Figuring Out Figuration. A cognitive linguistic account

"Figurative Thought and Language" series

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CHAPTER 1. INTRODUCTION

The present book is a broad-ranging account of figures of speech and their relations carried out in full compliance with the main theoretical assumptions of Cognitive Linguistics, especially those arising from work on idealized cognitive models (Lakoff, 1987) and, more specifically, on conceptual metaphor and metonymy (Lakoff and Johnson, 1980, 1999).

We depart from the initial development of Lakoff's original proposals provided in previous work by the authors (e.g., Ruiz de Mendoza and Peña, 2005; Ruiz de Mendoza, 2011, 2017a; Ruiz de Mendoza and Galera, 2014), part of which sees the major figures of speech (metaphor, metonymy, hyperbole, irony) in connection to other interpretive uses of language such as implicature, explicature, illocution, and discourse coherence. In particular, Ruiz de Mendoza and Galera (2014) is an exhaustive attempt to deal with all of these phenomena from the perspective of cognitive modeling, understood as the activity of cognitive operations on cognitive models. The result is a comprehensive explanation of meaning construction with strong implications for the understanding of meaning comprehension. One of the strengths of this previous account is that it provided linguistic research with a broad integrative framework which highlighted convergences and divergences across a whole array of phenomena which, up until then, had mostly been treated as analytical isolates. However, the resulting descriptions are in need of further investigation and finer-grained exploration. The combination of theoretical breadth with analytical delicacy is necessary to put to a test the overall framework and give an adequate account of the phenomena in question. That is, delicacy involves more than achieving descriptive refinement through the exploration of a larger number of phenomena in greater detail. It is also a matter of formulating new generalizations across phenomena

which endow the overall account with a higher degree of explanatory power. This requires the segmentation of the previous work into different areas (e.g., illocution, discourse relations, figurative uses of language), each of which is in need of specialized treatment.

The present book focuses on figurative language use. This is a rather complex area, but it is central to understand others including implicature, illocution, and some argument-structure phenomena, which are motivated by figurative thinking. The literature on this issue is growing steadily, but mostly by looking into isolated phenomena, such as the metonymic and metaphoric motivation of grammar, the metonymic exploitation of conceptual scenarios for the purpose of conveying implicated meaning and the like. For this reason, we believe that an integrated account of figurative language use is necessary to cast light on other linguistic phenomena in a more systematic way.

An additional reason to investigate figurative language in the way proposed here is the intrinsic complexity of this interpretive dimension of language and its impact on various domains of linguistic enquiry. This dimension of language has received insufficient attention in Cognitive Linguistics, where most of the work has been devoted to conceptual metaphor, first, and then to conceptual metonymy more recently, as discussed in Ruiz de Mendoza (2014a). In this context, the aim of the present work is to offer an equally comprehensive study of figurative uses of language by systematizing linguistic evidence of the cognitive processes involved in their production and interpretation. In our study, such processes can be explicitly linked to different communicative consequences, thus bringing together the cognitive and pragmatic facets of the phenomena under scrutiny. In other words, we find convergences and divergences between traditional figures of speech by looking into the kind of cognitive activity which they involve and by pairing this activity with their meaning effects. This is the first time, to our knowledge, that many different figures of speech are brought together into an

integrated explanatory framework, although readers may find two preliminary attempts with partial descriptions and motivation in Ruiz de Mendoza (2020ab).

This book thus studies many traditional figures of speech by examining their use potential in terms of the activity of cognitive operations on cognitive models. A cognitive operation is a mental mechanism used to construct a semantic representation from linguistic input to make it meaningful in context. Ruiz de Mendoza and Galera (2014, pp. 86-92) have provided a fine-grained description of a set of cognitive operations structured into two main groups: formal and content operations. The former, which lie at the base of the structural manipulation of concepts, provide the basic blueprint for the latter. Their main function is to access, select, abstract, integrate, and substitute conceptual material. Content cognitive operations allow us to make inferences in the process of meaning construction, which often requires the mapping of conceptual structure but may also involve other processes, like completing context-recoverable information, contrasting aspects of conceptual structure, expanding or reducing the scope of the point of access to a conceptual representation, upscaling or downscaling gradable concepts, and echoing conceptual representations. Insights into the role of such operations, and even in-depth analyses, are scattered across the cognitive-linguistic literature and also in Relevance Theory (Sperber and Wilson, 1995) within inferential pragmatics. This is evidently the case of conceptual integration, studied by blending theorists (cf. Fauconnier and Turner, 2002), and also of cognitive processes related to metaphor, such as the mental correlation of experiences (Lakoff and Johnson, 1999; Grady, 1999, 2005a; Grady and Johnson, 2002), to metaphor and simile, such as finding cross-domain similarities (Grady, 1999; Romano, 2015; Ruiz de Mendoza, 2020a), or to metonymy, such as expansion and reduction, which find some parallels in the relevance-theoretic notions of broadening and narrowing (Wilson and Carston, 2007).

Ruiz de Mendoza and Galera (2014, p. 92) identify two basic relations into which content cognitive operations can be grouped: 'identity' (A IS B) relations (like correlation, comparison, strengthening and mitigation, and echoing) and 'stands for' (A FOR B) relations (such as expansion and reduction, parameterization and generalization, and saturation). The present book elaborates on these proposals in two main ways. First, the systematic application of the principles of cognitive modeling serves as the basis for a more extensive and exhaustive analysis of figurative uses of language than the one offered in any previous work. Second, it allows us to draw clear boundary lines between the major figures of thought, and to make explicit connections with many other secondary figures, which will also be covered. Thus, for instance, metonymy is connected to synecdoche, anthimeria, hypallage, kenning, and merism, among other figures.

To give readers some preliminary insights into the theoretical importance of this approach, let us briefly consider the use of "sad" in *a sad novel* (i.e., a novel that causes readers to feel sad). This is a case of hypallage (or transferred epithet) (see chapter 4). Novels cannot be literally sad, like people, but they arouse feelings of sadness in the prospective reader. There is some underlying cause that brings about a given effect. However, the speaker names the effect (in this case the feeling of sadness) to refer to the cause. This process is regulated by the non-lexical (or "high-level") metonymy known as EFFECT FOR CAUSE. Other expressions like *a restless event, a happy day,* and *a joyful episode* follow the same pattern, while others apply other kinds of metonymic activity: *an idle walk* (the walker walks idly; RESULT FOR ACTION FOR MANNER), *drunk driving* (the driver is drunk; ACTION FOR AGENT), *a stupid face* (the person is stupid, not the person's face; FACE FOR PERSON). That is, from one perspective, hypallage is to be connected to metonymic thinking, especially high-level metonymy. But from another perspective, each of these metonymies can motivate other figurative uses of

language. Consider EFFECT FOR CAUSE again. When this metonymy applies across sensory domains, it produces synesthesia, which can thus be categorized with other cases of resemblance metaphor. For example, a color is "dull" when it has little intensity. However, only noises are literally dull (*a dull thud*), of course when lacking intensity too. The similarity of effects motivates the mapping between the color and sound conceptual domains in terms of the high-level aspects of perception (in this case, intensity).

It is evident that an approach to figurative language which seeks to account for the true meaning potential of each figure of speech needs to be based on the correct understanding of the principles of cognitive modeling. With this understanding, it is possible to make relevant connections between different figures of speech thereby significantly contributing a unified view of figurative language use. It is also possible to relate different aspects of the same phenomenon to each other in a systematic way. These are the main aims of this book.

With these aims in mind, the present book is structured into seven chapters. In the introduction, we present the aims of the book and provide an overview of its contents, together with the methodological decisions which are taken throughout the volume. Chapters 2 and 3 set up the theoretical apparatus for the analysis provided in the rest of the chapters. Our book adopts a cognitive-linguistic orientation, but the analysis makes extensive use of insights from modern inferential pragmatics. The analysis is qualitative but it is based on the observation of attested patterns of language use. All examples used throughout the book have been drawn from Internet searches, corpora like *COCA*, and the previous literature on the topic. Most of the examples have been compiled (with an analysis in terms of cognitive modeling and equivalences across several languages) in the COGMOD analytical database, run by the authors and their collaborators. This has allowed the authors to find usage patterns and formulate generalizations in a systematic

way. In this sense, the present study is a usage-based one, much in line with other studies where linguistic analysis and usage are postulated to be inextricably intertwined (Langacker, 2000; Bybee, 2010; Hopper, 2012). Chapter 2 provides an overview of the existing literature on figurative language, with an assessment of strengths and weaknesses and a proposal for a constructive synthesis of relevant elements from the various approaches into an integrated cognitive-pragmatic approach. In this approach a precise formulation of the principles of cognitive modeling is essential. Chapter 3 undertakes this challenge. It discusses the foundations of cognitive modeling, understood as the constrained activity of cognitive operations on cognitive models. Both cognitive operations and cognitive models are defined and classified following previous work by the authors and other collaborators. But this chapter does more than just offer an overview of this work. It critically reviews the previous proposals and incorporates the most recent findings. More specifically, it defines the status of meaning-making cognitive operations as representational operations and discusses in what way such operations relate to concept-building and sensory-motor activity. It also addresses the issue of the combination of cognitive operations. Chapters 4 to 6 make up the analytical part of the book. Chapter 4 explores metaphor, metonymy, and some related figures of speech. Metaphor-like figures includes simile, zoomorphism and anthropomorphism, analogy, paragon, kenning, allegory, and synesthesia. These figures are discussed in terms of cognitive operations like correlation and resemblance and their interaction with other figures (e.g., metonymy, hyperbole) and their underlying cognitive operations. Metonymy-like uses include traditional figures like hypallage, antonomasia, anthimeria, proverbs, synecdoche, and merism. As observed, cognitive operations like reduction and expansion and their specific instantiations will allow us to set metonymy and different associated figures of speech in contrast. Considerable space is devoted to a thorough

examination of the role of metaphor and metonymy in grammar and to the various forms of integration of metaphorical and metonymic structure into conceptual complexes. This is done in contrast with other accounts of conceptual integration such as blending theory (Fauconnier and Turner, 2002). Chapter 5 goes beyond previous work on hyperbole by the authors in two main ways: first, it elaborates on the distinction between constructionally-cued and purely inferential hyperbole and it provides an in-depth analysis of the hyperbolic pattern 'X is not Y but Z'; second, it focuses on hyperbole-like figures like over- and understatement, auxesis, meiosis, and litotes, especially in terms of the cognitive operations of strengthening, mitigation, and contrast; each of these traditional figures exploits combinations of these operations in different ways. Chapter 6 develops the programmatic views on irony provided in Ruiz de Mendoza (2017b). The proposal in the present book expands considerably on Ruiz de Mendoza's preliminary exploration, where irony is construed in terms of the cognitive operations of echoing and contrast-based comparison, by adding other figures of thought intertwined with irony. These are antiphrasis or apophasis, sarcasm, banter, satire, and prolepsis. For instance, sarcasm is built upon echoing and comparison by contrast, the same as irony. This would suggest that sarcasm is not to be differentiated from irony. However, there is a relevant communicative difference between standard irony and sarcasm. Irony is generally a matter of speaker's dissociation from what someone believes, whereas sarcasm adds to this common ingredient a strong degree of speaker's negative bias against such a belief. This negative bias is extended to however holds the purportedly erroneous belief. The chapter also sets up boundary lines with banter, paradox, and oxymoron. Banter is generally described as a way of teasing someone playfully (e.g., *Oh, you cheeky devil!*). It can exploit irony, as in *Yeah, right, you are always nice*, said tongue-in-cheek to someone who actually tries to be nice to people but may have failed once to be so.

However, it is distinguished from irony in terms of the nature of the speaker's dissociation from what he or she says. In banter, speakers only pretend to be telling what they think is true while they appear to be serious about it. In irony, they pretend to agree with what someone else (usually the hearer) thinks. As for paradox and oxymoron, the cognitive operation which is central to the production and interpretation of these figures is chiefly comparison by contrast. For instance, a *wise fool* is interpreted by reframing the usual scenario of fools in order to make it compatible with some characteristics of the opposite concept of wisdom. In chapters 4, 5, and 6, the final section is devoted to how these figures are constrained. Finally, chapter 7 presents some concluding remarks.

CHAPTER 2. FIGURATIVE THOUGHT AND LANGUAGE: AN OVERVIEW OF APPROACHES

2.1. Introduction: The literal-figurative distinction

This chapter provides an overview of the existing literature on figurative language, with an assessment of strengths and weaknesses and a proposal for a constructive synthesis of relevant elements from the various approaches into an integrated cognitive-pragmatic approach. In this approach a precise formulation of the principles of cognitive modeling is essential.

Figurative language, which has been studied from such perspectives as rhetoric, literary theory, philosophy, pragmatics, and psycholinguistics, has been of great interest to Cognitive Linguistics since its inception. Our contribution is very much in line with the main assumptions of Cognitive Linguistics and Relevance Theory but attempts to overcome the unwelcome tendency to focus excessively (and/or exclusively) on metaphor and metonymy to the detriment of other figures of thought like hyperbole, irony, paradox, oxymoron, and other related figurative uses.

The overarching goal of providing a complete account of figurative language is a mammoth task. Thus, we limit ourselves to filling a gap in the study of this topic, namely the way in which the principles of cognitive modeling apply to the characterization of figurative language. However, before offering an in-depth analysis of various figures of thought in terms of cognitive modeling, delimiting our object of study is a prerequisite. What do scholars from different traditions mean when they delve into the inner workings of figurative language? Can figurative language be thought of as a clear-cut domain of

enquiry? Can we set up a precise dividing line between literal and figurative language or is the distinction a blurry one? And which phenomena can be dealt with under the umbrella term 'figurative language'? These and related questions should be addressed before we can turn to our main goal.

Consider the following examples:

(1) Jane is an angel.

(2) An angel is "a spiritual being in some religions who is believed to be a messenger of God, usually represented as having a human form with wings" (*Cambridge Dictionary Online*)

(3) Prices rose in January.

(4) We are in need of new hands in the farm.

Deciding on the literal/figurative nature of these examples, particularly in connection with (3) and (4), is no easy matter. While most speakers would generally agree on the figurative character of (1) in contrast to the literality of (2), the literal/figurative essence of (3) and (4) does not seem to be so straightforward. Were average speakers to be asked about the literality/nonliterality of these examples, they would likely argue in favor of their literality inasmuch as they are accustomed to using these and similar examples as part of their everyday language. Saying that prices "rise" in order to convey the idea that products get more and more expensive in (3), and making reference to the hands to mean the whole person in (4), reflects the way we conceptualize reality and model it through language. Moreover, as stated by Handl (2011, p. 15), sentences like (3) and (4) include lexical items (*rose* in (3) and *hands* in (4)) which are not used in their original and most literal senses. Only on closer inspection might a native English speaker allot these lexical items some figurative load or more frequently than not would a native speaker be at a loss when confronted with a potential question as to the literal/nonliteral nature of these two

examples. By becoming familiar to most English speakers, and thus conventionalized, these expressions might seem to have lost at least part of their figurative essence.

Even this brief discussion evidences the existence of demarcation problems between these two notions. Lakoff (1986, p. 292) and Gibbs (1994, p. 75) argue that literality has been addressed in at least five different ways:

1. Conventional literality (direct language)

2. Subject-matter literality (language specifically used concerning a given subject-matter)

3. Non-metaphorical literality (language not even partially perceived in terms of something else)

4. Truth-conditional literality (language that corresponds to whatever happens in the world in terms of truth conditions)

5. Context-free literality (language construed in a null context)

Handl (2011, pp. 17-19), who critically reviews these aspects of literality, has endorsed Searle's (1978) view that null contexts do not exist. The reason is that even in the case of language without any meaningful situational (or linguistic) context, we always resort to default assumptions based on our experience. She also rejects an account of literality in terms of the principle of compositionality. The presupposition that all lexical items are endowed with fixed literal meanings is deemed inaccurate. To this end, the adjective *red* is analyzed as a case in point. It is the combination of this adjective and the noun to which it refers that makes the adjective meaningful. As observed by Handl (2011, p. 17), who draws from work by Clark (1991), Ariel (2002, p. 371), and Gibbs (1994, p. 39), *red* denotes an orangish color in collocations such as *red hair*, as opposed to *red wine*, where the adjective takes on a new meaning which includes a purplish shade. This simple analysis dismantles the idea that words have fixed meanings. As a matter of fact, the

meaning of words is adaptable to varying contextual requirements because concepts have fuzzy boundaries.

Handl (2011, p. 18) further argues that truth-conditionality is not a reliable test for literality. Some examples, like *Life is not a bed of roses*, are literally true but a literal reading would lead to a non-metaphorical construal of what is otherwise a metaphorical expression. Also, there are statements that, in a default context, can be taken as literally incongruent, but that does not mean that they are figurative. We would be at a loss as to how to account for the difference between a normally absurd sentence like *A house is a cat* and a metaphorical one such as *Jane is a cow*.

The upshot of the preceding discussion is that compositionality and truth-conditionality necessarily lead to literality. We also agree with Handl (2011, p. 18) that literal meaning is variable and hinges on contextual factors. As will be evidenced in the ensuing sections in this chapter, traditional accounts of figurative and literal language are deemed inaccurate when it comes to unravelling the potential difference underlying this controversial dichotomy. Subsequent approaches, especially pragmatic and cognitive ones, will argue for the existence of a cline between literality and figurativity.

Let us now turn our attention to the different approaches to the study of figurative language. These studies will be assessed in terms of their strengths and deficiencies. This will serve as starting point for our proposal for a combined cognitive-pragmatic framework.

2.2. The rhetoric tradition

Aristotle has been traditionally credited with providing the first systematic account of metaphor. Aristotle's theory of metaphor, known as the *substitution view* in Black's[1] (1962) terms, has been influential to such an extent that subsequent approaches to the matter have not been able to overlook the pioneering Aristotelian tradition. However, awareness on metaphor as part of the language we use has been present since much earlier times (Leezenberg, 2001, p. 15).

Aristotle acknowledges that metaphor is used in everyday language and not only in poetry. Nonetheless, he places especial emphasis on the rhetorical effects achieved by poetic (or unconventional) metaphorical usage. Moreover, he assigns a mainly ornamental function to metaphor thus drawing a clear dividing line between everyday and poetic metaphor. While in ordinary language metaphor was believed to be peripheral, in poetry it played a primary role. Aristotle took over from Socrates his concept of names, defined as words that belong to something or someone. Leaving aside the controversy as to whether this connection between words and their referents in the world is by nature or by convention, Aristotle framed his theory of metaphor within semantics. According to him, metaphor involves a transfer of meaning. In chapter 21 of Aristotle's *Poetics*, this transfer of meaning is argued to take several possible forms: from genus to species, from species to genus, from species to species, and on grounds of analogy. Take the following examples:

(5) Here stands my ship.

(6) Ten thousand good deeds has Ulysses wrought.

(7) Drawing the life with the bronze.

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[1] Black (1962) put forward a three-fold distinction of theories of metaphor. First, according to substitution theories, whose main advocate is Aristotle, metaphor replaces a literal expression. Second, proponents of the comparison view characterize metaphor in terms of similarities between the referents of the terms involved in metaphorical expressions. Scholars within this tradition are referentialists (see section 2.6.1). Finally, the interaction view falls into the group of descriptivist theories and defines metaphor as a transfer of meaning (see section 2.6.2).

(8) Severing with the tireless bronze.

An example of metaphor from genus to species is (5), where riding at anchor is a species of standing (the genus). A term transferred from species to genus is found in (6), where *ten thousand good deeds* is a specific large number that stands for a large number in general. Species-species metaphor is illustrated by (7) and (8). By using *draw*, the poet means 'sever' and 'sever' makes reference to 'draw', both words being species of 'removing' or 'taking away something'. Metaphor by analogy involves four terms in which the second is to the first as the fourth to the third. The fourth is likely to be metaphorically replaced by the second and vice versa. For instance, a cup is to Dionysus what a shield is to Ares. Thus, the cup can be named *Dionysus' shield* in the same way as the shield can be called *Ares' cup*. While this analysis might be deemed naïve, it is still original. While he drew from Socrates' theory of names, the systematic study of metaphor had been disregarded up to then. His speculations on metaphor were also original for his time since he went beyond names into more complex examples taken from the poetry he read (e.g., Homer's *Odyssey* and *Iliad*). This likely explains his belief on the literary status of metaphor. Also, Aristotle's theory of semantic transfer is worthy of praise because of its principled nature; it regulates the way in which such a transfer takes place. As observed by Harris and Taylor (1996, p. 30), "the meanings can be transferred from one word to another without establishing a special convention, *provided that* certain regular patterns of relationship hold between the words in question." These patterns concern the relationship between genus and species and that of analogical reasoning.

Leezenberg (2001, pp. 31-43) critically reviews Aristotle's account of metaphor. He points out that Aristotle's insights on metaphor and related notions like similarity, comparison, and ambiguity are scattered throughout his works, especially the *Poetics*, *Rhetoric*, and *Organon*. Moreover, the more characteristic feature of these works is their

fragmentary nature, which makes it difficult to fully construe his perception of the metaphorical phenomenon. Among his main objections to Aristotle's theory, Leezenberg (2001, p. 32) misses a distinction between literal and figurative language. However, even though such a distinction is not made explicit in Aristotle's works, his discussion on the use of metaphor in ordinary and/or poetic language reveals that at least he was aware that everyday language was distinct from literary language. Furthermore, as advanced, this philosopher took sides with the idea that metaphor, serving an ornamental function, should be reserved for poetry. In addition, Aristotle offered a detailed taxonomy of words: current, strange, metaphorical, ornamental, coined, lengthened, contracted, or altered. This exhaustive classification, however unclear it may seem in his writings,[2] somehow attests to Aristotle's awareness of an existing literal-figurative language distinction.

Leezenberg (2001, p. 33) correctly notes the broadness of Aristotle's conception of metaphor if compared to contemporary theories of the phenomenon. It is an umbrella term that covers a wide range of related figures. Most subsequent classifications of figures of thought are more fine-grained. Leezenberg (2001, p. 34), following Benson and Prosser (1972, p. 245), states that genus-to-species and species-to-genus metaphors correspond to what most scholars have approached in terms of synecdoche, while the species-to-species kind can be both metonymy and metaphor. The former would be rooted in factual contiguity and the latter on resemblance. This similarity, Leezenberg (2001, p. 34) argues, stems from the fact that two species pertaining to the same genus should share some property. This is illustrated by 'praying' and 'begging', which belong to the genus 'asking', and are thus regarded as concomitant and likely to partake in a metaphorical relationship. Finally, most scholars would nowadays agree that the fourth type of

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[2] For instance, 'current' does not seem to contrast with 'metaphorical' since the former is used in a stylistic or sociolinguistic sense to refer to lexical items that are common for the average language user of a given dialect but strange for speakers of other dialects (Leezenberg, 2001, pp. 32-33).

metaphor postulated by Aristotle, that based on analogy, is the most genuine case of metaphor even though the distinction between this type and the species-to-species transfer is fuzzy. Leezenberg (2001, p. 34) claims that species-to-species metaphors should be viewed as a subtype of analogy, the only difference between them being that in the former the two terms to be compared are elements of the same category (or genus), while this restriction does not apply to the latter. It is precisely Aristotle's notions of species-to-species and analogy metaphors that commit himself to a purported referentialist view of metaphor (see section 2.6.1), as observed by Leezenberg (2001, p. 36). In application of this view, the similarity involved in metaphor is held between the referents of the two elements to be compared. Needless to say, however, Aristotle did not explicitly declare himself an adherent of the referentialist theory of metaphor.

In sum, we agree with Leezenberg (2001) that Aristotle was a precursor of some of the current insights concerning metaphor. He was not only the first to theorize about metaphor, but also to raise, either explicitly or implicitly, some of the most remarkable topics in connection with the metaphorical phenomenon: the literal-figurative distinction, the principles that regulate the relationship between the terms involved in a metaphor, the nature of such a connection, the classification of this figure of thought, its demarcation problems, and its everyday use as an integral part of the way in which we see the world and talk about it by means of language. As Handl (2011, p. 23) puts it, "in Aristotle's description it is already evident that figurative language is – at least to a certain degree – a necessity, and not only an ornamental feature of language." This is so to such an extent that metaphor is found to fill lexical gaps in literal language (Leezenberg, 2001, p. 23). Therefore, even though some of Aristotle's ideas might seem preliminary incursions into a sound theory of metaphor, his approach brought to the fore some insights that were later fully developed. A worthwhile example is the use of metaphor in everyday language that

cognitive linguists have vindicated as an original milestone in their contribution to a ground-breaking theory of metaphor. In order to do justice to Aristotle – and to some other previous scholars – without playing down the significance of the cognitivist turn, cognitive linguists did not pioneer the idea that metaphor was part of everyday language but were the first to acknowledge that metaphor (and figures of thought in general) is an essential part of the language used by ordinary everyday speakers which models the way we think.

The principle of decorum associated with metaphor (and figurative language) was also maintained in other writings of the classical period. It was even given more emphasis as a peculiar and fundamental characteristic of figurative language. Metaphor embellishes discourse and the idea of transference is also preserved in such a way that Cicero states that "A metaphor is a short form of simile, contracted into one word; this word is put a position not belonging to it as if it were its own place, and if it is recognizable it gives pleasure, but if it contains no similarity it is rejected" (*De Oratore* III, xxxviii: 155ff; quoted from Hawkes, 1972, p. 11). The main role of metaphor together with that of other figures, as opposed to ordinary language, is cosmetic. The same arguments are held, among other classical writers, by Horace in his *Art of Poetry* and by Longinus in his *On the Sublime*. The latter, for example, puts forward a list of different sources that provide texts with grand style and sublimity, among them, the proper formulation of figures of thought and figures of speech. However, the use of metaphor should be controlled. Longinus would condemn the use of a disproportionate number of metaphorical expressions in the same passage.

According to Hawkes (1972, p. 12), Quintilian's *Institutio Oratoria* epitomizes the classical conception of metaphor and related figures fostered by Aristotle. In Quintilian's view, a trope is defined as an artistic alteration of a word or phrase from its

conventional or proper meaning to another. It possesses a decorative effect and involves some kind of transfer, which can take four different forms:

a. from the inanimate to the animate (e.g., a person is named *sword*);

b. from the animate to the inanimate (e.g., the part of a piece of furniture supporting it is called *leg*, as in *a table leg*);

c. from the inanimate to the inanimate (e.g., *rein* is used in a sentence like *He gave his fleet the rein* in order to make reference to 'control');

d. from the animate to the animate (e.g., in the sentence *Scipio was barked at by Cato*, the action of barking, which is typically associated with dogs, is attributed to Cato, suggesting a loud and forceful shout).

As was the case with Aristotle's classification of metaphor, Quintilian's taxonomy involves a criss-crossing of categories. For instance, the third type of metaphor would be identified nowadays as an example of metonymy.

Quintilian also devoted part of his work to other figures of speech or tropes. Drawing from the Stoics and from Aristotle, he grouped the different tropes in terms of three different relationships: *similarity* (as in metaphor), *vicinitas* (proximity or neighbourhood, as in synecdoche, metonymy, and antonomasia), and *contrariety* (in some cases of allegory). Additionally, onomatopoeia is another trope which does not belong to any of these three categories. As regards synecdoche, Quintilian sets up a taxonomy which includes the well-known whole-part and genus-species configurations. As for metonymy, Quintilian defines it as the substitution of one name for another, especially causes for effects. While Quintilian makes some connections between synecdoche and metonymy, he fails to unveil their true relationship and give both of them their due place. For example, the container-content relation (e.g., *He drank a whole bottle*) is both a synecdoche (whole for part) and metonymy (one name, *bottle*, substitutes for

another, e.g., *wine*). As for antonomasia, Quintilian's definition is too broad and inaccurate again. According to him, antonomasia is the replacement of an expression with a proper name (e.g., 'Achilles' for 'son of Peleus'). This definition evidently overlaps with that of metonymy. Finally, onomatopoeia and catachresis are identified as other tropes that do not belong in the three-fold classification mentioned above. In the former, exemplified by *to hiss*, there is no change of meaning (Murphy, 2010, p. 136), whereas in the latter the nearest available term is applied to things that lack their own name or for which the speaker is unable to find the exact word (e.g., anachronism for anomaly). Murphy (2010, p. 136) rightly observes that catachresis extends over other tropes like metaphor, as in making reference to the flat cutting part of a sword as its *blade*.

Despite the overlaps and inaccuracies in Quintilian's definitions and his failure to include onomatopoeia and catachresis into the categories of similarity, vicinitas, and contrariety, he made a laudable attempt to identify and classify different kinds of tropes.

From the ancient times to almost the cognitive turn, the study of metonymy faded into the background. While metaphor sparked the interest of many scholars from different traditions, metonymy was not thought to be worthy of attention. As noticed in our previous discussion, metaphor was often the umbrella term for both metaphor and metonymy and the dividing line between the two phenomena has been a thorny issue since then. The rhetoricians' focus on the figurative or poetic use of language to the detriment of ordinary language brought about this lack of interest in metonymy since the latter was thought to be closer to everyday language. As a matter of fact, the first definition of metonymy (or *hypallage* in the terminology adopted by the rhetoricians) is to be found in the treatise entitled *Rhetorica ad Herennium*. This work also features a detailed account of metaphor (perhaps the most exhaustive one in the rhetoric tradition according to Hawkes (1972, p. 13)) in which the principle of decorum and the

transference involved in metaphor are highlighted. Six uses of metaphor are recommended: for vividness, for brevity, to avoid obscenity, for magnifying, for minifying, and for embellishing. Turning to the consideration of metonymy, this treatise introduced the notion of closeness or contiguity, an idea that lies at the basis of most approaches to this phenomenon, as shown by the following translation by Koch (1999, p. 141): "Metonymy is a trope that takes its expression from near and close things and by which we can comprehend a thing that is not denominated by its proper word."

