceptual domains. What is surprising in this context is that while hundreds of studies have been devoted to metaphor, research on other forms of analogy in lexical semantics has been considerably more limited and less popular. Of course, one can quote Wittgenstein's (2009/1953) family resemblance analyses, Brugman's (1988) and Lakoff's (1987) studies of *over,* with their concepts of "similarity link" and "image schematic transformations" between senses, and other studies of prepositions too numerous to mention here, but even if all these efforts are counted, they seem to be just a fraction of the whole bulk of research on the "master tropes" of metonymy and metaphor. This inferior status of extensions of lexical meaning based on analogy below the level of metaphor has led to a conspicuous lexical gap for a term for non-metaphoric semantic extensions based on analogy between closely related concepts, although these extensions are rampant in the studies of polysemy (see below).[12] Since this kind of extension is based both on the synecdochic vertical shared membership in a single higher common category and analogy, I propose to call it synecdochic metaphor, or, in a shorter, blended form – "syntaphor".

Here are a few representative examples:

– the basic sense of *face* as 'front of human head with eyes, nose, and mouth' is transferred to 'front of animal head with eyes, nose, and mouth' (cf. Bierwiaczonek, 2014).[13]

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11. The notion of literal vs. figurative meaning is a topic of heated arguments we shall not go into here (cf. inter alia Ariel, 2002; Gibbs and Colston, 2012). The basic distinction I use below are between prototypical, extended and figurative meanings.

12. A notable exception is Blank (2003) with his term 'co-hyponymous transfer', i.e. the transfer on the same, rather low level of a taxonomy. In Bierwiaczonek (2014) I referred to such changes as "feature modifications", without giving any in-depth analysis of the term. From the cognitive point of view, a term like "domain-profile modification" would be more appropriate, although they all involve what I call here syntaphor.

13. Günter Radden (p.c.) objects to my analysis of *face* and argues that the transfer from human to animal face is metaphoric. I disagree – I think the conceptual distance is too small. But then it might be a matter of degree, compare e.g. snake's or cat's vs. chimp's and human faces.

– the prototypical sense of *chair* as 'piece of furniture to sit on', based on the prototypical kitchen chair (Rosch et al. 1976), is transferred to *deckchair*, *electric chair*, *wheelchair*, etc.[14]
– the prototypical sense of *run* as 'to move fast on two legs' to 'to move fast on four legs', to 'to move fast down a slope with two skis attached to feet', to 'to move fast down a slope in a bob'.

The above are just isolated examples. To fully appreciate the importance of syntaphor for polysemy, it is worthwhile considering one case in greater detail. The example of the English noun *pin* shows how productive syntaphor can be in terms of the number of different senses a lexeme can develop.[15] Following most dictionaries, *pin0* represents the prototypical sense of *pin*, other senses, except for metaphoric *pin16*, are extended from it through syntaphor, based on various kinds of analogies, the most common ones being SHAPE, FUNCTION, PART–WHOLE structure, which may be either full or partial, extended from the prototype (pin0) or some other sense. Each sense is accompanied by a corpus or dictionary example.[16]

Table 1. Polysemy of the lexeme *pin* resulting from various kinds of syntaphor

Full lexicalization	Sense	Example
pin0	a short thin piece of stiff wire with a sharp end and a round head at the other, used especially for temporarily fastening together pieces of cloth when sewing (Oxford Advanced Learner's Dictionary, henceforth OALD)	*She checked the pins on her dress to make sure they were straight, ignored the trembling in her hands, then headed downstairs.* (COCA Kathleen Fuller, *A reluctant bride*, 2015)

14. Again, Günter Radden (p.c.) objects and claims that "compounds *cre*ate a new category and are metonymic". Again, I disagree. The decision to include one category, e.g. '*vehicle for the disabled*' in another category denoted by *chair* (based on kitchen chair, see Rosch et al. 1976), which results in the compound *wheelchair*, is motivated by various analogies (see Section 2.1. below).

15. Of course some of the senses discussed below would be regarded as subsenses (or micro-senses), according to Cruse, 2000 and Cruse and Croft, 2004. However, the fact that they have developed into entrenched compounds indicates that they exhibit considerable degree of conceptual autonomy.

16. I have left out more complex examples, like the expression *needles and pins*, which should be viewed as metonymy (simplifying, a chain – INSTRUMENT FOR ACTIVITY/EXPERIENCE INVOLVING THIS INSTRUMENT > ACTIVITY/EPERIENCE (CAUSE) FOR RESULT (SENSATION). I have also ignored metonymic verbal converses (see Dirven, 1999; Schönefeld, 2005, and Bierwiaczonek, 2013 for discussion of the role of metonymy in conversion).

Table 1. (*continued*)

Full lexicalization	Sense	Example
drawing pin1	a short flat-headed pin, used for fastening paper to a wall or other surface (OALD)	*Revealingly, when the guilt-ridden Stiller translates his awareness of being the murderer of his wife into a nightmare, he imagines a crucifixion scene in which, under the surveillance of German soldiers, he fixes a photograph of Julika to a tree with drawing pins.* (COCA, Brombert, Victor, *Max Frisch: The courage of failure.* Source: ACAD: Raritan, 1993)
safety pin2	a pin with a point that is bent back to the head and is held in a guard when closed. (OALD)	*I notice there's a button missing from my shirt with a safety pin in its place.* (COCA, Bastet, *The Weekend*, Source: FIC Journal of Artists, 2013)
diamond pin3	a short thin piece of stiff wire with a sharp point at one end and an item of decoration at the other, worn as jewellery (OALD)	*His handkerchief, a pin or coin he'd touched, a button from his shirt, a feather caught on his coattail such tokens would fetch a price.* (COCA, Batchelor, Paul. *The Discoverer's Man,* Source: ACAD: Poetry, 2015)
tiepin4	a small, thin, often decorative piece of metal used to hold the two parts of a tie together (Cambridge Dictionary, henceforth CD)	*And it's meant to be worn on your lapel or on your tie as a tiepin and indicates your commitment to the abolitionist cause.* (COCA, *Light Kept Forever; Metropolitan Museum of Art Exhibits Photography*, Source: SPOK, CBS Sun Morn, 1993)
pin5	a brooch (OALD)	*Janet shook her head very slightly, a hint of a smirk on her face, and pointed at a pin clipped to her scarf that I'd thought was jewellery.* (COCA Kritzer, Naomi, *High Stakes,* Source: FIC: Fantasy & Science Fiction 2015)
hairpin6	a thin, U-shaped metal pin that is used to hold part of the hair in a suitable position (CD)	*I lifted the dragonfly hairpin from the knotted braid atop my head.* (COCA, Schaffert, Timothy. The coffins of Little Hope, 2011)
bobby pin7	a U-shaped metal pin that is tightly bent and slides into the hair in order to keep it back off the face or to keep part of the hair in position (CD)	*Ginny can pick the lock with a bobby pin.* (COCA, Novack, Sandra. *Precious: a novel*, 2009)

(*continued*)

Table 1. (*continued*)

Full lexicalization	Sense	Example
pin8	a type of badge that is fastened with a pin at the back (OALD)	*Patrick wears a lapel pin of his own design – a cross with a Texas flag on one side and an American flag on the other.* (COCA, Jonathan Tilove, *The New Pulpit for Patrick*, Source: NEWS: Austin American Statesman, 2015)
clothes/laundry pin9	A wooden or plastic clip for securing clothes to a clothes line (OALD)	*He once put a wooden laundry pin on Henry's nose, forcing him to wear it all day at school in humiliation for some perceived lack in my brother's character that day.* (COCA, Kirkpatrick, Jane, *The memory weaver: a novel*, 2015)
pin10	a piece of steel used to support a bone in a body when it has been broken (OALD)	*Perhaps I would try to sew it back on, as I imagined they might do in surgery, holding the bones together with pins.* (COCA, Hechter Eliana, *Extremities*. Source: FIC: Ploughshares, 2015)
pin-plug11	a metal projection from a plug or an integrated circuit which makes an electrical connection with a socket or another part of a circuit (OALD)	*These pins plug into the circuit board of the product for which the chip is intended.* (OALD)
pin 12	in golf – a stick with a flag on top of it, placed in a hole so that players can see where they are aiming for (OALD)	*Can you imagine wanting to play golf without greens, targets, pins, or holes.* (OALD)
bowling pin13	a wooden or plastic object that is shaped like a bottle and that players try to knock down such as bowling (OALD)	*Chester shakes his head, like a bowling pin uncertain of falling.* (COCA, Gilbert, David, *Remote feed*, Source: FIC: Harper's Magazine, 1996)
pin14	a small piece of metal on the hand grenade that stops it from exploding and is pulled out just before the hand grenade is thrown (OALD)	*Then, clumsily, he pulls the grenade pin with his right hand, in which he still holds a gun.* (COCA, *Munich,* Source: FIC: Munich, 2005)
rolling pin15	a tube-shaped object that is used for making pastry flat and thin before cooking it (CD)	*Norbert ducks as though dodging a rolling pin, then comes back up, all shoulders and guilty grimace.* (COCA, Duval, Pete, *Meat*, Source: FIC: Massachusetts Review, 2013)
pins 16 (colloquial)	the legs of a person or animal (PWN)	*I was absolutely knocked off my pins.* (COCA, *Angela Lansbury discusses her career as an actress*, Source: SPOK: NPR_FreshAir, 2000.11.28)

The above list shows that extensions of meaning of the prototypical *pin0* are based on three kinds of full or partial analogy: the analogy of FUNCTION: FASTENING TOGETHER (senses 1, 2, 4, 6, 7, 9, 10), the analogy of SHAPE: SHORT, THIN, STRAIGHT, ROUND (senses 1, 2, 4, 5, 8, 10, 11, 13, 14, 15), and the analogy of STRUCTURE: A LENGTH OF STIFF BODY WITH HEAD (senses 1, 3, 8, 12, 14). Since all the senses of *pin* except sense 16 involve the domain of physical artifacts it seems difficult to analyse their semantic development and links in terms of metaphor. In some cases metonymy is a likely explanation, e.g. it could be argued that the prototypical pin is part of the category of objects designated by *pin* 2, 3, 5, or 8, so the likely motivation for those senses would be the metonymy PART-FOR-WHOLE. But other senses seem to be motivated by analogies, although they are clearly non-metaphoric. Furthermore, they all seem to be based on analogy between the source and target which belong to the same basic or sub-basic level of categorization. The basic level may be crucial for distinguishing metaphor from syntaphor should not be surprising as it is well known from the studies of Rosch and her associates (cf. e.g. Rosch, 1978) and their adaptation to linguistics by Lakoff (1987) and Taylor (1989), it is the basic level which combines the greatest conceptual distance between the categories on the same level of a single taxonomy with the maximal similarity of the categories beneath it.[17] Thus, the categories on the basic level are considerably distinct, while the categories below it are considerably similar. Croft and Cruse (2004) sum up the familiar arguments that the basic level has a special status both in cognition and communication on account of a number of crucial properties in the following list:

a. it is the most inclusive level at which there are characteristic patterns of behavioral interaction
b. it is the most inclusive level for which a clear visual image can be formed
c. it is the most inclusive level at which part–whole information is represented
d. it is the level used for everyday neutral reference
e. individual items are more rapidly categorized as members of basic level categories than as members of superordinate or subordinate categories.

Jointly, these properties render the basic level very special as the level which determines the greatest conceptual distance between the categories of a single taxonomy combined with the greatest conceptual similarity (sometimes called, rather misleadingly, "homogeneity") between its members. Thus, the categories on the basic level, e.g. pin vs. scissors, cat vs. dog, table vs. chair, etc., are considerably distinct, while the categories below it, e.g. tiepins and clothespins, Persian and Siamese cats, and kitchen and coffee tables, etc. are rather similar. Cross-linguistically, basic level terms tend to be short (often monomorphemic), to occur frequently and to

17. In Bierwiaczonek (2013) I suggested that the basic level should distinguish metaphor from (synecdochic) metonymy, which left sub-basic level extensions based on analogy unaccounted for.

be original, in the sense of not being borrowed from other languages or extended metaphorically from other categories. By contrast, the conceptual closeness of subordinate level categories is often reflected on the formal level by their being designated by polymorphemic formations headed by the basic level terms (e.g. *tiepin, clothespin, drawing pin; oak tree, maple tree, apple tree; kitchen chair, armchair, deckchair, wheelchair*, etc.).

In the figure below this difference in the conceptual distance on the basic level and below is represented by the bold boxes and the overlapping boxes, linked by syntaphor, respectively:[18]

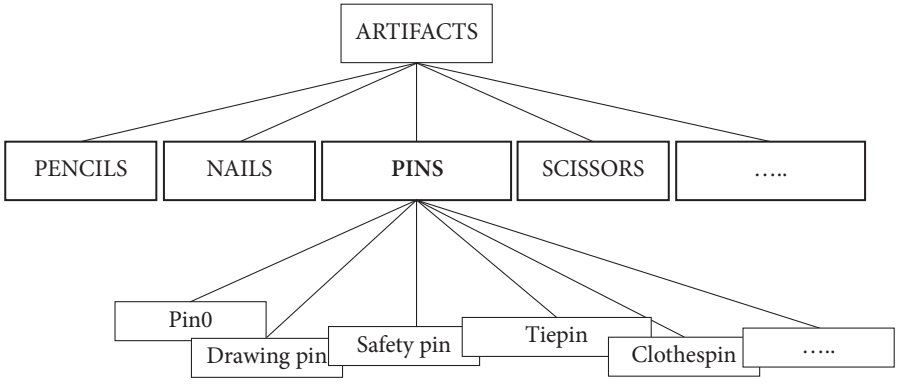

Figure 6. Cognitive distance between the basic and sub-basic level of categorization of *pin* in English

As we mentioned before, metaphor is often defined as cross-domain mapping. Now whether all basic level terms define conceptual domains is perhaps debatable;[19] however, because of its conceptual properties discussed above, the basic level seems to mark a relatively non-arbitrary cut-off point for distinguishing metaphor from syntaphor: the transfers between or among categories on the basic level or above,

18. Of course the fact that basic level categories are considerably distinct from one another does not mean that they are conceptually equidistant from one another. For instance, in Figure 6 below, the basic level category NAILS is probably much closer to the basic level category PINS than the category of SCISSORS. Still, it follows from the suggested definition that calling nails *pins*, or calling pins *nails*, should count as metaphor, while calling bowling pins *pins* should count as syntaphor.

The string of overlapping boxes should be viewed as a simplified representation of a network of family resemblances.

19. Recall that Croft (2006 [1993], p. 272) points out that "This is what makes the base a domain, in the intuitive sense: several different concept profiles have it as a base". Thus, if the subordinate categories are regarded as profiles with the basic level terms serving are their base, the basic level categories should be considered as domains.

such as PEOPLE ARE ANIMALS, THE MIND IS A MACHINE, LIFE IS JOURNEY should count as metaphoric, while those below the basic level, such as various senses of *pin*, e.g. *pin*0 and *pin* 1, *pin*4, *pin*10, *pin*11, *pin*13, etc) should count as non-metaphoric transfers based on analogy, i.e. syntaphors. Consequently, in figurative language use, the transfers across the basic level categories sharing the same superordinate term are minimally metaphoric, e.g. calling a cat *poodle* (belonging to the basic level category of DOG) is metaphoric, while transfers between subordinate level sister categories, which have a low degree of distinctiveness from members of neighboring categories, represent syntaphor, e.g. calling a Pekinese *poodle* (both representing the same basic category of DOG) should count as syntaphor. As I mentioned, these are borderline cases as usually metaphor is based on mappings between superordinate level categories and domains, e.g. BODILY ORGANS VS. ARTIFACTS, BODILY MOTION VS. POLITICAL ACTIVITY, CONCRETE ENTITIES VS. ABSTRACT ENTITIES, and the like, which have fewer distinctive attributes, a lower degree of within-category similarity and are more internally "heterogeneous".

Interestingly, the basic level seems to be also relevant for distinguishing metaphor from syntonymy, discussed in Section 1. For instance, there are examples of paragons, which usually involve syntonymy, which cross the basic level boundary and become metaphoric. Consider, for instance, the examples below found and discussed by Brdar and Brdar-Shabó (2007), which show that syntonymic use of a proper name may gradually change into more metaphoric use.

(1) Steven has a bag of tricks, a good passer, can operate in confined areas and is ***the Zidane of Villa*** whose left foot is nearly as good as his right.

(2) Described, to his slight embarrassment, as the '***Michael Jordan of the Rugby League***' Lauitiiti has arrived at Leeds with a reputation of being the most exciting ball-handling forward in the world.

(3) Sarkozy is described by MEDEF, French CBI, as '***the Zidane of Finance***'.

Clearly, *Zidane* in the domain of FOOTBALL in (1) is used as a syntonym 'exceptional football player' (*Villa* being a football club), the name of the basketball icon *Michael Jordan* in the domain of RUGBY in (2) is used as a syntaphor,[20] while *Zidane* in the domain of FINANCES has definitely crossed the basic level gap and should be regarded as metaphoric.

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20. As is well-known from the work of both anthropologists and linguists (see Lakoff, 1987), taxonomies are not fixed and the basic levels may differ depending on the level of speakers' competence. Thus, for the speakers who construe *basketball* (=soccer) and *rugby* as basic level terms, the use of *Michel Jordan* in Example (2) is a case of metaphor, whereas for those who construe them as sub-basic level terms of the category of ball-games, it is a case of syntaphor. For the sake of my argument, I've chosen the latter option.

Given all we have said so far, the general typology of figures of speech looks as follows:

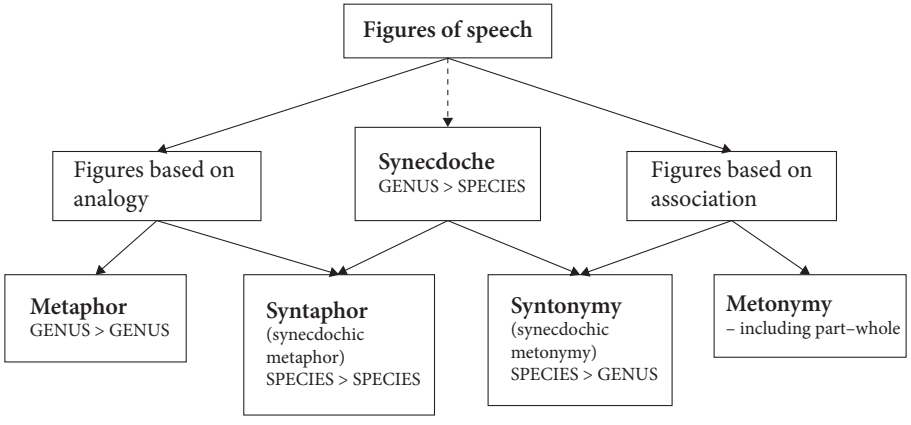

Figure 7. The general typology of figures of speech[21]

2.1 Syntaphor vs. schematization and specialization

As is well known to any student of lexical semantics, most figures of speech are reflected in polysemy. Thus, it is hardly surprising that syntaphor can also be found in polysemy, which we have conspicuously seen in the whole family of syntaphoric senses of *pin*. However, it may be argued that the meaning extensions we have attributed to syntaphor, in fact, result from the process of schematization (or generalization). The argument is that in order for the new sense S' to develop from the basic, or prototypical sense S_0, there must be some sort of more general sense S_G of a given lexeme comprising both S_0 and S'. This kind of cognitive hierarchy was presupposed by Langacker (1990), when he suggested that the semantic structure of polysemous lexical items can be represented in terms of three kinds of categorizing relationships: first, extension from the prototype implying "some conflict in specifications between the basic and extended values"; second, specialization, holding "between a schema and a structure that elaborates or instantiates the schema", and third, the relation based on "a perception of mutual similarity, which "differs from extension only by lacking directionality" (all quotes from Langacker, 1990: 266f).

21. For the sake of simplicity, I have preserved Aristotle's original terms "genus" and "species", but it must be remembered that *genus* here stands for the basic level or any higher level of categorization, while *species* stands for subbasic levels of categorization.

Notice that although Langacker does not mention schematization on this occasion, he presupposes it, as demonstrated in the network he suggested for the polysemous structure of *run* in English, reproduced below as Figure 8, where the categories 'rapid n-legged locomotion' and 'rapid locomotion' are schematizations of more specific senses below.

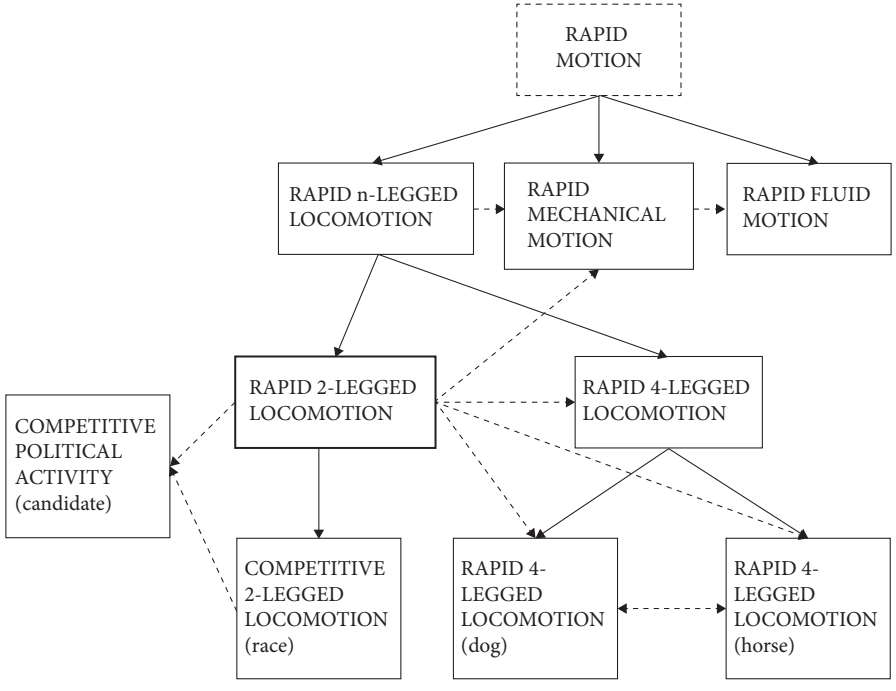

Figure 8. Langacker's (1990) partial representation of the polysemous structure of *run*

Of course Langacker's diagram was meant just as an illustration, not as an exhaustive analysis. However, even accepting its very tentative and partial character, we may raise a few questions and mention a few more interesting senses which might be added to it for illustrative purposes. The question we may ask is on what grounds it has been suggested that the source 'rapid n-legged locomotion' sense should be metaphorically extended to 'rapid mechanical motion' and it is the 'rapid mechanical motion' which provides the source for 'rapid fluid motion'? Without going into a detailed analysis and arguments, it seems to be more convincing to propose that the general 'rapid n-legged locomotion' should provide the source concept for both 'rapid mechanical motion' and 'rapid fluid motion' independently. Another objection to Langacker's diagram is that he left out two rather interesting senses which call for a revision of his process of schematization. The two related senses are

'rapid 2-legged passive locomotion on skis' and 'rapid bodily passive locomotion on bobsleighs'. What both these senses have in common is the fact that the motion is mediated by an instrument, i.e. the skis and the bob, respectively, and is caused by the force of gravitation rather than the force of legs, hence the modifier 'passive' in their explications.[22] What makes the two senses different is the "active zones" of the two kinds of locomotion: while in the 'rapid 2-legged passive locomotion on skis' sense it is still legs that are the most active body parts, in 'rapid bodily passive locomotion on bobsleighs' sense it is the whole horizontally arranged body. This suggests that there is another more general level in the network, namely the level of 'rapid bodily passive locomotion'.

Thus, there is no doubt that semantic developments are related to generalization and specialization and in fact, a lot of researchers attributed what I call syntaphoric extensions to the interplay between generalizations and specializations (cf. e.g. Dirven and Verspoor, 2004). There are two problems with this account.[23] First, schematization is involved in both metaphoric extensions and non-metaphoric extensions. For instance, *run* has a general meaning of 'rapid motion', which subsumes a number of other senses which are clearly metaphoric ('rapid mechanical motion' and 'rapid fluid motion'), and non-metaphoric extensions such as 'rapid n-legged locomotion', subsuming 'rapid 2-legged locomotion' and 'rapid 4-legged locomotion'.

The second problem with the generalization-specialization account of syntaphor is that is fails to account for the first and third kind of extensions mentioned by Langacker: extension from the prototype and the non-directional relation based on similarity. In other words, it does not account for the new specific senses which have emerged as a result of generalization and, consequently, the absence of other senses compatible with the general meaning, e.g. it fails to explain why *run* has not developed the sense 'rapid motion through air' (synonymous with *fly* or *fall*). To take another example, it is almost surprising that English *chair* has not developed the sense of 'throne', if it has the general meaning 'a piece of furniture for sitting on'. According to the generalization-specialization account, it should have developed that sense. Clearly, whether schematization (generalization) is a (by-?) product or a condition for syntaphor, it cannot account for the directions the semantic extensions take. In other words, it may be said that even if generalization can motivate semantic extensions, it cannot predict them. It is enough to compare semantic

22. The source of force is the crucial difference between 'rapid 2-legged passive locomotion on skis' and *run* in the sense of 'cross-country locomotion on skis'.

23. I ignore the well-known argument, which goes back to Wittgenstein's (1950) analysis of *Spiel*, that often it is impossible to find a single general sense shared by all the senses of polysemic lexemes.

structures of any two languages to see that semantic developments based on analogies are far from predictable and that different communities of speakers can construe them in very different ways.[24] To give a simple but telling example, the Polish equivalent of English *wheelchair* and its similar German equivalent *Rollstuhl,* is not construed as a subcategory, and hyponym, of *chair* at all – it is *wózek inwalidzki* (roughly 'cart for the disabled') – a hyponym of *wózek*, which denotes the category CART, not CHAIR. The motivated but unpredictable choices languages make are particularly common in designating borderline or, rather, hybrid categories, which combine important aspects of more than one category. A good case in point is the oft-discussed category of CULOTTES, which more or less symmetrically combines aspects of skirt and trousers. Consequently, in some languages it is categorized as a kind of skirt (e.g. *broekrok*, i.e. 'trouser skirt', in Dutch, cf. Dirven and Verspoor, 2004, Chapter 2), while in others it is categorized as a kind of trousers (e.g. *spódnicospodnie*, i.e. 'skirt trousers', in Polish). The differences may show up in dialects of the same language (whatever it means) too, e.g. the British *drawing pins* are designated as *thumbtacks* in American English.

As for Langacker's distinction between extensions from the prototype and the extensions based on a perception of mutual similarity, which differ from extension "only by lacking directionality", it remains to be seen if the latter category should indeed be postulated at all. The problem goes beyond the scope of the present paper, but it seems that if syntaphor motivates extensions within family resemblance chains, then extensions from the prototype based on sub-basic analogies may be regarded as just a special case, i.e. the starting point, of other similar syntaphoric extensions, which always involve some sort of source and target, e.g. from 'rapid 2-legged motion' to 'rapid 4-legged motion' and from 'rapid 2-legged passive locomotion on skis' to 'rapid bodily passive locomotion on bobsleighs' senses of *run*, although these may be at times difficult to establish both diachronically and synchronically. Figure 9 below tries to capture at least some of these developments. The continuous double arrows mark metaphoric extensions, while the dashed double arrows represent syntaphoric extensions.[25]

24. A lot of Lakoff (1987) is devoted to precisely this problem.

25. Notice that the level of prototype in Figure 8 is below the basic level, which seems to be 'rapid bodily locomotion' and it is on this level that metaphoric extensions begin with the transfer to the domain of fluid and mechanical motion. The metaphoric sense 'competitive political activity' involves a more radical mapping from the domain of RUNNING to the domain of POLITICAL ACTIVITY, whose position in the whole taxonomy is not shown.

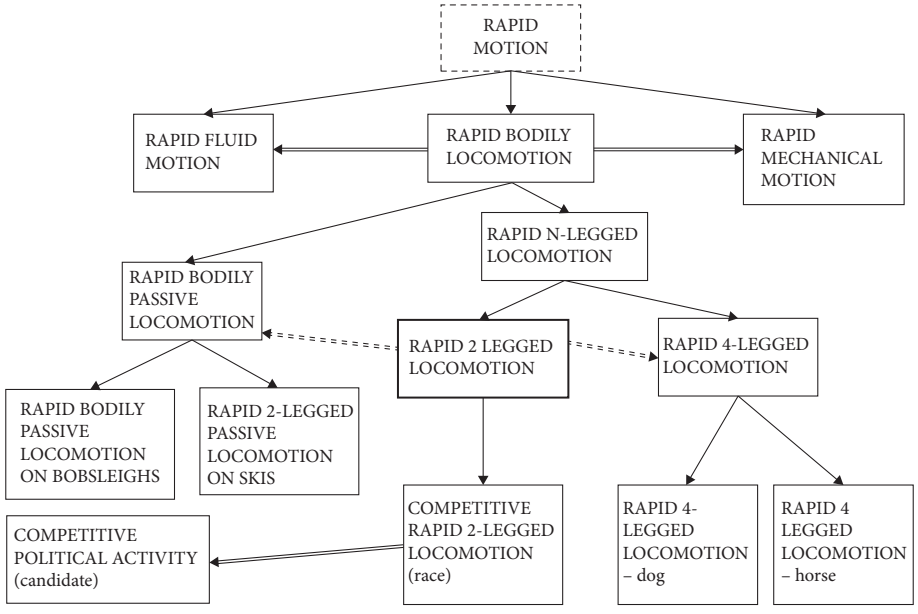

Figure 9. Modified Langacker's (1990) network representation of the polysemy of *run*

Geeraerts (2010) argues that the basic level model of categorization and, more generally, the idea of different onomasiological salience of categories cannot provide reliable basis for semantic analysis because, for one thing, there are peripheral categories that may be included in different basic level categories, e.g. as we have seen above, *cullotes* may be classified either as a hyponym of *trousers* or *skirt*, and, secondly, the lexicon is "characterized by multiple, overlapping hierarchies" (p. 202), so one concept (particularly artefacts) may be subcategorized as a member of different superordinate categories. While Geeraerts' observations are obviously true, they do not in any way undermine the main point of my proposal, since first of all, the fact that a concept belongs to two or more taxonomies does not change its status as a basic level category in relation to other categories. In other words, if FRIDGE is non-prototypical as a member of the superordinate category of FURNITURE, it is still onomasiologically salient and distinct from the more central category of, say, CHAIR. Furthermore, a concept's membership in one taxonomy does not automatically sever its links with other taxonomies (e.g. FRIDGE is a fairly prototypical HOUSEHOLD APPLIANCE), which reinforces its cognitive salience. As for the problem of categorial indeterminacy, it is precisely the plasticity of natural linguistic categories that the proposed notion of syntaphor, viewed as a cognitive operation of extending category boundaries based on perceived similarity, is meant to describe.

3. Catachresis and conceptual niches vs. syntaphor and other figures of speech

Catachresis (from κατάχρησις, meaning 'abuse') has had a bad name in the history of rhetoric as it usually refers to failed or awkward attempts to designate lexically new phenomena, or conceptual niches, for which there is no standard lexical label or the speaker does not know it, e.g., using *militate* for 'mitigate', *chronic* for 'severe', *anachronism* for 'anomaly', etc. At the same time, however, catachresis may be also viewed as the driving force of the development of the vocabulary of natural language, for a great deal of those attempts become in time entrenched as new lexical units or, more often, as new senses of the lexemes which have already existed (cf. Ziomek, 1990, Chapter 7 for discussion).

It seems that it is in the analysis of catachresis that the concept of syntaphor, viewed as a cognitive operation, is particularly useful. Of course, new conceptual niches can be designated metaphorically, e.g. *mouse* has metaphorically developed the sense of 'electronic device for moving the cursor on the computer screen'. Others may develop metonymically, e.g. body part terms are used for parts of clothes contiguous with them, e.g. *heel* in English has acquired the sense of 'part of shoe supporting the heel', etc. In some cases, the speaker may resort to c-syntonymy and use *cat* for a lion or *Mercedes* for a luxurious car of unknown make. These are important conceptually and lexically available options, which are often chosen. However, probably the most common way of finding designations for new entities or phenomena is based on the closest possible analogy between the new entity or phenomenon and another, familiar entity or phenomenon and designating the new concepts by means of those familiar words and familiar categories. As we already mentioned, these old words often come with some identifying modifiers, as e.g. *deckchair* or *wheelchair*, or are hedged by *a kind/sort of* or the like, e.g. a metal box in the snow for storing food may be designated as *a kind of fridge*. However, the semantic head is usually identical with the general category to which the entity or phenomenon has been assigned. The list of various senses of *pin* given above is an example of a result of such syntaphoric extensions.

To sum up, a speaker who does not know or is unaware of the *verbum proprium* of an entity E she is confronted with may choose either synecdoche, i.e. a general name of the category E probably belongs to, e.g. *man, thing, animal, situation*, etc., or, if she intends to be more precise, use one of the four figures of speech: metonymy, syntonymy, syntaphor or metaphor.

4. Conclusions

Ruiz de Mendoza and Galera Masegosa (2014) have suggested that in order to account for meaning construction in language we should identify a number of formal and content operations. The formal operations they propose are the operations of cueing, selection, abstraction, integration and substitution. These formal operations give rise to a number of content operations, among which are expansion, reduction, and comparison.[26] Since these content operations are instrumental in the familiar figures of speech, i.e. synecdoche, metonymy and metaphor, it comes as no surprise that they should contribute to other forms of extension of meaning and figuration as well.