As Díez (2005, p. 62) rightly points out, the classical rhetorical conceptions of metonymy fall into two main groups: on the one hand, those definitions that set metonymy apart from metaphor but do not differentiate between metonymy and trope (e.g., Quintilian; according to this author, metonymy was the replacement of a name with another, which amounts to stating that it is the same as metaphor, defined as a transfer of meaning); on the other hand, those views in which the notion of contiguity is seen as the main defining feature of metonymy (e.g., *The Rhetorica ad Herennium*).

It was Aristotle's main (and almost exclusive) focus on poetic metaphors, which were found to yield the greatest rhetorical effects in his account, that paved the ground for subsequent criticism. In this connection, Richards (1936, p. 89), the main exponent of the so-called interaction theory of metaphor, blamed Aristotle for having popularized three ideas that diminished the great importance of the metaphorical phenomenon: (i) good metaphors can be only created by geniuses who have a special gift for resemblances; (ii) learning how to use metaphor is not feasible; and (iii) metaphor somehow contrasts with normal language use and thus qualifies as exceptional. Richards (1936) argued for the ubiquity of metaphor in language and for its conventional nature, rejecting in this way the exceptionality Aristotle had assigned to this figure of thought. This scholar also went

beyond the analysis of metaphor that had prevailed up to then when he observed that it served the function of determining our thinking to a great extent.

2.3. The sixteenth, seventeenth, and eighteenth centuries

These centuries did not mark any significant milestone in the study of metaphor and other figures of thought. In the Middle Ages, the prevailing Christian tradition pervaded every single aspect of life and figurative language did not escape this predominant doctrine. More specifically, this overriding tradition impinged on the study of figurative language in such a way that the main metaphor was postulated to be that the world was a book written by God. In his well-known letter to Can Grande della Scala, Dante makes a two-fold distinction between literal meaning and 'higher levels' of meaning. The former concerns the story of the poem. The latter can be further subdivided into the allegorical (symbolic meanings fitting this world), the analogical (meanings suitable for the spiritual world) and the tropological (meanings appropriate to a personal or moral level). Needless to say, this holy book meant more than it said. This can be regarded as the grounds for the *say-mean* dichotomy, which has been open to debate from that era well into the twentieth century. The great number of scholars who have devoted their work to this controversial issue attests to this fact (Glucksberg and Keysar, 1993; Morgan, 1993; Rumelhart, 1993; Searle, 1993; Winner and Gardner, 1993). The world was viewed as containing metaphors made up by God in order to make people understand His sacred message as long as those figurative elements were properly construed. The discovery of God's meaning is brought to the fore and, God being considered the creator of such meaning conveyed through figurative means mainly, creativity is deemed unessential. In

this context, the poet is but an intermediary between the human and the divine. Therefore, the principle of decorum is disregarded as it has no place in an approach to figurative language in which poets were, as pointed out by Hawkes (1972, p. 18), "emissaries of a higher authority." However, the eighteenth century witnessed a renewed interest in this principle. Language devoid of figurative elements would convey meanings clearly and more effectively. Samuel Parker even upheld that metaphor, among other tropes, should be banished from ordinary speech. This tallies well with the purported view that poetic and ordinary language should be kept apart. Ordinary language serves the function of conveying thought. On the contrary, tropes only aim at embellishing discourse and thus obscure thought.

2.4. The Romantic perspective

The Romantic period did not have any far-reaching consequences for the study of metaphor and figurative language either. However, it should be credited with challenging, although only apparently, long-standing assumptions concerning figurative language. Romantic authors such as Shelley, Herder, Vico, Wordsworth, or Coleridge called into question the minor role played by figurative language. In contrast, they emphasized the nature of tropes as essential instruments of the faculty of imagination. Nonetheless, the clear-cut distinction between literal and poetic language remains latent in the Romantic writings. In addition, even though metaphor is not regarded as a mere ornament of ordinary discourse and it is viewed as central to language and thought, the classical principle of appropriateness remains unchallenged.

2.5. The psycholinguistic perspective

The definition of figurative language from a psycholinguistic perspective highlights the dichotomy between meaning and saying. According to Gibbs and Colston (2012, p. 1), figurative language is generally that speech in which there is a mismatch between what speakers mean and what they literally say. For instance, the expression *My marriage is an icebox* is construed by most language users as an utterance which conveys something negative about the speaker's marriage. It might communicate lack of emotional affection or of sexual passion.

One of the main concerns of psycholinguistic research is to uncover the psychological processes involved in the recognition of figurative language. To this end, experiments of various kinds are designed with a view to elucidating how those processes come about and how people cope with figurative language so that communication is not thwarted. These experiments generally focus on two major areas of research:

a. On different forms of figurative language processing in general (Katz, 1996) or on specific tropes like metaphor (Gentner and Bowdle, 2001; Coulson and Van Petten, 2007; Citron and Goldberg, 2014), irony (Regel, Coulson, and Gunter 2010; Regel, Gunter, and Friederici, 2011), and sarcasm (Gibbs, 1986a).

b. On various issues related to the processing of figurative language and, to a lesser extent, to the production of figurative speech: (i) experimental psycholinguistics of special populations like bilingual speakers, L2 learners, and heritage speakers (Kroll and Rossi, 2013; Heredia and Cieślicka, 2015), children (Ambridge and Rowland, 2013), aphasic patients, and older adults (Caplan et al., 2007); (ii) the regions of the brain located in the cerebral hemispheres that get activated during figurative language processing (Giora et

al., 2000; Chettih, Durgin, and Grodner, 2012; Davenport and Coulson, 2013); (iii) types of methods in psycholinguistics, both offline (questionnaires, grammaticality and preference judgment tasks, sentence-picture verification, etc.), and online (priming, eye-tracking, ERP or event-related brain potentials, fMRI or functional magnetic resonance imaging, etc.) (Kaan, 2007; Van Heuven and Dijstra, 2010; Luck, 2014; de Groot and Hagoort, 2018).

The results derived from experimental evidence point to a thorny issue. Different scholars hold divergent opinions on the processing of figurative language. One of these strands claims that it is the novelty of the expression that determines its processing cost. On the one hand, taken in isolation, metaphorical expressions are said to involve an increase in processing demands if compared to non-figurative speech. On the other hand, in realistic discourse contexts, figurative language and literal speech are postulated not to differ in terms of processing cost (see Gibbs, 1994, 2011 for reviews). This especially holds for more familiar and conventional figurative language like idioms such as *kick the bucket*, stock metaphorical expressions like *John is a tiger*, conventional irony, as in *A fine friend you are* (in a context where the opposite is indicated), and some indirect speech acts such as *Can you pass me the salt?* used as a request. However, the greater the novelty of the trope, the greater the cognitive effort involved in grasping its meaning. By contrast, other scholars do not take sides with the idea that figurative language, either conventional or novel, requires any additional cognitive effort.

The underlying reason for this extra cognitive effort which figurative language is hypothesized to involve is to be sought in the widely held belief that figurative language is deviant. The standard against which metaphor in particular and figurative language in general is measured is literal speech. Proponents of the standard pragmatic view (Grice, 1975; Searle, 1979), to quote only one example to which we will return later (see section

2.7.1.1), put forward three consecutive steps to be taken for the hearer to fully grasp the core meaning of metaphorical expressions:

a. First of all, the addressee decodes the literal meaning of such expressions.

b. Second, the listener decides on the contextual appropriateness of those expressions.

c. Finally, if the literal meaning is deemed contextually infelicitous, the addressee resorts to the cooperative principle (Grice, 1975) or to the rules of speech acts (Searle, 1979) in order to work out the intended metaphorical meaning.

Thus, it should come as no surprise that, requiring an additional processing step, metaphorical language (and figurative language in general) takes longer to be understood and is more difficult to comprehend than literal speech. The standard pragmatic view is in this respect in consonance with the traditional view (Blank, 1988; Schwoebel, Dews, Winner, and Srinivas, 2000; Giora, 2002). Nevertheless, as pointed out above, a considerable number of experimental studies have evidenced that rich linguistic contexts help listeners to work out figurative meanings in the same way as literal ones as far as their processing cost is concerned (Gibbs, 1994, 2002; Glucksberg, 2001). In this connection, Gibbs and Colston (2006, p. 839) object to the traditional claim by observing that on many occasions the degree of difficulty and the great deal of cognitive effort involved in the processing of figurative language emerges from supplying poor and weak contexts of interpretation. It goes without saying that the cognitive effort required to make sense of an ironic utterance is maximized if the ironic utterance is unexpected (Giora, Fein, and Schwartz, 1998). On the other hand, an explicit context that clearly points to an ironic scenario paves the way for a felicitous ironic construal on the part of the addressee that does not demand any additional processing cost if compared to the effort made to grasp the meaning of literal expressions. Occasionally such clear contexts help to reduce processing cost to such an extent that processing figurative language takes less time than

processing literal meaning (Gibbs, 1986bc; Pfaff, Gibbs, and Johnson, 1997; Gentner, Imai, and Boroditsky, 2000).

Generally speaking, authors like Gibbs and Colston (2006, 2012) reject two basic and long-standing assumptions that have permeated most previous accounts of figurative language: the presupposition that there exists a principled and clear-cut distinction between literal and nonliteral language and the premise that figurative language is an umbrella term for phenomena that do not display any difference and that, consequently, should be handled in the same way. In this connection, Gibbs and Colston (2012, pp. 3-4) further argue that the kinds and forms of tropes are so varied that speakers may not process all figurative meaning similarly. Moreover, literal and figurative meaning are not believed to demand distinct processing modes.

Additionally, Gibbs and Colston (2006, p. 837) argue that psycholinguistic research is to be blamed for taking for granted that there is a single unified definition of literal meaning. As a result, they regard this supposed concept as the yardstick that functions as *tertium comparationis* with various kinds of figurative speech: literal vs. metaphorical meaning, literal vs. ironic speech, literal language vs. metonymy, etc. While scholars readily presuppose that the literal meaning which they all seek to examine empirically is the same concept across psycholinguistic experiments, this notion is as wide and it takes as many different forms as the great variety of classes which figurative language displays. A solution to this problem has been to postulate the existence of a continuum whose extremes are represented by clear usages of literal and figurative language. However, as Gibbs and Colston (2006, pp. 837-8) observe, defining these extremes falls into the same trap. For instance, poetic examples of metaphor and irony cannot be ranked on a par (Colston and Gibbs, 2002).

Some approaches to figurative meaning have emerged as a reaction to the mainstream psycholinguistic tradition that did not assign context a prominent role in the production, and especially processing, of figurative language. As pointed out before, some scholars conducted a series of experiments and proved that context can help to interpret figurative language and to minimize processing cost. Among the theories that gave context its due place, the *Graded Salience Hypothesis*, the *Underspecified Model*, and the *Constraint Satisfaction Model* figure prominently. Let's discuss each of them briefly:

- The Graded Salience Hypothesis. Developed by Giora (1997, 2002), this theory holds that context plays a constraining role in figurative meaning after salient word or phrase meanings have been accessed. Salient meanings of words or phrases must be understood as conventional or common uses that are not necessarily literal. The Graded Salience Hypothesis provides a formidable contrast to the standard pragmatic view inasmuch as context makes the activation of figurative meanings easier before people interpret the semantic or literal meanings of whole linguistic expressions. However, whereas processing familiar metaphors requires the activation of both literal and metaphorical meanings, this does not hold for unfamiliar metaphors. For the latter to be processed, only their literal meanings may be initially conjured up, the underlying reason being that these meanings qualify as the most salient. The same rationale applies to irony. Literal meanings get activated first when it comes to understanding less familiar ironic statements. In contrast, both literal and ironic senses are invoked in the case of familiar ironies.

As argued by Gibbs and Colston (2006, p. 843), the notion of 'salient meaning' is vague. Although word frequency and word familiarity are aspects to be taken into consideration in order to determine the salient nature of a given word/expression, these two aspects do

not unequivocally point to the most salient sense of such linguistic units. It is also worth noting that sometimes the vital role played by context is blurred when the salient meaning of a phrase overrides the salient sense of one (or even more) of its constituent parts (Gibbs and Colston, 2006, p. 843). By way of illustration, consider the expression *to spill the beans* ('reveal a secret') in a context where the meaning is the literal one. In application of the graded salience hypothesis, the figurative meaning conventionally associated with this idiom is automatically activated even if there is clear contextual evidence to the contrary. However, this proposal downplays the role of context as a constraint on interpretation. If we take the context as such a constraining factor, saliency is relative to the context rather than to predefined knowledge stores. Another problem noted by Gibbs and Colston (2006, p. 843) is that the explanation provided by Giora does not take into account the salient meanings of the individual components of the idiomatic phrase (*spill* and *beans*), which should also be quickly accessed, while experimental evidence seems to point in a different direction.

- The Underspecification Model. Frisson and Pickering (2001), among other proponents of this view, argue in favor of a construal that is simultaneously congruous with the literal and figurative meanings of a word. Take the expression *John is a pig*. The first meaning of the word 'pig' that the language processor retrieves if no contextual clues are provided is underspecified as to whether the word 'pig' has been used to mean the animal or a dirty person. After this initial interpretation, if some context is supplied, it helps the language user to determine the meaning of the expression in question. If the contextual clues are strong, the process of recovering the appropriate meaning of such an expression will be faster than if the previous context is neutral or weak. Within this model, some experiments involving eye-movement were conducted to show that context is not a determining factor

that helps to assess whether one word meaning should prevail over another; instead, it turns an underspecified meaning into a specific one (Frisson and Pickering, 1999, 2001). Similar to the graded salience view, Gibbs and Colston (2006, p. 844) observe, the Underspecification Model runs into problems when deciding what counts as the initial underspecified meaning that is activated when a word is first read or heard. No doubt, as some scholars like Gibbs (1994) suggest, the underspecification view should be blamed for its failure to come up with senses that are so wide as to embrace the whole range of meanings of some polysemous words.

- The Constraint Satisfaction Model. Scholars within this model argue that when language users understand a given text, be it literal or figurative, they envision an interpretation (and consequently discard others) which is consonant with linguistic and nonlinguistic information; this information also includes contextual considerations (Katz and Ferretti, 2001; Katz, 2005). In this model, various sources of information (syntactic, lexical, conceptual) struggle to get activated. Constraints help the most appropriate interpretation override other possible ways of construing the same stretch of discourse. For instance, when grasping the meaning of an unfamiliar proverb, people first access a literal interpretation since there is less competition coming from other sources of information prompting a figurative reading. The opposite holds for the comprehension of familiar proverbs. They are easier to process than unfamiliar expressions because in the former there is more information (provided by the context and the words) which points to a figurative interpretation.

In this connection, Gibbs and Colston (2006, 2012), among other authors working within the psycholinguistic paradigm, highlight the outstanding role played by other pragmatic factors besides the context. Should a speaker want to convey a particular pragmatic effect and make a remarkable impact on his potential addressee(s), he or she would readily opt

for a figurative expression. In the light of what has been said, the hearer faces a twofold task when understanding a figurative expression: he or she does not limit himself to elucidating its figurative meaning but he should also decipher the pragmatic effect the speaker has tried to communicate. Thus, it should come as no surprise that metaphorical, ironic, hyperbolic expressions and, in general, all kinds of figurative speech cannot be paraphrased in literal terms. A whole range of effects are conveyed by ironic statements like *Jane is an angel* (in a context in which Jane has behaved poorly), by metaphors like *John is a pig* (in a context in which John does not stick to usual hygiene habits), by hyperbolic expressions such *I've told you a million times not to do that!* (in a context in which the speaker is extremely irritated because the listener does not obey him/her) and similar figurative expressions. Working out those extra effects which go beyond the literal paraphrase of such instances demands some cognitive effort that only a few psycholinguistic studies have explicitly explored. One of them is the work by Noveck, Bianco and Castry (2001), who observe that grasping the meaning of a well-chosen metaphor involves some extra processing. Nonetheless, a word of caution is in order at this point since, as noted before, some authors would reject this view in cases of familiar expressions uttered in very clear contexts. This trade-off between cognitive effort and effects will be revisited by Sperber and Wilson (1995) in connection with the notion of optimal relevance (see section 2.7.2).

In sum, the psycholinguistic tradition mainly focuses on the processing cost of figurative language if compared to so-called literal language. Even though scholars like Gibbs and Colston argue against a clear-cut distinction between figurative and literal language, many other authors implicitly uphold such a dichotomy. This is evidenced by several psycholinguistic experiments conducted within this tradition, in which literal language is regarded as the standard against which the processing cost of figurative

language can be measured. It is true, however, that some basic reference of what counts as figurative should be determined in order to work out this processing cost. We concur with Gibbs and Colston's findings as to the shared processing modes for literal and figurative language. After all, the same sorts of inferential processes apply to the determination of conversational implicatures (some of which are related with some figurative expressions) and of what speakers say (Récanati, 1989, 1993; Sperber and Wilson, 1995; Carston, 2002). Gibbs and Colston are also right in recognizing that there cannot be an encompassing theory that accounts for all kinds of figurative language in the same way since this category is heterogeneous.

There is much more work that has been carried out within psychology on figurative language, like studies on categorization and comparison (e.g., Glucksberg, 2001; Glucksberg and Haught, 2006, on simile and metaphor). It is impossible to do full justice to all this work within the limits of this brief overview. However, we will make reference to relevant studies in successive chapters as the need arises.

2.6. Semantic approaches

The twentieth century witnessed an upsurge of approaches to the study of figurative language, especially metaphor. Apart from the psycholinguistic tradition that originated in this same century, we can draw a very rough distinction between semantic, pragmatic, and conceptualist approaches. In this subsection we will address and critically review some of the main insights and theories of semantic and pragmatic views on figurative language.

Semantic approaches mainly focused on the metaphorical phenomenon to the detriment of other figures. The referentialist and descriptivist views are to be subsumed into this semantic trend.

2.6.1. The referentialist view

The referentialist account can be traced to as far back as the classical times. On the whole, referentialists define metaphor in terms of similarities between the referents of the expressions partaking in it. Cicero and Quintilian –and even Aristotle (section 2.2) despite his disregard of similarity– could be ascribed to this view, even though they were not aware of being defenders of this approach. According to them, metaphorical meanings arise from the resemblance between the referents of the entities involved in metaphorical expressions. These ideas were much later refined by 20th century scholars like Henle (1958), Mooij (1976), and Fogelin (2011), who are representative of the referentialist view. These are its main characteristics:

- Metaphor and simile stand in a close relationship with each other. Metaphor is regarded as an elliptical comparison so the meaning of a metaphor is determined in terms of that of a corresponding simile. Saying that John is a pig amounts to stating that John is *like* a pig.

- The referents of the expressions contained in a metaphor determine how it is construed. The meaning of *John is a pig* stems from a shared property between John and the pig, such as lack of hygiene or immoral behavior.

- The expressions involved in metaphor preserve their literal reference. Metaphors are endowed with two meanings: the literal one, which lies at the basis of the comparison, and the figurative one. The former is subservient to the latter but both of them are active.

Leezenberg (2001, pp. 73-75) casts doubt on the unquestioned belief –inherent in these approaches– that similarity between the referents of expressions contained in metaphors can by itself yield a plausible metaphorical interpretation. Some critical remarks can be made following Leezeenberg's lead:

- To some extent, Leezenberg is right to object that the notion of similarity or comparison is not a primary factor in the figurative nature of metaphor. According to this author, expressions like *Dictionaries are like gold mines* cannot be construed by identifying a property that the two referents, i.e., dictionaries and gold mines, have in common. However, going beyond Leezenberg's arguments, it may be observed that there is similarity between a dictionary and a gold mine in other ways; an obvious one if the use of dictionaries to search for the meaning of words and of gold mines to obtain gold. Knowledge and gold are both "valuable" because they allow those having them to use them productively. This is not similarity between perceptually accessible properties of the referents but in terms of the cause-effect structure patterns which define interaction with the two items. This view of metaphor is consistent with our discussion of high-level similarity in 3.2.1.2.2.

- In addition, we cannot limit ourselves to inferring an omitted term of comparison to interpret metaphor. The referentialist literature on metaphor is rife with metaphors which fit the pattern *A is B* and can be rendered in terms of a simile-like structure (*A is like B*). Nonetheless, as pointed out by Leezenberg (2001, p. 73), this is an oversimplification of the metaphorical phenomenon because there are many metaphors which do not conform to the A is B pattern. An example is the metaphorical expression *After a few months, their love finally ignited*. The first problem is the impossibility of including *like* in order to transform this metaphor into a simile. This problem is further aggravated by the difficulty involved in trying to provide a semantically equivalent expression between a metaphor

and its corresponding simile even in the case of *A is B* metaphors. The truth conditions of *John is a pig* and *John is like a pig* are different, inasmuch as, in the same context where John is dirty or immoral, the metaphor qualifies as a false statement, as opposed to the simile, which is true. That is, the same truth conditions do not hold for both sentences (Searle, 1979, p. 103). There are two ways out of this problem: (i) arguing that the figurative meaning of metaphor (vs its literal meaning) is equivalent to that of the comparison, or (ii) claiming that metaphor is an elliptical simile and that the literal meaning of the metaphor and the comparison is the same. However, referentialists have not looked into how and when that meaning is determined.

- Third, some metaphorical expressions can include empty terms as regards their extension. This is the case with *His parents are real ogres*. No referent can be identified in the real world for these frightening creatures that feature in children's stories worldwide. Thus, the referentialist theory falls prey to its foundational and essential defining postulates. Leezenberg (2001, p. 74) proposes two solutions to this dilemma but both of them attack the very foundations of the referentialist account: (i) making use of intensional semantics would allow referentialists to arrive at a metaphorical meaning since the properties of a non-existent entity in the real world would be borrowed from a similar entity in some possible world; or (ii) arguing in favor of the idea that it is representations and properties of entities rather than entities themselves and their characteristics that lie at the basis of the identification of metaphorical meanings. The first option is midway between a referentialist view and a descriptivist position, while the second gets closer to a conceptualist perspective.

- Another criticism relates to the fact that it is not the actual characteristics of the term used metaphorically but its stereotypical properties that determine metaphorical construal. For instance, although the most conspicuous feature of donkeys is their

stubbornness, this notorious reputation, which is entrenched in our cultural system, does not correspond to reality. Before donkeys can show their willingness to work hard and obey orders, human beings must earn their confidence. Although the studies on the behavior of donkeys are rather scarce, they reveal that these animals are quite intelligent and cautious rather than obstinate. Thus, metaphorically referring to a human being as a donkey might be true or appropriate if that person is stubborn. However, the comparison is fallacious. As argued by Searle (1979), metaphorical interpretations might be brought about by stereotypes that have become culturally entrenched rather than by the referents and the characteristics associated with them.

2.6.2. The descriptivist view

In contrast to referentialist approaches, descriptivist views, which especially flourished in the second half of the twentieth century, focus on the sense or intension of the expressions contained in metaphors. Proponents of this approach claim that the intension of such terms captures the metaphorical essence. Descriptivists go beyond the mere literal extension of expressions and take into account connotations. Some scholars within this approach are Beardsley (1962, 1976), Black (1962, 1979), and Richards (1936). The so-called interaction theory qualifies as a descriptivist account. Black, for instance, pointed to the importance of what lies behind words in order to highlight the significance which connotations should be allotted. Extension should be replaced with intension to properly account for figurative language.

From this perspective, metaphor, which is again the major focus of attention in descriptivist views, brings about a change in meaning or sense of at least one expression. In analyzing *John is a pig*, the term *pig* takes on a metaphorical or new meaning within

the verbal context in which it is embedded which in turn endows the whole expression with a metaphorical interpretation. The level of sense (vs. the level of extension) determines metaphorical interpretation.

Additionally, similarity is disregarded as an explanatory notion. Instead, dissimilarity provides the basis for metaphorical construal. In contrast to referentialist accounts, simile is reduced to metaphor. Metaphorical interpretation is guaranteed by the existence of a logical opposition or semantic clash between words that is solved. From a literal point of view, John is not a pig; thus, the hearer is forced to search for a nonliteral meaning of the term *pig*. Some elements of the new meaning acquired by *pig* in the specific context of the sentence *John is a pig* are transferred to John. In other words, metaphor identification is feasible inasmuch as the semantic elements of one term or expression sanction co-occurrence with another term. Thus, while semantic clash is an invaluable clue for metaphor recognition, some meaning transfer makes it possible to interpret metaphorical expressions. According to Richards (1925, 1936), metaphor interpretation results from the interaction (hence the label of interaction theory) between the two elements of a metaphor, the tenor and the vehicle. In *John is a pig*, *pig* is the vehicle and selected aspects of this animal are projected onto *John*, the tenor. It should be noted, in this respect, that the notion of semantic transfer had already been anticipated by Aristotle (see section 2.2).

In most descriptivist accounts, the notion of metaphor is an umbrella term that encompasses a broad range of other figures of thought like metonymy, simile, and irony. Classical authors belonging to the rhetorical tradition like Aristotle or Cicero also argued for an overarching figure, metaphor, that embraced other kinds of figurative language. Much in the same vein, descriptivists place especial emphasis on metaphor, to which they assign a pivotal role in the field of figurative language. Metaphor is regarded as the

overriding kind of meaning transfer but other types of figurative language are also characterized in terms of meaning transfer. This widened conception of metaphor is supported, among other scholars, by Richards (1936, p. 116), who claims that metaphor includes "those processes in which we perceive or think of or feel about one thing in terms of another."

2.6.3. Kittays' relational theory of metaphor and Way's DTH theory of metaphor

The referentialist and descriptivist approaches involved a step forward in the study of figurative language, especially of metaphor. However, many classical tenets remained unchallenged since these views have a strong semantic bias. Metaphor was regarded as a matter of words. Moreover, both referentialists and descriptivists defined metaphor as a false statement due to their commitment with truth-conditional semantics. Nonetheless, more recent versions of the interaction theory began to challenge some of the previous long-standing assumptions that had remained unquestioned for decades. In this context, Kittay (1987) puts forward what is known as the *relational theory of metaphor*, a perspective that tries to make up for the main drawbacks inherent in other views. According to Kittay, a theory of metaphor should incorporate a cognitive dimension and, although substantiating the main ideas of the interaction view, pragmatics should not be overlooked. However, Kittay still defends a semantic notion of context and implicitly supports the transfer view.

In turn, Way (1991), in the DTH theory of metaphor, in another important step forward, postulates, reformulates, and develops ideas that would become important milestones in pragmatic and cognitive approaches:

- Metaphor is a cognitive phenomenon.

- There is no clear-cut opposition between literal and figurative language.

- Literal paraphrases cannot capture the whole range of meaning implications involved in figurative language.

- Context and background knowledge are vital in the comprehension of metaphor (and by extension of figurative language).

- Not all metaphors exhibit an equative formula (*A is B*).

These and other assumptions have paved the way for a comprehensive account of metaphor and figurative language that gives primacy to pragmatic aspects over semantic ones.

2.7. Pragmatic approaches

Within the pragmatic approaches to figurative language, mention should be made of three foundational theories: Searle's, Grice's, and Sperber and Wilson's. Searle's and Grice's accounts are to be subsumed into what is known as the standard pragmatic view. These three approaches start off from a distinction between *say* and *mean*. A distinction is made between sentence meaning (meaning subject to truth conditions and vulnerable to denotation/sense relations and the reference/truth value of linguistic units) and utterance or speaker's meaning (meaning embedded in context or speaker's intended meaning). Two main concerns in pragmatics are taking into account speaker's intentions when producing utterances and the process involved in working out those intentions.

2.7.1. The standard pragmatic view

2.7.1.1. Searle and Speech Act Theory

Searle framed his theory of metaphor within the broader context of speech act theory. This scholar maintains that metaphor is to be regarded as an indirect speech act since it brings about a mismatch between what the speaker says and what he means. In other words, the speaker says that 'S is P' but metaphorically means that 'S is R'. Searle (1979, p. 92) wonders why it is possible that communication is not thwarted when speakers use metaphorical language. The differences between sentence and utterance meaning should be reconciled for figurative language understanding to be possible. For instance, consider the expression *John's parents are real ogres*, uttered in a context where John's parents are cruel and frightening to people. The literal reading that John's parents are frightening creatures as featured in children's stories would qualify as nonsensical. A more reasonable interpretation would point to John's parents' cruelty. In order to account for the derivation of such non-literal meaning, Searle (1979, pp. 99-101) formulated a series of principles of metaphorical construal. First, the hearer attempts to make sense of the expression by identifying its literal meaning. Once he becomes aware of the defectiveness of the utterance if taken literally, he sets out to look for a nonliteral reading of the expression. At this point, we might wonder where this defectiveness stems from. The sources for such anomaly, Searle (1979, p. 103) remarks, might be blatant falsehood, semantic nonsense, violations of speech acts or of conversational principles of communication. Consider the metaphor *John's parents are real ogres*, where S stands for 'John's parents', P for 'ogres', and R for 'cruel and frightening people'.

- R (being cruel and frightening) is one prominent and distinctive characteristic of P (ogres).

- The term 'ogre' is regularly associated with cruelty and this paves the way for the metaphorical interpretation of *John's parents are real ogres*.

- At a subsequent stage, P's are said or believed to be R but both speaker and hearer agree that R cannot be predicated of P. As a result, the hearer will interpret that the underlying meaning of the expression in question is that John's parents are extremely cruel. We agree with Leezenberg (2001, p. 121) that this principle is highly incongruous because supporting simultaneously that ogres are cruel and stating that this belief is untruthful makes no sense.

- Some link (a factual, conventional, or cultural one) is perceived between P and R. In the example above, ogres are conventionally associated with cruelty.

- P and R are the same or similar in meaning but one of them, usually P, is constrained in its application and does not literally apply to S. Thus, not all entities can be characterized as ogres and parents cannot be described as ogres from a literal point of view.