I have tried to show that in order to adequately represent the typology of figurative language, we need at least two more terms, namely, syntonymy and syntaphor, to capture extensions of meaning which cannot be satisfactorily described in the traditional terms of synecdoche, metonymy and metaphor. So, while synecdoche has been shown to involve reduction in the "vertical" GENUS FOR SPECIES transfers of meaning, the proposed concept of syntonymy is based on the operation of expansion of meaning from the species to genus, including paragons of categories, such as *Mercedes, Shakespeare,* or *Zidane* and the resultant changes in their grammatical properties and a new place in taxonomies. By contrast, the concept of syntaphor is meant to cover all those extensions of meaning which are based on the operation of comparison and extension of category boundaries based on the perceived and/or conceived similarities and differences between categories which belong to the same basic level category or below it. It seems that the two new terms "syntonymy" and "syntaphor", which designate common and productive but often ignored cognitive and semantic phenomena, should prove useful in diachronic lexical semantic studies as well as in the studies and representations of synchronic lexical polysemy. The conceptual difference between syntaphor and syntonymy is reflected in their roles in reorganizing categories: syntonymy enriches the taxonomy by introducing a new higher level and/or providing a new name for an already existing category, while syntaphor adds new categories and senses horizontally on the same sub-basic level of categorization. In addition, the suggested two new concepts and the phenomena they denote may prove necessary in any attempts to give an exhaustive cognitive account of the traditional notion of catachresis, viewed as a process of filling in lexical gaps and niches in the conceptual worlds of speakers.

26. They also mention parameterization and saturation, which also seem to be relevant to our discussion. However, it seems to me that these two processes are actually special cases of, respectively, reduction and expansion.

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Cutting and breaking metaphors of the self and the Motivation & Sedimentation Model

Simon Devylder and Jordan Zlatev

Why are expressions of irreversible separation (e.g. *I feel torn apart*) used to speak about the self? Are they to be treated as metaphorical? We address these questions by using concepts and methods from cognitive semiotics, and especially *the conceptual-empirical loop*. We develop identification and classification procedures based on intersubjective intuitions, and apply these to data from a corpus of personal descriptions of traumatic experiences. To provide a principled explanation of these expressions, we employ the Motivation & Sedimentation Model (hereafter, MSM), which distinguishes between three interacting levels of meaning making: the Situated, the Sedimented, and the Embodied. On this basis we provide a definition of metaphor, leading to the conclusion that most instances of expressions in the sample would qualify as metaphorical, while affirming that metaphoricity is a scalar notion.

Keywords: cognitive semiotics, Conceptual Metaphor Theory, metaphoricity, iconicity, irreversible separation

1. Introduction

On March 14, 2015, after a six-month period of silence, the MyPTSD forum user "Muse" writes a long post in the trauma diary section, including the passage in (1).

(1) *I feel like I can't take it anymore, can't keep reliving it. New flashbacks and I feel really* ***torn apart*** *and am led into further dissociative episodes.*

Behind these words, we can discern a traumatic event, an experiencer, a bodily reaction to the event, an attempt to make sense out of this experience, and a desire to describe it in a way that will be understood by other forum users. We learn from earlier posts of Muse that she suffers from post-traumatic stress disorder (PTSD) as a result of sexual abuse when she was a child. The MyPTSD forum provides a communicative platform where users like Muse are given the opportunity to share their story freely thanks to anonymity and are helped by other users who are trying

https://doi.org/10.1075/ftl.9.11dev

to cope with their own traumatic experiences. The community exchanges words of comfort, and testimonies about the way they manage or fail to cope with their problems. We can say that on March 14, 2015 Muse decides to hit the keyboard and tell her story at a specific point in time, in a specific context, with the specific intention to share her experience with other forum users. This is a very *situated* form of meaning making, highly dependent on context, as well as on specific norms shared by the local community. For example, telling her story in a face-to-face psychotherapy session would involve a very different context and set of norms. But is this situated level of meaning-making sufficient to make sense of (1)?

Muse writes about her difficulty to cope with flashbacks of the trauma experienced as a child. PTSD flashbacks throw victims back into the originating traumatic experience, and typically involve intense bodily sensations. In writing another page of her public diary on these recurring flashbacks and mentioned episodes of dissociation, Muse faces the difficulty of finding the words that will both accurately describe this extremely distressful experience and be understood by readers who have not felt it themselves. Using expressions of cutting and breaking (e.g. *I feel really torn apart*) to describe events affecting the self may function as communicatively effective *metaphors*, since they rely on experienced *resemblance* (Zlatev, Blomberg, & Magnusson, 2012; Stampoulidis, Bolognessi & Zlatev, 2019) between the bodily sensation and the physical act of (violent) separation. There are many ways to refer to a separation event, but the slow, painful, and lasting brutality of a sexual abuse is arguably more aptly conveyed by the phrase *tearing apart* than by other separation constructions like *break*, *snap*, or *cut*. Thus, to truly make sense of (1), as both ordinary speakers and linguists, we need recourse to a level of meaning that involves bodily experience and the capacity to discern analogies, or else (diagrammatic) *iconicity* (Devylder, 2018), i.e. resemblance between expression and content, or between different contents (see Section 5). We may refer to this as the *Embodied* level of meaning making.

Finally, we need a level that bridges the two, which consists of both linguistic and cultural norms that have both a larger scope, and are more firm than the situated norms mentioned above (Zlatev & Blomberg, 2019). This includes conventionalized linguistic constructions, including *metaphoremes*, which "combine specific lexical and grammatical form with specific conceptual content and with specific affective value and pragmatics." (Cameron & Deignan, 2006, p. 674). We may indeed confirm that the expression *tear me apart* was not invented by Muse on the fly, but can be found as a separate sense of the English verb *tear* in a good English dictionary, qualifying it as a conventional metaphor. But how did it become so in the first place? Using a concept, itself based on metaphor, from phenomenology (Zlatev, 2016, 2018; Zlatev & Blomberg, 2016), we may answer: through the *sedimentation* of norms based on situated acts of meaning making, originally motivated by the embodied level. Metaphors such as those used by Muse in (1) are thus doubly motivated, by both the Embodied and the Sedimented level of meaning, rather in line

with the *Career of Metaphor* account, according to which expressions like *feel torn apart* can be understood through both comparison and categorization processes (Bowdle & Gentner, 2005).

In short, these are the basic ideas behind the *Motivation & Sedimentation Model* (MSM), which are presented in more detail in Section 5 in order to help explain the phenomenon that is the focus in the chapter: metaphorical English expressions of self disruption, extended from expressions denoting events of cutting and breaking; in short, cutting and breaking metaphors of the self. Our approach derives from *cognitive semiotics:* the transdisciplinary field of meaning-making, combing concepts of methods from linguistics, semiotics and cognitive science (Konderak, 2018; Sonesson, 2012; Zlatev, 2015). Among the many specific theories, approaches and phenomena studied in this field,[1] there is a core principle that we capitalize upon: *the conceptual-empirical loop.* This encourages us to begin the analysis with as few preconceptions as possible, and to propose definitions of the objects of study that are intuitive, i.e. intersubjectively valid. Only then can we perform an informed empirical analysis of the phenomenon, based on data from corpora and experimentation. Finally, we return to the concepts we started with, with enriched understanding based on the empirical research. This general principle implies methodological pluralism, including the systematic use of intuition, interpersonal corroboration and observation (Zlatev, 2009, 2015). Schematically, this may be illustrated as in Figure 1.

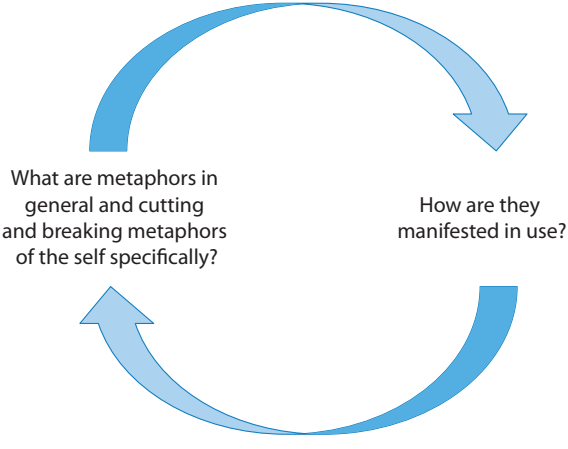

Figure 1. The conceptual-empirical loop applied to the present topic (adapted from Zlatev, 2015, p. 1058)

1. Such as the emergence of symbols in ontogeny (Daddesio, 1995), mental imagery (Thompson, 2007), the development of children's gestures (Andrén, 2010), subjectivity in language (Brandt, 2013), and referential iconicity in music and speech (Giraldo, 2018).

This principle also guides the structure of the remainder of this chapter. In Section 2, we delve into the "what" questions, providing both a review of relevant background research in the field and preliminary definitions of some main concepts, showing a gap in the literature: expressions of physical separation are commonly applied in English to the self, but there is yet no adequate explanation for why this is the case. If it involves metaphor, under what understanding of this notion can such expressions be regarded as metaphorical? To answer this question, we need to introduce new concepts, one of which is "expressions of irreversible non-actual separation", which can *potentially* serve as cutting and breaking metaphors of the self. On this basis, in Section 3 we present an intersubjectively valid identification procedure for the relevant expressions and four different "dimensions of the self" (a notion that we define with the help of a specific application of the conceptual-empirical loop), which are described as being affected by the expressions in question.

Section 4 is devoted to probing the data with the help of statistical analysis. In particular, we show that there is a strong correlation between expression types and self dimensions, which shows that the distribution of the expressions is not random but rather motivated. What they are motivated by, however, remains an open question. With the help of the Motivation & Sedimentation Model, in Section 5 we show that they are at least potentially metaphorical, as metaphoricity is a scalar notion, requiring the interplay of the three different levels of meaning making. Finally we conclude by summarizing our main contributions in Section 6.

2. What: Cutting and breaking metaphors of the self

2.1 Separation: Reversible and irreversible, actual and non-actual

Defining metaphor is controversial business, and even more troublesome is the concept of the "self". We will return to both in due time, but we may begin by stating the relatively uncontroversial assumption, stemming from the etymology of the term, that metaphor involves the interaction of two "things" (concepts, domains, frames, meanings…), where properties and relations from one are transferred to the other. Despite that we do not follow Conceptual Metaphor Theory (hence, CMT) in most respects (as we explain in the following sections), we may adopt its terminology of metaphor linking different *domains of experience*. For current purposes, it is reasonable to take the domain of physical separation as a likely "source" when turning to expressions where what is being separated is the immaterial self. Separation may be defined as *a change-of-state event leading to an observable disruption in the continuity of a given figure*. Separation events include irreversible events such as breaking a teapot, reversible events such as opening a jar, but exclude

events of destruction where there is no observable disruption in the continuity of the affected object, such as crushing a plastic cup. Thus, the "cutting and breaking" (hence, C&B) events that have been much analyzed in the literature can be seen as corresponding to the irreversible subtype of separation events, and may be defined as *change-of-state events leading to an observable disruption in the continuity of a figure in an irreversible manner*.

Different approaches have been adopted to analyze the semantics of C&B events. Some authors have proposed different typologies based on their distribution over distinct argument structures (Devylder, 2016, 2017; Fillmore, 1970; Guerssel, Hale, Laughren, Levin, & Eagle, 1985; Levin, 1993; Levin & Rappaport Hovav, 1995, 2011). Others have adopted the well-tried method of eliciting data in a standardized way across a wide range of languages (Croft & Poole, 2008; Kay & Regier, 2003; Levinson & Meira, 2003; Regier, Kay, & Khetarpal, 2007) and investigated how speakers of different languages categorize events involving cutting and breaking through the verbs used to describe them (Majid, Bowerman, Van Staden, & Boster, 2007; Majid, Van Staden, Boster, & Bowerman, 2004). Such studies showed that genealogically distinct languages shared some patterns of semantic categorization, for example with regards to the predictability of the locus of separation. At the same time, they also demonstrated a considerable degree of cross-linguistic variation in the number of categories and in the placement of their boundaries. For instance, you can *break* a plate and a stick, but not a piece of cloth in English, whereas Mandarin speakers can use *noŋ4-puo4* to describe a C&B event affecting a cloth and a plate, but not a stick (Pye, Loeb, & Pao, 1996). Variation of category boundaries also occurs across closely related languages like English and German (Majid, Gullberg, Van Staden, & Bowerman, 2007). Thus, there is both cross-linguistic variation, and potential "universals" in the semantics of cutting and breaking. But what is virtually unknown is whether these patterns carry over to metaphorical extensions. Taylor (2007, p. 335) concludes that there are "many open questions which go well beyond the scope of the present project, […] one concerns the availability of C&B verbs for metaphorical extension beyond the domain of material separation".[2]

Indeed, it is quite obvious that C&B verbs in English are often recruited to refer to events where there is no observable disruption in the continuity of the affected figure, as in (2) and (3):

(2) *She broke my heart.*

(3) *My computer broke.*

2. Some of the few studies on the metaphorical extension of C&B expressions are those of Bouveret & Sweetser (2009) and Devylder (2016).

While many would agree to treat (2) as metaphorical, few would do so for (3), since the event described is undoubtedly physical. Yet there is no observable separation of the figure (*computer*) involved. A broken computer implies loss of functionality, which may often be the result of physical breaking, but the result of an event and the event itself should not be conflated. Thus, what is common to (2) and (3) is a puzzle, and as Fujii, Radetzky, and Sweetser (2012) ask: "how can we account for physical meanings of *break* when no physical breaking is taking place?".

We may attempt to answer this question by stating that both (2) and (3) involve *non-actual separation,* which can be defined as *change-of-state events leading to a non-observable disruption in the continuity of a figure*. This is closely related to the notion of *non-actual motion*, (Blomberg, 2015; Blomberg & Zlatev, 2014) and is similarly uncommitted to whether expressions of non-actuality are motivated by metaphorical processes, or by other structures of embodied (inter)subjectivity such as enactive perception or "visual scanning" (Blomberg & Zlatev, 2014). Since metaphoricity is ultimately decided on the *Situated level* (Müller, 2008), as illustrated in the Introduction, it is impossible to determine which expression functions as a metaphor outside a specific context, as we elaborate in Section 5. For now, we can state that we can delineate the type of C&B expressions that could be potential cutting and breaking metaphors of the self as expressions of *irreversible non-actual separation* (INAS).

2.2 Irreversible, non-actual separation of the self

Within CMT, examples such as (1) and (2) could be analyzed as linguistic realizations of a "conceptual metaphor", a hypothetical structure in the "cognitive unconscious" (Lakoff & Johnson, 1999) where a source domain (here: an actual separation event) is mapped onto a target domain (here: the self). Without any motivation from the extensive philosophical tradition on the nature of the self, in particular from phenomenology (for a discussion, see Zahavi, 2014), Lakoff (1996, p. 102) proposed a separation-based metaphorical analysis according to which "we are conceptualizing ourselves as split in two, as if we were made up of an ensemble of at least two parts". Lakoff and Johnson (1999, p. 269) claim that this primary division underlies all conceptual metaphors of the self:

> It is not a trivial fact that every metaphor we have for our inner life is a special case of a single general metaphor schema. This schema reveals not only something deep about our conceptual systems but also something deep about our inner experience, mainly that we experience ourselves as *split*. [our emphasis]

Lakoff (1996) and Lakoff and Johnson (1999) use the terms *Subject* and *Self* for the two parts of what they call *the Person*.[3] They define the Subject as "the locus of reason and that has an existence independent of the body" (ibid, pp. 268–269), in contrast with the Self, which "includes the body, social roles, past states, and actions in the world." Based on this initial dichotomy, the authors maintain that all expressions referring to the personal domain are governed by a "General Subject-Self Metaphor." However, this dichotomy does not systematically account for all expressions where (irreversible) non-actual separation of the self is involved. A specific example is Lakoff and Johnson's (1999, p. 276) analysis of the INAS presupposing expression (type) *pulling oneself together*. Lakoff and Johnson (*ibid*, pp. 275–276) analyze (4) as a linguistic occurrence resulting from the mapping labeled as ATTENTIONAL SELF CONTROL IS HAVING THE SELF TOGETHER, and identify this mapping as a special case of THE SCATTERED SELF METAPHOR:

> [I]n the Subject-Self metaphor system, the ability to focus attention is an ability of the Subject. Control of attention is part of the Subject's normal self-control. […] [N]ormal self-control is conceptualized as the Subject and Self being at the same place. When the Self is scattered, Subject and Self cannot be in the same place and control is impossible.

(4) *Pull yourself together!*

According to the authors, (4) would mean that the addressee is asked to "regroup" the Subject and the Self in one place. While this analysis may account for the interpretation of a decontextualized occurrence like (4), it appears to be inadequate for several occurrences of *pulling oneself together* in context, such as those in (5–9), taken from the MyPTSD forum mentioned earlier.