This formulation of the principles that guide metaphorical interpretation places especial emphasis on equative A IS B metaphors. However, metaphors displaying other syntactic structures, metonymy, and synecdoche are also postulated to abide by these principles when it comes to deciphering their figurative meaning.

While acknowledging the importance of adopting an essentially pragmatic framework where figurative language is embedded within a full-fledged linguistic model – speech act theory –, there are some weaknesses in Searle's theory. Although Searle is reluctant to adhere to a semantic approach to metaphor, his position still retains some of its basic assumptions. Thus, while taking issue with the semantic nature of metaphorical meaning, Searle admits that such meaning is conveyed in truth-conditional terms. Metaphors are claimed to indirectly express literal propositional meaning. For instance, the literal content of *John's parents are real ogres* is the idea that John's parents are extremely cruel. This, however, does not amount to stating that such propositional literal meaning captures the whole essence of the metaphor. What is more, figurative

expressions are deemed false if taken literally. It is precisely this defectiveness of the expressions that functions as a trigger for the search for a felicitous meaning. The upshot of this discussion is that Searle's position seems to waver between a semantic and a pragmatic conception of figurative language. Moreover, Searle especially looks into the workings of metaphor but he begins to show some interest in the study of other figures of speech like metonymy and irony. Searle deals with irony, metonymy, and synecdoche as other figures which enjoy a status similar to that of metaphor; they all take part in the mixed bag of indirect speech acts. However, there is no clue whatsoever of any criteria that make metaphor different from such other figures.

2.7.1.2. Grice and the Cooperative Principle

Grice's work is also at the origin of the pragmatic approach to metaphor (Taverniers, 2017, p. 325). Grice (1975) uses Searle's distinction between *say* and *mean*, and also frames his insights into figurative language within a broad theory of language use. However, he pays more attention to metaphor than to other kinds of figurative language. The limitations of previous accounts (especially semantic ones) of language construal in general, and of metaphor interpretation in particular, led him to put forward the notion of implicature and to formulate his well-known Cooperative Principle (CP): "Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged" (Grice, 1975, p. 45). The CP is articulated into four sets of maxims, which relate the amount of information given, (quantity), its truthfulness and demonstrability (quality), its relevance (relation), and the way in which it is structured and conveyed (manner). Maxims can be obeyed (giving rise to full cooperation) or broken in different ways. In the case of figurative language use, the maxim of truthfulness is broken but not with the intention to

mislead. That is, the maxim is not violated but flouted, thereby leading the hearer to search for an implicature. For example, in irony, the participants in a talk exchange share some background knowledge that leads the hearer to infer that what the speaker is literally saying is ostentatiously false. In fact, it is the opposite of what he has said. Consider Grice's (1975, p. 53) example *X is a fine friend* in a context in which X (the hearer), a close friend of A (the speaker) up to now, has let a business rival of A in on a secret of A. A says something whose veracity he does not believe in and knows that his audience is aware of this. X, as part of A's audience, gathers evidence that what A is saying is not literally true. This knowledge, together with the assumption that A is complying with the CP, triggers off the search for an implicature. What the hearer is encouraged to understand is a clearly related proposition. The most obviously related proposition is the opposite of the one A pretends to get across (the idea that X is a bad friend).

Metaphors like *You are the cream in my coffee* are analyzed as cases of categorial falsity (Grice, 1975, p. 53). While both metaphor and irony are ostentatious floutings of the first maxim of quality, the element that sets them apart is the proposition that the hearer is prompted to choose as the right construal of both figures of thought. In contrast to irony, in in metaphor the speaker does not mean the opposite of what is said. Rather, in metaphor there is a relevant characteristic shared by two different entities. This characteristic is what gives rise to the metaphorical meaning.

Grice, like Searle, seems to hover between a semantic and a pragmatic account of figurative language. His commitment to the anomaly of (particularly) metaphorical expressions, which are assessed in terms of their truth conditions, and to the notion of similarity draw him close to a semantic position. On the other hand, the awareness that pragmatic aspects like implicature and contextual evidence play a vital role in the interpretation of figurative language contribute to shaping a pragmatic theory, a fresh way

to perceive figurative language. However, Grice's drift towards a pragmatic view of figurative language is not unproblematic, since he does not set up clear principled distinctions between figures. Thus, while he points out that metaphor is based on similarity and irony is contradictory if contextual evidence is considered, there is no indication whatsoever of what makes meiosis and hyperbole different from each other, on the one hand, and from metaphor and irony, on the other. It is in further elaborations of Grice's theory, like the one in Martinich (1984), that some solutions are attempted. Martinich (1984, pp. 490-491) compares metaphor with hyperbole and points to the main point of convergence and divergence between both figures. Both involve breaches of the maxim of truthfulness. In uttering a metaphor or a hyperbole, the speaker is not asserting the surface proposition it conveys but making as if saying so. However, Martinich (1984, p. 491) further observes that the expressed hyperbolic proposition (the defective one if assessed in terms of truth conditions) always entails the intended proposition (the speaker's underlying intentions). For instance, in *I've told you a million times to clean your room*, the expressed proposition is at odds with, and entails, the intended proposition (*I've told you many times to clean your room*). This does not hold for metaphor. In addition, Martinich also sets overstatement and hyperbole in contrast. The former is an unintentional or unconscious exaggeration, while the latter lacks that undeliberate ingredient. Regarding the distinction between metaphor and hyperbole, on the one hand, and meiosis (e.g., referring to extreme violence as "the troubles"), on the other, three features set them apart:

1. Meiosis is postulated to be uninformative inasmuch as it breaches the first maxim of quantity.

2. While a hyperbolic proposition entails what should be said, meiosis is entailed by the intended proposition.

3. Since the expressed proposition is true, it is not required to construe it as "not being said that X."

Finally, Martinich characterizes irony along the same lines as Grice but does not devote much attention to it either. Instead, Martinich (1984, ch. 5) mainly focuses on metaphor. She draws a distinction between standard and nonstandard metaphors. The distinguishing feature between them is measured in terms of truth conditions. Standard metaphors flout both the first maxim and second maxims of quality (i.e., truthfulness and demonstrability, respectively). However, nonstandard metaphors do not blatantly fail to observe the first maxim of quality. Martinich discusses the metaphor *Caroline is our princess*, as uttered by Princess Grace of Monaco speaking to an American friend about her daughter. If taken literally, this statement would be true. However, since both Princess Grace and her friend are mutually aware that Caroline is the daughter of a prince, the hearer is encouraged to derive an implicature in the sense that *princess* can be taken figuratively and then interpret the sentence as if it were false. Thus, the first maxim of quality is flouted. Martinich should be credited with having developed Grice's theory on figurative language. However, Martinich's approach also inherits the main shortcomings of Grice's account noted above.

In sum, standard pragmatic views, mainly Searle's and Grice's approaches, suffer from some of the shortcomings of previous accounts, the main one being that literal meaning is given primacy over any other kind of meaning. Two questionable assumptions in this respect are the idea that the hearer first explores the literal meaning and then the non-literal one, and the idea that a clear-cut distinction between literal and nonliteral meaning should be made (see section 2.5 for empirical evidence to the contrary).

2.7.2. Relevance Theory and figurative language

Sperber and Wilson (1995) take us a step further than previous accounts. They offer new insights fashioned into what is known as a post-Gricean model by questioning the universal validity of Grice's Cooperative Principle and its maxims. They formulate the Principle of Relevance, which, they observe, is much more ubiquitous in language than the CP. Speakers attempt to be relevant in communicative exchanges through a trade-off between cognitive effort and cognitive effects. The effect and effort sides of the Principle of Relevance are expounded and discussed by Sperber and Wilson (1995, p. 544) in the following way:

a. Other things being equal, the greater the cognitive effect achieved by the processing of a given piece of information, the greater its relevance for the individual who processes it.

b. Other things being equal, the greater the effort involved in the processing of a given piece of information, the smaller its relevance for the individual who processes it.

Sperber and Wilson see metaphor, metonymy, hyperbole as cases of ordinary language use, much like cognitive linguists. Figurative uses of language are interpretive, not very different from so-called "loose" uses. For example, rounding up figures when talking about distances (*We live a mile from here*) or when telling the time (*It's ten*), or describing the shape of objects in approximate ways (*France is hexagonal*), is not strictly speaking very different from speaking figuratively. This is so because expressions based on loose uses do not represent the state of affairs which they describe. Furthermore, the degree of looseness of different expressions varies. Thus, saying *It's ten*, when it is slightly before ten is less loose than saying that *France is hexagonal* (an adjectival simile), which is less loose than stating directly that this country is *a hexagon* (metaphor).

Sperber and Wilson further distinguish between explicated and implicated assumptions (Blakemore, 1992, p. 57). Explicatures are explicit inferential derivations

which result from fleshing out the basic semantic layout of utterances on the basis of contextual or world knowledge parameters. This happens through the fixation of referents, and the enrichment of underdetermined expressions (e.g., *I need some time* may mean 'the speaker needs longer to finish his work than expected'). Implicatures, which can be strong or weak, derive from explicatures and are related to speaker's meaning. While strong implicatures are key to interpreting an utterance, weak implicatures are more peripheral and less essential. The tighter the constraints imposed by the speaker on the hearer's choice of contextual assumptions, the stronger the implicature. On the contrary, if those constraints are not very tight, weak implicatures will result. From the perspective of Relevance Theory, figurative language is characterized in terms of strong and weak implicatures. For instance, metaphors usually trigger one strong implicature and several weak ones. A distinction is drawn between standard and creative metaphors. They differ in their degree of conventionality and in terms of the implicatures which they yield. Standard metaphors yield one strong implicature and several weak implicatures. They are highly conventionalized in language and involve some stereotype. For instance, the strong implicature that the metaphor *John is a pig* activates is that John is a dirty person. A creative metaphor (e.g., *John is a piglet*), on the other hand, is less conventional (i.e., John is dirty but still endearing). In application of the effort and effect sides of the Principle of Relevance, the processing of standard metaphors demands less cognitive effort than that of creative ones. This additional effort required by less conventional metaphors is offset by extra meaning effects. That the meaning of a metaphorical expression cannot be paraphrased without loss is evidenced by the existence of strong and weak implicatures. A single paraphrase cannot encapsulate the whole array of implicatures instantiated by a metaphor or by any other example of figurative language. In the process of metaphor/metonymy (and of figurative language in general)

interpretation, the addressee makes use of his encyclopaedic knowledge and builds an *ad hoc* concept on the basis of strong and weak implicatures.

In consonance with work in psycholinguistics, relevance theorists take issue with the existence of special interpretive abilities for figurative language (Sperber and Wilson, 1995, 2008; Wilson and Carston, 2006; Vega Moreno, 2007; Tendahl and Gibbs, 2008). In order to bridge the gap between sentence meaning and utterance meaning in the construal of figurative language, speakers pursue the same inferential process of hypothesis formulation involved in so-called literal language.

The characterization of figurative language in terms of loose uses of language has been fine-tuned into an account that zeroes in on the online construction of *ad hoc* concepts (Carston, 2002, 2010, 2016; Sperber and Wilson, 2008; Walaszewska, 2011). Figurative language is postulated to involve the loosening or narrowing of lexical concepts built online that are crucial in certain contexts. In order to understand *John is a pig* as a felicitous metaphor, the encoded concept for 'pig' is loosened in order to make its denotation larger. As a result, human beings like John might also become part of the denotation of 'pig'. Additionally, it is put forward that figurative language can convey explicatures and not only implicatures. A specific element of a logical form can prompt inferential processes that can yield *ad hoc* concepts, explicatures, and implicatures.

The parsimonious nature of figurative language, inasmuch as it triggers a great number of contextual effects by implication, the creation of an *ad hoc* concept in the process of figurative meaning interpretation, and the characterization of figurative language as loose uses of language, have been challenged even within the framework of Relevance Theory itself. Romero and Soria (2014), for instance, take first generation relevantists to task for their deflationary account of nonliteral language in which looseness goes hand in hand with figurative language and only implicatures are generated.

Subsequent elaborations on the original account in Relevance Theory are deemed flawed as well in spite of the fact that such refinements acknowledge that loose uses also convey explicatures that lead to *ad hoc* concepts.

Carston (2002), to cite one relevant example, claims that the main drawback of the standard relevance-theoretic account is its lack of cognitive plausibility. If explanatory adequacy is to be met, as expected in a full-fledged account of language, the cognitive dimension should also be taken into account. If this is not done, we would be at a loss to pick out those properties of the elements involved in an expression that guide figurative construal. Take, for instance, the metaphor *John is a pig* to mean that John does not care about his personal hygiene at all. Unless some cognitive component is born in mind, it is impossible to account for the rationale that underlies the set of properties of pigs that are deemed pertinent (filthiness in an animal-like fashion) and to discard others (having four legs, having no fur, etc.) to yield a felicitous interpretation. In connection with metonymy, Ruiz de Mendoza (1997a, 1999ab, 2005) also calls for a cognitive ingredient. The way contextual implications are drawn is constrained by a set of cognitive processes that underlie metonymic expressions. The felicitous interpretation of metonymy requires conventional knowledge of source and target domains (Ruiz de Mendoza and Otal, 2002).

Another relevant criticism that can be levelled against the relevance-theoretic approach to figurative language is that while metaphor, simile, metonymy, hyperbole, and irony have been the object of much of the work (Wilson and Carston, 2006; Carston and Wearing, 2011, 2015; Wilson and Sperber, 2012; Rubio-Fernández, Wearing, and Carston, 2013, 2015; Wilson, 2013; Carston, 2017), other figures of speech have remained largely unexplored. In any event, there is a growing amount of research on figurative language carried out over the last few years within Relevance Theory, which

attests to the fact that this framework still appeals scholars. Two relatively recent examples are the collections of papers in Padilla (2016), on recent developments and future avenues for research, and in Piskorska and Wałaszewska (2017), on applications of the theory. Padilla (2016) includes a whole section on discourse which, strikingly, only addresses irony to the detriment of other figures. Piskorska and Wałaszewska (2017) devote part of the volume to figures of speech in literary discourse. In this volume irony is, again, the focus of attention in Ruiz-Moneva's paper, where she offers an in-depth study of coding and inferencing in ironic expressions in Orwell's *Animal Farm* and its translation into Spanish. Unger's paper within this same volume is especially welcome because of its analysis of allegory, a figure that has not received much attention in Relevance Theory.

Finally, in the last two decades there have been several attempts to reconcile pragmatics and Cognitive Linguistics. To cite but a few studies, we can mention Ruiz de Mendoza (1999ab, 2000), Tendahl (2009), Tendahl and Gibbs (2008), and Romero and Soria (2014). While the mapping approach seems to have taken hold over the last three decades, the constraining power of the Principle of Relevance has been found to play a complementary role in the production and interpretation of figurative language. The fruitfulness of combining these two views of figurative language will be evident to the reader over the course of the present book.

2.8. The cognitive perspective: The metaphor revolution

The cognitive theory of metaphor is claimed to have emerged as a compelling reaction to the pervasive objectivist tradition in Western thought. Nonetheless, justice should be done

to previous approaches to metaphor (and to figurative language in general), which paved the way for this innovative framework to flourish. On the other hand, pragmatic approaches, especially Relevance Theory, can provide adequate grounding for a better understanding of the potential communicative effects of cognitive activity and thus support the development of more robust cognitively-oriented accounts. In any event, this should not blind us to the fact that the recognition of the nexus between mind and language was given its due place within cognitivism.

2.8.1. Lakoff and Johnson's Conceptual Metaphor Theory

Four decades have elapsed since the publication of Lakoff and Johnson's (1980) pioneering book on metaphor. During this time, Cognitive Linguistics has asserted itself as a major strand in the study of communication. Its robust foundations in psychology and the cognitive sciences in general have gone a long way towards the development of the theory. No doubt, Cognitive Linguistics has challenged generally unquestioned assumptions such as the ornamental nature of figurative language or the clear-cut distinction between literal and figurative language. Instead, Cognitive Linguistics has postulated the existence of a continuum from purely literal to non-literal linguistic expressions which shade into one another. Psycholinguistic and especially relevance-theoretic accounts had already rejected this dichotomy. RT and CL are largely concomitant as regards the proposal for a continuum. But Cognitive Linguistics has developed its own methodological tools, introduced a host of new questions, and, in sum, proposed a fresh and innovative way to perceive figurative uses of language. These are its main postulates:

- Language is inextricably interwoven with cognition. Metaphor is central in this respect. Speakers think metaphorically and using figurative language logically follows from our ordinary conceptualization of reality (Lakoff and Johnson, 1980). Metaphor (and figurative language in general) is essentially a matter of thought. Moreover, it is ubiquitous in language in cognition.

- Figurative language was virtually ignored by scholars from different disciplines and persuasions well into the 1970s under the assumption that nonliteral language was a matter of embellishing discourse and, as a result, it acted as a barrier to the pursuit of objective truth. But gradually the truth-value conception of meaning was abandoned and this fact shook the foundations of previous approaches to figurative language. Psycholinguistic and especially pragmatic theories began to question the long-standing postulates that deemed figurative language fallacious and inaccurate and, in this context, Cognitive Linguistics meant a step forward by making figurative language an integral part of language and cognition. Fields such as science and politics, which had traditionally been considered objective, are now claimed to crucially hinge on figurative language in order to get their message across effectively (Lakoff, 1992; Ortony, 1993; Mio and Katz, 1996; Ungerer and Schmid, 1996; Chilton, 2004; Dirven, Polzenhagen, and Wolf, 2010). Then, figurative language in literature was explained in terms of the same range of meaning resources as ordinary language, although exploited differently (Lakoff and Turner, 1989, pp. 50-51).

- The notion of mapping (a set of correspondences) was applied to metaphor and metonymy with a view not only to defining them but also to setting them apart. On the one hand, metaphor is a mapping across two discrete domains of experience. On the other, the latter consists of a mapping within a single experiential domain. Let us illustrate this. LOVE IS A JOURNEY is a conceptual metaphor linguistically realized by expressions

such as *Look how far we've come, We're at a crossroads*, or *We're spinning our wheels*. Knowledge about journeys, an experientially-bound domain (the source domain), is carried over to the domain of love (the target domain), an abstract and elusive concept. Travelers are mapped onto lovers, the destination onto goals, the vehicle onto the relationship, and the impediments onto difficulties. Each linguistic realization exploits some of these correspondences while others remain inactive. For instance, in *We're spinning our wheels*, the image of a vehicle in snow or mud that spins its wheels but cannot move maps onto the more abstract idea of the lack of progress and loss of control of a love relationship despite the lovers' efforts. As for metonymy, HAND FOR PERSON is a conceptual metonymy (exemplified by expressions such as *We are in need of new hands on the farm*) whereby a subdomain ('hand') grants conceptual access to the matrix domain ('person'). A domain-subdomain relationship is built. As pointed out, previous literature on figurative language paid overattention to metaphor and metonymy, with the exception of the relevance-theoretic proposal, which also looked into hyperbole, irony, and simile. Ruiz de Mendoza (2014b) seeks to overcome such a limitation and applies the notion of mapping, whose scope of application was circumscribed to metaphor and metonymy, to other figures like hyperbole, irony, paradox, and oxymoron.

- The activation of the correspondences making up mappings is not chaotic. It is regulated by a number of principles such as the Invariance Principle put forward by Lakoff (1990, 1993, p. 215). This hypothesis stipulates that metaphorical mappings should preserve the image-schematic structure of the source domain. Ruiz de Mendoza (1998, p. 263) formulated the Extended Invariance Principle in order to expand the scope of application of the material to be preserved and include all generic-level structure, whether image-schematic or not. Ruiz de Mendoza (2014b) has contended that each figure of speech is constrained by the joint activity of two sets of principles, some of which are common to

all of them – general principles – and some others that are specific to each of these figures. The increasing interest in the constrained nature of mappings responds not only to the need of regulating the activation of mappings itself but also to the necessity of differentiating and characterizing various kinds of figurative language, one of the main concerns in this book. Moreover, a much-debated topic concerns the bidirectionality of mappings. Mappings tend to be asymmetrical (Fauconnier and Turner, 2002). LOVE IS A JOURNEY gathers several metaphorical expressions that view love in terms of a journey. However, switching the target and source of this metaphor, which results in the conceptual metaphor A JOURNEY IS LOVE, would depict another metaphorical system, should it exist. In fact, such a shift in directionality renders the resulting metaphorical mapping non-sensical. If reversing the direction of the mapping yields a feasible metaphor, the latter will exploit different sets of features (Forceville, 2002; Danesi, 2017; Freeman, 2017). Scholars like Katz and Al-Azary (2017) have contended that embedding metaphors in a discourse context can promote reversibility. Metaphors like A COMPUTER IS A HUMAN BEING and its reverse counterpart A HUMAN BEING IS A COMPUTER lend credence to the purported symmetry between the mappings of a given figure of thought like metaphor.

Subsequent cognitive linguists have made important moves that fine-tune Lakoff and Johnson's (1980) initial approach to figurative language. Let us focus on some of them.

2.8.2. Grady's theory of primary metaphor

Grady's (1997a) approach emerged to make up for a shortcoming inherent in Lakoff and Johnson's (1980) pioneering formulation of the theory. They do not account for the

reason/s why some of the correspondences that make up a mapping are exploited while others remain overlooked. To overcome this limitation, Grady observes that it is not conceptual metaphor but primary metaphor that constitutes the most basic level at which metaphorical mappings occur in human thought and experience. By way of illustration, consider the conceptual metaphor THEORIES ARE BUILDINGS, which results from the combination of several primary metaphorical mappings like ORGANIZATION IS PHYSICAL STRUCTURE (e.g., *How do the pieces of this theory fit together?*) and PERSISTING IS REMAINING ERECT (e.g., *John kept his position secret for months*) (Grady 1997a). The source domain of primary metaphors is rooted in the sensorimotor system of our body. In other words, it is experientially bound. These primary metaphors are combined in fruitful ways into complex metaphors called compound metaphors, which are the equivalent of what first-generation cognitive linguists termed conceptual metaphors. Such compound metaphors prompt the metaphorical inferences that theories require support, are liable to collapse, etc. and discard impossible mappings like thinking of theories as having windows. Primary metaphors are postulated to provide a reasonable answer to the quandary of the poverty of some mappings.

2.8.3. Johnson's theory of conflation

Johnson's theory of conflation in the course of learning elaborated on Lakoff and Johnson's (1980) Conceptual Metaphor Theory. Young children are postulated not to distinguish between subjective experiences and judgements on the one hand and sensorimotor experiences on the other when they co-occur in experience. Children go through a series of consecutive stages, metaphor (and figurative language) construal being one of them. During the conflation period, children are unable to discern different

experiential domains. The differentiation stage involves the beginning of formal abstract thinking. However, it is not until later in their development that grown-up children are able to cope with abstract metaphorical thought by construing love in terms of journeys or theories in terms of buildings (Lakoff and Johnson, 1999, pp. 133-134).

More specifically, Johnson (1999) used a corpus consisting of a collection of utterances of a child called Shem recorded at different stages in his language development in order to study metaphor acquisition in children. The main aim was to find out the age at which Shem acquired a common metaphor. To this end, Johnson paid especial attention to Shem's use of the verb *see* in specific instantiations of the metaphor KNOWING IS SEEING (e.g., *I see what you're saying*). Johnson discovered that, before using metaphor, there is a period in language acquisition in which domains like 'seeing' and 'knowing' are conflated. Conflations such as this in which two domains which co-occur in experience are not differentiated act as the basis for the subsequent learning of primary conceptual metaphor at a later stage of language development. The conflation period is followed by a stage in which children are able to distinguish co-occurring experiential domains and are thus ready to use metaphor. In sum, Johnson put forward that there are two stages involved in the emergence of conceptual metaphor: the conflation stage and the differentiation stage.

2.8.4. Blending theory

One of the main developments of the initial version of Conceptual Metaphor Theory is Blending Theory, put forward by Fauconnier and Turner (1994, 1996, 2002) (see also Fauconnier, 1994, 1997, 2009; Turner, 1996; Turner and Fauconnier, 1995). Central to this theory is the notion of mental space, which is described as "a small conceptual packet

constructed as we think and talk, for purposes of local understanding and action"
(Fauconnier and Turner, 1994, p. 113). A mental space is a cognitively and
communicatively relevant part of an idealized cognitive model. In Blending Theory two
or more *input spaces* project their structure into a *blended space*. This space inherits
partial structure from the inputs and develops emergent structure by means of a set of
default and pragmatic procedures. An additional fourth space is the *generic space*, which
draws generic structure from the inputs and grants correlations.

An oft-quoted example within blending theory is *This surgeon is a butcher*, which
highlights the surgeon's lack of competence in professional practice. Two input spaces,
surgeons and butchers, lend partial structure to the blended space. However, that partial
structure drawn from the inputs proves insufficient to account for all the meaning
implications triggered by the expression. The blend creates new structure that provides
the blueprint for the understanding of the incompetence ingredient. The two-domain
model is unable to elucidate the surgeon's ineptitude, which emerges from the incongruity
between the butcher's means and the surgeon's ends. The generic space contains the
structure shared by the inputs: the fact that a person uses a sharp instrument in order to
accomplish a procedure on a living being.

Blending is constrained by a number of *optimality principles*, which have been
formulated by Fauconnier (1997, pp. 185-186) and Fauconnier and Turner (1998, pp.
162-163): integration, web, unpacking, topology, backward projection, and metonymy
projection.[3] Advocates of blending theory highlight an advantage of this model: the fact
that it can be applied to a wide range of linguistic and cognitive phenomena besides
metaphor (Coulson, 2001; Fauconnier and Turner, 2002, 2008). An alternative proposal
to blending theory, which will be discussed more extensively in section 3.1.2., put

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[3] For a detailed treatment of blending theory and subsequent refinements of the theory, see section 3.1.2.

forward by Ruiz de Mendoza and his collaborators (Ruiz de Mendoza, 1996, 1998, 2017ab; Ruiz de Mendoza and Díez, 2002; Ruiz de Mendoza and Peña, 2005), argues that emergent structure can be best explained through the activation of multiple input spaces before conceptual structure is integrated into the blend. Otherwise, it would be necessary to postulate structure-production principles internal to the blend itself, which may be cognitively less efficient. In addition, this alternative approach argues for the incorporation of Sperber and Wilson's (1995) Principle of Relevance into the model as a general constraint on language production and comprehension. Metaphorical creation and construal should comply with this pervasive principle.

2.8.5. The neural theory of language

Another new venue of research within Cognitive Linguistics is related to embodiment and the Neural Theory of Language (Dodge and Lakoff, 2005; Lakoff, 2009). As evidenced by research coming from neuroscience, language processing does not rely upon specialized areas of the brain. Much in the same vein, there is no special area in the brain in charge of the understanding of metaphor and figurative language in general. Long-lasting neural connections are made across the networks making up conceptual domains and these connections underlie the source-to-target activations that yield metaphorical entailments. This means that embodied simulation lies at the core of the Neural Theory of Metaphor. Embodied experience plays a fundamental role when it comes to conceptualizing metaphor. Image-schemas, defined as recurrent topological patterns shaping our experience (Johnson, 1987), provide the basic blueprint for some metaphorical source domains. Recent research making use of computational techniques from neural modeling has allowed for the development of complex systems in which

conceptual metaphors are calculated in neural terms via neural maps, neural circuitry connecting the sensorimotor apparatus with higher cortical areas (Lakoff and Johnson, 2003, p. 255; Dodge and Lakoff, 2005; Gibbs, 2005a; Rohrer, 2005). Metaphorical mappings are defined as physical neural maps that link sensorimotor material with more abstract information as a result of the neural ensembles located in different areas of the brain. Several aspects of metaphorical thought are comprehended as metaphorical enactments that unfold in real time. Metaphorical expressions are construed in terms of conceptual mappings. However, the inferences triggered by a given metaphorical expression do not only stem from the activation of source-to-target correspondences but also from source domain enactments that are projected into the target via neural links.

Consider the metaphorical expression *We're at a crossroads*. Neural circuitry related to journeys and the obstacles that might interfere with reaching destinations is prompted. Additionally, knowledge about love and the vicissitudes that might lead to breakup in love relationships is activated. A mapping circuit is devised on the basis of such source and target material. Recent research conducted within cognitive neuroscience has provided support in favor of the existence of mirror neurons located in the pre-motor cortex that are brought about when people simply see particular actions, visualize themselves or others carrying out those actions, or listen to linguistic expressions making reference to such actions. Applied to our example, we can state that mirror neurons related to journeys get activated when people perceive or imagine themselves or others going along paths or when they hear linguistic expressions picking out information from the frame of journeys. Within this approach, an integrated circuit is called into existence straightaway in which target domain inferences can be made without processing a whole source domain. In fact, source and target domains are processed at the same time.

Moreover, people are able to interpret metaphorical language as if it were non-metaphorical.

Another implication of the Neural Theory of Metaphor is that some metaphors analyzed within the framework of blending theory can be better accounted for by standard Conceptual Metaphor Theory, i.e., the so-called two-domain model (Lakoff, 2009). In consonance with Ruiz de Mendoza, proponents of the Neural Theory of Metaphor provide compelling evidence coming from neuroscience that we can do away with the emergent structure developed within a potential blended space. The 'incompetence' ingredient in the expression *My surgeon is a butcher* arises from the stereotype involved in the metaphor "A person who performs actions with certain characteristics is a member of a profession known for those characteristics." In accordance with this widely held belief, surgeons are trained to perform medical operations with accurate precision. On the other hand, butchers sell meat and prepare it to be sold by employing force rather than accuracy. In this view, no emergent structure comes about and gets integrated into a third or blended mental space. As argued by Tendahl and Gibbs (2008, pp. 1830-1831), the Neural Theory of Metaphor accounts for the reasons why conceptual metaphors originate, are entrenched in our conceptual systems, and are broadly manifest in language. This lends credence to the long-standing assumptions made within the cognitive-linguistic approach to metaphor on the way language, the mind, and the brain are interwoven.

2.8.6. Figurative language, universality, and cultural variation

The dynamics of Cognitive Linguistics has been characterized by the constant exploration of previously neglected areas of research in figurative language. Thus, the embodiment of metaphor, which has been a topic of much interest within Cognitive Linguistics from

its inception, was connected to the question of the universality of metaphor and metonymy in work by Kövecses (1990, 1999, 2000, 2002, 2005, 2006, 2009, 2015). Universality is based on cultural convergences. But cultures, like context, can exhibit strong degrees of variation. Kövecses (2015, p. 1) takes his view of context from Van Dijk (2009, p. 5): "a context is what is defined to be relevant in the social situation by the participants themselves." The question is: how can we tackle the issue of universal metaphors in view of the changing nature of context? A similar question can be asked with respect to cultural variation: can we argue for the existence of metaphors that occur cross-linguistically despite its changing nature? For instance, TIME IS SPACE underlies the conceptualization of time in a wide range of languages and cultures such as English, Mandarin Chinese, Hindi, and Seshoto, to name but a few. There is presumably a set of metaphors that qualify as near-universal or potentially universal. Since humans tend to share basic sensorimotor experience, metaphors and metonymies grounded in experience are reasonable candidates for a universal or at least a near-universal status.

But how does cultural variation fit into Conceptual Metaphor Theory? Take Ritchie's (2004, p. 278) analysis of the ambiguous metaphorical expression *My wife is an anchor*. Its construal is highly dependent on context. Such context might lead to two opposite meanings of the example: a positively-loaded one whereby being an anchor involves supporting someone when in need and one endowed with negative connotations in which being an anchor amounts to being a barrier to someone else's pursuit of excitement in life. Speakers are forced to comply with two pressures working in unison when they make use of metaphor and metonymy: the pressure stemming from embodiment and the pressure of the variability imposed by context. Three different situations might arise from the interaction of these pressures (Kövecses, 2015, p. 94):

- People try hard to obey both pressures, which paves the way for (quasi-)universal metaphors. Notwithstanding such universality, there is still room for cultural variation. While several languages might share the same metaphor or metonymy, the way they are linguistically realized might vary.

- Some metaphors are essentially body-based. A straightforward example is KNOWING IS SEEING. There is a strong association between deriving information on reality by having visual access to it. This association could provide the motivation for the potential universality of this metaphor. This does not mean that KNOWING IS SEEING is necessarily universal, but that it is likely to be so, which makes it a good candidate to be explored in this connection.

- Some other metaphors are mainly culturally bound. For example, the mapping TIME IS MONEY is grounded in the capitalistic views of competitiveness and personal achievement.

Köveces (2015, p. 94) puts forward a continuum whose extremes are represented by metaphors based on bodily experience and those that are culturally grounded. A word of caution is in order at this point. Kövecses does not claim that there are pure cases of embodied metaphors and cultural metaphors. The former usually involve some shade of culture and the latter may incorporate embodied elements.

2.9. Classifications of figures of speech

The upshot of the discussion so far is that the impressive swirl of approaches to figurative language revolves around essentially the same topics from a variety of often complementary perspectives. Nonetheless, this flourishing of viewpoints, which have

gone a long way towards elucidating the inner workings of how we both produce and construe figurativity, is still in need of further elaboration. Let us address two shortcomings that should be made up for:

1. the virtually exclusive heed paid to metaphor and metonymy and, to a lesser extent, simile, hyperbole, and irony;

2. the lack of a principled classification of figures of speech

Even though psycholinguistic, pragmatic, and cognitive approaches began to counteract the unwelcome tendency to focus on a few figures of thought and overlook the treatment of others, there still remains much to be done. Even recent work by well-known scholars (e.g., Handl, 2011; Gibbs and Colston, 2012; Dancygier and Sweetser, 2014; Heredia and Cieślicka, 2015; Athanasiadou, 2017), which bears the term "figurative language" in the title, mostly pays attention to metaphor and metonymy, and, to a lesser extent, to hyperbole and irony, while disregarding other figurative uses of language. This same tendency is evidenced in other recent monographs and collective volumes, many of them within Cognitive Linguistics; e.g., Kövecses (2005, 2006, 2009, 2015, 2020), and Gibbs (2017) on metaphor; Benczes, Barcelona, and Ruiz de Mendoza (2011), Bierwiaczonek (2013), Littlemore (2015), Brdar (2017), Blanco-Carrión, Barcelona, and Pannain (2018), on metonymy; Gonzálvez, Peña, and Pérez (2013), and Pérez-Sobrino (2017) on metaphor and metonymy; Claridge (2011) on hyperbole; Athanasiadou and Colston (2017) on irony. In general, there is little to no mention of such traditional figures of speech as allegory, anthimeria, antonomasia, antiphrasis, auxesis, hypallage, hypocatastasis, litotes, meiosis, merism, paragon, prolepsis, and sarcasm. However, as will be discussed in the present book, these figures generally relate to the main ones in theoretically relevant ways which need to be addressed.

In any event, the last decade (again mainly within Cognitive Linguistics) has witnessed an increase in the number of studies which, while still focusing on the major figures of speech, also pay significant attention to the more neglected figures. In this respect, we can mention the monographs by Herrero-Ruiz (2009), Veale (2012), Ruiz de Mendoza and Galera (2014), and Prandi (2017); two lengthy papers by Ruiz de Mendoza (2020ab) are also worth mentioning in this respect.

- Herrero-Ruiz (2009) sheds light on what he labels contrast-based models, i.e., irony, paradox, oxymoron, overstatement, and understatement – meiosis and litotes are postulated to be cases of understatement – and metaphor. Being embedded within the cognitive linguistic paradigm, this book is an insightful endeavor to come to terms with the workings of contrast-based figures of thought in terms of cognitive models.

- Veale (2012) offers a new perspective on the study of figurative language by placing especial emphasis on linguistic creativity, which is examined in algorithmic terms. Committing himself to the cognitive-linguistic tenet that nonliteral language is based on our everyday knowledge in such a way that what is familiar becomes new again and brings freshness to language, Veale looks into analogy, irony, metaphor, sarcasm, and simile by drawing on naturally-occurring data extracted from corpora.

- Ruiz de Mendoza and Galera (2014) bring into focus the way cognitive operations can lie at the basis of the construal of utterances in different domains and at different levels of meaning construction (lexical, illocutionary, implicational, and discourse). It also offers an initial analysis of figurative language in terms of cognitive operations by addressing the study of (especially) metaphor and metonymy, as well as overstatement (hyperbole and auxesis), understatement, which is grouped together with meiosis and litotes, irony, paradox and oxymoron. This marks a significant move forward into the

consideration of less studied tropes besides the oft-quoted ones and in terms of the theoretical apparatus that underlies their study.

- Prandi (2017) deals with metaphor, metonymy, simile, oxymoron, synecdoche, irony, hyperbole, litotes, and synesthesia, which he discusses as instances of conceptual conflict. His aim is to launch a theory capable of casting light on a unitary treatment of figures on the planes of content and expression. Among the former, he lists those based on sound, like alliteration, homeoteleuton, and onomatopoeia, those exploiting order such as verb-subject inversion and chiasmus, and also figures of rhythm. Prandi takes issue with cognitive linguists over their unawareness that metaphor is not a unified phenomenon inasmuch as it displays different forms, and for ignoring the existence of many distinct figures which should be analyzed as displaying deep differences.

While some of the previous approaches put forward stimulating and principled taxonomies of some specific figures of thought, especially metaphor and metonymy, only a few of them set themselves the arduous task of providing a well-integrated, motivated, and all-embracing classification of such figures. Some encompass a wide range of figures but do not organize them into related groups. Among those approaches that do, Leech (1969), Ruiz de Mendoza and Galera (2014), Prandi (2017), and Ruiz de Mendoza (2020ab) figure prominently. Let us briefly discuss them in turn.

Leech (1969) offers an overall overview of several rhetorical figures. In spite of the fact that this scholar departs from the traditional clear-cut distinction between poetic and ordinary language and acknowledges that literary language is rooted in everyday uses of language, he regards poetic language (only the language of poetry though, not literary language in general) as a deviation from everyday language; a whole gamut of kinds of digression are postulated: lexical, grammatical, phonological, graphological, semantic, dialectal deviation as well as deviation of register and historical period. Leech follows

the traditional two-fold distinction between figures of expression (schemes) and content (tropes), but shapes it into a linguistic division. The former (alliteration, anaphora, and chiasmus) are defined as abnormal arrangements leading to the forceful and harmonious presentation of ideas. The latter (metaphor, irony, and synecdoche) alter the normal meaning of an expression (Leech, 1969, p. 74). A third category is put forward by some rhetoricians, figures of thought, which are psychologically biased towards developing a topic rather than dealing with available linguistic choices. Leech is not concerned with them due to their psychological orientation. He refines the traditional definitions of both schemes and tropes by pointing out that schemes are foregrounded repetitions of expression while tropes are foregrounded irregularities of choice. More specifically, such figures can work at different levels: schemes are phonological, graphological, or formal (grammatical and/or lexical) configurations, but tropes can be characterized as formal or semantic deviations). In this connection, it should be noted that in this book we will not follow the rhetorical dichotomy between tropes and figures of thought. Instead, we refer to figures of speech or figurative uses of language. Although we understand the term figures of thought to be largely interchangeable with our chosen terms because of the eminently conceptual nature of figurative language use, the terms which we have chosen have one advantage: the linguistic dimension, which they highlight, presupposes a conceptual dimension, but the converse is not the case; i.e., performing a conceptual operation does not presuppose its linguistic materialization.

Tropes, largely our main concern in the present study, are semantic oddities classified into the following sets:

- Cases of semantic redundancy: pleonasm, tautology, and periphrasis.

- Examples of semantic absurdity: oxymoron and paradox.

- Figures involving some transfer of meaning: synecdoche, metaphor (including different kinds of metaphor like synesthesia and related figures like symbolism and allegory), and metonymy.

- Examples bringing about some misrepresentation of the truth: hyperbole, litotes, and irony.

Even though Leech adheres to a traditional view of figurative language, he is to be praised for the analysis of a large number of figures, elaborating a fine-grained classification, and dealing with the interplay between such figures as metaphor and irony.

As advanced, almost half a century later, Prandi (2017) also draws a twofold distinction between figures of the plane of content (mainly metaphor, oxymoron, metaphor, metonymy, and synecdoche) and of the plane of expression. Regarding figures of content, or "conflicts", he offers a classification into three main types:

- Figures of formal conflict or contradiction (oxymoron).

- Figures of conceptual conflict (metaphor, metonymy, and synecdoche).

- Figures of textual conflict (allegory, irony, hyperbole, tautology, litotes, negated metaphor, euphemism, and rhetorical questions).

Ruiz de Mendoza and Galera's (2014) taxonomy is a preliminary incursion into the study and classification of figurative language. The notion of cognitive operation is central to their proposal and figures of speech are classified accordingly into the following types:

- Figures based on correlation or resemblance operations: metaphor and simile.

- Figures based on reduction and expansion operations: metonymy.

- Figures based on strengthening and mitigation: hyperbole.

- Figures based on contrast: paradox and oxymoron.

- Figures based on echoing: irony.

In more recent work, Ruiz de Mendoza (2020a) puts forward three typological criteria to group the various forms of figurative language into integrated sets: (i) the nature of the interdomain relationships; (ii) the existence of shared features among figures; and (iii) the primary presence of denotational vs attitudinal meaning effects. According to the first criterion, "A IS B" and "A FOR B" operational patterns can be distinguished. The former pattern, which underlies cross-domain mappings, results in cross-domain analogy-based or resemblance-based reasoning (metaphor, simile, hyperbole and related figures) and in cross-domain contrast (irony and irony-related figures, paradox, and oxymoron). The latter pattern, which is the basis for domain-internal relations, underlies metonymy and related figures. In terms of shared features, three kinds of relationships are postulated: (i) type-token, when a figure is a specific type of another figure (four different groupings of figures are set out: hyperbole and auxesis; understatement, litotes, and meiosis; allegory, hypocatastasis, paragon, and synesthesia, synecdoche, hypallage, anthimeria, antonomasia, merism, and proverbs; and irony and sarcasm); (ii) overlap, when several figures have characteristics in common but none of them is a variant of the rest (this is the case of metaphor, analogy, and the various kinds of simile); (iii) and convertibility, when figures are not related to one another but can be reformulated by virtue of sharing some central elements if the appropriate textual and conceptual conditions for the conversion are created (this is the case of prolepsis). Finally, although all uses of language can have denotational and attitudinal meaning dimensions, some figures seem to have a denotational focus, while others give prominence to conveying speaker's attitude. Among the former we find metaphor, metonymy, analogy, simile, paradox, and oxymoron. Among the latter we have irony (and related figures), which express parameterizable dissociation, hyperbole (and related figures), which heighten emotional impact, and understatement and litotes, which lessen emotional impact.
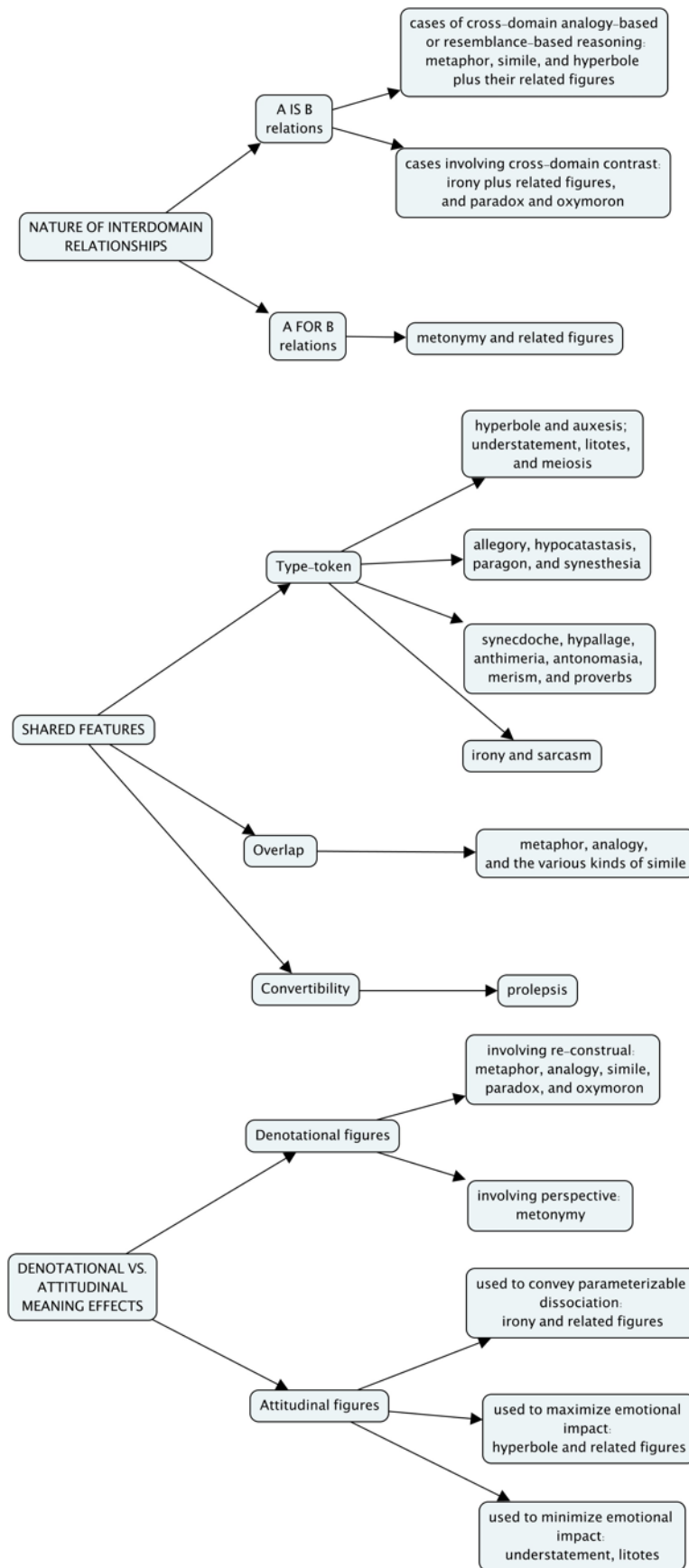
Figure 1. Ruiz de Mendoza's (2020a) classification of figurative language

By drawing on insightful findings of previous approaches, especially the ones by Ruiz de Mendoza and Galera (2014) and Ruiz de Mendoza (2020ab), but trying to overcome their shortcomings and inconsistencies, our account offers an exhaustive study of a wide range of figures of thought and groups them into sets on the basis of the cognitive activity underlying them. Cognitive operations allow for a principled distinction among related figures of thought, as will be discussed in the ensuing section. Ruiz de Mendoza and Galera's (2014) initial study should be further pursued. This classification, grounded in cognitive operations, together with the more recent one put forward in Ruiz de Mendoza (2020ab), will be our starting point for a more comprehensive and motivated analysis of figurative language.

2.10. Overcoming the limitations: Foundations of an integrated cognitive-pragmatic approach

In accordance with Ruiz de Mendoza's theory, our proposal, which is embedded within the framework provided by Cognitive Linguistics, takes into account the pragmatic perspective, largely in compliance with the main assumptions of Relevance Theory (Sperber and Wilson, 1995). While previous cognitive-linguistic approaches challenged many tacitly accepted assumptions about figurative language and overcame many of their limitations, there are still some issues that should be appropriately addressed and some overlooked concerns which deserve due attention.

- In spite of the impressive amount of research conducted thus far, there are still largely unexplored areas within the domain of figurative language where our account can make valuable contributions. In this connection, one of our aims is to distinguish between and

account for an array of traditional figures of speech by looking into the kind of cognitive activity which they involve and pairing this activity with their meaning effects. This contributes to exploring further the preliminary insights found in Ruiz de Mendoza (2020ab). This is the first time, to our knowledge, that many different figures of speech are brought together into an integrated explanatory framework.

- The notion of mapping revolutionized the study of figurative language. Nonetheless, this notion has traditionally been only applied to metaphor and metonymy. As pointed out, Ruiz de Mendoza (2014b) and Ruiz de Mendoza and Galera (2014) went beyond this proposal to offer a more embracing theory in which the concept of mapping could be the yardstick against which to define any other figure of speech. We elaborate on Ruiz de Mendoza's (2014b, 2020a) claim that figurative language in general (not only metaphor and metonymy) can be understood in terms of mappings or sets of correspondences. This idea has already proved fruitful for the analysis of hyperbole (Peña and Ruiz de Mendoza, 2017) and irony (Ruiz de Mendoza, 2017c). Thus, another aim of our book is to investigate this claim in more detail.

- Cognitive operations lie at the core of our theory. We depart from previous work in Ruiz de Mendoza and Galera (2014) and Ruiz de Mendoza (2020ab), which develops Lakoff's (1987) original insights into idealized cognitive models by making a distinction between operational and non-operational models. Metaphorical and metonymic mappings are operational, while the rest of the models (i.e., frames, image-schemas) are not (see section 3.1.1). Drawing on this previous work, we analyze different figures of thought in terms of cognitive operations. Our first aim in this respect is to offer a comprehensive study of figurative language by systematizing linguistic evidence of the cognitive processes involved in its production and interpretation. In our study, such processes can be

explicitly linked to different communicative consequences, thus bringing together the cognitive and pragmatic facets of the phenomena under scrutiny.

- The distinction between denotational and attitudinal figures should be paid special attention. This is an innovative taxonomic criterion which agglutinates the varied nature of the whole range of figures of thought into two broad sets. Chapter 4 focuses on a fine-grained study of denotational figures while chapters 5 and 6 are devoted to attitudinal figures of thought.

- In addition, we make special emphasis on conceptual complexes, which had traditionally been discussed only in connection with metaphor and metonymy. We explore the way in which different cognitive models and especially cognitive operations fruitfully combine in order to create interesting meaning effects.

In sum, this book offers a fine-nuanced analysis of figures of speech in terms of cognitive operations, developing further the preliminary insights found in the works by Ruiz de Mendoza and his collaborators cited above. This will allow us to give the production and interpretation facets of figurative language their due place within the field of figurativeness and to study the nature of related figures of speech.

CHAPTER 3. FOUNDATIONS OF COGNITIVE MODELING

3.1. Cognitive models

We shall define cognitive modeling as the activity of cognitive operations on cognitive models. Most readers will be familiar with the notion of Idealized Cognitive Model, or ICM, propounded decades ago by Lakoff (1987). An ICM is any knowledge structure that people use to make sense of the world in terms of their internal or external experience. They are idealized because they involve an abstraction of world properties. They are cognitive because they result from the brain's activity. They are models because of their representational nature. According to Lakoff (1987), there are several ICM types: propositional ICMs (or frames), image-schemas, metaphor, and metonymy. As noted in Ruiz de Mendoza (2017a), metaphor and metonymy, which we have examined in section 2.8.1, are typically constructed on the basis of frames and image-schemas. The present section will address these two latter structures.

Frames were originally put forward by Fillmore (1982, 1985). They capture our knowledge of objects, and their properties and relations within contexts (see also Fillmore and Atkins, 1992 and the FrameNet project developments as summarized in Fillmore et al., 2003 and Boas, 2005, and the collection of studies in Gamerschlag et al., 2014). As a straightforward example of a frame, think of playing soccer. Soccer is a game played on a playfield by two contending teams of 11 players each. The players of a team try to score a goal by kicking, heading or otherwise pushing a ball into the opponent team's net with any part of the body other than the arms and hands. Players have defense and attack roles and one of them acts as the goal-keeper, whose function is to prevent the ball from

entering the goal. A referee, assisted by two other referees, is responsible for enforcing the laws of the game. This is not a detailed description of the game but it is enough to illustrate the nature of a frame. The teams, the players, the referee, the field, the ball, and the net are frame elements. Each frame element is a frame on its own, but it is its relation to the frame to which it belongs that makes it meaningful. Frames relate to one another through an elaborate system of frame-to-frame relations. Thus, a frame maybe a subframe of another frame (the teams attacking and defending positions are subframes of the soccer playing frame) or inherit from another frame (the soccer frame inherits from the competition games frame). There are other more abstract relations such as the causative and inchoative that, while not immediately apparent, may underlie the relations between subevents of an event. Thus, scoring more goals than the opponent causes a team to win. So, the relationship between scoring and winning is causal in terms of the rules of the game. Then, during the game, each team may be at times winning and at other times losing. The alternation between winning and losing is in an inchoative relation to finally winning or losing.

Image-schemas were first proposed by Johnson (1987). These are highly schematic topological characterizations created by humans before they are born. Some examples are container-content relations, part-whole relations, near-far relations, spatial orientations, motion along a path, force and counterforce tensions, balance, and iteration. Mandler (2004) has argued that image-schemas arise from sensory experience in the earliest stages of human development before concepts are formed. Then, once the recurrent patterns of sensory experience have given rise to image-schemas, these are used to construct other less primary conceptual characterizations. This means that image-schemas are the foundation of the conceptual system. Their schematic nature arises from the fact that they relate to sensory-motor experience. Because of their fundamental nature,

we are not aware of them, at least in the same way as we are aware of the objects, situations, and events that we are aware of in everyday thought and that give rise to lexical concepts (those with specific content). Some aspects of image-schematic knowledge are captured by language through non-lexical concepts. For example, some English prepositions are based on the notions of container (*in*, *out*), path (*along*), and surface (*across*).

Image-schemas are endowed with an internal logic (Lakoff, 1993). For example, if an object is in a container, it cannot be out at the same time. Also, the interior of a container provides protection from conditions in the exterior, as is the case of a shelter, but it can also restrict our freedom to move (e.g., a jail) (Peña, 2003, pp. 59-62). They are embodied in the sense that they arise from how we interact with the world (Hampe, 2005) and they relate to one another in different ways (Peña, 2008). For example, the path and motion schemas are dependent on each other: a moving object either follows or creates a path and even though we can see a path with no moving object traveling along it, our own visual scanning of the path creates a simulation of motion. This is the likely origin of what Talmy (2000) termed *fictive motion*, a situation in which a motion verb applies to a stationary verb, as illustrated by language uses like *The trees line up along the road* and *The fence goes around the yard*.

Image-schemas have been noted to underlie some forms of abstract thinking and reasoning. A case in point is metaphorical thought. For example, we can think of states as if they were containers that we can enter or get out of, as in *He went into a depression but he's coming out of it*, *Tobacco use has fallen into and out of popularity*, *He slipped into a coma and he never pulled out*. These expressions combine the notions of path, motion, and container to talk and reason about changes of state in terms of changes of location. As has been noted by Lakoff and Johnson (1999), this metaphor is grounded in

our experience of correlating certain states with certain locations. For example, we feel cool in the shade, warm in bed, or safe at home. Naturally, changes of location can correlate with changes of state. Thus, we can experience the heat of the day when we get out of shady spots, we can feel cold when we get out of bed, and we may feel unsafe when we leave our homes. These and many other experiences are related to embodied spatial and motor programs, whose impact on language understanding and on reasoning has been investigated empirically by such scholars as Boroditsky (2000), Casasanto and Boroditsky (2008), and Matlock (2004) (see Gibbs, 2006a for a comprehensive review).

The label Idealized Cognitive Model is now part of the standard terminology of Cognitive Linguistics. Although there is nothing wrong in using the notion of concept, there are at least two good reasons to introduce Idealized Cognitive Models into a linguistic account. The first reason is a matter of scope. Traditionally, a concept is a mental representation that captures relevant aspects of objects, properties, states, events, and situations at different levels of abstraction. Concepts have been argued to engage with other concepts in sense relations of hyponymy, synonymy, antonymy, meronymy, and the like (Cruse, 1986; Cann, 2011). However, such relations are frequently analyst's impositions of conceptual isolates rather than natural meaning relations. Work in cognitive science has shown that categorization and property attribution is based on our bodily interaction with the world. Physical, cognitive, and social embodiment ground our linguistic conceptualizations (Rohrer, 2007). Fillmore's frames address these forms of embodied interaction thereby providing rich conceptual characterizations where objects and their properties are seen in the light of their contextualized relationships with other objects and their properties. Consider some of the many ways in which we can think of a flag. We can think of a flag as a colored piece of cloth in the context of making fabrics. But we know that a flag can be symbolic of a country. A flag can take on this value in

other contexts. Compare the same flag, say the British Union Jack, in a school courtyard and on a warship. In both contexts, the same flag stands for the same country. But in the school yard, the country flag acts as a reminder of the educational and civic standards of the country, while in the warship, the country flag draws our attention to potential or real military action in defense of the interests of the country that it stands for. Evidently, the same object can be seen from different perspectives, each of which impinges on how we interpret the world. That is, our mental representation of entities or states of affairs goes beyond the world of designation (i.e., matching concepts and what they can or do refer to) into that of interpretation. The existence of different perspectives of the same object can affect their use. For example, a flag can be used as a sign of warning. This is an extended use of this notion. It is grounded in the fact that flags are commonly placed in highly prominent places where they are visible. That is why when an item in a folder is flagged there is no connotation of patriotism. On some occasions, more than one feature may be argued to play a role in the way we use a term. For example, a *flagship* is a lead vessel that carries the commander of a fleet. It is entitled to fly a distinguishing flag, which makes it visible. Since the flag on the ship stands for the country that the ship serves, the term *flagship* combines perceptual prominence and patriotism. However, the perceptual component is likely a more important ingredient in this conceptual configuration, too, as is for *flag*. This is evidenced by the extended use of the term *flagship* to designate the best or most important product of an organization. Examples of this use are expressions like *a flagship hotel*, *a flagship financial group*, *a flagship Android phone*, and *a flagship Starbucks store*.

The previous observations take us to the second reason why the notion of Idealized Cognitive Model is useful for linguistic analysis. As the discussion on *flag* reveals, there are two ways to carry out interpretation. One takes place by linking a

coherent mental representation to other representations that are not part of the meaning that we use to categorize an entity or a state of affairs as such. Thus, a flag can be an emblem or a warning sign (or even both) depending on the context in which it is used. The other way to carry out interpretation involves re-construing the object or state of affairs denoted by the linguistic expression. In Lakoff (1987), only metaphor and metonymy are mentioned in this respect, probably because both are discussed as conceptual mappings. Remember that metaphor makes use of source-domain properties and logic to reason about a target, while metonymy provides access to the target from the perspective of the source domain. Both metaphor and metonymy produce mental representations of items in the world of our experience, i.e., they play a role in organizing knowledge. In this book, however, we extend the creation of cognitive models beyond the sphere of metaphor and metonymy. To give some preliminary illustration of why this is important, take a common example of hyperbole. Take the sentence *These shoes are killing me* in a context in which the speaker is trying to show the extreme nature of his or her discomfort. Evidently, exaggeration is used for reasons of meaning impact. But we may wonder about how such impact is produced. In our view, it arises from applying the logic of an imaginary situation –created by exaggerating some of its elements beyond proportion– to a corresponding real-world situation. This view has been discussed in Ruiz de Mendoza (2014b) and Peña and Ruiz de Mendoza (2017). In this example, it has the function of reasoning about the degree of physical harm that the shoes cause to the speaker in terms of the extreme pain that a person may experience when being killed.

Hyperbole – because of its nature as a mapping – and metaphor are close allies in making meaning. A straightforward example is provided by the use of the word *angel* in *She is an angel* to refer to a selfless, generous, and benevolent person. This use of this word maps angels with their culturally attributed kind behavior to people with

corresponding behavior. However, human behavior can never match an angel's behavior, which makes this metaphoric connection intrinsically hyperbolic. Understanding human kindness in terms of angelic kindness, where the former is real and the latter is unreal, is both metaphorical and hyperbolic. The result is highly impacting from a communicative perspective.