(5) *I did not want to leave the house because I knew I was capable of breaking down at any moment. I walked there and was crying there* ***trying to pull myself together****. I walked in knowing I could break down and hoping no-one talked to me.*

(6) *Feeling pretty down. Kids are all in bed and immediately I collapse and start to cry. Coping in the day then falling apart at night and* ***pulling myself together*** *again to prepare for another day.*

(7) *I'm just feeling sorry for myself and enjoying it and all that sort of thought, at the end of which I'll kind of say, well, I have to* ***pull myself together.***

3. In contrast, we use the term "self" (without capitalization) in a broader sense, encompassing all subjective experience related to a given person (Zahavi, 2014).

(8) *My mom was in the kitchen making dinner. I went into the bathroom and stared in the mirror, and then collapsed on the floor crying uncontrollably. It was such a wrenching moment. Finally, I* ***pulled myself together*** *and went into the kitchen.*

(9) *I was unprepared for the intense wave of grief that washed over me at that moment. I missed him. I felt bereft. Of course, I thought immediately, he is still present in the same ways he has always been present-so what is going on here? I* ***pulled myself together*** *and we went on with the session. This jumble of emotions was too new and too raw to mention at the time.*

It is not so much the degree of generality of Lakoff and Johnson's analysis that is problematic. Broad and inclusive definitions are often necessary for a theory to be applicable to the diversity of specific cases. The problem is rather that the notion of regrouping one's Subject and Self in the same place does little to help explain contextually situated occurrences of *pulling oneself together* as those in (5) to (9). How informative is it to state that they are all instantiations of the conceptual metaphor ATTENTIONAL SELF CONTROL IS HAVING THE SELF TOGETHER? There is admittedly a notion of "control" underlying (5–9), but not a control over the person's *attention*, or control over regrouping one's "locus of consciousness" (i.e. Subject) and "the body, social roles, past states, and actions in the world" (i.e. Self). None of the above examples explicitly mark or implicitly indicate that the speakers experience a locative discrepancy between their Subject and Self. The latter, in the understanding of Lakoff and Johnson, is related to the concept of *face* (Brown & Levinson, 1987), but the meaning of the English expression *pulling oneself together* cannot be adequately accounted for in terms of attempting to regroup one's locus of consciousness and one's social roles in one conceptual location (Lakoff & Johnson, 1999).

In sum, we have noted a gap in the literature. Expressions of physical separation are commonly applied in English to the self, but there is yet no adequate explanation for why this is the case, and if it involves metaphor. We introduced the notion of irreversible non-actual separation (INAS) expressions to denote expression types like *break one's heart,* which could potentially be used metaphorically in a specific context. But to decide whether this is the case or not, we need both authentic linguistic data, at least basic knowledge of the context in which it was produced, and a methodology relying on a disciplined application of intuition. This is what we proceed to do in the following section.

3. How: Identifying C&B metaphors of the self in English Corpora

In the following sub-sections we describe the linguistic data that were used in the study and detail the procedures for identifying INAS expressions and the distinct dimensions of the self.

3.1 Data and methodology

The CNSTTD (Client Narratives, Sessions Transcripts, Trauma Diaries) corpus (Devylder, 2016) provided a convenient source for identifying INAS expressions, and thus of candidate cutting and breaking metaphors of the self. It consists of 229 discussion threads from a PTSD forum, 3121 narratives of psychotherapy clients, and 2022 transcriptions of Psychotherapy sessions. The compilation of the CNSTTD corpus was motivated by the assumption that cutting and breaking metaphors of the self would be used to refer to the effects of traumatic events and that the people who have suffered from such events are likely to describe these difficult experiences in the safe, and relatively intimate context of a psychotherapy session, an internet forum post, or a personal diary.

Our approach to metaphor identification emphasizes the need for "manual" analysis and the systematic use of the analysts' intuition. A common objection to this is that such a process is both time consuming and subjective. On-going efforts such as the MetaNet project (David & Matlock, 2018; Stickles, David, Dodge, & Hong, 2016) rather try to automatize the identification of metaphors in large corpora, but even the authors admit limitations. Current scripts are limited to English and to only a few domains (e.g. poverty, gun control, democracy, taxation, etc.). More problematic from our perspective is that the MetaNet architecture is built upon (a version of) Conceptual Metaphor Theory (CMT), which presupposes the existence of a stable system of "conceptual mappings" that are independent of language (Lakoff & Johnson, 1980). This approach emphasizes the notion of (conceptual) *system* at the price of (a) human creativity, (b) the role of language use in meaning-making processes, and (c) the bodily experiences themselves, which are often assumed to be pivotal in at least some publications of cognitive semanticists. A script that ignores (a-c) would thus not be able to identify the creative metaphors, which over time may sediment to become the kind of metaphoremes and systematic metaphors (Cameron & Deignan, 2006) that may be more amenable to automated analysis. So we are skeptical in principle of the possibility of any *fully* automated metaphor identification procedures, which of course does not mean that scripts such as those of MetaNet cannot be useful when augmented with intuition-based analysis.

Thus, for our study of C&B metaphors of the self we extracted a random sample of 150 texts (50 per genre) from the CNSTTD corpus, and subjected them to the identification procedure described in the following sub-section.

3.2 Identifying irreversible non-actual separation (INAS) expressions

Given that separation events are a special kind of (broadly defined) motion events or situations (see Zlatev, Blomberg, & David, 2010), we could identify irreversible non-actual separation (INAS) expressions by modifying the procedure for identifying motion-emotion metaphoremes (Zlatev, Blomberg, & Magnusson, 2012; Jacobsson, 2015; Paju, 2016). In particular, criteria A-E, stated and exemplified below, were used.

A. The sentence with INAS does not express actual separation.

For example, (10) is identified as an INAS expression whereas (11) is not because only the former refers to a change-of-state event leading to a non observable disruption in the continuity of the figure.

(10) *She **broke** my heart.*

(11) *She broke my arm.*

B. Substitution of the figure expression in an INAS expression can lead to a sentence describing actual separation.

(12) *My **mind split** in two. → The vessel split in two.*

C. INAS expressions typically involve verbs, but they may include nominalizations.

Based on this criterion, (13) and (14) may be identified as including INAS expressions.

(13) *I'm feeling **cracks in my walls** that are holding back those floodgates.*

(14) *He **had** another nervous **breakdown**.*

As pointed out in Section 2, another key feature of INAS expressions is irreversibility, thus calling for criterion D.

D. The actual separation use of the core phrase (verb or noun) in an INAS expression implies irreversibility.

(15) *You **broke** my heart.*

(16) *You opened my heart.*

Thus, (16) is not identified as an INAS expression because when used to express actual separation the English verb *open* implies reversible separation, in contrast to *break*. In relation to this, we decided to limit our study to the ten most frequent cutting and breaking expressions found in the corpus: *break, burst, crack, cut, fall apart, rip, shatter, snap, split, tear.*

Finally, since we aimed to identify INAS expressions that could serve as metaphors for the "disrupted self", we required that what was described as being separated was a dimension of the self, motivating the extra criterion E.

E. The expression of the figure denotes the whole self, part of the self, or the extended self.

(17) ***I'm falling apart*** (whole Self)

(18) *I want to rip* ***my mask*** *off but I cannot, I must be acceptable* (part of the Self)

(19) ***My marriage*** *is broken* (extended Self)

(20) *My car broke down*

This excludes (20) from the type of INAS expressions that are likely candidates to serve as C&B metaphors for the self. But the use of notions like "part of self" and "extended self" requires justification.

3.3 Different dimensions of the self

One may refer to oneself (in English) using personal pronouns with no specific reference to the dimension of selfhood that is being affected. The self, marked as an undifferentiated whole with the pronouns *me*, *myself, and I* in (21) and (22) has a certain degree of indeterminacy. This may be linked to the notion of *profile-active zone discrepancy* (Langacker, 2009), allowing expressions denoting what is being profiled to actually refer to an "active zone" of this profile in a particular context.

(21) ***I*** *can't hold back and be cautious anymore, all this anxiety and fear is tearing* ***me*** *apart and just making* ***me*** *even more angry.*

(22) *It's as though* ***I*** *were split in two; one part of* ***me*** *for communicating with the environment, the other for talking to* ***myself****.*

Events affecting the self are often expressed in discourse with a certain discrepancy between what the linguistic expression profiles, and what *dimension* of the self is being referred to. This level of indeterminacy can be overridden by cues found in the co-text, by the context, or by shared encyclopedic cultural knowledge. In (21) and (22) the expressions profile the experiencer of these events as a whole. Yet, these INAS events arguably affect distinct dimensions of the self.

We considered using philosophical or psychological taxonomies of these dimensions, but we wanted to avoid the pitfalls of an exclusively top-down approach leading to clear-cut *a priori* categories. Establishing such and labeling them with culturally loaded English terms makes the analyst run the risk of pigeonholing abstract and complex domains of experience. Yet, any scientific inquiry implies making generalization that can be applied in other studies, and this necessitates the categorization of different kinds of linguistically described experiences into types. To overcome this methodological obstacle and propose a typology that is as accurate as possible, we applied a local version of the conceptual-empirical loop, described in the introduction, by looking at our corpus sample line by line, identifying what dimension of the self is being described (i.e. the empirical side of the loop), and as we go on group together expressions that seem to refer to the same thing. Only then, when clearly distinct clusters emerged could we identify distinct types of self-dimensions (i.e. back to the conceptual side of the loop).

For instance, *tearing me apart* in (21) refers to an experience that was described in many other INAS expressions applied to the self, i.e., utterances that contained expressions that conform to criteria A-E. This can be broadly identified as the result of a change-of-state event that has affected the *emotional integrity* of the protagonist. The cues found in the co-text (i.e. *anxiety*, *fear*, *angry*) support this interpretation. The experience that the expression *split in two* described in (22) also involves a disruption in the integrity of the self, but not so much emotional per se, but rather *mental integrity*. All in all, we identified four types of self-dimensions described as affected by INAS expressions, illustrated in (23) to (26), and motivated in the following sub-section.

(23) *I was heartsick and **broken** like a dry twig.* (Emotional integrity)

(24) *I had a severe nervous **breakdown**.* (Mental integrity)

(25) *I must find my mask, it keeps **falling apart**.* (Social integrity)

(26) *My parents **split up**.* (Interpersonal integrity)

The term "integrity" presupposes a positively affected emotional state of well being, transparently described by the English phrase *feeling whole,* and used in an authentic example taken from the CNSTTD corpus in (27).

(27) *I felt happy and I felt complete and I felt as whole as I could be.*

The self's emotional integrity may be understood as *the continuity of an emotional state of wholeness*. This is what is disrupted by a non-actual breaking apart event in (23). The contextual information (i.e. being heartsick) allows us to override the indeterminacy of the first person pronoun and rather unambiguously identify the relevant dimension as that of emotional integrity.

On the other hand, INAS expressions like that in (28) refer to a breaking event (i.e. *fragmenting*) that is affecting something else than a state of emotional integrity. Arguably, this is a type of *mental integrity,* which can be defined as *the continuous state of soundness, rationality, and healthiness of the human mind.*[4]

(28) *I feel **fragmented**. I feel like not me, and the times when I am most like me, it seems to not fit with anything acceptable, conventional, sensical, or reasonable.*

A different self-dimension that can be described as disrupted is that of *social integrity*, figuring in the INAS expression in (29).

(29) *I will try to be positive anyway. Doctors later and then dinner at Dad's. Must find my **mask**, it keeps **falling apart** just lately and I really need to keep it together.*

Here the speaker's social self is described as a *mask* that keeps *falling apart*. In terms of Brown and Levinson's (1978, 1987) notion of "face" and Higgins (1989)'s self discrepancy theory, what the speaker attempts to preserve is the continuity between *the ought self* and *the actual self*, a relation that is negotiated in most social interactions. The notion of face implies that a specific set of behaviors, attitudes, and reactions have to match the expected conventions of a given culture and situated norms of a given type of context. For instance, the co-participants of a social interaction would experience outbursts of strong emotions as "face threatening acts" (Brown & Levinson, 1987) in many cultures. This social convention inevitably leads to self-discrepancy because, on the one hand, an adult person is expected not to cry in public (i.e. the *ought self*), but on the other hand, if that person actually experiences intense sorrow, the urge to cry (i.e. the *actual self*) would need to be repressed. In (29) the INAS expression seems to refer to this experience of self-discrepancy between what the speaker is supposed to feel, and what he actually feels. This discrepancy can be quite painful as graphically described in (30) and (31) by two speakers who also use the mask artifact to refer to the ought self as hiding the actual self behind.

(30) *Smiling on the outside, barbed on the inside. It sits upon my face, every time I move it hurts me a little more, every smile lets the barbs cut deeper.*

(31) *All the while I smile and joke, my mask hiding the pain beneath, one day it will cut deep enough it cannot be removed and I will forever be a false me.*

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4. Janet (1973 [1889]: 457) describes both the distinction and relation between emotions and 'the mental' in similar terms: "Emotion has a decomposing action on the mind, reduces its synthesis and makes it, for the moment, wretched. Emotions, especially depressive ones such as fear, disorganize the mental synthesis; their action, so to speak, is analytic, as opposed to that of the will, of attention, of perception, which is synthetic."

INAS expressions of the self's social integrity do not necessarily imply the notion of face but always refer to change-of-state events affecting the integrity of a whole formed by *the continuity of the ought and the actual*. Such expressions are also frequently recruited in English to describe experiences of inner conflicts as illustrated in (32).

(32) *I was **torn** with inner conflicts and did not know what to decide.*

A rather different type of self-dimension that is described as affected by INAS expressions is that of *interpersonal integrity*, as shown in (33–34).

(33) *I **cut** myself **off** from my family.*

(34) *We **broke up** like civilized people.*

In (33) and (34) the prototypical C&B English verbs *cut* and *break* refer to two change of-state events that seem to affect the integrity of *a super-individual self composed of several selves* (e.g. a family in (33), a couple in (34)).

These four types of self-dimensions covered the vast majority of the INAS expressions identified in the sample: 289 out of the 314 instances found. However, 25 instances fulfilled the A-E criteria given above, but did not fit into these four types, and were coded as 'other'. Further investigation may allow us to determine if the group can be broken down into additional self-dimension categories. Several tokens can already be grouped together. For instance, 9 INAS expressions describe the speaker's intention to disrupt the continuity of a habit, or of a character's trait, as in (35) and (36).

(35) *We seem to be locked in a circular pattern that must be **broken**.*

(36) *I was put in hospital to **break** the habit.*

A habit, or a personal trait is arguably part of the self, as it can potentially define an individual's personality. Another group that is represented in the 'other' category are expressions describing change-of-state events leading to *physical* disruption in the continuity of a figure in an irreversible manner, but one that remains *non observable* (giving a hyperbolic sense to these expressions), as those shown in (37) and (38).

(37) *His hands holding my wrists (…) **crushing** me, **ripping** me.*

(38) *The pain **tears** through my rib cage and halts my attempt to breathe.*

In this case, the INAS expressions (7 in the sample) are used to refer to a traumatizing physical sensation or intense pain event. A third type referred to disruption in the speaker's concentration on a task, as illustrated by (39).

(39) *I did not want her concentration to be* ***broken****.*

We could call this *intellectual integrity*, as disruption affects the speaker's intellectual capacity to focus, or understand a problem. However, the few instances of this type of INAS expressions in the data (only two) motivated us to include them in the 'other' category.[5]

In sum, this analysis gave rise to the following categories, which were given with definitions and examples to two independent annotators who were to apply them to the 314 instances in the sample.

i. The self's emotional integrity: *the continuity of an emotional state of wholeness.*
ii. The self's mental integrity: *the continuous state of soundness, rationality, and healthiness of the human mind.*
iii. The self's social integrity: *the continuity of the ought self and the actual self.*
iv. The self's interpersonal integrity: *a super-individual self composed of several selves.*
v. Other: *neither of the above*

While the categories were defined on the basis of intuition, this does not make the analysis "subjective", as intuition unlike introspection is in principle intersubjective (Itkonen, 2008b; Zlatev, 2016). One way to assess this is to measure the variability of coding the data by independent annotators. If the categories are intuitive, then the annotators' annotations should be maximally shared. In contrast, if they are not clear enough or do not accurately describe the phenomena under investigation, there should be considerable variation. This variability of interpretation can be measured with the kappa coefficient (Cohen, 1960).

After the two annotators coded the self-dimension types of the 314 INAS expressions it was found that their agreement was *substantial* with a k coefficient of 0.796, which is very close to reach the *near perfect agreement* threshold of $k = 0.8$ (Landis & Gary, 1977).[6] As a second step in the process, the two annotators discussed the instances where they disagreed, and reached agreement, after so-called "reconciliation". The results of the analysis described in the following section are based on the fully reconciled dataset.

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5. It is worth noting that quite a few expressions of the intellectual integrity kind were identified as non-actual separation expressions but not as INAS expressions, consisting of verbs that described separation events that were not irreversible, such as *scatter*.

6. This score was obtained before reconciling the disagreements, which counts as "reliability data proper" (Krippendorff, 2013; Põldvere, Fuoli, & Paradis, 2016).

4. How: Probing the data with quantitative tools

The following sub-sections are devoted to the quantitative analyses of the corpus data described above.