The possibility to achieve hyperbolic effects through metaphor can give rise to complex interaction situations with correspondingly complex meaning effects. Consider the following example of hyperbole taken from Shakespeare's Sonnet 99:

The forward violet thus did I chide:

Sweet thief, whence didst thou steal thy sweet that smells,

If not from my love's breath?

In this sonnet, Shakespeare imagines that his lover's breath is the actual source of the sweet smell of a violet. If we follow real-world parameters, it is not possible for the smell of the lover's breath to be as sweet-smelling as a violet. But it is possible in the poet's own world, where love overcomes reason. In this imaginary (also irrational and factually impossible) world, the poet depicts himself as if he had unraveled the mystery for the pleasant smell of the violet: the violet has drawn its scent from the poet's lover's breath. In nature scents can be transported to other places that may thus become impregnated with them. The poet presents this natural event as if it were a willful action where the violet steals the scent. This part of the poet's depiction achieves its hyperbolic effect by means of a metaphor whereby a natural event is treated as an action (cf. Lakoff, 1993, for other examples of EVENTS ARE ACTIONS). At the same time, understanding the smell of the lover's breath as if it were the smell of the flower supplies another hyperbolic effect that hinges on the previous hyperbolic metaphor. Finally, although only incidentally interesting for the present observation about metaphor and hyperbole, the two hyperboles

and the metaphor are embedded within a global metaphorical frame constructed by means of personification (the poet reprimands the violet accusing her of stealing his lover's scent).

As has been evidenced in our discussion so far, ICMs can be the result of various kinds of structuring principle operating on conceptual domains. One kind, which results in the creation of frames, is what Lakoff (1987) identified as propositional structure or sets of predicate-argument relations. A second kind is topological structure, which holds for image-schemas. Then, a third kind is conceptual mappings or sets of conceptual correspondences either within or across domains. According to Lakoff (1987), cross-domain mappings hold for metaphor while domain-internal mappings are characteristic of metonymy. However, as noted above, hyperbole is also based on a cross-domain mapping of conceptual structure. Since hyperbolic and metaphoric meaning are noticeably distinct (even though they may combine), there is evidently more than just a conceptual mapping at work when using these figures to communicate. In the following sections, we put forward a solution to this problem. This solution, which requires a modification of Lakoff's classical proposal, comes by the hand of a reconsideration of what is meant by structuring principles, which, for reasons that will be clarified in 3.2, we will prefer to discuss as specific cases of the broader concept of *cognitive operations*, and by a more refined approach to the notion of ICM. We will start with the latter, since ICMs provide the groundwork for the meaning-making activity of cognitive operations.

3.1.1. A taxonomy of cognitive models

At this stage, two observations are in order. The first observation is a rather trivial one. It is about thinking of organized knowledge as idealized. This part of the label coined by

Lakoff (1987) suggests some sort of standardization that ignores specific aspects of the real world that may be apparent for some individuals and not for others (Cienki, 2007, p. 177). While it is true that understanding is selective and that every individual has a different understanding of the world, it is also true that communication would not be possible if we were unable to make mental representations of what we believe other people think about the world and if our cognitive mechanisms did not allow us to enrich our mental representations as needed to match other people's representations. Rather than "idealize" conceptual structure, what we do is schematize it in such a way that they can be enriched and readjusted when used. This is a point that was made by Fillmore (1982, 1985) and was taken up by Langacker (1987) (see also Langacker, 2008, p. 17). By schematization, Langacker refers to deriving conceptual structure shared by multiple experiences that the mind identifies as portraying a certain object, situation, or event. The result is a higher-level representation in different degrees of abstraction. For example, a *ring* is an adornment worn on the finger but, more generally, it is any round object worn as an adornment on the body. The value 'circular adornment worn on the body', Langacker observes, is more schematic than 'circular piece of jewelry worn on the finger'.

Investigating our ability to adjust conceptual structure is essential to understand, in turn, why it is schematized. One of the main purposes of conceptualization is interactional. We need to know what others think or know, but we can fail to make the right assumptions about other people's mental representations. Communication systems are equipped for this purpose through intuitive elicitation techniques, referred to as *repair strategies* (Schegloff, 2000). These are but a form of *meaning negotiation*, as studied in discourse analysis (Langlozt, 2015). The examination of language use thus reveals that the concepts underlying linguistic expressions are shared in varying degrees by the

members of the societies that have produced them. The issue is very complex since ultimately conceptual structure results from a combination of social, cultural, and biological patterns. As proponents of the embodiment hypothesis have noted, the mind does not work in isolation from perceptual and bodily parameters (Gibbs, 2006a). Motor-sensory perception is probably an initial constraining factor in conceptualization, which is then further constrained by socio-cultural convention. Take our understanding of time, which is predominantly metaphorical across languages, as studied by Moore (2014ab. There is an interesting universal constraint on our metaphors for time. We can think of time as a moving entity (*Christmas is approaching*) or we can think of ourselves as moving in relation to time (*We are approaching Christmas*). These two perspectives, called the Moving Time and Moving Ego respectively, are choices open to specific uses across languages. The underlying reason for the Moving Ego is connected to our motor programs: as we cover greater distances, more time goes by and we feel closer to the future. The Moving Time, on the other hand, brings an event (called up by the time in which it takes place) and its conditions to the observer's position as any natural event (e.g., a tempest in *The tempest is getting closer*) could do. Furthermore, the Moving Time metaphor can be used to express sequence as relative position on a path. For example, in *Spring follows winter*, winter is envisaged as arriving first at our position, while spring arrives later since it proceeds behind winter. In this interpretive situation, the Moving Time metaphor is used to express sequence in the future. Interestingly, in his study of typologically diverse languages, Moore (2014b) notes that, when there are two movers, there is only a forward direction of motion, which is the Moving Ego direction, and never the opposite direction. This typologically significant fact is likely a consequence of our difficulty to track two "nows" while it is easy to think of two different points in the future. Note that in the Moving Ego metaphor, the "ego" is the present and the future is "ahead"

of the ego. This bodily constraint is so powerful that it preempts socio-cultural factors from playing any additional role.

In view of the discussion above, since what we store in our minds are schematic representations of the world, ready to be enriched and adjusted, we will simplify the traditional label and refer to such representations as *cognitive models*.

The second observation, which is of greater consequence, is about the *operational* nature of metaphor and metonymy versus the *non-operational* nature of frames and image-schemas. This is a point that has been made in Ruiz de Mendoza (2017a). Frames and image-schemas are the object of metaphoric and metonymic activity but not the other way around. In fact, a frame can be re-construed, and its meaning extended, by means of metaphor or metonymy, as has been repeatedly investigated in connection to polysemy (e.g., Cuyckens and Zawada, 2001). To give an easy example, consider the connection between *bull* as a noun, meaning 'an adult male bovine animal', and as a verb meaning 'to push ahead or through forcefully', as in *He bulled through the reeds*. The verbal meaning is obtained through a combination of metaphor and metonymy. The metaphor (PEOPLE ARE ANIMALS) is based on mapping (selected) animal behavior onto human behavior. This highlights our understanding of bulls as powerful animals that can force their way through obstacles. This behavior is used to describe people that can use brute force to move forward overcoming obstacles. The metonymy is then constructed on the grounds of this metaphor to further extend the metaphorical capacity of people described above to acting on such a capacity (AGENT FOR ACTION). Image-schemas can also be re-construed. In this connection, Lakoff (1987) discussed image-schema transformations. For example, the 'motion along a path' image-schema, which takes a curved-upward shape with the preposition *over* (*John walked over the hill*), can be "transformed" into a subpart of it, the 'end-of-path' schema in the expression *He lives over the hill*. As a matter

of fact, this transformation is but the result of a metonymic operation (Peña and Ruiz de Mendoza, 2009; Ruiz de Mendoza, 2017b) according to which the image-schematic configuration of curved upward motion along a path to its end stands for the end of path.

The two observations made above lead us into a separate discussion of non-operational and operational cognitive models. The latter will be taken up in 3.2, where metaphor and metonymy will be broken down into more basic constituting operations that serve representational purposes by supporting language-based inferential activity. Now, let us address the former, of which the reader may find a preliminary account in Ruiz de Mendoza and Galera (2014, ch. 3).

Ruiz de Mendoza and Galera (2014) have noted that non-operational cognitive models agglutinate frame-like characterizations and image-schemas by regarding the latter as part of the primary level of organization of knowledge. The primary level is the level that arises directly from our sensorimotor experience, so it extends beyond topological configurations into such domains as shape, size, weight, color, temperature, speed, etc. This level is to be differentiated from the low and high levels of knowledge organization. Low-level cognitive models are non-generic conceptual structures that capture the properties of objects, events, situations, or states, and their relations. Such conceptual structures are stored schematically in our minds and they can be enriched as necessary when used for any cognitive activity, whether it involves language or not (e.g., silent recall of objects or situations). They are considered non-generic to the extent that it is possible to abstract away from them information that is common to other characterizations of the same level. For example, the concept of swivel chair is more specific than the concept of chair, which is more specific than furniture. But none of these less specific concepts are high-level ones, since it is still possible to draw generic-level structure from them. Even the least specific of these three characterizations, the notion of

furniture, shares properties with other encompassing categories such as vehicles, publications, or buildings, which hold for a wide range of more specific categories. Only notions such as object, action, process, state, situation, event, and their constituting elements (e.g., agent, patient, instrument, location, cause, effect, for the action frame) qualify as purely high-level categories. Because of their high-level nature, which makes them highly schematic and intuitive notions, there is a strong universal tendency to reason about these concepts metaphorically in terms of primary and low-level categories. Many of these metaphors have been studied under the label of the *event structure* system. Some of them are: ACTIONS ARE TRANSFERS OF POSSESSION (*He gave John a kick*), STATES ARE LOCATIONS (*I'm in trouble*), STATES ARE POSSESSIONS (*I have a problem*), and CAUSES ARE FORCES (*That pushed me into a depression*).

High-level cognitive models should not be confused with abstract concepts. Abstract concepts do not arise via generalization. What characterizes them is having properties that are not immediately accessible to sensory perception. We do not have motor programs for them, either. Specific feelings and emotions are a case in point. They are part of our experience, but we envisage them as subjective and only perceptually accessible in an indirect way by means of inferences based on an examination of their symptoms in our behavior. Thus, we know that people are angry because we observe the physiological and behavioral effects of anger like the reddening of their faces or violent and aggressive reactions. High-level cognitive models are of interest for grammar. Think of traditional discussions of semantic roles or functions, such as agent, patient, instrument, and the like, introduced in linguistics by Gruber (1965), and Fillmore (1968). An agent is the entity that deliberately performs an action, a patient undergoes the action and changes its state, and an instrument is used to perform the action. The question of what these and other semantic roles do is capture meaning structure that certain types of

entities have in common. They are derived through generalization: a person that kills, hits, kisses, etc., another person is an agent; the person that is killed, hit, kissed, etc., is a patient; the object used to kill, hit, kiss, etc., the patient is the instrument. This simple observation places cognitive models at the core of grammatical description. Thus, agents are typically realized as the subject of sentences, but when they are not, the resulting mismatch between semantic role and syntactic function has meaning consequences. A case in point is supplied by the English inchoative construction (Levin, 1993), which involves the "promotion" of the syntactic object to subject position and intransitivization of the verb: *The door opened* (cf. the causative *The wind opened the door*). The inchoative construction "deprofiles" the agent of the action (cf. Goldberg, 2006) while endowing the object with agent-like qualities. This is precisely possible because of the assignment of subject status to the semantic object.

It is interesting to note that, as with high-level cognitive models, in order to talk about abstract models, even if they are low-level categories, we make use of metaphors whose source domain is rooted in perception and motion. For example, we talk about anger in terms of its symptoms. In Lakoff (1987, p. 383), citing joint work with Kövecses, and in Kövecses (2000, 2008) there is a detailed explanation of the metaphor ANGER IS HEAT and related ones. ANGER IS HEAT can be considered a correlation metaphor where the effects (the external signs) and their causes are mixed up in our minds. This is a very common phenomenon in figurative language, which will be explored in much more detail when we deal with figures such as hypallage (section 4.8.1) and synesthesia (section 4.7.4), and when we study metaphor-metonymy interaction in some cases of zoomorphism (section 4.7.2).

Ruiz de Mendoza and Galera (2014, pp. 66-74) make a further distinction between *non-situational* and *situational* cognitive models or *scenarios* (see also Ruiz de Mendoza,

2014c). The latter are conventional series of events that are coherently related to one another. By contrast, the former capture properties of entities and, when applicable, their relations conceived in isolation from situational contexts. Non-situational models can be *scalar* or *non-scalar*. Scalar categories are conceived in terms of relative level or degree. Any specification of weight, size, speed, quantity, frequency, or probability is scalar. Non-scalar models consist of two possible subcategories: *eventive* if the relations between entities are dynamic (e.g., *destroyed* in *The flood destroyed the bridge*) or *non-eventive*, if there is a non-dynamic relation (e.g., *stood* in *The king stood by the pillar*) or only attributed properties (e.g., *being tall* in *Your son is tall*). Eventive models can be causal (e.g., *breaking*) if the event described is conceived as being brought about by one of its participant entities. Otherwise, eventive models are non-causal (e.g., *running*). When non-eventive, cognitive models can be subdivided into relational and non-relational. Non-relational models refer to physical (e.g., *bottle*) or non-physical (e.g., *dream*) entities together with their properties (e.g., *big*) including their non-scalar primary image-schematic structure such as their shape, smell, taste, or color. Relational models capture logical connections (e.g., reason-result) or natural associations, from various perspectives (e.g., *have*, *belong*), between non-relational cognitive models. Finally, relational models can be further subdivided into controlled and non-controlled. The notion of control, which is inherent in eventive causal models, is defined as the ability to determine whether a state of affairs holds or not. Any causal action, whether carried out by a willful entity (*The army destroyed the city*) or by a natural force (*The hurricane destroyed the city* and *The enemy destroyed the city*), involves the idea of control of the agent or force over the event denoted by the predication. Non-eventive relational models can be controlled if the state of affairs designated by the linguistic expression obtains because of someone's will, like

possession relations (*have*) and postures (*squat*), or because of logical necessity (*reason-result*, *cause-consequence*).
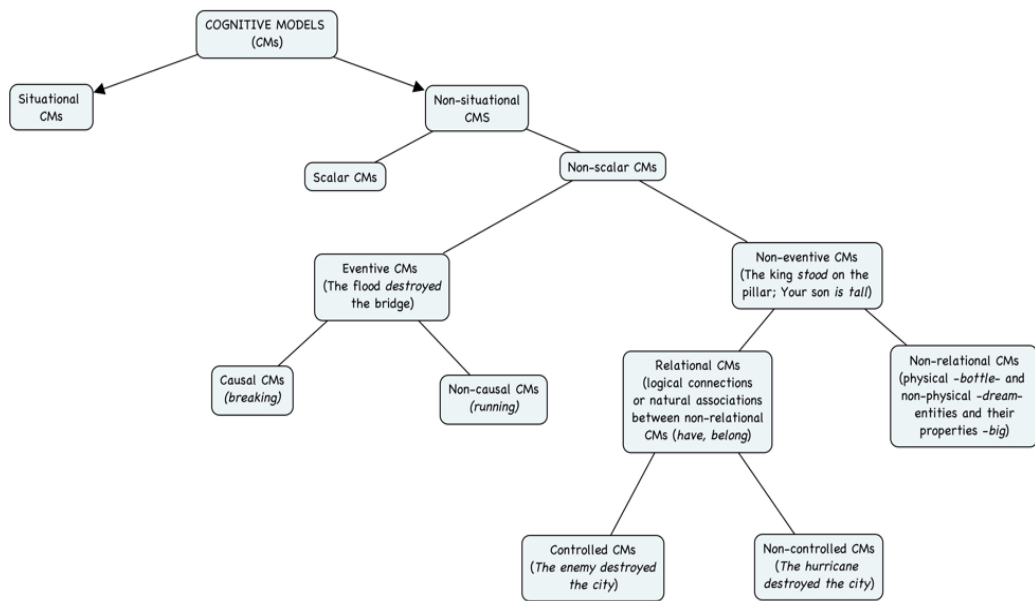
Figure 1. Situational and non-situational cognitive models

The need to make these distinctions arises from their productivity to account for the various meaning-making processes that transpire from the observation of language use, including, of course, figurative language. Let us address this issue in some more detail.

3.1.1.1. Primary, low, and high levels

The primary and low levels of conceptualization give rise to non-generic and non-abstract cognitive models. Primary models are basic knowledge schematizations directly grounded in our sensorimotor experience, while low-level models refer to specific objects, situations, events, processes, and actions that are accessible to perception or to motor interaction. With few exceptions, each of these levels of conceptualization interacts with the cognitive model types briefly described in the previous sections. These are some examples of categories arising from such an interaction:

- Primary, eventive, causal: caused-motion, force, counterforce.

- Primary, eventive, non-causal: motion, change.

- Primary, non-eventive, relational, controlled: *have, keep, stop*.

- Primary, non-eventive, relational, non-controlled: *be, belong*.

- Primary, non-eventive, non-relational: shape, path, control.

- Primary, scalar: size, quantity, anger.

- Low-level, situational: going to the dentist, gambling, riding a bike.

- Low-level, eventive, causal: *break, kill, destroy*.

- Low-level, eventive, non-causal: *die, live, slip*.

- Low-level, non-eventive, relational, controlled: *own, stand, stay*.

- Low-level, non-eventive, relational, non-controlled: *lose, win*.

- Low-level, non-eventive, non-relational: *chair, cat, tree, rock*.

- High-level, situational: begging, promising, threatening.

- High-level, eventive, causal: action.

- High-level, eventive, non-causal: process, activity.

- High-level, non-eventive, relational, controlled: reason-result, cause-effect, possession.

- High-level, non-eventive, relational, non-controlled: *happen*.

- High-level, non-eventive, non-relational: entity, state, circumstance.

There are no low-level or high-level scalar concepts. Such specifications are primary since they arise from sensorimotor experience. Non-scalar concepts, however, can occur at the primary, low, and high levels of organization.

3.1.1.2. Non-situational and situational cognitive models: Descriptive, attitudinal, and regulatory scenarios

This distinction is of great importance to understand much of our language-related inferential ability. This happens because situational models, or scenarios, are complex.

They are comprised of series of events and they may be part of larger situational models. Think of reading a magazine. This model contains at least a person sitting or standing while holding a magazine in his or her hands, reading some its contents, and turning over the pages. When the person has finished, he or she will leave the magazine somewhere, typically in a magazine rack, but it could be on a table, on a sideboard, in a drawer, etc. For a person to be able to read a magazine, someone must have bought it. We can read magazines in our homes, in a public library, or in a waiting room, to name a few places. The place provides us with an expanded situation in which magazine reading plays a role. For example, if we are in the waiting room of a dentist's office, we may read a magazine as part of the broader 'going to the dentist' scenario. This scenario includes (but is not limited to) making an appointment with the dentist, going to the dentist's office, waiting for one's turn, getting our teeth fixed, paying for the treatment, and leaving. Now, take the brief exchange in (1):

(1)   A. Were you stressed about your dental work?

            B. I read all the magazines while in the waiting room.

B's response in this exchange suggests that B was stressed. This inference is based on our knowledge about human reactions in combination with the 'reading a magazine' model within the context of the broader 'going to the dentist's' scenario. The inference is the result of a chain of metonymic mappings.[4] In the first one, the reading a magazine model, which is directly activated by B's response, affords access to the waiting room at the dentist's office, which in turn activates the whole 'going to the dentist' scenario. The next step maps this broader model onto a relevant part of it, the one where the dental work – which is associated with its aftermath of numbness and pain– is carried out. This

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[4] For a detailed analysis of the metonymic grounding of descriptive, attitudinal, and regulatory scenarios, the reader is referred to Ruiz de Mendoza and Galera (2020).

metonymic chain can be spelled out in terms of a premise-conclusion reasoning schema as follows:

- Premise (implicit assumption): People often read magazines in the waiting room of a dentist's office so as not to get bored or for other reasons like to calm down if stressed about the dental work they are going to have done.

- Explicit assumption: B read all the magazines while in the waiting room of a dentist's office.

> Conclusion (implicated assumption constrained by A's question): B was stressed about his/her prospective dental work.

B's response helps construct the premise that contains both the explicit assumption (which is drawn from the content of B's response) and the conclusion. The explicit assumption and the conclusion are thus subdomains of the premise. The first metonymy maps the explicit assumption onto the premise, which is then mapped onto the conclusion. Sometimes, inferential activity requires two reasoning schemas in a chain. Consider exchange (2) also in the context of the 'going to the dentist' scenario:

(2)   John: Was your complicated dental work successful?

        Mary: Oh, Dr. Weber is the very best!

FOCUS ON ABILITY

- Premise 1 (implicit assumption): Complicated dental work can only be done successfully by very good dentists.

- Explicit assumption: Dr. Weber is a very good dentist.

- Conclusion 1 (implicated assumption): Dr. Weber can perform complicated dental work successfully.

FOCUS ON ASSESSED RESULT

- Premise 2 (implicit assumption): Mary needed complicated dental work.

- Previous implicated assumption: Dr. Weber can perform complex dental work successfully.

- Conclusion 2 (implicated assumption): Mary's complicated dental work was performed successfully.

This inferential chain consists of two premise-conclusion patterns where the conclusion of the first pattern becomes the explicit assumption of the second pattern. The 'going to the dentist' scenario is here narrowed down to its most relevant part as cued by John's question to Mary in the conversational exchange: the dentist's work on a patient's teeth. The first pattern focuses on the ability component of this action part of the scenario, while the focus of the second pattern is on the result component. This double focus identifies the initial and the final subdomains (the dentist's ability and his or her successful treatment of the patient) within the action frame of the underlying metonymic chain, which can be labeled ABILITY FOR ACTION FOR RESULT. 'Going to the dentist' is a *descriptive* low-level scenario. It is descriptive to the extent that it is envisaged as a scripted sequence of low-level actions, i.e., actions based on concrete experience with objects, situations, and events. Emotional reactions can be part of this descriptive nature. For example, it is common for many people to dislike going to the dentist because of the potential discomfort that the dentist's practice may cause on them. The emotional reaction can be expressed in different ways. In (2) above, Mary's response (*Oh, Dr. Weber is the very best!*) reveals a positive reaction to the part of the script where the dentist treats the patient. Other less positive reactions could have been possible in the same scripted context: *My mouth felt numb for hours*; *It was a painful procedure*; *How I hate the sound of the drill!* Emotional reactions are also captured by scenarios, which we call *attitudinal*. These scenarios can combine with relevant parts of descriptive scenarios, much like one descriptive scenario can be embedded within another descriptive scenario, as we noted

above (e.g., reading a magazine within the waiting room is part of the 'going to the dentist' scenario).

Attitudinal low-level scenarios capture emotional (or otherwise attitudinal) responses that speakers generally have in the face of certain situations and events. An example of this latter kind of scenario is the idea that 'someone is doing something wrong' (usually something that bothers us or that we find worrying). This scenario has made its way into language. It underlies the well-known *What's X Doing Y?* construction (e.g., *What's John doing knowing Mathematics?*) (Fillmore and Kay, 1999) and other related configurations such as *Who's Been VP-ing (Y)?* (e.g., *Who's been messing with my laptop?*), *What's X Been V-ing Y?* (e.g., *What's he been doing with my money?*), and *Where's X Been (V-ing) Y?* (e.g., *Where's he been (hanging out) all this time?*) (cf. Ruiz de Mendoza, 2015). Each of these constructions profiles the same attitudinal scenario, which we can describe as follows:

a. The speaker is aware of (e.g., by being a witness to) what the actor is doing.

b. The speaker believes that the actor is doing something wrong.

c. The speaker feels bothered by (b).

d. The speaker believes that the hearer either shares or should share assumptions (b) and (c) with him.

e. The hearer believes assumptions (a)-(d) to be the case.

The *What's X Doing Y?* construction has become entrenched to convey the idea that the speaker thinks that something is wrong with the state of affairs denoted by the 'X is doing Y' element of its form. This idea is part b (the core part) of the attitudinal scenario. According to Kay and Fillmore, this construction has several formal properties:

- It needs the verb *do* in gerund (cf. **What's your sister working for the state?*)

- *Doing* has no inherent progressive aspect (cf. *What's your sister doing knowing the answer?*, **She is knowing the answer*).

- It cannot take the modifier *else* (**What else is your sister doing working for the state?*)

- The main verb is *be* (**What does your sister keep doing working for the state?*).

- *Doing* cannot take the negative form (**What's your sister not doing working for the state?*), but its complement can (*What's your sister doing not going to work today?*)

In our view, the motivation for these formal properties can found in the inferential exploitation of the low-level attitudinal scenario. First, we have the verb *do* in gerund. This verb is highly generic (i.e., it calls up a high-level action). The reason for this is item (a) in the attitudinal scenario. By default, specific verbs in a question with *what* give rise to information questions (e.g., A: *What's your sister working on in the lab?* B: *She's just mixing chemicals*). Generic *do*, however, directs the hearer's attention to the general nature of what is described, as in *What's your sister doing working in the lab?* Here, the speaker takes for granted that the hearer's sister is working in the lab. That information is not needed. Since working is a form of "doing", it is evident that the question is not about what the hearer's sister is doing either, which discards any descriptive scenario as being relevant for interpretation. The only solution is the activation of an attitudinal scenario. In theory, this scenario could be either positive or negative. However, the negative interpretation has been favored by speakers, probably for politeness reasons. The cultural expectation is to convey positive meaning explicitly and leave negative meaning to be worked out inferentially. As for the use of the gerund, this form is necessary to make the hearer aware that the speaker is either a present witness of the action or can build a picture of it in his mind as if it were taking place.

The second formal property of the *What's X Doing Y?* construction is the fact that *doing* (and whatever more specific verb follows it) is not necessarily progressive. That is,

this construction holds not only for actions taking place but also for any state of affairs, whether dynamic or not:

(3)   A. What's your sister doing knowing the answer?

        B. *She is knowing the answer

This meaning, as exemplified by (3), arises 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').

The third formal property is about the impossibility of using *else* with the construction. Consider the examples in (4) in this connection:

(4)

    *What else is your sister doing working for the state?

    *What else is your sister doing in the lab?

This characteristic is a natural consequence of the speaker's focus on the state of affairs that holds at the time of speaking (i.e., the one being witnessed). This focus is incompatible with the meaning of *else* as 'in a different or additional time, place, or manner'.

A fourth property is the use of *be* as the main verb. This is only natural since the verb *be* is neutral in terms of ingressive, egressive, and continuative aspect. The "rhetorical" question reflects the speaker's attitude on the whole event, not one part of it:

(5)

        *What does your sister keep doing working for the state?

        *What does your sister start/finish doing working for the state?

The fifth property is about the fact that *doing* cannot take the negative form, although its complement can. The reason for this is that 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:

(6) *What's your sister not doing working for the state?

The complement can be negated because it is part of the state of affairs described:

(7) What's your sister doing not going to work today?

To these properties listed by Kay and Fillmore (1999), we can add one more observation. Note that the less elaborated the Y part, the more ambiguous the sentence is in terms of its rhetorical or non-rhetorical status, as in *What's your sister doing?* The Y part can be elaborated in one of two ways, by detailing the context, as shown in the examples in (8), or by parameterizing the generic value of 'doing', as in (9):

(8)   a. What's your sister doing in the lab? Is she still working?

         b. What's your sister doing in the lab at midnight? Is she still working?

         c. What's your sister doing in the lab at midnight with her boyfriend? Is she still working?

(9) What's your sister doing working (in the lab)/messing with my iPhone/dancing (a polka)?

All these formal properties cooperate to call up part (a) of the attitudinal scenario, which gives access to all of it and then to (b) as its core. For example, think of a *What's X Doing Y?* question like *What's your sister doing working in the lab at midnight?*, whose Y part is so highly elaborated that it ineludibly marks off its status as a rhetorical one. The question is thus a description of a state of affairs that the speaker considers to be wrong. This meaning implication arises from the following reasoning schema, which is also based on metonymic thinking:

FOCUS ON PRELIMINARY EVENT:

- Premise 1 (implicit assumption): People do not ask for information they have.

- Explicit assumption (based on the content of the expression): S asks about H's sister's behavior, which is evident to both.

- Conclusion 1 (implicated assumption): S is not asking about H's sister's behavior but likely drawing attention to it.

FOCUS ON THE RESULT

- Premise 2 (implicit assumption): People draw attention to other people's behavior when they find it worth someone's attention.

- Previous implicated assumption: S is likely drawing H's attention to H's sister's behavior.

- Conclusion 2 (implicated assumption): S finds H's sister's behavior worth H's attention > activate a plausible scenario that will account for why H's sister's behavior is worth H's attention; e.g., the 'someone is doing something wrong' scenario.

As was noted above, a reasoning schema is a premise-conclusion pattern where the conclusion is contained in the premise. The conclusion is the part of the premise that has not been directly denoted by the linguistic expression or by previously implicated information. In the present example, the chained reasoning schema is preparatory for the activation in its last inferential step of the 'someone is doing something wrong' attitudinal scenario, which has a special focus on the existence of a problem and on the speaker's negative attitude to it.

On a final note for this section, we will discuss in some brevity the existence of regulatory scenarios. These have been treated in previous work by Ruiz de Mendoza and Baicchi (2007) and Ruiz de Mendoza and Galera (2014) under the labels of illocutionary scenarios, borrowed from Panther and Thornburg (1998), and high-level situational cognitive models, respectively. These models, which take the form of high-level generalizations over low-level scenarios (Baicchi and Ruiz de Mendoza, 2010), capture

socio-cultural conventions intended to regulate people's behavior (either others' or one's own). They thus underlie the creation of illocutionary values. In this approach, traditional directive, commissive, and expressive acts are regarded as part of a high-level socio-cultural convention called the Cost-Benefit Idealized Cognitive Model (Ruiz de Mendoza and Baicchi, 2007). We will now see how the elements of this cognitive model are obtained. But before we do so, we need to contextualize this proposal in connection to previous work on the cognitive modeling of speech act categories.