4.1 Representativeness

One could perhaps question the representativeness of the CNSTTD corpus due to its specificity and its relatively small size (compared, for example, to the 100-million word BNCweb). There could be many more INAS expressions in proportion to actual separation expressions in the CNSTTD corpus than in the BNCweb, in the same way that there could be proportionally more "cutting and carving" expressions in *Carpenter Magazine* than in general. If this were to be the case, then our findings would arguably be limited to a specific portion of the population (i.e., people who have suffered from various kinds of traumatic experiences). It would also prevent us from generalizing about INAS expressions and metaphors of the self within the general population of English speakers.

To address this issue, we compared the proportion of the actual vs. non-actual separation expressions found in the CNSTTD corpus and in the BNCweb. As mentioned in the previous section, the data used for the present study is based on a True Random Number Generated sample (Haahr, 2010) of 150 texts from the CNSTTD corpus. Within this sample we used the identification procedure described in Section 3.2 to analyze all instances of *break, burst, crack, cut, fall apart, rip, shatter, snap, split* and *tear* (the ten most frequent cutting and breaking expressions found in the corpus), and to determine if these instances expressed actual separation (AS) or irreversible non-actual separation (INAS). Further, we used the same randomizing algorithm and extracted 500 expressions that contained the same verbs (i.e. 50 expression per verb). 78% (541) of the 695 expressions found in the CNSTTD corpus were INAS expressions, and 22% were AS. In comparison, 70% of the 500 expressions with "cutting and breaking" verbs from the BNCweb were INAS, and 30% were AS expressions. As these proportions are quite similar, we may consider the results of our analyses to be representative for the larger population of English speakers.

4.2 Correlations between INAS expression types and self-dimension types

Out of 541 INAS expressions in our sample, 314 (58%) fulfilled all five criteria described in Section 3.2, and qualified as possible metaphors for the disrupted self.[7] These were then analyzed for the self-dimensions defined in Section 3.3. The distribution of possibly metaphorical INAS expression types over self-dimension types is shown in Table 1.

Table 1. The distribution of irreversible non-actual separation (INAS) expressions applied to the self over self-dimension types in the CNSTTD sample

INAS type	Emotional integrity	Mental integrity	Social integrity	Interpersonal integrity	Other	Total
break	21	94	4	30	17	**166**
burst	17	0	0	0	0	**17**
crack	2	7	1	0	0	**10**
cut	7	3	2	13	2	**27**
fall apart	0	15	1	1	0	**17**
rip	5	1	1	0	2	**9**
shatter	1	3	0	1	1	**6**
snap	14	8	0	0	0	**22**
split	0	18	1	6	0	**25**
tear	2	6	3	1	3	**15**
Total	**69**	**155**	**13**	**52**	**25**	**314**

The English verbs *burst, crack, cut, fall apart, rip, shatter, snap, split,* and *tear* all denote a change-of-state event leading to a disruption in the continuity of a figure (i.e. separation) in their basic, physical sense. If separation in general were the dominant semantic component motivating the use of INAS expressions concerning emotional, mental, social and interpersonal integrity, then we could expect the ten types of separation verbs to be interchangeable across the different types of self dimensions. This means that it would equally make sense for a native English speaker to use *break* to describe an event affecting one's emotional integrity, mental integrity, social integrity, or interpersonal integrity. As can be seen in Table 1, expressions of the *break* type are indeed used to refer to all self-dimensions, though with different frequency in the distinct categories.

It would however be erroneous to jump to the conclusion that the two variables (separation type and self-dimension type) are correlated based on such "naked eye"

7. The remaining 227 (42%) were identified as non-actual separation expressions that were affecting a figure other than the self (e.g. *my car broke down*).

observations. We need to take into account the frequencies of all the separation types across self-dimensions, as well as the frequencies of all self dimension types across separation types. For instance, there are only 13 INAS expressions referring to the social integrity self-dimension compared to the 155 expressions referring to the mental integrity self-dimension.

We used Pearson's Chi-square test to evaluate how likely it is that the distribution of the categorical data shown in Table 1 could be due to chance.[8] The results showed that the null hypothesis could be rejected, i.e., that the interdependence of both variables is strongly significant (p-value = 0.000).[9] In order to further confirm the validity of the correlation between INAS expression types and self-dimension types, we performed a chi-square residual analysis (e.g. Delucchi, 1993).[10] This showed which cells in Table 1 provide most supporting evidence for the dependency of our two variables (see Appendix A for the results of the analysis).

Figure 2 shows the level plot of the chi-square residual analysis. The grey color indicates that the frequencies of INAS expressions in these cells were within the range of the estimated expected frequencies if the variables were independent. In other words, the observed data of these grey cells (e.g., the four *break* metaphors used to refer to the social dimension) did not contribute to the strong dependency of the two variables. The cells with frequencies of INAS expressions that did contribute to the magnitude of the chi-square result (i.e., showing the strong association of separation types and self-dimension types) are colored in red (=frequency above estimated expected frequency) and in blue (=frequency below estimated expected frequency).

Figure 2, for example, indicates that *break* INAS expressions tend to refer to events affecting the mental self-dimension, while *burst* to the emotional self-dimension, and *cut* to the interpersonal self-dimension. Thus, the distribution of the expressions is not random, and their use in describing the various experiences reflecting a disrupted self is on the whole *motivated*. In other words, there is "something" in the physical events described by the English verbs *break*, *burst*, *cut*, *fall apart*, *rip*, *snap*, *split*, and *tear* that motivates their use to describe an event affecting a specific dimension of the self. Since "transfer" of meaning from one

8. This test compares the observed data to a model that distributes the data according to the expectation that the variables are independent. Whenever the data does not fit this model, the independence of both variables weakens, hereby proving the null hypothesis false.

9. X-squared = 174.0236, df = 36, p-value < 2.2e-16

10. This analysis identifies the specific cells of the contingency table that are the most responsible for the result of the chi-square test. Agresti & Franklin (2007, p. 38) explain that "a cell-by-cell comparison of observed and estimated expected frequencies helps us to better understand the nature of the evidence. [Cells with large residuals] show a greater discrepancy than we would expect if the variables were truly independent".

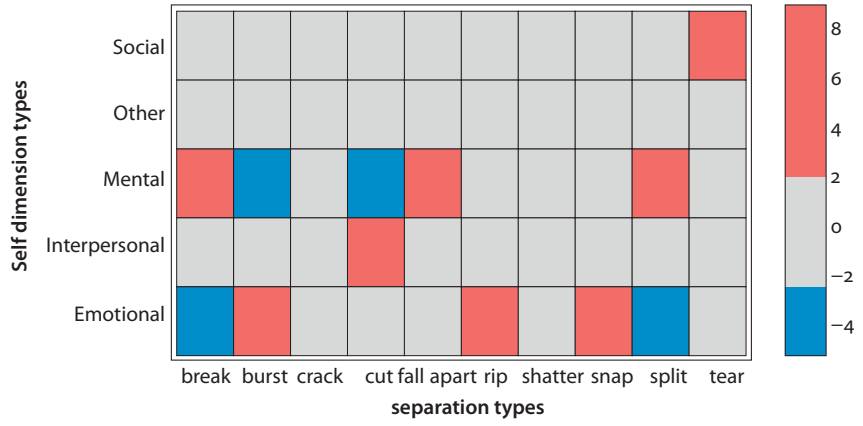

Figure 2. Level plot of the chi-square residuals analysis

domain of experience to another is the uncontroversial characteristic of metaphor, we may regard this as evidence that (many of) the INAS expressions studied have indeed been used metaphorically, i.e. as *cutting and breaking metaphors of the self*. However, we cannot state this with certainty, and one of the reasons for this is that we have as yet not provided an explicit definition of metaphor.

This leads us back to the questions that we posed in our earlier discussions: What do we mean by "metaphor" and how do language use, cultural, and bodily experience participate in metaphorical meaning making? To answer such general questions, we need a theoretical model, and earlier we expressed reservations concerning one of the dominant models in the current literature, Conceptual Metaphor Theory (CMT). In the following section, therefore, we approach these questions with the help of the model that was informally introduced at the onset of this chapter, the Motivation & Sedimentation Model (MSM), and show how it may help explain the nature of cutting and breaking metaphors of the self.

5. What, Why and How: MSM and cutting and breaking metaphors of the self

A general theory of metaphor should be able to account for universal tendencies "to treat one thing in terms of another" as well as for extensive cross-cultural and cross linguistic variation. Further, it should be able to apply to the dynamics of metaphor use, and not just to static systems or "mappings". Methodologically, it requires clear theoretical and operational definitions, allowing us both to distinguish metaphor and other types of figuration, such as metonymy and hyperbole, and to analyze their combination and interaction. Ultimately, it needs to apply not only to language, but

also to other semiotic systems such as gesture and depiction, and to combinations of these in polysemiotic communication (Zlatev, 2019).

This is a long list of requirements, but we would claim that the Motivation & Sedimentation Model (MSM) comes a good distance to fulfilling them. With roots in *phenomenology* (Husserl, 1970 [1900]; Merleau-Ponty, 1962) and *integral linguistics* (Coseriu, 1985, 2000), it distinguishes between three fundamental levels of meaning making and links these with two basic relations with several sub-divisions: *motivation* and *sedimentation*. It has recently been applied to the understanding of *language norms* (Zlatev and Blomberg, 2019) and to the debate on *linguistic relativity* (Blomberg and Zlatev, in press), showing how a pluralistic ontology of (above all) language can help resolve complex theoretical disputes.

The three levels of the model are the following ones. The *Embodied level* consists of non linguistic, cognitive, and experiential processes and structures such as the body-schema and body image (Gallagher, 2005), bodily mimesis (Donald, 1998), emotions (Foolen, Lüdtke, Racine, & Zlatev, 2012), categorization (Rosch, 1977) and analogy-making (Gentner & Markman, 1997). The *Sedimented level* is that of social and linguistic norms (Itkonen, 2008a), culture-specific gestures (Kendon, 2004), writing systems and symbolic notations (Donald, 2001; Goody, 1977), which are all relatively stable, socio-cognitive structures that serve as "tools" for thought and communication (Vygotsky, 1978). The *Situated level*, on the other hand, is that of live social interaction, spontaneous language use, and improvisation, or to use the catchy phrase of Hutchins (1995), "cognition in the wild". In semiotic terms, it is the level of *sign processes*, where expressions (in any semiotic system) are subject to interpretation and play, being highly dependent on the immediacy of the situation.

Crucially, MSM emphasizes that none of these levels is autonomous, as they stand in constant interaction through the two main operations. The *motivation* operation, inspired by the *Fundierung* relation in phenomenology (Merleau-Ponty, 1962), is that which links primarily the embodied and situated levels, in an "upward" direction: the (potentially) universal experiential and cognitive processes are necessary for the local and contextual significations to arise. In a second step, the situated sign activities become *sedimented* "downward" through use and iteration into the more or less elaborate structures of the Sedimented level. These in their turn co-motivate future sign processes, which are thus in practice never *fully* novel and creative, as they also presuppose more or less sedimented norms (Blomberg & Zlatev, in press). There are more aspects to the model, including distinctions between more static (structural) and more dynamic (process) aspects on each level, but this description, illustrated in Figure 3, will suffice for present purposes.

What does this cognitive-semiotic model imply about metaphor in general, and about our particular phenomenon, cutting and breaking metaphors of the self, in particular? Let us start with the more general question. First, it states that

metaphors are fundamentally *signs*, rather than "mappings" or any other kind of cognitive structures and processes that could be motivating the existence and use of these signs. Second, and in line with the tradition, MSM claims that metaphors are primarily *iconic* (i.e. resemblance-based) signs, but not like pictures or onomatopoetic expressions, where the resemblance is between expression and content, but between the *contents* of two signs: a more directly given ("source"), and a more relevant for the context ("target"). Third, and perhaps most originally, MSM can explicate the increasingly popular notion of *metaphoricity* (given that it is becoming generally acceptable that there is no rigid line between "metaphorical" and "literal"): *the degree to which a particular use of an expression is metaphorical (on the situated level) is proportional to the degree to which iconicity (analogy) on the embodied level is involved in the interpretation process.* We may illustrate these points with the examples in (40) and (41).

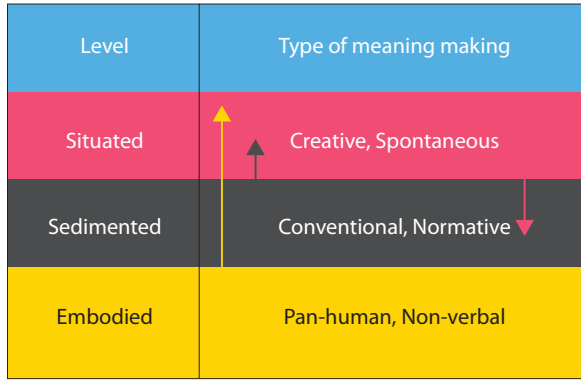

Figure 3. The Motivation & Sedimentation Model of meaning making, with upward motivation relations, and downward sedimentation relation

(40) *You are such a pig.*

(41) *You are a lovable hippopotamus.*

The use of the expression *pig* in an utterance like (40) is far from novel, as it is sedimented from countless such usages, and is given a corresponding sense in any dictionary of English, e.g., "an insulting word for someone who behaves in an unpleasant way" (*MacMillan Dictionary*, 2018). This would correspond to a highly conventionalized *metaphoreme* in the sense of Cameron and Deignan (2006) or a *metaphorical category* in the sense of Bowdle and Gentner (2005). But this "extended" sense of *pig* co-exists with that of "an animal with no fur and a curly tail kept by farmers for its meat", along with all the cultural associations that go with it. What makes the extended and contextually appropriate sense of *pig* in (40)

metaphorical is: (a) the tension that arises from the co-activation of both senses, leading to interaction and "transfer" between them, and (b) that there is some very schematic iconicity (resemblance, analogy) between the two senses, highlighting (depending on context) aspects such as GREED, BELLIGERENCE, or IGNORANCE. As it would not be possible to conduct (b) without access to the embodied level, for the sake of analogy-making and categorization, a situated use of (40) that involves both (a) and (b) would have a higher degree of metaphoricity. It is also possible, however, to use (40) at least somewhat metaphorically without (b), thus motivating its use only from the linguistic and cultural conventions on the sedimented level.

In contrast, (41) is a (relatively) novel metaphorical usage of *hippopotamus*, and indeed, it would be hard to find the appropriate sense in an English dictionary. To understand the speaker's intention, there is no other option but to reflect on the rich meaning of the term, including non-linguistic imagery, and to use analogy (iconicity) in order to transfer meaning to the situated utterance. Thus, (41) is clearly metaphorical on the situated level, and (40) is at least somewhat metaphorical, which corresponds to the analysis of, respectively, novel and conventional metaphors in the *Career of Metaphor* model (Bowdle & Gentner, 2005).

But some expressions on the sedimented level that may have initially developed through metaphorical processes, such as *foot*, evoke neither tension (as the "primary" senses are marginal) nor require any analogy-making, and are hence in almost all instances of situated use to be regarded as non-metaphorical. Still, as argued by Müller (2008), it is more appropriate to use the more novel metaphor "sleeping", than the more conventional "dead", to describe such expressions, as the possibility for their metaphoricity to be activated again remains, as also pointed out by Lakoff and Johnson (1980). To the extent that the embodied level cannot be reasonably claimed to be involved, or if it does not motivate the use of the expression though iconicity (analogy), then we are simply not dealing with metaphor.

The MSM model thus leads us to the following definition of metaphor: *a sign in a given semiotic system (or a combination of systems) with (a) at least two different potential interpretations, (b) standing in an iconic relationship with each other, where (c) one interpretation is more relevant in the communicative context , and (d) can be understood in part by comparison with the less relevant interpretation.*

This definition is promising for a general theory of metaphor, as it may integrate notions and findings from conflicting perspectives. In agreement with the discourse dynamic view, we may state that on the Situated level "metaphors […] should be regarded as a process of meaning construal in which new metaphoric expressions dynamically emerge, are elaborated, and are selectively activated over the course of a conversation" (Kolter et al., 2012, p. 221). But as argued, this level is not sufficient, as most metaphor use (in language) also requires conventional structures such as metaphoremes (and grammatical constructions in general), as well as pan-human structures and processes of embodied (inter)subjectivity, grounding

meaning-making in interaction with others and the world. The latter is in accordance with the views of most cognitive linguists, but without assuming the existence of stable conceptual mappings across conceptual domains, in the manner of CMT.