Think of the notion of 'requesting', which is widely recognized to be a directive speech act category long known to be attested across many languages (Sadock and Zwicky, 1985). This notion is built by abstracting conceptual structure from countless situations where people ask other people for objects or services. In classical Searlean speech act theory (Searle, 1969), a request is defined in terms of the following felicity conditions:

Propositional content condition: the requested act is a future act of the hearer.

Preparatory conditions:

1. the speaker believes that the hearer can perform the act;

2. it is not obvious that the hearer would perform the act without being asked.

Sincerity condition: the speaker genuinely wants the hearer to perform the act.

Essential condition: the utterance counts as an attempt by the speaker to have the hearer do an act.

Panther and Thornburg (1998) fashioned these conditions into elements of an illocutionary scenario. These elements are grouped into a "before" component, which specifies pre-conditions like the hearer's ability and desire to perform the act, a "core" in which the speaker puts the hearer under an obligation to perform it, and an "after", which

contains the expectation that the act will be carried out. Each of these scenario components can motivate different linguistic strategies to express illocutionary meaning:

BEFORE: *Can/can't you answer the phone?*; *Will/Won't you answer the phone?*

CORE: *Answer the phone, please*; *I'm asking you to answer the phone.*

AFTER: *Will you answer the phone?*; *You will answer the phone, won't you?*

Evidently, the ability pre-condition is part of the "before" component, the essential condition is the "core" component, and the propositional content condition is part of the "after" component. Searle's pre-condition according to which the speaker will not ask the hearer to perform an act that the hearer would perform without being asked has not part in the "before" part of the request scenario. We believe this exclusion is adequate, because making it part of the scenario would discard expressions in which speakers simply check on what they presume hearers will do, like *You will do that, won't you?,* which are covered by the "after" component. The sincerity condition is also absent from the scenario. We also think this is correct since we can have situations in which speakers may not genuinely want the hearer to perform the requested act, but are simply testing their willingness to do as told. Being sincere about the request is not as constitutive of the act as producing an act that the hearer recognizes as one that the speaker wants to be performed. The essential condition has been transformed into the obligation element in the "core" component. This is also adequate in view of the fact that Searle's essential condition is described in terms of what the utterance counts as, but a scenario is a conceptual construct. The core contains an "obligation" element, which is a social requirement arising from the speaker's authority to issue the request. In addition, this reformulation of the essential condition sorts out the circularity of saying that an utterance is a felicitous request, i.e., asking someone to do something, if the utterance counts as an attempt to get someone to do something. Another weakness of Searle's account is that the rest of the

satisfaction conditions are shared by other speech acts; e.g., an act of *ordering* will be absurd if the speaker knows that the hearer is unable to act as required, if he does not want the action to be performed, or if the act in question is not a future act. The satisfaction conditions are unable to clearly discriminate among different illocutionary values. This is not a problem for Panther and Thornburg's (1998) request scenario, since the "core" component captures the central aspects of the illocution while the rest of the components have a supportive role of these central aspects.

Despite de advantages of Panther and Thornburg's account over the traditional felicity conditions, there are some problems that need to be addressed. Pérez and Ruiz de Mendoza (2002) have noted that there are other variables that have been discussed in the literature on speech acts that also play a role in determining the kind of request:

- The power relationship between interlocutors.

- The degree of optionality conveyed by the illocutionary act.

- The degree of politeness required by the speaker-hearer relation.

- The degree of cost of the requested action for the hearer and of benefit for the speaker.

These variables relate in various ways. Here are some aspects of how these variables relate to one another:

- The forcefulness of a directive act increases with the amount of power of the speaker over the addressee.

- At the same time, the greater the forcefulness of a directive act, the smaller the degree of choice for the addressee to avoid acting as directed without directly challenging the speaker and the smaller the degree of politeness of the speech act.

- Directivity, as has been originally shown by Leech (1983), correlates significantly with cost to the addressee and benefit to the speaker.

- Politeness (or the lack thereof) in directives varies with the amount of choice that the addressee is given to refuse to act as required (commanding is intrinsically less polite than requesting than pleading).

It may be noted that the power, optionality, and politeness variables are all dependent on the degree of cost for the hearer (and benefit for the speaker) involved in the required act. Thus, requests are inherently costly to the hearer who will feel compelled to accept them to depending on the power of the speaker. When speakers have little or no power over the addressee, their requests are to be softer. Politeness strategies are mandatory in such situations. Some politeness markers in English are the adverb *please*, and tags like *can/will you?* Their function is to give hearers leeway to refuse to comply with the request (e.g., by means of an excuse). Since this interdependence of variables ultimately leads to the cost-benefit variable, it follows that this notion is more central to the definition of a request act than the others.

The question now is how the notions of cost and benefit and the components of Panther and Thornburg's request scenario relate. Requests, because of their directive nature, impose obligations on hearers, i.e., duties that they are expected to perform. Since duties are inherently costly to those that perform them and beneficial to those that impose them, the notions of cost and benefit directly relate to the "core" component of the request scenario. Indirectly, they also relate to the supportive "before" and "after" components, since speakers will avoid imposing obligations that they think are not going to be taken up (e.g., because of the hearer's inability or reluctance to do what the speaker wants) but will impose those for which there is an expectation of success.

In view of our discussion so far, it is evident that the notions of cost and benefit can enrich the "core" component of Panther and Thornburg's request scenario. It is also evident that, although linguistic expressions may directly exploit one or another

component, the three components are part of the resulting speech act meaning. This means that the sentence *Can you answer the phone?*, although focused on the hearer's ability, imposes an obligation on the hearer (the "core" component) and carries an expectation that the hearer will answer the phone, just as *Answer the phone, please*, or *You will answer the phone?*, which focus on the "core" and "after" components respectively. As a consequence, it is reasonable to account for requests not in terms of an illocutionary scenario like the one formulated by Panther and Thornburg, but in terms of its underlying high-level social convention. The formulation of this convention should take the form of a condition-consequence reasoning schema, since it will serve the purpose of producing pragmatic implications through metonymy-based inferential schemas like the ones described above for implicature-derivation based on descriptive and attitudinal scenarios. For requests, the convention includes the idea that we can expect people to give us help (goods or services) if they detect our needs. It is for this reason that a mere statement of needs, which in principle is only preparatory for a subsequent request, i.e., a so-called pre-request (Schegloff, 1988, p. 60; see also Schegloff, 1990), can function as a request (e.g., *I have a headache* for 'Give me a remedy for my headache'). Pérez and Ruiz de Mendoza (2002) and Ruiz de Mendoza and Baicchi (2007) include this social convention as part of a more complex set of conventions that relate directive speech acts to other speech acts in which the notion of 'benefit' plays a role:

Table 1. The Cost-Benefit cognitive model

(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.	*I would need some help; Why didn't you help her when you knew she was in real trouble; You should have helped her; she was having a hard time; But couldn't you*

	just give a hand?; You could have helped her, couldn't you?; Don't you feel that you could have looked after your parents better?
(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.	*Why did you hit your little sister?; So you just had to pull a dirty trick, right?; Do you know what you just did to me?; You have broken her heart, did you know that?; Please, don't do any harm to her again, I beg you; You may think I'm bulletproof, but I'm not.*
(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.	*Sorry, I didn't know you needed the blanket; I shall buy you a diamond ring; Have some more cake; it's tasty!; Look what I have done for you; I hope you'll enjoy this song I've composed for you; You sure will like this one; listen to it!*
(d) If it is manifest to A that it is not manifest to B that a potential state of affairs is beneficial for A, A is expected to make this manifest to B.	*It will be good for me; That would make me rich. I think that would suit me fine; Your funding of my project would be most useful.*
(e) If it is manifest to A that it is not manifest to B that a potential state of affairs is beneficial for B, of for a third	*This remedy will cure your acne; I'd buy those stocks if I were you; Don't mess around with those guys or you'll be in trouble; You will definitely benefit*

party, A is expected to make this manifest to B.	*through that program. When you are with Mandy, remember she loves candy; John really needs someone to buy those stocks from him.*
(f) If it is manifest to A that a state of affairs is beneficial to B and B has brought it about, A should feel pleased about it and make this feeling manifest to B.	*I'm so glad you passed all your exams!; It's good to hear you got it working; Congratulations!; Good job!*
(g) If it is manifest to B that A has changed a state of affairs to B's benefit, B should feel grateful about A's action and make this feeling manifest to B.	*Thank you for what you've done for me!; I really appreciate all your efforts; I feel you are a blessing in my life.*
(h) If it is manifest to A that A has not acted as directed by parts (a), (b), and (c) of the 'cost-benefit' model, A should feel regretful about this situation and make this feeling manifest to B.	*I'm sorry, I didn't realize!; I regret all the harm I did to you; I really feel bad about what I said; I promise I won't do something like that to you again.*
(i) If it is manifest to B that A has not acted as directed by parts (a), (b), and (c) of the 'cost-benefit' model and A has made his regret manifest to B, B should feel forgiveness for A's inaction and make this feeling manifest to A.	*OK, forget about it; I know it won't happen again; That's fine, that's fine, I know you're really sorry; OK, I forgive you, but don't do it again.*

(j) If it is manifest to A and B that a particular state of affairs is not beneficial to B but A has no power to change it to B's benefit, still A should feel sympathy with B over the non-beneficial state of affairs and make this manifest to B.	*I know how you feel, but you know I can't help you this time; Sadly, that's way beyond my power; I wish I could help you, but I can't; It's a terrible situation, I'm sorry!*
(k) If it is manifest to A that A is responsible for a certain state of affairs to be to A's benefit, A may feel proud about this situation and make it manifest to B.	*I have passed all my exams, all of them!; I have convinced my boss and this time I'll have a salary raise; I feel so good I could finish the marathon!*

For each of the examples above, the utterance activates the content of the "if" (or condition) component of the convention, the "then" (or consequence) component remaining implicit. This implicit information is derivable by means of a metonymy-based inferential schema whereby part of the convention stands for the whole. Thus, the sentence *I would need some help* is intended to make the hearer aware that the speaker has a problem, which fleshes out the condition component of part (a) of the regulatory cognitive model described above. The consequence component is then accessed to complete the thought. It is this condition-consequence pattern that allows for the sentence *I would need some help* to stand for (i.e., to be metonymic for) the idea that the speaker expects the hearer to provide the help needed. This point is worth highlighting. The inference that supplies the real illocutionary intent of the sentence is the result of a metonymic operation, but this operation is only practicable because of the specific nature of the condition-consequence pattern (which is a high-level relational cognitive model).

The reader will note that the linguistic exploitation of parts (a) to (k) of this regulatory cognitive model cuts across traditional classifications of speech acts within the directive-commissive and expressive dimensions, which here are related to one another through the concepts of benefit and lack of benefit, partially following Leech (1983). This brings simplicity into the description of the cognitive model. For example, part (a) not only gives rise to direct or indirect requests but also to suggestions, advising, and reproaches; (b) also underlies a similar range of speech acts, but from a different perspective: the acts arising from (a) are behavioral expectations about what one is supposed to do, while those in (b) focus on what one should not do. Part (c) covers promises and offers but it also deals with our expectation of receiving recognition for what we do for others. Part (d) addresses indirect requests based on making the hearer aware that there is a situation such that (c) should have applied (e.g., sometimes an offer is not made because no need or desire is detected). Part (e) addresses various cases of advising and reassurance. The rest of the parts of the cognitive model capture socially acceptable reactions (e.g., being pleased, grateful, regretful, forgiving, sympathetic, proud) in the face of different acts based on parts (a) to (e) of the model. Categories like warnings and threats are variants of advising and can relate to any of the parts that give rise to this category. There are other traditional dimensions of speech act meaning, like representatives (e.g., statements, claims, descriptions), verdictives (e.g., accusing, appraising, charging), and declarations (e.g., blessing, arresting, marrying). Underlying these acts there are also regulatory scenarios since they are intended to regulate someone's behavior. Even statements, which could be discarded out of hand as merely representative, have a regulatory grounding, since they are produced with the intention to inform people of someone's thoughts, which includes opinions, knowledge, information, and desires. It is precisely because of this regulatory nature of statements that they can be

used as pre-requests, where the intention to inform shades off into the intention to obtain goods or services.

3.1.1.3. Non-scalar and scalar cognitive models

A scale is a system of ordered marks at fixed intervals (e.g., numbers) used as a reference standard in measurement. It looks like an abstract notion, but it is directly grounded in our experience with the world. We see objects that vary in properties like size, weight, and temperature; we see objects in motion at different speeds. We see collections with more or fewer items. We also witness events happening at certain intervals and notice that some intervals are shorter than others. On the grounds of this experience, we determine their greater or lesser likelihood of a recurring event taking place again. Scales like size, weight, speed, frequency, and probability belong to what we can call the "witness" perspective on the world. This perspective is based on our perceptual mechanisms, which are not objectively accurate. It can be objectified through scientific measurement, but our everyday treatment of it, which is captured by language, remains in the realm of personal experience shared with other members of a cultural community. Scales are also used in fully subjective experience, which is not directly accessible to scientific measurement, for concepts in the domain of emotions, such as anger, frustration, and love. For example, we can say that in a relationship one partner loves more than the other, or that someone has little or much love to share. There are also social scales. Some measure degrees of comity; others measure authority. Some scales, like the cost-benefit scale, regulate the degree of directivity of speech acts.

Scales have been used in inferential pragmatics to understand some implicational phenomena. This is the case of the very well-known scalar implicatures, postulated by Horn in his 1972 doctoral thesis (see the later discussion in Horn, 1989 and in Geurts,

2009). A typical example of such implicatures is provided by the use of *some* in sentences like *John has read some of Lakoff's papers*. This sentence is usually interpreted as meaning that the speaker believes that John has not read all Lakoff's papers, even though it is logically possible to reason that if John has read all Lakoff's papers he has read some of them. However, it is not communicatively efficient to use a weaker assumption (e.g., one constructed on the basis of *some*) if a stronger assumption is possible. Thus, speakers would directly say *John has read all Lakoff's papers*. This feature of linguistic communication is covered by the conversational Gricean maxim of quantity (be as informative as is required but not more) (Grice, 1975). *All* and *some* are part of a lexical scale measuring quantity. This scale includes other items such as *most*, *many*, and *few*. It is sometimes possible to use a lower-level item on a scale to refer to a higher-level item plus a meaning implication. For example, *John has read some of Lakoff's papers!*, expressed with admiration and stress prominence on *some*, can mean that John has read many, if not all, Lakoff's papers. Speakers may choose to use the lower-level item as a way to convey the idea that, even though hearers may logically think that John could have hardly carried out the action, the opposite is indeed the case. It is the equivalent of saying: 'You may think that John has only read some of Lakoff's papers, but you will be surprised to learn that he has read many or even all of them'. This is a case of what is generally termed understatement, which is used to convey emotional overtones. We will return to this issue below.

In Cognitive Linguistics, the notion of scale is considered image-schematic (Johnson, 1987, p. 126; Clausner and Croft, 1999) although the nature of its perceptual status is controversial (cf. Grady, 2005b; Mandler, 2014). Johnson argues that the notion of scale is based on the idea of path directionality representing amount. It has a cumulative, normative, and either open or close character. Path directionality and its

relationship to quantity is part of our experience since our childhood when we see amounts of food and drink go up or down. This is essentially the same kind of experience that underlies the quantity-height correlation that gives rise to the primary metaphor MORE IS UP (Lakoff and Johnson, 1999), which is exploited linguistically by such expressions as *Prices are going up/down/soaring/plummeting*, etc. Obviously, the cumulative character of the scale image-schema relates to the MORE IS UP correlation, where for a greater quantity (e.g., of a substance in a container or of piled-up objects) to involve accumulation, an upward increase in height becomes necessary. Its normative character could be argued to be a non-perceptual (and thus symbolic) ingredient, but this is likely not the case. Linear paths have landmarks. These can be natural or artificial. In either case, landmarks serve to mark the (cumulative) amount of progress made along the path toward the destination.

Our natural understanding of scales is decisive in how we come to terms with the communication of some aspects of our emotions. This is very clearly shown by people's frequent use of overstatement and understatement. Both work on scalar concepts. In overstatement, the speaker takes a magnitude within a conceptual domain (e.g., a certain amount of weight) and expresses it as if it were a disproportionately higher one. That is, overstatement uses a higher-level point on a scale to refer to a lower-level one. This is of course a figurative use of language whose main purpose is one of emphasis or effect. Think of the use of the notion *ages*, which generally denotes a very long period of time, much more than a human can live, in the sentence *I haven't seen Jean in ages*, where, interpretively, this time expression can only refer to a lower-level point on the time scale that it descriptively denotes. The effect, from a pragmatic perspective, is one of thinking of the speaker's emotional reaction upon meeting Jean again, after a very long time, in terms of the figurative emotional reaction that the substantially longer period of time

denoted by *ages* would have had on the speaker. Understatement, on the other hand, uses a lower-level point on a scale to designate a higher-level point. Expressions like *It's nothing*, *It's just a scratch*, and *It's only a minor incident* may be used to alleviate the seriousness of a situation. It is not difficult to understand why scales are useful to express extreme or toned-down emotional reactions. When we are faced with extreme situations, we may feel overwhelmed, fearful, awed, etc., while we feel relaxed and calm in the face of moderation. As primary concepts, because of their image-schematic nature, scales are useful to convey the intensity of our emotions.

3.1.2. Basic and complex models

Cognitive models can be combined to form more complex structure. Such combinations are produced as a response to thinking and communicative needs. They can be very simple but they can also require special cognitive processes. A straightforward example of a simple combination of concepts happens when we insert a knowledge frame into another frame with which it is compatible. This can happen in different degrees thus creating different acceptability effects. For example, we can think of a professor's office having a coat rack and an umbrella stand. On a rainy day, it would be logical to think of the professor entering his office and then taking off his coat and hanging it on the rack and putting his umbrella on the umbrella stand. However, it would be odd to combine these concepts in the same way on a hot sunny summer day. Such oddities, which can be exploited communicatively to produce humorous meaning effects, require special interpretive procedures and a greater degree of conceptual complexity. These are often based on the recruitment of extra conceptual structure, which, in the present case, derives

commonsense knowledge about how people prepare to walk into the street in a cold, rainy day.

Within Cognitive Linguistics, complex conceptual combinations have been the object of study of *blending theory* (cf. Fauconnier and Turner, 1998, 2002; Fauconnier, 2009), which we briefly dealt with in section 2.8.4. According to this theory, much of our thought requires the integration of selected conceptual structure from *input mental spaces* (or *inputs*, for short) into a single conceptual whole that contains "emergent" structure not present in any of the inputs. An example of blend could be the cartoon image of a tree having some human features like a hairy top, a nose, eyes, a mouth, and arms and fingers. There are two inputs: one with selected structure from our visual image of trees as having a top, branches, leaves, leafless twigs, and a trunk with some cracks and holes; another with selected structure about people's bodies, heads, faces, arms, hands, and fingers. In the blend, the facial features of a person are integrated with the cracks and holes in a tree trunk, while the person's hair is integrated into the top of the tree, and the arms, hands and fingers into two of the leafless branches and twigs. There may be emergent structure not present in these two inputs. For example, imagine a depiction of this partially personified tree in which a woodpecker is taking quick and repeated pecks at the "eyes" of the tree, which tries to protect them by tightly closing its "eyelids" while cringing at the pain. This way of thinking can be revealed through language in such personified descriptions as: *The tree smiled at me*; *The building yawned*; *Boy is this winter biting*.

Coulson (2006, p. 194) provides another example along similar lines. In an interview with philosopher Daniel Dennet, he said: "There's not a thing that's magical about the computer. One of the most brilliant things about a computer is that there's *nothing up its sleeve*." Coulson argues that the blend in this example involves "a hybrid model", where the computer is a magician. She also notes that the connection between

the computer and the magician arises from the co-text since there is no conventional metaphor COMPUTERS ARE MAGICIANS in English. To Coulson's observations we can add one significant fact: the blended image of the computer having sleeves where something could be potentially hidden is linguistically marked by the use of the neuter pronoun *its* in *its sleeve*. This kind of linguistic marking of the integration process is not uncommon. Consider the expression *get up on (one's) hind legs.* This sentence maps the image of an animal (typically a horse) rearing up and moving its forelegs as if to attack onto a person in a similar posture when arguing publicly (Goossens, 1990). In the linguistic materialization of this metaphor, the animal's hind legs are presented as if belonging to the person that stands up to argue: *She has a tendency to get up on her hind legs and tell people off.* There is not only a mapping of structure but also the integration of an animal feature onto a person (cf. Ruiz de Mendoza and Díez, 2002).

Blending theory has been the object of some criticism. Part of this criticism emphasizes the excessively *ad hoc* (non-predictive) nature of its postulates; for example, emergent structure is explained as the result of cognitive activity in the blend rather than as a matter of inferential processes like those studied in pragmatics (Ruiz de Mendoza, 1998). Some scholars have also pointed out the need for blending theorists to provide empirical treatment of their claims, which should be linked to potentially related findings in cognitive psychology (Gibbs, 2000a). Still others have drawn attention to the somewhat unclear status of the notion of mental space (Harder, 2003; Brandt, 2005). However, this criticism, which mostly calls for refinements and development, does not invalidate the notion of conceptual integration. People combine concepts in diverse ways. The only question is when postulating such integration is a theoretically sound move. Over the years, proponents of Blending Theory have examined a wide array of examples that they account for in terms of conceptual integration. Some of these examples have

been revised in Ruiz de Mendoza (1996, 1998, 2017ab), Ruiz de Mendoza and Díez (2002), and Ruiz de Mendoza and Peña (2005). These studies argue that the blend does not produce structure that is not derivable from the input spaces and that any meaning implication that arises from cognitive activity is fully predictable once the knowledge structures involved in such an activity have been correctly identified. We will briefly examine this piece of criticism and then add another one pertaining to metaphor, metonymy, and construal in general.

A very interesting case of conceptual integration or blending is provided by Fauconnier and Turner (2002, p. 63). A clipper, Great American II, which in 1993 sailed from San Francisco to Boston, is depicted as racing against (and beating) the Northern Light, which covered the same itinerary in 1853 and was still the fastest on record. A few days before the Great American II reached its destination, observers said: *At this point, Great American II is 4.5 days ahead of Northern Light.* This situation combines two input spaces, one for each journey, which are projected onto a common blended space where the two are seen as competing in a race. The race is emergent structure that is not present in either input space. Fauconnier and Turner also argue that there is another mental space that contains conceptual structure extracted from the two inputs that is common to both: a ship makes a journey of a certain duration from a source to a destination.

Turner (2008) discusses this same example as a case of a *mirror network*, where two spaces (the Great America and Northern light journeys) share topology inherited by the blend from an organizing frame (a regatta). Turner further argues that the separate journeys have the same organizing frame, which is 'boat making an ocean voyage' and that the blend has an extension of this frame: the two boats making ocean voyages are racing against each other. Obviously, the activation of knowledge about regattas is a pre-requisite for the imaginary competition to be constructed in our minds. However, in our

view, rather than an extension in the blend, what we have is the principled combination of three spaces, the regatta and each ocean journey, where the regatta acquires a more central role by accommodating the rest of the conceptual material involved in building the imaginary scenario (Ruiz de Mendoza and Peña, 2005). Since the regatta is more central, the other inputs become subsidiary to it. Finally, as noted by Fauconnier and Turner (2002), seeing the independent journeys of the two boats in terms of a competition can bring into interpretation other emotional elements, such as winning, leading, losing, etc., which are absent from the ocean journey inputs. In fact, the observers that talk about the Great American II being ahead of the Northern Light are thinking of the 1993 journey as a historic moment. Since these emotions are present in the more central input space, they are not emergent structure produced by the blend either. They are added to the integration in full consistency with the historicity of the Great American II breaking the previous sailing record.

This re-analysis of one case of blending does not mean that there is never emergent conceptual structure or meaning in conceptual integration. But emergent meaning is the result of re-construal processes, which we discuss in 3.1.2.1 as a matter of representational cognitive operations. Such processes are independent of conceptual integration. Let us consider another popular example of blend, which we also discussed briefly in 2.8.4: the metaphor *This surgeon is a butcher* (cf. Grady et al., 1999), used as a complaint about a surgeon's incompetence. In Conceptual Metaphor Theory (e.g., Lakoff and Johnson, 1980, 1999; Lakoff, 1993), this metaphor would be analyzed as a mapping of conceptual structure from the domain of butchery onto the domain of surgery: the surgeon is a butcher, the patient is the dead animal, the surgeon's scalpel is the butcher's cleaver. Blending theorists argue that Conceptual Metaphor Theory does not account for the surgeon's incompetence since this element does not belong to either the source or the

target (both surgeons and butchers are competent in their work). They also argue that the source and target are incompatible in terms of the means-end structure of the scenarios involved, since the surgeon's goal is to heal a patient, while a butcher's goal is to slaughter animals, cut them up, and sell their meat and bones. This mismatch is problematic for Conceptual Metaphor Theory but not for blending theory. Butchery and surgery share some conceptual structure, which is captured by the generic space, where a sharp instrument is used to cut flesh. Since these two spaces have some structure in common, the two can be projected into the blended space. In this space a butcher performs the role of a surgeon operating on a patient in the way that a butcher would cut up meat. It is precisely the incongruity of mixing up the butcher's means and the surgeon's goals that gives rise to the inference that the surgeon is incompetent. However, there is a problem with postulating the integration of the butcher's and the surgeon's means since even the most incompetent surgeon could not possibly handle the scalpel and work on a patient as a butcher would use the cleaver to cut meat. The butcher cannot substitute for the surgeon whatever the degree of incompetence of the latter.

These observations pose an analytical problem. Ironically, the solution may be partially found in Conceptual Metaphor Theory –which the blending approach was expected to supersede– in combination with an understanding of how hyperbole cooperates with metaphor (Ruiz de Mendoza, 2014b; Peña and Ruiz de Mendoza, 2017; section 4.7.2). In terms of a conceptual metaphor analysis, the inference on the surgeon's incompetence results from thinking of the surgeon doing surgery "as if" he was a butcher cutting meat (Ruiz de Mendoza, 2017b: 306). What blending theorists consider an emergent property produced by the integration of mismatching structure is the result of a much more regular (and principled) meaning-making process. In this process, the metaphorical target places constraints on which source-domain elements are needed to

produce the intended range of meaning implications. These meaning implications go beyond treating the surgeon as incompetent into the realm of the speaker's negative emotional reactions (e.g., anger, exasperation, indignation). Think of a target situation in which the patient is outraged by his surgeon's malpractice, which involves careless incisions, excess scarring, and other harmful surgical procedures. A metaphorical source where cutting does not require a surgeon's delicacy is a good source to convey the idea of careless incisions, excess scarring, etc. Then, to capture the emotional implications, the surgeon's carelessness needs to be taken to an extreme. This is achieved by making use of a source domain where cutting is carried out with quick, heavy, strokes, which, in real life, would kill a patient. The metaphor thus becomes hyperbolic. This analysis of the notion of 'butchery' in terms of the interaction between metaphor and hyperbole can apply to other of its conventional meaning extensions. A butcher is also a person that kills people brutally or indiscriminately. Here, the focus is on the means and the result of killing, which somehow resembles the most gruesome aspects of animal slaughter and preparation for food on the market. A notable difference with the butcher-surgeon metaphor, however, is to be found in the role of hyperbole, which can become minimal or even non-existent to the extent that the real and figurative butchery resemble in horror and repugnance.

The analysis made above is supported by the conversion of the butcher-surgeon metaphor into a simile: *My surgeon is like a butcher*. Simile dissociates the source and target domains through an explicit grammatical mark (the use of the preposition *like*). In so doing, it highlights the need to set up cross-domain correspondences, one of which concerns the way in which both the butcher and the surgeon cut flesh. By explicitly calling for a comparison, the speaker is directing hearers to find similarities between the two actions so that one (the butcher's cutting meat) can be used to reason about the other (the

surgeon doing surgery). There is no conflation of roles but simply the understanding of one in terms of the other. This approach is not only more realistic in terms of accounting for the whole range of meaning effects of metaphor, but it is also more elegant in terms of its generalizing power than the blending account. Blending theory would have to postulate separate cognitive processes for metaphor and *like*-similes, one involving the conflation of roles and the other keeping them separate. This does not happen in an account based on cognitive operations, a point which will become more evident in 3.2.

Our discussion of the imaginary regatta and of the butcher-surgeon metaphor has revealed the following facts:

- The former is a genuine case of conceptual integration, while the latter is not. In fact, the meaning effects in the latter (which some theorist would call "emergent" meaning) require a clear separation between the two conceptual domains that take part in its interpretation.

- Accounting for the meaning effects of the former is mostly based, from a cognitive perspective, on determining how conceptual integration takes place. Not so in the case of the latter, which involves reasoning based on two re-construal processes (looking for cross-domain similarities and hyperbole).

- Conceptual integration is not carried out under parity conditions. A concept can take in other concepts thus providing the layout for the selection of relevant structure from them.

This being so, the following two subsections will provide an account of how conceptual structure (in the form of cognitive models) can be combined into more complex units, which we will call *conceptual complexes*. These can be of two kinds: *frame complexes* and *image-schematic complexes*. This account is complementary of the one provided in 4.5, which will focus on how cognitive operations can be combined into

operational complexes as they act on frames and image-schemas to provide re-construed conceptual representations.