Having answered the general question posed at the end of the previous section (what do we mean by "metaphor" and how do language use, cultural, and bodily experience participate in metaphorical meaning making?), we may now return to our empirical phenomenon: cutting and breaking metaphors of the self. It should by now have become clear why we emphasized that all of the irreversible non-actual separation (INAS) expressions applied to one or another dimension of the self were only *potentially* metaphorical. This is so, since even though all examples were taken from a corpus of carefully collected language use that is relevant for the "target domain", we cannot know without delving into the (imagined) situated communicative experiences of those who composed these expressions, and those who read them, whether one or another use of an INAS expression (a) evokes tension and (b) requires iconicity/analogy making. Demonstrating significant correlations between expression types and self-dimensions in Section 4 and showing some motivation behind the use of INAS expressions leads to the inference that their metaphoricity is probable. But looking back at specific examples, it is rather clear that some are better candidates for situated metaphors than others. Consider again examples (38) and (39), repeated as (42) and (43). The imagery expressed by (42) is quite vivid, and as in our initial Example (1), we can reasonably suppose that the author is evoking the Embodied level, and using an irreversible separation expression that she finds to be most analogous to what she is in fact experiencing. In (43), in contrast, the use of the verb *break* hardly evokes any tension at all, and expresses little more than its extended sense "disrupt". The fact that the INAS expression type with the verb *break* accounts for about half of the instances in the sample (see Table 1) supports the conclusion that if this is indeed metaphorical, it has a low degree of metaphoricity.

(42) *The pain* ***tears through*** *my rib cage and halts my attempt to breathe.*

(43) *I did not want her concentration to be* ***broken.***

Thus, the most promising way to gain further evidence for the metaphoricity of INAS expressions related to the self is by obtaining and analyzing evidence from discourse that is richer with respect to the context of situation, which seems to be the general direction metaphor research is moving (Boström, 2018). This would also require returning to the "how" question, and providing identifications procedures that are more context-sensitive than what we presented in Section 2, operationalizing notions such as "tension" and "iconicity" based on systematic intuitions. This may seem to be a perilous path in the view of some researchers, but we hope to have shown that it is a possible one, and arguably one that is necessary for understanding both complex and controversial notions such as metaphor.

6. Conclusions

In this chapter, we pursued three separate but interrelated goals. First, we aimed to gain a better understanding of a common phenomenon in English (and many other languages): the use of expressions of irreversible separation – commonly known as "cutting and breaking" – to speak about the self or some of its aspects or dimensions. We showed that there has been surprisingly little attention devoted to such expressions, and to the question of whether they should be treated as metaphorical, and if so, how.

In trying to fill this gap, we were lead to the second goal of the study: to develop identification and classification procedures based on reliable intuitions, and to apply these to language use that is as likely as possible to reflect the speakers' experiences. The CNSTTD corpus provided us with the necessary data, while we extended previous work on non-actual motion and motion-emotion metaphors to explicate the necessary concepts, and to develop the necessary protocols. In the process, the notion of irreversible non-actual separation (INAS) proved to be a convenient intermediary step. Similarly to non-actual motion sentences like *the path leads to the top*, INAS expressions applied to the self like *I broke into tears* may be analyzed as metaphors, but do not automatically imply such an analysis, as they are both conventionalized and could be motivated by non metaphorical process (e.g. by a set of sedimented and culturally specific beliefs). Showing that the ten most common "cutting and breaking" verbs in the sample correlated with different dimensions of the self, we confirmed that there is motivation involved, but not definitely that they were metaphorical.

This led us to the third and final goal: to outline a general model of meaning making, the Motivation & Sedimentation Model, to show its implications for metaphor analysis, and to apply it to our empirical phenomenon. The conclusion was that many – if not most – instances of situated use of INAS expressions in the sample would indeed, on a more careful analysis, show evidence of both semantic tension (ambiguity) and resemblance (iconic) relations between the different senses of the cutting and breaking expressions involved, qualifying them as metaphorical. At the same time the model affirmed that metaphoricity is a scalar notion, and provided theoretical criteria for explaining this. A future goal would be to elaborate these into operational criteria, and thus to continue the operation of the conceptual-empirical loop of cognitive semiotics which we have spun several times in this chapter.

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Appendix A

The results of the *Chi-square residuals analysis* (reported in Section 4.2).

	Emotional	Mental	Social	Interpersonal	Other
Break	−4.2257967	2.72644110	−1.63016489	0.763227170	1.5800740
Burst	7.9885794	−4.18579878	−0.88104784	−1.888696112	−1.2469015
Crack	−0.1532541	1.32659583	0.94534631	−1.431789121	−0.9452553
Cut	0.5186558	−4.15838342	0.89138811	4.618492565	−0.1113066
Fall apart	−2.2498448	3.29621725	0.37075769	−1.217824416	−1.2469015
Rip	2.4686088	−2.32892194	1.06513573	−1.356085853	1.6035399
Shatter	−0.3170343	0.03150871	−0.51398864	0.007063038	0.7953142
Snap	4.8937892	−1.26466058	−1.01081847	−2.166884509	−1.4305592
Split	−2.7658423	2.35976587	−0.03665926	1.043053124	−1.5328759
Tear	−0.8282671	−0.74328912	3.15972494	−1.056372774	1.7650123

The metonymic exploitation of descriptive, attitudinal, and regulatory scenarios in meaning making

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This chapter accounts for the different outcomes resulting from the exploitation of different kinds of situational cognitive models (*scenarios*). Starting from Ruiz de Mendoza and Galera's (2014) taxonomy of cognitive models, we take a step further by subdividing scenarios into descriptive, attitudinal, and regulatory types. It is our contention that the kind of scenario involved constrains the inferential mechanisms activated at the pragmatic levels, which are supported by metonymic activity in the form of metonymic expansion plus metonymic reduction. How such processes can motivate the various formal aspects of constructions is discussed with reference to Kay and Fillmore's (1999) well-known description of the *What's X Doing Y?* construction. This chapter also shows the connections between Langacker's profile-base relations and the metonymic exploitation of the different kinds of scenarios.

Keywords: metonymic chains, pragmatic inference, profile, base

1. Introduction

Idealized Cognitive Models (ICMs), as originally postulated by Lakoff (1987), are conceptual constructs that capture how we experience the world. Besides *frames* (objects, their properties, and relations; cf. Fillmore, 1982), and *image schemas* (abstraction of spatial experience such as part–whole structure, motion along a path, two and three-dimensional space, etc.; cf. Johnson, 1987), Lakoff listed *metaphor* and *metonymy* as examples of ICMs. Metaphor is a cross-domain conceptual mapping, where one conceptual domain is used to reason about another domain (e.g., a person's keen eyesight is be understood in terms of an eagle's ability to see in *He has eagle's* eyes; cf. Lakoff & Johnson, 1980, 1999). Metonymy is a domain-internal mapping based on a stands-for relation between domains and subdomains (e.g.,

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the container stands for its contents in *He drank two glasses*; cf. Lakoff & Johnson, 1980). The study of ICMs is central to understading the relationship between mental processes and language use.

The notion of ICM is at the core of the *Lexical Constructional Model* (or LCM). The LCM considers metaphor and metonymy to be *operational* in nature, since they act on frames and image schemas. LCM proponents further argue that metaphor and metonymy are decomposable into more basic cognitive operations: *comparison* and *correlation* for metaphor, and *expansion* and *reduction* for metonymy (cf. Ruiz de Mendoza, 2011). The first two operations capture the well-known distinction between resemblance and correlation metaphors (Grady, 1999), while the latter refer to the part-whole (expansion) and whole-part (reduction) processes typically involved in metonymic thinking (cf. Ruiz de Mendoza, 2000). These are only four operations from among a more exhaustive list provided in Ruiz de Mendoza, 2011, and Ruiz de Mendoza & Galera, 2014). The LCM also provides a detailed classification of ICM types, which underlie the various kinds of language-based inferences and constructions (Ruiz de Mendoza and Galera, 2014).

The present chapter develops part of the explanatory apparatus provided by the LCM through an examination of the role of metonymic operations on different kinds of *situational cognitive models* or *scenarios*. Elaborating on the initial taxonomy of cognitive models in Ruiz de Mendoza & Galera (2014), we propose the subdivision of scenarios into three subtypes: *descriptive, attitudinal*, and *regulatory*. Then, we examine the inferential patterns that arise from their metonymic exploitation.

The rest of this chapter is structured as follows. Section 2 provides an overview of the LCM, which constitutes the theoretical framework for our study. Sections 3 and 4 focus on cognitive models and cognitive operations with special emphasis on the activity of metonymy (more specifically of metonymic chains) on low-level situational cognitive models or scenarios. Section 5 addresses some postulates from the field of Cognitive Linguistics that are relevant for our study. This is the case of Langacker's (1987, 1999) notions of profile and base, which we argue are applicable to the understanding of the cognitive aspects of the metonymic exploitation of the three kinds of scenario mentioned above. Section 6, which constitutes the core of our proposal, revolves around inferential patterns and the metonymic exploitation of different kinds of scenario.

2. The Lexical Constructional Model (LCM)

The LCM is organized into four descriptive levels (see Ruiz de Mendoza & Mairal, 2008; Mairal & Ruiz de Mendoza, 2009, and Ruiz de Mendoza, 2013):

a. Level 1 (predicational or argument-structure) is concerned with the integration of lexical elements into argument-structure constructions. For example, in *She stared John out of the room*, the verb *stare* is incorporated into the caused-motion construction thanks to the licensing role of a high-level metaphor in which emotional impact (as caused by staring) is treated as physical impact (as caused, for example, by pushing, kicking, etc.).
b. Level 2 (implicational structure) addresses implicational meaning. Implicational constructions capture meaning implications arising from low-level scenarios (i.e. those that are accessible to direct perception). This is the case of *do you think* in the sentence *Who do you think you're talking to?* (as compared to *Who are you talking to?*; Ruiz de Mendoza & Mairal, 2008, p. 358), where the speaker makes a negative evaluation of the hearer's way of addressing someone (it might be the speaker himself). The situation to which the hearer should have reacted differently is a two-human interaction scenario that the speaker has been a witness to.
c. Level 3 (illocutionary structure) deals with illocutionary meaning, which arises from the exploitation of high-level scenarios linked to social conventions. At this level, the question *Who do you think you're talking to?* can be a call for action, for example, a warning for the addressee to act differently or a reproach for having acted inconveniently. This illocutionary value derives from a high-level scenario (i.e. one that generalizes over a range of lower-level experiences), which in this case contains our knowledge of socially acceptable behavior, which, if not followed, can have consequences.
d. Level 4 (discourse structure) treats the study of discourse relations, with emphasis on cohesion and coherence phenomena. For example, such relations as cause-effect, condition-consequence, and temporal precedence, underlie multiple discourse connections. In *He kissed Mary and she smiled* the cause-effect relationship overlaps with temporal precedence (the event causing Mary to smile precedes the effect).

One of the main strengths of the LCM is its ability to postulate unifying mechanisms at different levels of linguistic representation. This is mainly achieved through a working assumption termed the *Equipollence Hypothesis* (Mairal & Ruiz de Mendoza, 2009; Ruiz de Mendoza and Galera, 2014: 29), according to which linguistic processes that have been attested in one domain of linguistic enquiry may be at least partially active in other domains (see also Brdar & Brdar-Szabó, 2017). Such an assumption has encouraged researchers working on the LCM to explore, among other phenomena, the activity of metaphor and metonymy beyond the lexical level. Our proposal stems from the fact that metonymic activity lies at the basis of the inferential processes that take place at the implicational and illocutionary levels.

3. Cognitive models

As we will illustrate in our analyses, the application of cognitive operations to different kinds of conceptual structure results in different reasoning processes and different meaning implications. We start from the three taxonomic criteria proposed by Ruiz de Mendoza & Galera (2014): *scalarity, genericity*, and *situationality*.

Scalarity is meant to draw a line between measurable and non-measurable concepts. Examples of scalar concepts are those related to temperature ('cold', 'hot', 'warm', 'tepid'), size ('big', 'small', 'medium-sized'), weight ('heavy', 'light', 'moderately heavy'), etc.

As for genericity, a distinction can be made between *primary, low-level and high-level cognitive models. Primary* cognitive models are those that are directly grounded in our sensorimotor experience. They include topological notions (e.g. image schemas) and basic properties of objects such as temperature, size, height, weight, etc. at a non-symbolic level of abstraction. *Low-level* cognitive models are concrete knowledge constructs created on the basis of how we perceive objects, situations, events, and their properties and relations ('tooth', 'dog', 'kill', 'breathe', 'die', etc.). *High-level* cognitive models are non-topological knowledge constructs obtained by abstracting away conceptual structure common to low-level cognitive models ('entity', 'action', 'process', 'goal', 'result', etc.).

As regards situationality, *propositional* cognitive models involve the structure and properties of entities; e.g. the notions of 'cake', 'candle', and 'present' from a non-situational perspective. *Situational* cognitive models or *scenarios* combine dynamic propositional cognitive models or events. For example, eating a cake, blowing out the candles on the cake, and giving a birthday present to someone are part and parcel of the 'birthday party' scenario. We can distinguish three types of scenarios:

1. *Descriptive* scenarios, like the 'birthday party' scenario mentioned above, and others like 'going to the dentist', 'taking a taxi', and 'washing dishes', are based on scripted sequences of low-level actions, i.e. actions based on concrete experience with objects, situations, and events. Scenarios of this kind can easily be pictured in our minds: in the case of the 'going to the bank' scenario, we picture the setting (the building where the bank institution is placed) and people performing bank transactions, others lining up waiting for their turn to be assisted, etc.
2. *Attitudinal* scenarios (e.g. 'showing anger when a situation goes wrong', 'feeling accomplished after achieving success', 'feeling sad at news of failure', etc.) capture the speaker's emotional or otherwise attitudinal response to situations and events.

3. *Regulatory* scenarios (e.g. 'expressing gratitude', 'asking for something', 'making a promise') regulate speaker-hearer behavior. These scenarios are based on social conventions, which take the form of high-level generalizations over low-level scenarios. For example, making a promise includes generalizations about the speaker's self-commitment and the hearer's benefit, together with expectations about the speaker doing as assured, etc.

Scenarios may thus capture either low-level situations or high-level generalizations over the former. It should be noted that, in the present account, what Panther and Thornburg (1998) have termed *illocutionary scenarios* are considered high-level regulatory scenarios. Like Panther and Thornburg's illocutionary scenarios, regulatory scenarios can be exploited metonymically by making some of their elements to stand for the whole scenario thereby rendering the illocutionary interpretation associated with it. Thus, the ability to perform an action can stand for the request to perform the action (*Can you open that door?*) or the desire to provide some service for the commitment to do it (*I want to help you*). We will come back to this issue in Section 6.

On the basis of previous work by Pérez & Ruiz de Mendoza (2002), Ruiz de Mendoza & Baicchi (2007) and Baicchi & Ruiz de Mendoza (2010) have formulated the Cost-Benefit Cognitive Model. This cognitive model contains stipulations that capture the socio-cultural variables that underlie illocutionary acts: power relations, indirectness, cost, benefit, etc. These stipulations are intrinsically related to high-level regulatory scenarios such as requesting, ordering, begging, etc. In Section 6.3 we highlight the significance of the Cost-Benefit Model in the interpretation of illocutionary values.

Finally, we want to underscore the fact that for any descriptive level in the LCM, as a meaning construction account, the same cognitive model types underlie the semantic base of: (1) lexical/constructional characterizations, and (2) language users' inferential ability.

4. Cognitive operations: Metonymy and metonymic chains

Providing a full account of cognitive operations is beyond the scope of this chapter.[1] As we advanced in the introduction, our work here is devoted to the study of the result of metonymic activity on different kinds of scenario. We therefore focus our attention on metonymy and its role in understanding inferential activity.

1. For a thorough account of the cognitive operations that may be involved in language production and interpretation, we refer the reader to Ruiz de Mendoza & Galera (2014) and Ruiz de Mendoza (2011, 2017).

4.1 Metonymy: Expansion and reduction mechanisms

We take sides with other linguists like Barcelona (2005), Panther (2005), Radden (2005), and Brdar (2007), in understanding metonymy as a ubiquitous phenomenon occurring beyond the lexical level. For example, we find metonymy affecting whole propositions (e.g. *I'll be brief* stands for 'I'll speak briefly') and in the domain of illocution (e.g. in some contexts, *I'm thirsty* stands for 'Give me something to drink'). Reasons of space prevent us from going into the details of the controversy over the definition of metonymy (cf. Benczes et al. 2011; Ruiz de Mendoza, 2014). For the purposes of the present paper, we outline a working definition that we think is consistent with most of the work on metonymy within Cognitive Linguistics. Thus, we understand metonymy as a cognitive process in which one internally coherent knowledge structure, called the *source domain*, affords access to another related knowledge structure, or *target domain*, for which it stands (or substitutes). The source domain, which is directly supplied by the linguistic expression, provides a vantage point from which to envisage the target domain, to which it is conceptually related generally in a domain-subdomain fashion. For instance, in the sentence *I've recently bought a Ferrari*, the metonymy BRAND FOR PRODUCT licenses the shift from a subdomain (Ferrari) to its corresponding matrix domain, i.e. a car.