3.1.2.1. Frame complexes

Frame complexes result from the conventional or unconventional combination of likewise conventional and unconventional frame structure into the conceptual layout of a given *matrix frame*. A matrix frame is an internally coherent knowledge construct used to accommodate conceptual structure from donor frames that become subsidiary to the matrix for the purposes of conceptual integration. The regatta example discussed in section 3.1.2 above is a case in point. In this example, the race provides the matrix frame, while the separate journeys of the Great American II and the Northern Light provide the input structure to be accommodated into such a frame. In this case, the input structure is conventional, but the combination is not. It is highly imaginative since it requires bringing together two different journeys of different kinds of boats many decades apart from each other. We can also have unconventional developments of a frame. Take basketball. This is a highly popular game in many countries. It is played on a rectangular court with two contending teams each consisting of five players. The aim of the game is to win by successfully shooting a ball more times through a hoop mounted to a backboard at each end of the court. The rules of the game have specifications about how to advance the ball, the number of points per throw type, penalized actions, and so on. This description is part of the conventional frame. Now think of how the Harlem Globetrotters redeveloped basketball in such a way that what they played had to be relabeled "exhibition" basketball. The Globetrotters worked comic routines into their play such as juggling balls between players, spinning balls on their fingertips, and making unusual shots. Their way of playing required wonderful skills and their unusual approach helped them beat some of the best

professional teams. Bringing comic effects from the world of theatrics into playing basketball is an unconventional development of the frame. In this case, the 'conventional' basketball frame is the matrix frame and the extra elements, which are compatible with the game, although unusual, belong to donor frames that become subsidiary to the matrix only for the purposes of this development.

It must be noted that the creation of a frame complex is regulated by principles of conceptual consistency. Although this is an issue that deserves further exploration, we are in a position to postulate the following *conceptual consistency principles*, which arise from the major typological criteria used to classify cognitive models:

- The *Primary-Level Structure Principle*: the incorporation of conceptual material into a matrix frame cannot do violence to the primary-level structure and logic of either the matrix or the donor frames. This principle underlies the understanding of the punchline of this old joke in (10):

(10)   A: How do you get an elephant into a fridge?

        B: That's not possible.

        A: Open the door!

The absurdity of A's question rests on a violation of the primary-level structure of the purported matrix and donor frames (the fridge and the elephant respectively) in terms of size. The punchline of the joke is based on A's intentionally ignoring the absurdity of the question by treating B's puzzlement as ungrounded and the question as a legitimate one. The Primary-Level Structure Principle has a special manifestation in metaphorical uses that we term the Extended Invariance Principle, a development of Lakoff's (1990, 1993) traditional Invariance Principle, first proposed by Ruiz de Mendoza (1998) and more fully explored in Ruiz de Mendoza and Pérez (2011) and Ruiz de Mendoza and Galera (2014).

- The *Subsumption Principle*. Less schematic structure is always assimilated into more schematic structure. This means that primary and high-level frames can incorporate lower-level frame structure. When this happens, the less schematic characterization parameterizes part of the more schematic one. For example, the instrument slot of the action frame can be parameterized by specific instruments such as a knife, a sword, an oven, etc.

- The *Comprehensiveness Principle*. When two or more concepts have the same level of schematicity, the broader concept takes in the narrower concept. This principle underlies the incorporation of new characters and objects into situational models, as was the case of the isolated comic routines of exhibition basketball. In the case of the imaginary regatta, where all elements have a similar degree of schematicity, the boat race is more comprehensive and can take in the independent voyages.

- The *Event Preservation Principle*. The integration of the donor into the matrix frame cannot result in an unrealistic or impossible event structure. Thus, under normal conditions causes are associated with their expected effects. For example, consider a matrix domain consisting in a landscape with trees. There is a storm and suddenly lightning (which thus acts as a donor domain bringing in new conceptual structure) strikes one of the trees causing it to catch fire. The result of this integration is a conceptually coherent complex frame since lightning can strike and burn down a tree. Now, compare another case of integration in which lightning (donor) strikes a bare rock within the same landscape (matrix). This will not have the same effect: the rock will be heated (complex frame) but it will not catch fire. Any departure from these default assumptions will result in a degree of oddity which people may try to solve in some way. For example, they may look for a reason within their world knowledge store or enquire from someone else as a repair strategy (see section 3.2.1.2). Another possibility is reframing the event, which is

the case of paradox (see section 6.5). One famous example of paradox is found in the Latin adage *Si vis pacem, para bellum* ('If you want peace, prepare for war'). In theory, it is not sensible to prepare for war if you have a desire for peace. However, being prepared for war can deter warlike powers so that peace will result. This interpretation substitutes a new, but plausible, cause-effect relationship for the default assumption that war preparations will result in making war.

These principles are consistent with Fauconnier and Turner's (1998, 2002) *optimality principles or pressures*, whose purpose is to drive the process of generating good blends. For convenience, we provide simplified descriptions of each principle, which we will illustrate with reference to the imaginary regatta example discussed in 3.1.2:

- *Integration*: the blend must be a tightly integrated scene that can be manipulated as a unit. The regatta illustrated this principle well. The blend depicting the boat race allows for expressions like *At this point, Great American II is 4.5 days ahead of Northern Light*, where the three inputs (each separate voyage and the regatta) are seen as one single conceptual construct.

- *Pattern completion*: elements should be completed in the blend by using existing integrated patterns as additional inputs originating outside the blend. The regatta is brought in to combine the two separate voyages.

- *Topology*: elements in the blend should participate in the same sorts of relations as their counterparts in the inputs. This is the case of the time taken to cover the same distance, with the same itinerary, in each separate voyage.

- *Maximization of vital relations*: the creation in the blend of vital relations (e.g., change, identity, time, space, cause-effect, part-whole, analogy, similarity, category, intentionality, uniqueness) as opposed to regular relations should be favored. The two

voyages are analogous in terms of their common topology. This analogous relationship is maximized when integrated to create an imaginary regatta.

- *Intensification of vital relations*: when an element is projected to the blend and a second element is projected because of its vital relation to the first, the vital relation in the blend is to be intensified. Once the two voyages have been made part of the imaginary regatta, the analogical relationship between them is tightened so that the resulting scenario can be seen as a fully integrated one.

- *Web*: the blend must work as a unit without breaking its web of connections to the inputs, i.e., any event in an input space is to be construed as having a corresponding event in the blend. In the example under scrutiny, the voyages in the inputs correspond to the voyages in the blend.

- *Unpacking*: it should be possible to unpack the blend to reconstruct the input spaces, the generic space, and the connections among them. Linguistic expressions revealing the existence of blends provide evidence of this property of blends, since they allow the analyst to reconstruct the cross-domain mappings. For example, saying that one boat is ahead of the other calls for the activation of the two different voyages, the elements they have in common, and the way in which such elements correspond.

- *Relevance* or *good reason*: if an element appears in the blend, it should be meaningful in terms of the goal and context for the blend. Thus, there are many aspects of the independent voyages of the Great American II and the Northern Light that are irrelevant in terms of beating speed records for the same itinerary (e.g., the number of members in the crews, the number of passengers, their choice of meals, etc.), while others are meaningful (e.g., the characteristics of the boats that make them speedy, the weather conditions, the sea currents, etc.).

Conceptual consistency principles spell out the conditions for the integration of frame structure to be workable, while optimality principles deal with the conditions that give rise to good examples of conceptual integration. This means that the former principles are a pre-requisite for the application of the latter. However, conceptual consistency principles can be partially overridden for special communicative purposes. This can only happen to the extent that the resulting integration can remain interpretable. That is, the violation of principles has limits. To illustrate this point, let us go back to the joke of the elephant in the fridge in example (10) and think of how it might be possible to make the absurd integration feasible. In some cartoons the laws of nature are violated to produce hilarity in the audience. A cartoonist can depict someone pushing an elephant endowed with miraculous compressibility and elasticity into a fridge. This would happen in violation of the Primary-Level Structure Principle, which, as a consistency precondition, would preclude the application of any optimality pressures in normal conditions. However, optimality does hold: the integration is carried out resulting in a scenario that can be manipulated as a unit where cause-effect relations are maximized and made meaningful in relation to the cartoonist's communicative purposes. The reason is that it is possible to conjure up the image of an elephant being compressed into a fridge if we think of the elephant as having properties that belong to other objects of our experience, like foam toys. This is a re-construal operation that introduces a new perspective in the treatment of conceptual consistency. It is not metaphorical because it does not use source logic to understand preexisting target logic. It is not a reframing operation either, as we have in paradox, since the scenario in which people put things in the fridge is kept intact. It is a *frame-adaptation* operation, which works by ascribing to a target frame some properties that do not typically belong to it. Frame adaptation has its own optimality conditions. The adaptation can only be carried out with respect to properties that require

it to achieve successful conceptual integration. In the elephant-in-the-fridge example, only the compressibility and elasticity of the elephant, which affect its size and shape, need adaptation. The rest of the properties of an elephant (e.g., its body parts, the sound it emits) remain intact. Interestingly, frame adaptation has the function of creating new conceptual consistency conditions thus making it possible to perform conceptual integration operations.

To sum up, conceptual consistency can be partially overridden for special communicative purposes requiring re-construal of frame elements through frame adaptation. This re-construal process is geared to the creation of new conceptual consistency conditions, which allow for optimality principles to produce the best possible case of integration for the cognitive and/or communicative task in hand.

3.1.2.2. Image-schematic complexes

As has been amply noted in the literature, image-schemas arise from our physical interaction with the environment, which involves motor programs and spatial abstraction (Johnson, 1987; Lakoff, 1987; Hampe, 2005). Image-schemas are supportive of other kinds of conceptual structure, including body postures and gestures (Mittleberg, 2010, 2013; Mittleberg and Joue, 2017). They thus underlie knowledge frames, whether concrete or abstract (Kövecses, 2015, p. 42). When underlying a concrete frame, they provide the groundwork for the Primary-Level Structure Principle to be operational. To support abstract frames, as in the case of emotion concepts, they need to become part of a metaphoric operation in which the image-schema is the source domain and the abstract concept is the target. By means of this procedure, the structure and logic of image-schemas facilitates thinking and reasoning about abstract concepts.

Because of their primary nature and their high degree of schematicity, the ability of image-schemas to combine with other conceptual constructs varies from that of frames. First, an image-schema can combine with a frame. This form of conceptual interaction was first addressed in Ruiz de Mendoza (1997a), later taken up in Ruiz de Mendoza and Díez (2002), where the data revealed that image-schemas provide the blueprint for the orderly incorporation of frame material. This can be easily seen from the comparison between *He went into a depression* and *He slipped into a depression*. These two expressions make use of the same image-schema (motion along a path) to reason about a change of state, which is treated as a change of location. This is of course a manifestation of the conceptual metaphor A CHANGE OF STATE IS A CHANGE OF LOCATION (Lakoff, 1993). But *He slipped into a depression* communicates more than just a change of state from non-depressed to depressed. The verb *slip* is a manner of motion predicate suggesting an involuntary or accidental loss of footing or position. The use of this verb suggests that the process of becoming depressed went unnoticed to the sufferer. This meaning implication is possible because the motion-along-a-path image-schema can incorporate specifications of manner of motion like those described above. In the metaphor, differences in the manner of motion map onto differences in the way in which the change takes place. Second, image-schemas can combine with other image-schemas. When this happens, the result is an *image-schematic complex* (cf. Ruiz de Mendoza, 2017ab). There are two ways in which an image-schematic complex may arise: *integration by combination* and *integration by enrichment* (Peña, 2003, 2008; Ruiz de Mendoza, 2011). In neither of them is there any degree of unconventionality since unconventional integration of image-schemas would have to occur in direct violation of their intrinsic topology. Enrichment involves de development of an image-schema by means of dependent conceptual structure. For example, the notion of motion is dependent

on the path image-schema since we cannot think of motion without invoking an itinerary. In the sentence *The missile travelled over 600 miles* the motion and path image-schemas are co-activated, the former enriching the latter, which has independent status (i.e., we can think of a path without motion, as illustrated by the sentence *It's a long road*). Now compare: *The missile veered off course*. This sentence contains the same co-activation of the motion and path image-schemas, but it adds one more image-schema, called 'diversion', which is subsidiary to the motion-path complex. This extra development is based on enrichment too. Finally, consider: *The missile veered off course into the sea*. This more elaborated expression builds the container image-schema into the end-of-path slot of the previous conceptual complex. However, this addition is not based on enrichment since there is nothing in the motion-path complex that calls for the end-of-path to be a container. In fact, the default form of this part of the schema is a point in space (e.g., *The missile flew from central China to the Western Pacific*).

3.2. Cognitive operations

The term 'operation' is generally used to identify any process or action performed in a specified sequence and in accordance with specific principles or rules. In cognitive psychology, the more specific term *cognitive or mental operation* has been adapted to designate any mental process or activity with an identifiable effect resulting from how the brain responds to human interaction with the world (Anderson, 2010). Cognitive operations involve mechanisms for the transformation of mental representations (Bechtel, 2008), are essentially goal-oriented, and are at the root of what we call thought (Barsalou, 2014). Under various labels (e.g., cognitive/mental processes) the literature cites

cognitive operations of many kinds. Some relate to the brain's interpretation of people's perceptual input; others to how such input is organized and stored in our minds, whether on a short-term or a long-term basis; still others relate to how stored information is formally manipulated or otherwise used to give rise to new representations based on the previous ones; finally, others have an executive character and regulate how we further interact with the world, which includes perception and motor programs plus their execution.

Not all cognitive operations have direct effect on language. For example, practical operations dealing with executive functions (i.e., those that regulate behavior such as attention control, inhibition, and working memory) are at best incidental to linguistic activity. The same holds for affective evaluation, eye-hand coordination, and emotion expression through involuntary gestures. However, many do have direct influence on linguistic behavior. In the next subsection, we will discuss cognitive operations that do have such influence.

3.2.1. Cognitive operations affecting linguistic behavior

Three kinds of cognitive operation have an impact on how we use language:
- *Concept building operations*: the function of these operations is to create long-term knowledge stores. This is achieved through memory encoding and retrieval processes, which are based on the transfer to the brain of tactile, visual, and auditory input. This input is then interpreted by the brain according to previous knowledge and memories. Concepts can also be built by altering parts of our stored knowledge through mental manipulation.

- *Sensory-motor operations*: these operations underlie the perceptual and bodily aspects of our interaction with the world. They include motor programs (and their execution), which influence concept building processes and our general understanding of the world. There is increasing evidence that motor programs and the embodied simulation of actions are related to how people understand language (Bergen, 2012; Lakoff, 2014; Ritchie, 2017).

- *Representational operations*: these operations act on our pre-existing knowledge stores thus allowing us to produce new meaning representations in two ways: (i) by putting such elements into different perspectives (e.g., setting up a vantage point), by defining different scopes for them (cf. Talmy's 2000 notion of *windowing of attention*), and by giving them various degrees of prominence (cf. Talmy's 2000 study of *figure-ground alignment*); (ii) by means of reasoning and the various kinds of inferences based on world knowledge. We will refer to the operations in (i) as *construal operations* and to those in (ii) as *inferential operations*. This second category, as shall be discussed in 3.2.1.2, is divided up into *formal* and *content* operations, where the formal feature a supportive role for the latter.

Of all operations, we claim a special status for inferential operations in connection to figurative language for reasons that will become apparent in section 3.2.1.2 below. We will now give a brief overview of construal representational operations and then discuss the inferential type in more detail.

3.2.1.1. Construal operations

Construal operations are a matter of scope, perspective, and conceptual prominence. Construal phenomena have been discussed in much detail by Talmy (2000) and by

Langacker (1987, 1999, 2008), who has made them part of his Cognitive Grammar (see Dirven and Ruiz de Mendoza, 2010 for an overview).

Scope determines how much of a scene is to be included in the explicit part of a representation. It involves the exclusion of some elements, which remain implicit. For example, if we take the linguistic exploitation of Fillmore's (1982) 'commercial transaction' frame, we observe that different sentences include and exclude participant elements. In example (11) below, the focus of attention is on the goods and the price. But we can shift the focus to the seller and the price, as in (12), to the buyer and the price, as in (13), or to the buyer and the goods, as in (14), among other possibilities.

(11) My laptop cost 1,000 dollars.

(12) They charged 1,000 dollars for the laptop.

(13) I paid 1,000 dollars for my laptop.

(14) I bought a laptop.

Perspective provides a vantage point from which to see a scene. In the commercial transaction frame only one of the four possible participants (buyer, seller, goods, price) can serve that function: the buyer can only buy, pay a price, and receive the goods; the seller can only sell, charge a price, and transfer the goods; the goods cost a price that, if paid, gives the buyer the right to get them from the seller. Vantage point is captured (and expressed) by certain lexical-constructional combinations. For example, the verb *come* can be used to express different vantage points (Radden, 1996), as in (15) and (16):

(15) Shall I come to your place?

(16) Will you come to my place?

In (15), where the construction expresses an offer, the action of coming is seen from the hearer's perspective, while in (16), which conveys a request, it is seen from the

speaker's point of view. Perspective can also introduce objective and subjective dimensions in linguistic expressions. Consider the following examples:

(17) She was sitting across the table from me.

(18) She was sitting across the table.

(19) The roof slopes down from the rear wall.

In (17), the speaker puts himself objectively on the stage as a reference point. However, in (18) the reference point is merely implied thereby conveying a subjective construal from the speaker's perspective. Finally, perspective can also involve the direction of motion in a fictive event, as in (19), where *down* suggests motion from an upper point in space to a lower one.

Conceptual prominence has been treated by Langacker (1987, 1999) in terms of profile/base relations. The profile of a concept is its inherent content and the base is the background conceptual structure against which the concept is profiled. Profiling a concept against one base or another gives rise to different ways of construal. For example, the word *car* commonly designates (profiles) a four-wheeled road vehicle powered by an internal combustion engine used for transportation. It has different base domains. Some of them are: shape, motion, size, and weight. If we think or talk about a car traveling on a road, a relevant base domain will be determined by the type of road and the weather conditions (e.g., rain, snow, fog). But if we think of a car on the assembly line, a relevant base domain will contain workers, machines, and the equipment used to build the car in different stages. Even if still unfinished, a car can be called a car when profiled against the assembly line (e.g., *My car is still being assembled in Germany*) but not in other contexts (e.g., the road, a parking lot, the car dealer). Langacker also notes that profiled concepts have *active zones*, which are the aspects of an entity that play a more salient role

in interpretation. For example, the active zone of 'car' in *He got into the car* is its interior. In *He had a bump in his car* the active zone is the body of the car.

Profile/base relations hold for any conceptual construct. This point has been made by Del Campo (2011) in the domain of illocution and by Iza (2015) in her treatment of discourse connectivity. Let us take illocutionary values first. Think, for example, of sentences (20) and (21) below:

(20) How about coming to my apartment for dinner?

(21) How about selling your house now that prices are high?

The construction underlying these two sentences designates (i.e., profiles) a proposal for action against the base domain of the cost-benefit cognitive model, according to which we are expected to do our best to benefit other people even if this involves a cost to us, as pointed out in 3.1.1.2. However, (20) is an invitation while (21) one is a suggestion. These slightly different meaning values are the result of the respective active zones of the profiled concept. In (20), the proposal for action (the profile) involves the hearer benefitting from his joint action with speaker (one active zone), while in (21) the action is only supposed to benefit the hearer (another active zone). As for discourse connectivity, consider the following *complementary alternation* constructions, as discussed by Mairal and Ruiz de Mendoza (2009) and Ruiz de Mendoza and Gómez (2014): *X Let Alone Y* and *X Much Less Y.* These constructions (among others) profile a relationship between two states of affairs, X and Y, such that Y is higher up than X on a specific parameter (in most cases Y is less likely to be the case than X or it poses a greater challenge). The base domain for both constructions is the notion of complementary alternation, that is, the idea that there is a mutually non-exclusive (i.e., additive) choice. However, despite their common profiled meaning, both constructions are different from each other in terms of their active zones. In a corpus study of these constructions carried

out by Iza (2015) it was noted that, while *X Let Alone Y* and *X Much Less Y* are generally interchangeable, there are contexts which only call for *let alone*. This depends on the focus on likelihood or on singling out (and thus drawing attention to) part of the content of the sentence, whether likelihood is implied or not. Thus, either *let alone* or *much less* can be used in *He is incapable of leading a company, let alone/much less a whole country. Much less* is directly focused on likelihood; *let alone* is not since it is focused on singling out an item as particularly worthy of attention, but it can often be used to imply likelihood. By contrast, the sentence *What can we do about global warming, let alone (*much less) climate change?* is not about the lesser likelihood of reacting to global warming than to climate change, but about reacting to the first problem and particularly to the second, which is thus singled out for special attention. The profiled concepts are the same (the complementary alternation) but the active zones are different.

3.2.1.2. Inferential operations

Ever since Grice's (1975) analysis of conversational maxims as underlying implicated meaning was popularized, there has been a growing concern with identifying the factors that play a role in people's ability to make inferences based on language (see section 2.7.1.2). The literature is rife with redefinitions and developments of the maxims approach to inference trying to extend this idea to other phenomena beyond implicated meaning and figurative language. Among such attempts, we have the maxims treatment of politeness and textual organization (e.g., Leech, 1983) and of the different forms of irony and humor (Attardo, 2000). There are also alternative approaches like Relevance Theory (Sperber and Wilson, 1995), briefly introduced in section 2.7.2. As we noted, the starting point in this theory is the denial that cooperation and maxims are necessary to account for how people communicate. Instead, they see speakers working on world-

knowledge, the context of situation, and previous discourse to produce messages that are intended to strike an optimal balance between meaning effects and processing costs. Meaning inferences arise from this balance. Utterances are ostensive stimuli intended to draw the hearer's attention. When this happens, the hearer explores utterances and makes plausible assumptions about what they mean given their knowledge of the world and the other factors that play a role in interpretation. If a speaker is less informative than required with the intention to mislead, hearers may identify this when it becomes manifest to them that what the speaker says does not satisfy the conditions of relevance. If the speaker's intention is not to mislead but to mitigate the impact of disclosing all the information (e.g., *He has a challenging health condition* instead of *He is terminal*), this may also be noted by the hearers when they become aware that it is difficult for them to identify the relevant range of meaning effects. This may lead to a repair strategy, like asking: *What kind of condition? How serious is it?* The emphasis in Relevance Theory has been on discussing how meaning effects arise from linguistic expressions regarded as ostensive stimuli intended to maximize optimal relevance. The existence of world knowledge is taken for granted. But relevance theorists have not seen any need to study how it is structured or how we act on it beyond the general guideline of assuming consistency with conditions of relevance. However, this generic assumption may not be enough. Think again of the metaphor *Her teeth are pearls*. Relevance Theory has always noted that metaphor involves exploring the terms that are brought together (the traditional vehicle and tenor, which roughly correspond to the cognitive-linguistic source and target). In the relevance-theoretic framework, the hearer, when faced with the teeth-pearl association, is led to explore the two concepts to find the way in which teeth can have properties that belong to pearls (e.g., their whiteness, but also other properties such as their shape and size). This exploration leads to the formulation of a range of meaning implications: her

teeth are white, shiny, small, round, etc., which are arranged in degrees of strength. Hearers, of course, do not explore all possible implications but only those that they deem to be enough to satisfy their search for relevance in interpretation. In further developments of the theory, relevance theorists have argued that the vehicle of metaphors are but *ad hoc* concepts, that is, non-linguistic concepts created on the fly by broadening the denotational scope of the initial concept. In metaphor, the tenor is treated as a subcategory of the broadened concept (cf. Carston and Wearing, 2011). In the teeth-pearl example, the speaker categorizes a woman's teeth as a type of *PEARL, where the asterisk and the capital script mark the special status of the concept as an *ad hoc* one denoting any object that is white, shiny, small, round, etc., including a pearl.

Evidently, in Relevance Theory there is no play on maxims. Instead, there is a psychological process, called *broadening*, used to create an *ad hoc* concept, which is in turn used to derive implicatures about the tenor. This approach has the advantage of aligning metaphor interpretation with general interpretation strategies in language, all of which require

> the relevance-seeking processes of forming and testing interpretive hypotheses in their order of accessibility, taking as premises the most highly activated items of encyclopedic information, deriving implications from them, and stopping once expectations of relevance are satisfied (Carston and Wearing, 2011, p. 289)

But it fails to acknowledge the real theoretical status of the concept of broadening, which is only implicitly treated as a cognitive-pragmatic task of adjustment whose activity is guided by the search for relevance. Interestingly, relevance theorists also postulate *narrowing* for some metaphorical uses. For example, the broadened concept *ANGEL,

in *She is an angel*, which includes beings that are exceptionally kind and virtuous, needs to be narrowed down too, so it will exclude avenging angels and fallen angels (cf. Carston and Wearing, 2011, p. 295). Broadening is also present in hyperbole (*This steak is raw*, where *RAW suggests 'underdone' besides literally uncooked) and narrowing in the adjustment of generic lexical concepts such as *happy*, which covers a wide range of emotional states (cheerful, joyful, glad, etc.), *drink* in *Do you drink?* ('drink alcohol'), or *shoes* in *Walking in the mountain requires good shoes* ('shoes suitable for walking in the mountains') (see Falkum, 2007, pp. 121-122).

The relevance-theoretic account of broadening and narrowing is paralleled by a distinction proposed in Ruiz de Mendoza (1997ab, 2000), within the context of Cognitive Linguistics, of two basic types of metonymy: one in which the target domain is a subdomain of the source, or *source-in-target* metonymies, and another one in which it is the source domain that is a subdomain of the target, or *target-in-source* metonymies (see also Ruiz de Mendoza and Otal, 2002). Source-in-target metonymies involve the *expansion* of the conceptual material directly invoked by the linguistic expression, while in target-in-source metonymies the target domain is obtained through the reduction and the consequent highlighting (i.e., prominence) of the conceptual material that makes up the source domain. For example, using the name of a company or institution to refer to some of its workers, or to those that are responsible for it, is a case of domain reduction resulting in a target-in-source metonymy. Thus, *the bank* in *The bank won't approve your credit card application* is metonymic for the people in charge of credit card applications. Other examples of this metonymy type are: *The* kettle *is boiling* ('the contents'), *The child broke the* window ('the window pane'), *Won't you tie your* shoes*?* ('shoe laces'). By contrast, domain expansion does not highlight any part of a conceptual domain. An example of domain expansion is provided by the oft-cited ORDER FOR CUSTOMER

metonymy, where the order stands for the customer that has placed the order, as in The steak sandwich *is asking for his bill* ('the customer that has ordered a steak sandwich'). Other examples are: Hamlet *was wonderful tonight* ('the actor that played Hamlet's role'), The violin *didn't come to today's rehearsal* ('the violin player'), *I'd need a* hand *here* ('help provided (as if) with the hand').

The notions of expansion and reduction come somewhat close to the relevance-theoretic notions of broadening and narrowing respectively, but there are two crucial differences. First, broadening and narrowing are described as pragmatic adjustment processes, but broadening and narrowing are also cognitive processes (or operations) (Ruiz de Mendoza and Pérez, 2003). Thus, when applied to a low-level non-situational cognitive model, a reduction operation draws the hearer's attention to one of its aspects or elements, which is highlighted (e.g., in *break a window* the pane is highlighted). The same operation, when applied to a high-level non-situational cognitive model, has a parameterizing function (e.g., *drink* for 'drink alcohol'). With low-level or high-level non-situational and situational cognitive models, expansion is to be applied to endow an underdetermined expression with the relevant amount of conceptual material for the correct interpretation of the expression. The expansion operation supports the creation of a convenient (and economical) conceptual shortcut. Such shortcuts are evident when we refer to low-level non-situational concepts by mentioning one of their relevant subdomains, as in CHARACTER FOR ACTOR and INSTRUMENT FOR PLAYER, and HAND FOR HELP metonymies illustrated above. In the same way, the non-situational high-level metonymy OBJECT FOR ACTION (IN WHICH THE OBJECT IS INVOLVED) underlies the direct (and economic) use of ingressive and egressive aspect verbs with objects instead of action predicates: *He began/finished* the peanuts ('eating/peeling/salting, etc. the peanuts') (Ruiz de Mendoza and Pérez, 2001, p. 340).

The example *He beat his chest about his mistake* only expresses part of a low-level situation in which someone beats his chest or makes any other open show of sorrow to stir other people's emotions in his favor. Mentioning just one part of a situational model affords access to the whole of it thus avoiding imposing on the speaker the heavy burden of mentioning all the details of the situation. With high-level non-situational cognitive models, we have a similar situation: through the idea that the speaker has a problem or a need to satisfy, the sentence *I'm thirsty* affords access to the cultural model according to which we are expected to assist those in need of help. The second difference is that broadening and narrowing are also associated with other interpretive uses of language other than those discussed above called "loose talk" (i.e., approximations) (cf. Sperber and Wilson, 1986). An example of loose talk or loose use of language is provided by the rounding up of numbers. If we want to tell someone how far he or she will have to walk to get downtown, it would be absurd to say something like *You will have to walk 1 mile, 5 yards and 2 feet*. Instead, we will be happy to round the distance up to one mile. This requires broadening the concept of mile to make it include reasonably more or less than one mile. Of course, we would not want to argue that the exact concept 'mile' is a subdomain of the loose ad hoc concept *MILE.