In line with Ruiz de Mendoza (2000, 2011, 2014), we argue that there are two basic metonymic operations: *domain expansion* and *domain reduction*. In the former, the source is a subdomain of the target; e.g. *Table 2 is waiting for the check*, where the table at which the customer is sitting stands for the customer sitting at that table. In the latter, the target is a subdomain of the source; e.g. *I love Shakespeare*, where the author stands for the result of his writing activity. Domain expansion gives rise to what Ruiz de Mendoza (2000) has termed *source-in-target* metonymies, while domain reduction underlies *target-in-source* metonymies (see also Dirven, 2005, p. 31, and Geeraerts & Peirsman, 2011).

The examples above are cases of traditional lexical metonymy. However, metonymy can also take place at the grammatical level. In Ruiz de Mendoza & Mairal (2008), metonymies like EFFECT FOR CAUSE, GENERIC FOR SPECIFIC, and OBJECT FOR ACTION have been labeled *high-level metonymies*, since they operate on high-level cognitive models. Illocutionary metonymy has also been an object of study, as noted above. Our proposal remarks the essential role of metonymic chains at the implicational and the illocutionary levels. We will return to this issue in Section 6.

4.2 Metonymic chains

The notion of metonymic chain as a combination of two or more metonymies has been explored at the lexical level (Ruiz de Mendoza, 2000; Barcelona, 2005; Brdar-Szabó & Brdar, 2011). The four main types of metonymic chain identified so far are double metonymic expansion, double metonymic reduction, metonymic reduction plus expansion, and metonymic expansion plus reduction.[2] Ruiz de Mendoza & Galera (2014) claim that this last double metonymic pattern is pervasive in two inferential pragmatic phenomena, i.e. traditional situation-based implicature and illocution. In line with this previous work, we argue that metonymic expansion and reduction invariably cooperate at the pragmatic level. In Section 6, we examine how this metonymic pattern underlies inferential processes when operating on the three types of scenario.

5. Profile-base relations

Profile/base relations are the lexical manifestation of gestalt psychology *figure/ground* relations. Following Langacker (1987, 1999), each conceptual entity consists of a profile and a base. The profile of a concept is its inherent content, while the base is the conceptual structure against which the concept is profiled. For example, 'finger' is profiled against the domain of 'hand'.

Each concept can be profiled against multiple bases. Profiling a concept against one base or another gives rise to different ways of construal; e.g., an airplane designates (profiles) a powered flying vehicle with wings. It has different base domains, among them shape, motion, size, and weight. If we think or talk about an airplane during a flight, a relevant base domain will be determined by the atmospheric conditions at cruising altitude. But the same concept is profiled differently if we think of the airplane on a runway before take-off or after landing. That is, profile-base relations provide different perspectives from which a concept can be construed.

In its application to grammar, the profile/base distinction gives rise to a distinction between *trajector* (*figure* in grammar) and *landmark* (*ground* in grammar). In a sentence, the trajector is the subject, and the landmark is the (direct) object or the oblique complement:

– *The cat* [trajector] *killed the rat* [landmark]
– *The book* [trajector] *is on the desk* [landmark]

2. For a detailed account of these patterns, we refer the reader to Ruiz de Mendoza & Galera (2014), and Ruiz de Mendoza (2014).

In a finite clause. each trajector/landmark relation is *grounded* in time and reality at the same time by means of the tense and modality systems.

In the domain of speech acts, the speech act itself (e.g. a promise, a request) functions as the figure, and the speech event (speaker-hearer relations, time, location, and world knowledge) is the ground. This last observation is suggestive of figure/ground relations being not only confined to the realm of lexical and grammatical structure, but of being applicable to all kinds of conceptual configuration. In Section 6, we defend the thesis that, at the pragmatic levels (implicational and illocutionary), the conceptual base is the equivalent of the metonymic matrix domain; relevant metonymic subdomains can be profiled against the matrix domain thereby giving rise to different meaning effects.

6. Scenarios, metonymic activity and pragmatic inference

This section is devoted to the analysis of the metonymic exploitation of different kinds of scenario. We explore how the activation of inferential mechanisms is constrained by the type of scenario involved.

In line with Ruiz de Mendoza & Galera (2014), we argue that situation-based implicatures are based on premise-conclusion reasoning schemas of the kind postulated in Relevance Theory (Sperber and Wilson, 1995) to account for implicature derivation. Given that our study, as noted in the introduction, revolves around scenarios (or situational cognitive models), we focus our attention on the metonymic grounding of premise-conclusion patterns for each of the three types of scenario described above (descriptive, attitudinal, regulatory). As will become evident, each scenario type underlies different kinds of pragmatic inferences.

6.1 Descriptive scenarios

Descriptive low-level scenarios are internally coherent characterizations containing participant entities, their properties, and relations. For example, in the 'building a house' scenario, we have participant entities such as a builder and the building materials (e.g. bricks, stones, timber) which have properties that enable building. The action of building involves the builder using building tools to lay bricks, plaster ceilings, install the electrical wiring, etc. In the 'painting a picture' scenario a painter uses certain materials (e.g. paints, oil, turpentine, etc.) and instruments (e.g. a paintbrush, a palette, a palette knife) to perform such actions as preparing the canvas, mixing the paints, putting the paint on the picture, removing paint from brushes, etc. These scenario elements are sensitive to formulating generalizations

that take the form of what grammarians have traditionally called participant roles (e.g. agent, object, instrument, result) and modes of action (i.e. event-structure or *Aktionsart* categories).

In order to illustrate inferential processes based on descriptive scenarios, consider the following exchange:

A. *Did you have a good hunt?*
B. *Jim is an excellent marksman.*

B's answer implicates that B's hunting party had a successful hunt. We propose that two chained premise-conclusion reasoning schemas are involved in this interpretation of B's answer.

The first inferential process is focused on the hunter's skills, i.e., the hunter's ability to hit the target. The point of departure is the idea that an excellent marksman is capable of killing much game. Since A has been explicitly told that Jim is an excellent marksman, it follows that Jim probably killed much game.

Focus on ability
Implicit premise 1 (retrieved from world knowledge): An excellent marksman is likely to kill much game while hunting.
Explicit meaning: Jim is a great marksman.
Implicated conclusion 1: Jim probably killed much game while hunting.

The first conclusion is then part of the subsequent reasoning schema, in which it is implicitly assumed that killing much game makes a hunt successful. In this case, the focus is placed on assessing the results of the hunt. The implicated meaning that stems from the first reasoning schema (that Jim probably killed much game) together with the implicit assumption about what makes a hunt successful, takes us to the second (and final) conclusion: the hunt was successful.

Focus on assessed result
Implicit premise 2 (retrieved from world knowledge): Killing much game makes a hunt successful.
Previous implicated meaning: Jim probably killed much game.
Implicated conclusion 2 (new implicated meaning): The hunt was successful.

This chained reasoning schema has a metonymic grounding that we schematize in Figure 1.

This analysis shows that if we profile parts of a low-level situational model, we obtain what has traditionally been termed metonymic implicature.

The low-level scenario that we label "hunting" can be partially or fully realized linguistically. Each linguistic realization designates (i.e. profiles) one or more

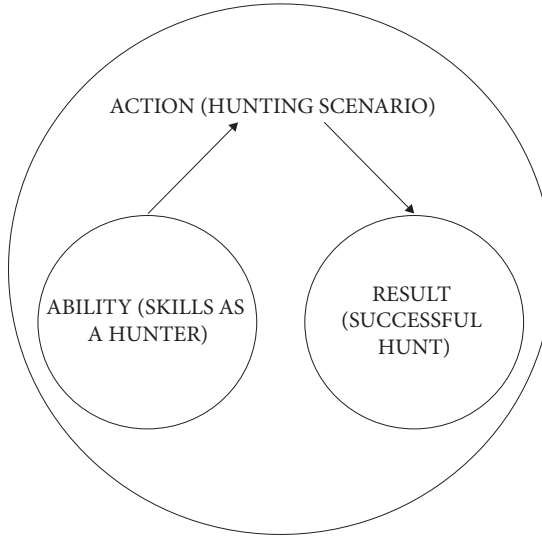

Figure 1. Domain expansion and reduction in *Jim is an excellent marksman*

elements of the high-level scenario, which acts as an implicit conceptual base. It is the base domain that speakers use to afford access to implicated meaning. This point is evidenced from the following potential answers within the hunting scenario:

a. *Jim is an excellent marksman* > profiles the ability of the hunter > implicates success based on Jim's ability.
b. *Jim killed much game* > profiles the successful result of Jim's hunting > implicates a globally successful hunt judging by the results.
c. *We had fun* > profiles the speaker's subjective perception of the event in terms of its ludic component in a context in which the hunters do not hunt for a living (note in this respect that in Old English *game* meant 'amusement' or 'fun') > implicates possible lack of success in terms of results.

Profiling different domains of the hunting scenario implicates, by means of metonymic inference, different conclusions.

It is important to note that if B's answer had been *Jim killed much game*, only one inferential step would have been required. Profiling the result of the hunt provides direct access to the requested answer (whether the hunt was successful or not). We may thus claim that the directness of the relation between the subdomains of a given scenario may vary. In the case of the 'hunting' scenario, there is a more direct relation between the 'result' and 'success' subdomains. On the other hand, there is greater distance between the 'ability of the hunter' and the 'success' subdomains, and the mental pathway that takes from one to the other needs more elaboration.

This is why we can easily cancel out the default inference about success in *Jim is an excellent marksman* by saying, for instance, *Jim is an excellent marksman, but he had a bad day*. By contrast, in *Jim killed much game*, the meaning implication that the hunt was successful is stronger.

6.2 Attitudinal scenarios

As we advanced in Section 3 above, some low-level scenarios are attitudinal, that is, they capture the speaker's attitude. These kinds of scenario are susceptible to being exploited metonymically by means of linguistic profiling (or designation). In order to illustrate this point, let us consider the question *What's your sister doing in the lab?*

A distinguishing characteristic of the *What's X Doing Y?* construction, as originally discussed by Kay and Fillmore (1999), is that it conventionally conveys the non-compositional meaning that the speaker perceives the situation described to be wrong or at least odd (and thus worthy of enquiry). Using the Langackerian profile/base terminology, we can say that this construction profiles the idea that the speaker is aware that someone is doing something that appears to be wrong (or at least odd). In our view, this happens against the following base, where (b) is the profiled element:

a. The speaker notices that the actor could be doing something wrong.
b. The speaker assumes that the actor is doing something wrong.
c. The speaker believes that the hearer either shares assumption (b) or should share assumption (b) with him.
d. The hearer believes assumptions (a)–(c) to be the case.

Against the background of assumptions of the scenario described above, the question *What's your sister doing?* can convey the non-denotational meaning that the hearer's sister is doing something wrong or, at least, odd. This scenario is more likely to be called upon the more specific the question becomes. This elaboration of the question can happen in either of two ways (cf. Ruiz de Mendoza, 2015: 265):

a. By increasing the degree of detail in the Y part of the construction: *What's your sister doing in the lab? Is she still working? What's your sister doing in the lab at midnight? Is she still working? What's your sister doing in the lab at midnight with her friends? Is she still working?*
b. By parameterizing the generic value of 'doing' through the Y part of the construction: *What's your sister doing working (in the lab)/messing with my iPhone/dancing (a polka), etc.?*

Note that the question *Is she still working?* is more clearly loaded with negative connotations the more detailed the Y part of the construction becomes. The reasoning schema that underlies the interpretation of the examples above involves two chained inferences:

Focus on preliminary event
Implicit premise 1 (retrieved from world knowledge): When people ask for information they already have, they are likely drawing attention to (some part of) it.
Explicit meaning: The speaker asks about the hearer's sister's behavior, which is evident to both.
Implicated conclusion 1: The speaker is not asking about the hearer's sister's behavior but likely drawing attention to it.

Focus on the result
Implicit premise 2 (retrieved from world knowledge): People draw attention to other people's behavior when they find it worth someone's attention.
Previous implicated meaning: The speaker is drawing the hearer's attention to the hearer's sister's behavior.
Implicated conclusion 2: The speaker finds the hearer's sister's behavior worth the hearer's attention. This leads to the activation of a plausible scenario that accounts for why the hearer's sister's behavior is worth the hearer's attention; e.g. the 'someone is doing something wrong' scenario.

This inferential chain is schematized in Figure 2.

Expressions that take the form *What's X Doing Y?* profile the idea that the speaker is aware that someone is doing something wrong. In addition, *What's X Doing Y?* is an abstraction over a number of linguistic profiles of the 'someone is doing something wrong' attitudinal scenario, which can also be exploited by related constructions (cf. *Who's been messing with my laptop?, What do you think you're doing?, Why is she laughing like that?*; see Ruiz de Mendoza, 2015). Because it regularly activates the scenario, it is an *entrenched* configuration, i.e. a stable form-meaning pattern or a construction (Goldberg, 1995; Michaelis, 2003).

The construction *What's X Doing Y?* has formal properties that have been described by Kay and Fillmore (1999). In our view, the motivation for each of them can be found in the inferential exploitation of the low-level attitudinal scenario mentioned above. We provide a brief summary of the formal properties listed by Kay and Fillmore (1999), which we illustrate with slight adaptations of their examples, and then proceed to account for their motivation in terms of our own analysis:

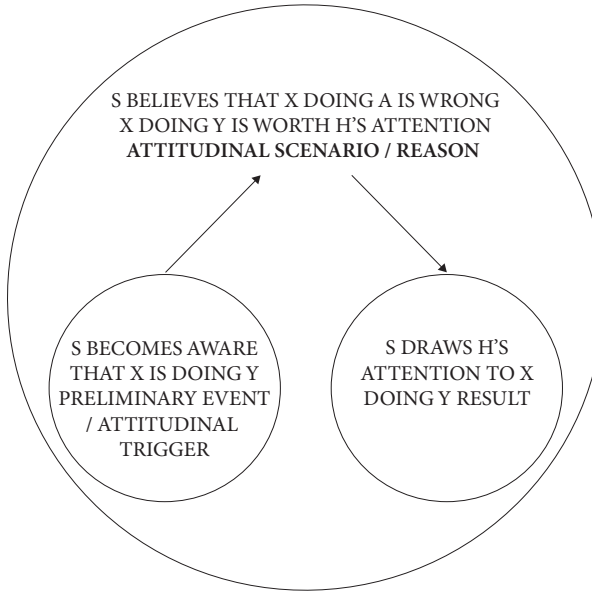

Figure 2. Metonymic expansion plus metonymic reduction in *What's your sister doing?*

1. The construction uses the form *doing* and (optionally) a following specific verbal predicate acting as a present participle: *What's your sister doing (working) in the lab?*. Note, in this respect, that specific verbs in a question with *what* generally give rise to information questions:

   A. *What's your sister working on in the lab?*
   B. *She's mixing chemicals.*

   The *What's X Doing Y?* construction, however, is not an information question. This is due to the fact that generic *do* directs the hearer's attention to the overall nature of the event being described. In *What's your sister doing working in the lab?* the form *doing* is necessary to make the hearer aware that the speaker is a present witness of the action or can picture it in his mind as if it were taking place before their eyes. Bearing these premises in mind, processing this question requires reasoning along these lines: If the speaker is a witness to the action, it follows that s/he knows, at least in a general way, the kind of action that is taking place. So, a question about the nature of the action is not meant literally but qualifies as a "rhetorical" question, which suggests that the speaker has an attitude about the action in mind.
2. In the *What's X Doing Y?* construction, the verb *doing*, despite its form, has no inherent progressive aspect. This is consistent with the fact that, while the verb *know* is not used to indicate progressive aspect (**She is knowing the answer*), it

can still be used as a specification of *doing* in A's part of the exchange (Kay and Fillmore, 1999: 15):

A. *What's your sister doing knowing the answer?*
B. **She is knowing the answer*.

Thus, the construction is not only used for actions taking place at the moment but also for any state of affairs, whether dynamic or not. In our view, this feature of the construction results from a metonymic shift from the core action meaning of the construction, which is progressive ('you are doing something wrong/something that bothers me') to a result-of-the-action meaning, which is not progressive ('you are involved in a situation that bothers me').

3. This construction cannot take the modifier *else*, which indicates the presence of another situation. Since the speaker's focus on the one activity that holds at the time of speaking (i.e. the one being witnessed), mentioning another activity is ruled out:

   #*What else is your sister doing knowing the answer?*

4. The verb *be* is neutral in terms of ingressive, egressive, and continuative aspect. This feature of the construction relates to the fact that the "rhetorical" question reflects the speaker's attitude on the whole event, not just one part of it:

   **What does your sister keep doing working for the state?*
   **What does your sister start/finish doing working for the state?*

5. *Doing* cannot take the negative form. Negating *doing* would be equal to the speaker denying that there is a (positive or negative) state of affairs (being witnessed) about which he has an attitude:

   **What's your sister not doing working for the state?*

   The complement, by contrast, can be negated because it is part of the state of affairs described: *What's your sister doing not going to work today?*

It should be noted that all formal features of the construction respond to the "logic" and structure of the low-level attitudinal scenario underlying it; that is, grammatical form is motivated by meaning or, to be more accurate, by the inherent "logic" of conceptual structure. Also note that the linguistic profiles of a scenario can become part of grammar when their underlying formal configurations (e.g. *What's X Doing Y?*) become stably associated with the meaning implications underlying them. Thus, from the point of view of content, the meaning implications arising from the metonymy-based premise-conclusion reasoning schemas are part of the entrenched meaning of the construction.

6.3 Regulatory scenarios

Regulatory scenarios are those that are bound to social conventions. As we advanced in Section 3 above, we may find low and high-level regulatory scenarios. The following low-level regulatory scenarios share conceptual structure:

1. An old man, with tattered clothes, a shaggy beard, and unkempt hair is sitting at the entrance of a cathedral with a poorly handwritten notice reading: *I have nothing to eat, nowhere to go*. He puts forward his right hand at every passerby and asks for some alms.
2. In a battle, a soldier tries to escape inevitable death at the hands of his enemies by repeating over and over again: *No, please, don't. I don't wanna die, I don't wanna die*.
3. A teenage girl, who is on a strict curfew, is eager to stay late at a party with her friends. She repeatedly asks her mother to make an exception with all kinds of arguments including many promises of future model behavior in exchange.

These are low-level realizations of the high-level scenario of begging, which encompasses the following postulates:

a. The speaker is either in serious recognizable need or is eager to have his/her wishes satisfied.
b. The speaker is aware that the hearer is in a position of authority over him/her and that it is completely up to the hearer to grant his/her wishes.
c. The speaker has strong reasons to think that the addressee is not inclined to grant his/her wishes, although the speaker has the power to do so.
d. The speaker tries to move the hearer to mercy through a combination of socio-cultural strategies, among them, behaving submissively, repeating his/her request insistently, making promises of good behavior, and appealing to the addressee's feelings of mercy.
e. The speaker is aware of the risk that the hearer will not grant his/her wishes.

Another instantiation of a set of low-level regulatory scenarios sharing conceptual structure can be found below:

1. A secondary school student is having trouble to do his Mathematics homework. He knows one of his classmates is proficient at Mathematics and often accepts helping other students, so he calls on his classmate for help.
2. Someone needs to make an urgent phone call but has forgotten his cell phone. He borrows somebody else's phone while making clear that the call will be very short.

3. Paul and Dianne are on a date. They have dinner together in a restaurant. After the dinner, late in the evening, as they step out of the restaurant, they notice that it is chilly. Dianne remarks that she is feeling cold and Paul takes off his jacket and puts it over Dianne's shoulders.

In this case, the high-level scenario that we obtain through the abstraction of common conceptual structure is that of requesting:

a. The speaker feels that he/she has needs or desires (of goods or services) that he/she is either unable to or unwilling to satisfy by him/herself.
b. The speaker has reasons to believe that the hearer has the ability and willingness to satisfy his/her needs or desires.
c. The speaker makes the addressee aware of his/her needs or desires or about his/her ability or willingness to perform the action that will satisfy the speaker's desires.
d. The speaker is aware that the hearer may refuse to provide for his/her needs or desires.

The high-level scenarios that, as a result of metacognitive activity, we label *begging* or *requesting* (these are cover terms) can be partially or fully realized linguistically.

Each linguistic realization designates (i.e. profiles) one or more elements of the high-level situational cognitive model, which acts as a conceptual base. Some linguistic realizations of the begging and requesting scenarios are the following:

1. Begging: *Mercy, please, mercy on me*; *Please, please, mom, let me go let me go;. I'll do the dishes for a whole week and bring you the best grades ever.*
2. Requesting: *You will come, won't you?*; *I feel cold*; *I could do with another drink.*

Let us analyze the inferential reasoning schema that holds for the interpretation of the statement *I'd need another pen*. This is an example of request: the speaker makes manifest his need for a pen, thereby activating the high-level scenario of requests described above.

The Cost-Benefit cognitive model (cf. Ruiz de Mendoza & Baicchi, 2007; Baicchi & Ruiz de Mendoza, 2010) is part of the 'request' scenario in that some of its stipulations regulate this kind of illocutionary situations. The social conventions involved in requests are the following:

a. If it is manifest to A that a particular state of affairs is not beneficial to B, and if A has the capacity to change that state of affairs, then A should do so.
b. If it is manifest to A that a potential state of affairs is not beneficial to B, then A is not expected to bring it about.

The high-level scenario that lies as the base of requests is the cultural convention according to which, if a state of affairs is not beneficial to the speaker and the hearer can change it, the hearer is expected to change it to the speaker's benefit. The remark *I'd need to have a pen* profiles the speaker's need for someone to provide him with a pen, thereby activating the cultural convention, which is part of the 'request' scenario. The premise-conclusion schema that allows the hearer to interpret the speaker's remark as a request is the following:

> Implicit premise: the cultural convention.
> Explicit meaning: The speaker has a need to have a pen (i.e., there is a state of affairs that is not beneficial for the speaker).
> Implicated conclusion: The hearer is expected to satisfy the speaker's need (thereby changing the state of affairs to the speaker's benefit by giving him a pen).

Since the need for someone to perform an action and the expectation that the action is carried out are subdomains of the same action frame, the metonymic activity underlying this reasoning process is as follows: NEED FOR AN ACTION (THAT AN OBJECT BE SUPPLIED TO THE SPEAKER) FOR THE ACTION ITSELF FOR THE EXPECTATION THAT THE ACTION WILL BE CARRIED OUT. The first operation involves the metonymic expansion from the statement of the speaker's need (condition part of the convention) to the whole convention according to which we are expected to cater for other people's needs if possible. The whole convention is then made to stand, through metonymic reduction, for part of it, i.e., the hearer is expected to cater for the speaker's needs (in this case, to give the speaker another pen). This process is schematized in Figure 3.

In application of this double metonymic shift, the meaning of the sentence *I'd need to have a pen* can be captured by this paraphrase: 'I have the expectation that when identifying my need to have a pen you will do your best to provide me with one'.

Different linguistic expressions profile different subdomains. Consider these requests in the form of questions: *Can you lend me a pen?* and *Will you lend me a pen?* We can regard these expressions as cases of indirect requests (as compared to the statement *Give me a pen*). As was the case in the expression *I'd need to have another pen*, which profiles the speaker's need, these questions profile a subdomain of the social convention (the hearer's ability to satisfy the speaker's need and the willingness of the hearer to satisfy the speaker's need, respectively). It is through this profiling activity that these questions afford access to (i.e., are metonymic for) the social convention. In activating the social convention, the questions become requests. The logic underlying this process in application of stipulation (a) of the convention for requests is the following: If you are aware that I need to have a pen and you have the capacity/are willing to lend me one, please do so.

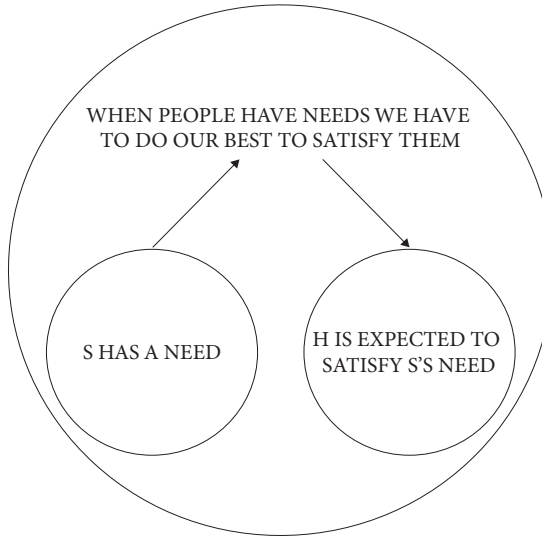

Figure 3. Metonymic expansion plus metonymic reduction in *I'd need to have a pen*

However, there may be cases in which the speaker makes use of more indirect remarks with the intention of requesting an action on the part of the hearer. In these cases, an intermediate step is needed in the activation of the scenario of the social convention. Consider the statement *My pen won't write*. In this case, the speaker makes reference to an undesirable situation. It is then assumed that the speaker communicates this state of affairs because he cannot change it by himself. We can thus conclude that the speaker has a need. At this point, the illocutionary scenario gets activated, which constitutes the base against which the expectation that the hearer will satisfy the speaker's need is profiled. Therefore, two consecutive reasoning schemas are required:

> Focus on speaker's need
> Implicit premise 1: Stating a non-beneficial state of affairs involves the speaker's incapability to resolve it by himself.
> Explicit meaning: The speaker says his pen won't write.
> Implicated conclusion 1: The speaker cannot resolve the problem about his pen.

The speaker is not stating a need. Rather, he is referring to a non-beneficial state of affairs that he cannot resolve on his own. A second reasoning schema, chained to the previous one, is therefore needed for the interpretation of the example in question as a request.

Focus on expectation on hearer satisfying the need
Implicit premise 2: The social convention.
Previous implicated meaning: the speaker cannot resolve the problem about his pen.
Implicated conclusion 2: The hearer is expected to satisfy the speaker's need (thereby changing the state of affairs to the speaker's benefit, e.g. by giving him another pen).

Therefore, we may postulate that the indirectness of requests is gradable and has a direct effect on the reasoning mechanisms underlying the interpretation. The hearer may make an indirect request in two ways: (a) as an ostensible manifestation of a need by profiling one of the domains of the social convention, or (b) as a remark on a state of affairs that is not beneficial to him. In the second case, two chained reasoning schemas are needed.

Indirectness is thus a function of the number of cognitive operations involved in an interpretive act. In traditional pragmatics accounts on indirectness (e.g. Leech, 1983) it was taken for granted that indirectness correlates with the length of the inferential path needed for interpretation, but no account of the nature of such a path was provided. Postulating chained reasoning schemas grounded in metonymy spells out the complexity of the inferential path and adds as an extra bonus for a better understanding of its actual nature in terms of cognitive modeling.

Indirectness follows iconicity principles too, since it is grounded in experience (cf. Haiman, 2008). Psychological "distance" is seen in terms of physical distance because in real life people who are not emotionally involved tend to stand far apart from each other (remember the correlation metaphor INTIMACY IS CLOSENESS/LACK OF INTIMACY IS DISTANCE; Lakoff & Johnson, 1999). A longer train of thinking involves greater psychological distance between what is said and what is meant, which contributes to the greater "indirectness" of a request. This explanation is consistent with work on indirectness in pragmatics (e.g. Leech, 1983), where it is observed that making sentences longer and tentative enhances their inherent politeness by setting up a greater distance between the speaker and the content of his/her message.

The social convention for directive acts is the same; it is the first item of the Cost-Benefit ICM:

a. If it is manifest to A that a particular state of affairs is not beneficial to B, and if A has the capacity to change that state of affairs, then A should do so.
b. If it is manifest to A that a potential state of affairs is not beneficial to B, then A is not expected to bring it about.

c. If it is manifest to A that a potential state of affairs is beneficial to B, then A is expected to bring it about provided he has the capacity to do so.
d. If it is manifest to A that it is not manifest to B that a potential state of affairs is (regarded as) beneficial for A, A is expected to make this manifest to B.
e. If it is manifest to A that it is not manifest to B that a potential state of affairs is beneficial for B, A is expected to make this manifest to B.

Orders are based, like requests, on stipulations (a) and (b) in the social convention described above. Orders are more compelling than requests. They do not allow for an escape route to turn them down without challenging the speaker's authority. Take the order *Sweep the floor well*, as uttered by an angry mother to her son, who has done a poor job of his assignment to sweep the floor. Having a clean floor is the state of affairs that the mother thinks is beneficial; since her son has not swept the floor well but has the capacity to do so, his mother, by virtue of cost-benefit stipulation (a), has the right to ask him to sweep the floor to her entire satisfaction, which takes the form of a positive command. But the order can take the form of a question on ability, especially if accompanied by emphatic intonation highlighting the mother's reproachful attitude: *Can you sweep the floor well?*

A negative order would follow stipulation (b). Imagine the son has made the floors dirty. On the grounds of the mother's authority over her son, an angry question on why the son has made everything dirty would count as an order: *Can't you see what you've done? Everything is dirty*. The logic behind a *can't* question used in a compelling way is based on the fact that the addressee was not expected to behave contrary to the speaker's liking. If the addressee has not acted correctly, either he was not aware of it or he may have done that in defiance of the speaker's authority. The speaker prefers to think that the first option is the case.

Promises and offers are based on part (c) of the Cost-Benefit ICM. For example, *I can do that for you* expresses the speaker's willingness to do something beneficial for the hearer on the grounds of the speaker's capacity to perform the action. Conversely, following the logic of stipulation (d), we are expected to be offered goods or services and, if we do not get them, we have a right to make others aware of the situation in question: *I love those brownies that you bake* (expecting the hearer to offer some brownies).

Advising works on (e): *You should buy those bonds; you will make lots of money on them.* In this case, the hearer is directed to become aware of the potential benefit involved in buying the bonds.

In some cases, attitudinal and regulatory scenarios intertwine. This is the case of so-called expressive speech acts, such as thanking, greeting, and apologizing (cf. Searle, 1969 for the traditional classification of speech acts; cf. Norrick, 1978, and Ronan, 2015 for categorizations of expressive speech acts). This is only logical if we

consider that "expressive speech acts are defined as public expressions of emotional states" (Guiraud et al., 2011, p. 1031).

It should be noted that, in this account, one stipulation may apply to more than one category and a traditional category may hinge on more than one stipulation. Imagine an angry speaker that feels offended by being visited by a former friend who is now an enemy. He says: *You're not welcome in my house*. The social conventions associated to the welcoming scenario are purposefully and explicitly cancelled by the speaker, who expresses his annoyance at the hearer's presence. This manifestation of negative attitude needs to be interpreted in terms of one of the stipulations of the Cost-Benefit Cognitive Model: If it is manifest to A that a particular state of affairs is not beneficial to B, and if A has the capacity to change that state of affairs, then A should do so. The expression of the speaker's negative attitude denotes a non-beneficial state for the speaker, which activates the requesting scenario and the corresponding social convention.

Implicit premise 1: The welcoming scenario.
Explicit meaning: Negation of the welcoming premises.
Implicated conclusion 1: Expression of negative attitude at the hearer's arrival.

Implicit premise 2: The requesting scenario plus a social convention according to which, if a state of affairs is not beneficial to B, and if A has the capacity to change that state of affairs, A should do so.
Explicit meaning: Manifestation of the speaker's annoyance at the hearer's presence.
Implicated conclusion 2: The hearer is expected to satisfy the speaker's request: leaving the speaker's house.

These chained reasoning schemas capture the interpretation process involved in implicational constructions acquiring their illocutionary value. In this respect, consider the question *What are you doing in my house?* This is a realization of the *What's X Doing Y?* construction. Here, the activation of the attitudinal scenario goes beyond the meaning implication that the speaker wants to draw the hearer's attention to the inappropriateness of an event. Rather, this attitudinal meaning implication serves as input for the hearer to understand that there is an expectation that he will take some action, which endows the expression with its illocutionary dimension.

Every linguistic expression has an illocutionary value. At one level, we only think of its implicational nature, but at another level, within a context, it will acquire any of a whole range of values. So, *What's X Doing Y?* is implicational and suggests that there is a situation that bothers the speaker; but because the situation bothers the speaker, making it manifest must mean something else, such as asking the hearer to fix it.

7. Concluding remarks

By means of the analysis of the meaning implications of situation-based constructions, we have classified situational cognitive models (or scenarios) into descriptive, attitudinal, and regulatory. We have presented an account of the different manifestations of the inferential activity that arises from the cognitive activity involved in the linguistic profiling of these knowledge structures.

In the case of low-level descriptive scenarios (e.g. the hunting scenario), profiling an element of the scenario first affords metonymic access to the whole of it. Then, another part of the scenario is highlighted through metonymic reduction. We have claimed that the complexity of the inferential process relies on the relation between the profiled subdomains (e.g., the result-success relation is more straightforward than the ability-success relation). This account spells out the cognitive grounding of traditional situational implicature.

The metonymic exploitation of attitudinal scenarios also relates to traditional implicature. Inferential mechanisms are involved in the interpretation of a sentence like *What's your sister doing staying up so late?*, in which profiling the speaker's attitude affords metonymic access to the scenario of 'someone's doing something wrong'.

Finally, regulatory scenarios relate to traditional indirect illocution. High-level scenarios such as requesting and begging can be metonymically activated by profiling one of their subdomains (i.e. the speaker's ability, his willingness, etc.). Affording access to these cognitive structures also involves the activation of the cognitive Cost-Benefit Model, which regulates linguistic interaction bearing an illocutionary component. We have remarked the importance of indirectness in this process, which may call for an additional premise-conclusion pattern (e.g., *My pen won't write*).

We have also proposed that inferences like the ones discussed can be "entrenched", i.e. stably associated with certain formal patterns, thus becoming part of constructions like *What's X Doing Y?*. The properties of the formal part of such constructions can be motivated with reference to the cognitive activity underlying them.

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This volume brings together twelve usage-based studies conducted by leading researchers in language and cognition that explore core issues of figurativeness from the Cognitive Linguistics perspective.

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