In our view, when seen as cognitive operations, broadening and narrowing can only be associated with metonymy. It is hard to argue that metaphor is based on broadening the scope of a concept, especially if we go beyond the domain of lexical metaphors. For example, for *My lawyer is a shark* it may be argued that the initial descriptive representation SHARK (the predatory sea fish) is broadened into *SHARK to make it include other forms of predatory behavior than preying on other creatures. This broadened (and interpretive) notion of predation would hold for any individual that takes advantage of other people's misfortunes for personal gain. But this account fails to

explain why such an expansion of the initial descriptive concept can take place. In Relevance Theory, it is claimed that the encyclopedic representation for *shark*, together with consistency with the principle of relevance, is enough to bring about the readjustment. However, there is nothing in the encyclopedic entry for *shark* that guarantees the broadening of the concept so it can be applied to a lawyer's behavior. There is even nothing in this approach that precludes other uses of *shark* to talk about other predators, as should be the case judging from the inadequacy of expressions like #*This lion/tiger/panther/crocodile, etc. is a shark.* This leads in the direction of an account that recognizes the existence of underlying cognitive processes, as Tendhal and Gibbs (2008) have argued (see also Ruiz de Mendoza and Pérez, 2003), despite efforts by relevance theorists to minimize their explanatory power (e.g., Wilson, 2011).

Metonymy, however, involves more than just expansion or reduction cognitive operations (see section 4.3). These operations combine with the substitution of source conceptual material for the implicit target conceptual structure. It is for this reason that metonymy was characterized by Lakoff and Johnson (1980) as a "stands for" relationship. However, metonymy is not the only linguistic phenomenon where we find substitution at work. One straightforward example is pronominal substitution in grammar. Perhaps less evident is the fact that referential uses of metaphor require substitution. Consider the difference between saying *That boxer is a creampuff* and *The creampuff was defeated in two rounds*, based on a well-known experiment carried out by Gibbs (1990) (see also Barnden, 2010 for discussion). Since a creampuff is filled with soft cream, which is one of its highly noticeable characteristics, it makes sense to associate this notion with the idea of weakness. This characteristic is essential to understand the two examples. The difference is not, therefore, about the highlighted property, which both examples share, but about the use of this property in the latter example to refer to the boxer rather than to

describe the boxer as in the former. There are yet two related figures of thought that, like metonymy, make use of substitution whether used referentially or not. This is the case of euphemism and dysphemism, which have often been connected to metonymy since it uses a partial description (e.g., a prominent attribute) of an entity, situation, or event to designate the whole of it. It has been argued that the difference with metonymy is the connotative dimension of the metonymic source. Thus, in euphemism, a positive or at least neutral term is used to substitute for an unpleasant one: *rest room* for toilet, *domestic engineer* for maid, *visually impaired* for blind. By contrast, in dysphemism we would have the reverse situation: the source is an unpleasant or derogatory term that is used instead of a more positive or neutral one, as in *cancer stick* for cigarette, *worm food* for dead, or *pig* for a policeman. This account, however, is not fully adequate since it mistakes substitution operations for metonymy. Metonymy requires source-domain expansion or reduction, which only applies in some cases of euphemism and dysphemism but not in all of them. For example, we may argue for the presence of metonymy in *worm food* (one aspect of death is the decay of corpses that are eaten by worms), *rest room* (a toilet is a place of rest in the sense that using it may provide with relief), but not in *visually impaired,* which provides a description of the physical disability. In other cases, we may have a combination of metonymy and metaphor. One case is provided by *domestic engineer*, where a hyperbole-based resemblance metaphor could be postulated on a first stage and a SPECIFIC FOR GENERIC metonymy on a second stage: since engineering requires the application of mathematical principles to practical ends, we can first think of a meticulous maid doing the housework with extreme care; then, the meticulosity ingredient would be dropped thereby extending the scope of application of the expression. This rationale holds for any kind of euphemism where *engineer* is used to describe occupations involving menial work (e.g., *sanitation engineer* for garbage collector).

In sum, we have identified three cognitive operations, one of which, *substitution*, is a formal nature, i.e., it does not produce meaning inferences by itself, while the other two, *expansion* and *reduction*, have an inference making role that is supported by the formal operation. There are other formal and content operations. For some of them, there are antecedents in the cognitive-linguistic literature, without integrating them into a unified framework. Let us start with formal operations (3.2.1.2.1) and then continue with content operations (3.2.1.2.2).

3.2.1.2.1. Inferential formal operations. Formal operations, which manipulate concepts structurally, are pre-requisites for (inferential) content operations to be possible or they combine with these to make them fully operational in their meaning-making role. Ruiz de Mendoza (2011, 2017a) distinguishes the following:

a. *Cueing*. This operation prompts the selected activation of concepts or parts of concepts on the basis of the conceptual consistency principles described in 3.1.2.1. Compare the expressions *red-light camera* and *red-light district*. The former denotes a traffic enforcement camera that takes images of vehicles entering an intersection after the traffic light turns red. The latter refers to a neighborhood where houses of prostitution are located. The red light is a traditional way of drawing attention to the nature of such resorts at night. The different interpretations of *red light* within the same formal pattern are a matter of how the notions of 'camera' and 'district' cue (i.e., gear) our activation of the relevant frame configurations (traffic regulations and the world of sex-oriented business, respectively) in relation to our world knowledge. In discussing the non-compositional nature of some constructions Fauconnier (2018, p. 128) contrasts the meaning of the formally similar phrases *child-safe beach* and *shark-safe beach*. In the former expression, the beach is safe for children, while in the latter the beach is safe from the threat of shark

attacks. Fauconnier notes that we need to use different frames to interpret each of these two expressions. The 'going to the beach' frame may include subframes on shark attacks on swimmers and on children playing, bathing, etc. Both subframes include knowledge on different protective measures, which are always directed to people, never to the sharks or other harmful agents (jellyfish, sea urchins, etc.). In terms of cueing, each subframe prompts for different perspectives on safety in connection to beaches: safety for beachgoing children (from any danger) and safety for bathers (from sharks).

b. *Selection*. This operation is the immediate result of cueing. Our previous discussion of the different uses of *red light* bears this observation out. Lexical items such as *camera* and *district* cue for the selection of relevant conceptual structure arising from our knowledge about red light. Other cues are possible, of course, such as *signal*, *room*, and *therapy*: *red light signal* (a traffic signal requiring drivers to stop), *red light room* (the color of safelight in a photographic darkroom); *red light therapy* (used to treat skin issues). Selection has a supportive role for overall meaning to be worked out on the basis of other cognitive operations. This role is self-evident in the case of conceptual metonymy. Thus, in ORDER FOR CUSTOMER, not everything that we know about orders or customers is activated, but only highly schematic information about the order being a meal and the customer having ordered the meal to eat it. Of course, different realizations of this domain-expansion metonymy may call for changes in the selection of structure. In *The ham sandwich is waiting for his check*, we are cued by *his check* to include the paying part, while in *The ham sandwich wants to make a formal complaint*, the focus is on the quality of the service provided to the customer.

c. *Abstraction*. Humans have the capacity to derive generic-level concepts from specific concepts that share some structure. Thus, from specific actions like cooking, shoveling snow, fixing a piece of furniture, etc., we derive notions like agent, patient, and

instrument. These are generic or high-level concepts whose importance for grammatical analysis can hardly be overstated given the emphasis on semantic roles (under different labels) of the various linguistic approaches, including generative and other brands of formal syntax (e.g., Jackendoff, 1990), some functionalist approaches to language (e.g., Dik, 1995), and Fillmore's (1968, 1971) Case Grammar and Frame Semantics (e.g., Fillmore, 1982, 1985). However, this operation applies to other sorts of generalization over low-level content, as in the case of the creation of high-level situational scenarios that are exploited for illocutionary purposes (see 3.1.1.2).

d. *Substitution*. It happens when a cognitive model, or part of it, is replaced by another (related) cognitive model, or part of it. For example, speakers often resort to generic words such as *thing* and *stuff* when they have difficulties to retrieve the lexical item that best describes the lexical concept they have in mind: *He told us many things about his life* ('details'); *Where can I put my stuff?* ('personal belongings'). We have also mentioned the importance of this operation to understand referential uses of metaphor, and for metonymy, euphemism, and dysphemism. For these three latter figures, substitution is a prerequisite, as already noted above in 3.2.1.2.

e. *Integration*. Conceptual integration has been discussed in 3.1.2 in connection with blending theory. Here we argue for its status as a formal cognitive operation with implications for an account of language use grounded in cognition. We thus define conceptual integration as a formal cognitive operation involving the principled merging of selected conceptual structure as cued by linguistic expressions in relation to their context of production (cf. Ruiz de Mendoza, 2017a, p. 144, 2021, p. 99). Integration requires the incorporation of a donor frame (e.g., a landing airplane) into a matrix frame (e.g., a runway) with which it is consistent in terms of its basic cognitive topology (or image-schematic structure) and world knowledge. Such consistency comes in degrees.

We can think of a commercial airplane landing on the runway of a civil airport, but it is less felicitous to integrate a zeppelin (and much less an alien spacecraft) into the same frame. Unlike other cognitive operations, integration is not a prerequisite for the activity of content operations. Instead, it works in combination with some content operations to enhance their meaning effects. An example is provided by some cases of metaphorical resemblance. For example, in *He left with his tail between his legs*, which will be further discussed in section 4.5.3 as a case of metonymic expansion of the source domain of a metaphor, we have a cross-domain mapping from a scenario in which a dog runs away, when disciplined or when unable to face an attacker, to another in which a person displays embarrassment or shame after losing. The tail between the legs is a sign of being defeated or humiliated, which rather than simply correlate to a person's signs of embarrassment, we directly ascribe to him. The resulting image is more powerful than the one obtained through mere comparison, as in *He left in embarrassment like a dog with its tail between its legs*.

3.2.1.2.2. Inferential content operations. Ruiz de Mendoza (2017a) provides the most updated account on content operations. Previous listings with definitions are found in Ruiz de Mendoza and Pérez (2003), Ruiz de Mendoza and Galera (2014), and Ruiz de Mendoza (2011, 2017a). Ruiz de Mendoza and Galera (2014) discuss such operations in connection to literal uses of language at the lexical, implicational, illocutionary, and discourse levels of description. Since our concern in this book is figurative language, we will only make passing reference to some literal uses.

For expository convenience, Ruiz de Mendoza (2017a) groups content operations according to the kind of figure of thought that is more clearly based on them, although the reader should bear in mind that content cognitive operations underlie many other

linguistic phenomena, as amply shown in Ruiz de Mendoza and Galera (2014). Here we offer a brief outline of these operations based the grouping provided in Ruiz de Mendoza (2017a):

a. Content operations related to metaphor. Metaphor is based on one of two possible operations, correlation and resemblance. Correlation consists in bringing together conceptual domains which tend to co-occur in our life experience. For example, we can correlate falling into the mud and feeling wet, dirty, and sticky; or see lightning and hear thunder; or running very fast and feeling fatigued; and so on. These correlations only give rise to descriptive uses of language. Others, however, underlie what Lakoff and Johnson (1980) called correlation metaphors, such as ANGER IS HEAT, MORE IS UP, and LESS IS DOWN, which we have already referred to. A more complete list, together with a brief description of the experiential motivation for each metaphor, is provided by Lakoff and Johnson (1999, pp. 46–59), who elaborate on previous widely-known work by Grady (1997ab), later developed in Grady (1999) and Grady and Johnson (2002), where experiential correlation is argued to give rise to mental conflation (the treatment of the source and target categories as being the same because of their frequent co-occurrence in our experience), as advanced in section 2.8.3.

Correlation metaphors are considered primary because they directly arise from our experience. Other more complex constructs are based on the enrichment of primary metaphors or on their combination. Following Lakoff and Johnson (1999), Table 2 lists some correlation metaphors with examples and a specification of how they are grounded in experience.

Table 2. Primary metaphors in English

Metaphors	Examples	Experiential grounding

ANGER IS HEAT	*He's hot under the collar*	We feel hot when experiencing anger because of blood flushing to the surface layers of our skin.
MORE IS UP/LESS IS DOWN	*Prices are going up/down*	We see levels rise and fall as quantity, e.g., of a fluid, increases, or decreases.
AFFECTION IS WARMTH	*She gave me a warm embrace*	We feel warm while being held affectionately.
CHANGE IS MOTION	*She's going from bad to worse*	We tend to correlate certain states with certain locations; e.g., being cool in the shade, warm in bed, safe at home.
IMPORTANT IS BIG	*He's a big wheel in the company*	Large objects exert major forces on other objects and they dominate our visual experience more than small objects.
INTIMACY IS CLOSENESS	*They are very close friends*	When we feel intimate with other people, we tend to become physically close to them.
UNDERSTANDING/KNOWING IS SEEING	*I see what you mean*	Seeing is a crucial way of getting information.

UNDERSTANDING IS GRASPING	*He was unable to grasp the notion of intersubjectivity*	Touching an object allows us to get information about it.
SIMILARITY IS CLOSENESS	*These two colors are very close*	Often similar objects cluster together (e.g., a flock of birds, the seeds in a piece of fruit, gold nuggets in the bed of a stream, etc.)

In turn, resemblance operations work by looking for and highlighting similarities between entities, situations, or events. Resemblance is expressed through descriptive comparison (*John looks just like his father*; *Her eyes are as beautiful as Mary's*; *Your laughter and Fred's are alike*). This is a simple type of resemblance. However, there are other kinds of resemblance, which we address below.

A deeper study of resemblance relations is grounded in two distinctions: one between *low* and *high-level resemblance*, and another between *structural* and *non-structural resemblance*. Let us address each distinction in turn. At the low level of cognitive activity, resemblance underlies some cases of metaphor (e.g., *Her cheeks are a red rose*), simile (e.g., *Her cheeks are like a red rose*), and analogy (which, as discussed below, we define as a case of structural resemblance; e.g., *The heart pumps blood throughout the body*, where the heart is to the circulatory system as a pump is to a hydraulic system). These resemblance-based figures are studied in much more detail in sections 4.2, 4.3, 4.7.1, and 4.7.3. At the high level of cognitive activity, resemblance operations also underlie correlation metaphor and, in so doing, they prevent the overproduction of correlation metaphors. This happens in two ways. One of them, which

was identified and popularized by Lakoff and Johnson (1980, 1999), is illustrated by the metaphor UNDERSTANDING IS SEEING. This metaphor correlates 'understanding' and 'seeing' because these two domains co-occur in our experience. Thus, visual perception is a way of deriving knowledge.

Table 3. High-level resemblance in correlation metaphors

Metaphor	High-level resemblance
ANGER IS HEAT	Similar feelings of heat when feeling anger and when experiencing a high temperature.
MORE IS UP/LESS IS DOWN	Similar experience of increase when seeing objects accumulate and when seeing an object reach a higher position.
AFFECTION IS WARMTH	Similar feelings of comfort when receiving affection and when in a warm place.
CHANGE IS MOTION	Similar feelings of being in a different condition when changing state and when changing location.
IMPORTANT IS BIG	Similar feelings of awe and wonder when faced with an important event and when faced with a massive object.
INTIMACY IS CLOSENESS	Similar feelings of familiarity when intimate with a person and when physically very near a person.
UNDERSTANDING/KNOWING IS SEEING	Similar experience of awareness when understanding the nature of an object or a state of affairs and when seeing it.
UNDERSTANDING IS GRASPING	Similar experience of awareness when understanding the nature of an object or a state of affairs and when touching it.

SIMILARITY IS CLOSENESS	Similar experience of spatial contiguity when comparing two objects and when two objects are close to each other.

Another way of producing correlation metaphors, which has not been discussed in the literature, is high-level similarity grounded in effect-cause correlations. This is the case of IMMORALITY IS FILTH, as in *He is a dirty capitalist* ('immoral'). There is neither low-level resemblance nor co-occurrence of events licensing the connection between immoral behavior and physical filthiness. However, there is high-level resemblance if we think of the underlying effect-cause pattern in which both conceptual domains share the effect part. We think of dirty things as being disgusting, in the same way as immoral people. Since the effects are similar, the underlying causes can be related (for a more detailed discussion of this metaphor the reader is referred to 4.7.2).

The observation that high-level resemblance constrains metaphor is important, since not every case of experiential correlation can be expected to give rise to a correlation metaphor. This includes both material and socially-induced experiential correlations. 'Effect-cause' chains illustrate material correlations which may underlie metonymy instead of metaphor. For example, an effect can stand for its cause, as in *There is death in the pot* (2 Kings 4:40, Bible, KJV), where *death* means 'that which causes death' (e.g., poison); also, a cause can stand for its effects, as in *Eat healthy food*, where *healthy food* stands for 'food which causes people to be healthy'. Note that in these examples the connections are not necessary ones: one can drink a poison and still survive and eating nutritious food may not cause everyone to become healthy. However, this is not different from what is the case in other experiential correlations. For example, one can be intimate and not feel warmth, or the closeness of two objects may not lead to finding similarities between them. An example of socially-induced correlation giving rise to metonymy is the

one examined in Ruiz de Mendoza and Galera (2014, p. 164) between giving someone an engagement ring while getting down on one's knees and making a marriage proposal. The three actions (giving the ring, kneeling, and proposing) correlate and combine as if they were one. It is for this reason that a question like *Did he finally give you the ring?*, which only reflects one of the actions, can be used metonymically to stand for the whole act of proposing. There is no high-level resemblance connection among the three actions, but only temporal contiguity, which licenses a situational metonymy. Metaphor is not possible in this example of correlation.

Non-structural resemblance covers attribute-based resemblance metaphor and simile (*Her eyes are (like) the ocean*), at the low level, and the two types of correlation metaphor identified above, at the high level (e.g., *Prices are rising, He's a dirty old man*), as was pointed out above. On the other hand, structural resemblance is a way of defining analogy. Therefore, it is at work in any figure of speech based on analogical thought, like some cases of metaphor and simile, and also like paragon and allegory, as will be discussed in section 4.7.3. At the low level, structural resemblance produces analogy-based non-eventive metaphors and similes: *The heart is (like) a pump*. At the high level, it underlies analogy-based eventive metaphors, but it is somewhat less sensitive to realizations in the form of simile, since simile favors perceptually accessible attributes and relations. An example is provided by the well-known metaphor ARGUMENT IS WAR (e.g., *He fought back and beat all of Professor Higgins' arguments*) which brings into analogical alignment the events of arguing and war. In the analogy, people arguing (A) are to the domain of an argument (B) as contenders in a battle (C) are to the domain of war (D). We discuss analogy in some more detail later on in section 4.7.3. Table 4 offers a summary of resemblance types.

Table 4. Resemblance types

RESEMBLANCE TYPES	NON-STRUCTURAL (ATTRIBUTE-BASED)	STRUCTURAL
LOW-LEVEL	**Non-analogical resemblance metaphor/simile:** *Your eyes are (like) the ocean / The ocean in your eyes*	**Analogy-based non-eventive metaphor/simile:** *Your nose is (like) an elephant's trunk / The heart pumps blood throughout the body*
HIGH-LEVEL	**Non-analogical correlation metaphor/simile:** - Based on experiential co-occurrence: *Prices are going up* (MORE IS UP) - Based on effect-cause correlations: *My boss is (like) a pig* (IMMORALITY IS FILTH)	**Analogy-based eventive metaphor/simile:** Contenders in a debate (A) are to the domain of debating (B) as contenders in a battle (C) are to the domain of war (D) *His arguments came under attack.* *Was it a healthy debate or was it (like) all-out war?*

b. Content operations related to metonymy. These are domain expansion and domain reduction, briefly mentioned above in relation to source-in-target and target-in-source metonymies. Here we offer a more elaborate description. These two operations set up a domain-internal relationship between two concepts A and B such that in the former operation B is a matrix (or main) domain and A is a subdomain of B (e.g., 'the sax', A,

for 'the sax player', B), whereas in the latter operation A is a matrix domain and B a subdomain of A (e.g., 'window', B, for 'window pane', A). Expansion has been found to account for implicature and illocution (Ruiz de Mendoza and Galera, 2014, 2020). For example, the utterance *I have a headache* affords access to (and stands for) a more elaborated (but implicit) target scenario in which someone wants to draw attention to his or her discomfort possibly to receive help. On the other hand, reduction can be related to focalization phenomena. Compare the causal event neutrally denoted by *He broke the lamp* with the marked choice *John broke the LÁMP*, where the uppercase and stress mark indicate focal attention. The marked expression stresses the fact that from among the set of breakable items that John could have broken, it was the lamp that he broke. The speaker narrows down the hearer's potential choice.

c. Content operations related to over-/-understatement. These are strengthening and mitigation respectively. They work on scalar concepts such as distance, weight, and height by taking any magnitude to higher (overstatement) and lower (understatement) places on the scale in question. The more a concept is strengthened on a scale the greater its impact, and the more it is mitigated on the same scale the lesser its impact. Linguistic systems have other many strengthening and mitigating devices. Augmentative and diminutive marking are two common examples. They can have strengthening and mitigating effects respectively. For example, *This was supercool of you, dad* works by upscaling the content of *cool* on the scale of excellence. The result is a strengthened assumption about how much the speaker liked what his or her father had done. By contrast, *She's the perfect kitty for Susan* works by bringing the notion of 'cat' down on the age and size scales. The result in this case is a mitigated assumption about the age and size of the cat from a denotational perspective, plus added non-denotational implications. Strengthening and mitigation play a role in figurative language too. Consider the opposed

expressions *He's dripping tons of blood* and *He only bleeds a little* in a situation in which the person is bleeding moderately. The former overstates and the latter understates the magnitude of the problem. The former upscales the amount of bleeding, while the latter downscales it.

d. Content operations related to irony. Irony has been accounted for in many ways (see sections 6.1 and 6.2). Relevance Theory makes an interesting contribution to the explanation of irony based on the notion of echo (Wilson and Sperber, 2012) or echoing if this notion is seen from the perspective of an account of cognitive operations (cf. Ruiz de Mendoza, 2017c). In fact, any repetition of a previous expression is echoic. Reported speech is a case in point (*He said John wouldn't come*), and also some exclamations showing surprise (A: *John is here*; B: *John is here!*) and expressions of agreement (A: *John is a genius*; B: *Yes, John is a genius*). According to Relevance Theory, echoic mention can also be used to convey irony provided that the echoed thought clashes with reality. For example, in an ironic interpretation, *Yeah, sure, she kissed me*, echoes someone's belief that the speaker was kissed. If the speaker did not get kissed, the utterance has ironic force revealing the speaker's (skeptical, mocking, etc.) attitude towards the erroneous belief. The clash with reality involves another content operation, which we shall discuss in connection to paradox and oxymoron below and in section 6.5 in more detail.

e. Content operations related to paradox and oxymoron. We see these two figures of thought as being two subcases of the same phenomenon. Both involve contrasting. In a contrast, there are (at least) two terms (objects, situations, events), A and B, such that A is the opposite of (at least) some aspects of B. Adversative constructions code this operation with the meaning implication that there is a general expectation that is broken by some information that people may not have. Consider *John is poor but too proud to*

look for help. This example suggests that John is an exception to the general assumption that poor people beg or otherwise ask for help. Contrast operations are not marked linguistically in figurative language. They remain at the conceptual level. This is the case of paradox, where two predications or propositions contrast in such a way that interpretation requires a reframing strategy. In *I must be cruel to be kind*, we see a cruel action as kind if seen from a non-default perspective in which doing harm will eventually do some good (imagine painful medical procedure used to save a patient's life). In oxymoron, the items to be contrasted and reframed are not predications or propositions but terms designating objects or their properties. The expression *a sober drunkard* requires thinking of the possibility of a drunk person appearing to think and act sensibly (or even wisely) on occasion because of drunkards' tendency to speak out their mind.

CHAPTER 4. METAPHOR AND METONYMY REVISITED

4.1. Conceptual Metaphor Theory and subsequent developments

Conceptual Metaphor Theory (CMT), as propounded by Lakoff and Johnson (1980), started from the observation that metaphor is not a "deviated" use of language but an everyday phenomenon that pervades language and thought (section 2.8.1). CMT was later labeled the Contemporary Theory of Metaphor (CTM) (Lakoff, 1993), possibly because of Lakoff's desire to emphasize the distinctive nature of the conceptual approach over previous rhetorical and pragmatic approaches and its inclusion as part of contemporary cognitive science, including the brain sciences. In this book, we will retain the earlier label, CMT, for two reasons. One is that we recognize the value of communication-centered approaches, which examine metaphor in terms of its meaning effects (or communicative impact), which, when metaphoric meaning is not fully entrenched in the linguistic system, are obtained inferentially. Since inferencing is a cognitive ability based on the principles of cognitive modeling, a label that makes emphasis on the conceptual nature of metaphor is to be preferred. A second reason is the incardination of metaphor theory within the philosophy of embodied thought, according to which we think and reason in terms of bodily experience (Lakoff and Johnson, 1999; see also Wilson, 2002, for a detailed discussion of the various perspectives on embodied cognition). This view of metaphor, which has a strong empirical grounding (cf. Gibbs, 2014), is heavily conceptual too, even if conceptualization, including abstract reasoning, is understood as dependent on body states and our relationship with the environment.

The beginning of research on CMT was linguistic observation motivated through cognition. However, this line of exploration has largely been abandoned to favor developments that explore connections with concomitant research fields. Some developments relate metaphor to culture (e.g., Kövecses, 2005, 2006), others to communication and discourse (e.g., Zinken and Mussolf, 2009), and still others to its neural substrate (Feldman and Narayanan, 2004; Grady and Ascoli, 2017). We think that the linguistic approach is not exhausted and that it can still provide insights into metaphor and other related phenomena. Among the issues for which we can provide linguistic evidence is the role of metaphor in grammar, the question of integration of metaphors, and the relationship between metaphor and other figures of thought such as simile, allegory, analogy, paragon, and synesthesia.

Alongside CMT, some cognitive linguists have devoted special attention to conceptual metonymy, whose study can be integrated with the cognitive-linguistic approach to metaphor into a more comprehensive approach than can be termed Conceptual Metaphor and Metonymy Theory (CMMT) (cf. Fougner, 2014). In Lakoff and Johnson (1980) metonymy is described as a conceptual mapping, like metaphor, with the difference that metaphor sets up a domain-external identification relationship across discrete conceptual domains, while metonymy involves a domain-internal "stands for" relationship between domains. In rhetoric and literary studies metonymy has mostly been discussed in dissociation from metaphor. Within linguistics the situation was similar, with Jakobson (1971) being an exception in two respects: one, the idea that metaphor was based on similarity and metonymy on contiguity; two, the idea that metaphor was paradigmatic but metonymy is syntagmatic. This latter distinction was used by Dirven (1993) to postulate a continuum in metonymy from the syntagmatic to the paradigmatic pole. The existence of paradigmatic metonymies, if correct, would bring this phenomenon

close to metaphor. We will examine these arguments together with others like the ones in Barnden (2010), which cast doubt on the existence of a clear dividing line between metaphor and metonymy, in section 4.2 below. In contrast to what is argued by these scholars, we will contend that metaphor and metonymy are quite separate phenomena, which are best accounted for in terms of the activity of cognitive models on cognitive operations. In a more incidental way, we will also discuss the dividing line between metonymy and so-called literal uses of language.

4.2. Tracing the boundary line between metaphor and metonymy

It is not our purpose here to account for all the details of the debate on the contrast between metaphor and metonymy, which have been regarded as denotational figures involving either re-construal (metaphor) or perspective (metonymy) in Ruiz de Mendoza's (2020a) terminology since they envisage entities, situations, and events in terms of other entities, situations, and events. Part of the problem is rooted in the fact that scholars have so far been unable to produce an uncontroversial definition of metonymy (see Benczes et al., 2011). But there are also apparent boundary-line cases, which have been pointed out by scholars like Dirven (1993), Barnden (2010), and Kövecses (2013) (see Littlemore, 2015, pp. 132–136, for a summary of some of the main problems).

Dirven (1993) argues that there is a continuum between metaphor and metonymy that hinges on the notion of conceptual distance. The greater the conceptual distance between the source and target of a mapping, the greater the metaphoric nature of the mapping. Conversely, the smaller the distance between source and target, the greater the metonymic nature of the mapping in question. Some conceptual mappings will be closer

to the metaphoric pole, while others will be closer to the metonymic pole. Dirven also argues that Jakobson's (1971) distinction between the syntagmatic and paradigmatic potential of language lies at the base of the metonymic and metaphoric poles. Jakobson understands metaphor as a paradigmatic operation based on selection, substitution, and the exploitation of similarity and contrast. On the other hand, metonymy, which is syntagmatic, is based on contiguity. This approach to the contrast between metaphor and metonymy allows Dirven to put forward three different kinds of metonymy according to the kind of syntagmatic relation that they instantiate:

a. *Linear metonymies*. They involve little conceptual distance, as illustrated by the use of the expression *different parts of the country* to stand for the inhabitants of such territories. There is no significant meaning shift.

b. *Conjunctive metonymies*. This type of metonymy entails a systematic change in meaning. An example is the use of the word *tea* to refer to the meal that is associated with this drink. The tea plant stands for its tea leaves, which stand for the drink made with them, which stands for the main evening meal. There is greater conceptual distance than in the case of linear metonymies and the final meaning extension is not of a linguistic but of a socio-cultural nature. It is also important to note that the different extensions of the word *tea* involve no figurative process.

c. *Inclusive metonymies*. These require a figurative interpretation and they involve a greater conceptual distance between the source and target domains than in the case of the other two types of metonymy. For example, *to have a good head* means 'to be intelligent' since head is associated with intelligence, which calls for a metonymic interpretation, but the distance between a physical image and the mental reality is large enough to make it difficult to discuss the example in terms of juxtaposition.

Following the logic of this discussion, Dirven (1993, p. 9) argues that linear metonymies are the most syntagmatic of the three types thus qualifying as the more central members of the category. By contrast, inclusive metonymies are the least syntagmatic, which brings them closer to metaphor, while conjunctive metonymies are in the middle. Obviously, there are two important weaknesses in this approach to metonymy: one relates to the concept of conceptual distance and the other to the assumption that metonymy and metaphor can be differentiated in terms of the syntagmatic/paradigmatic distinction. First, there is no reason why the metonymy LOCATION FOR PEOPLE THERE requires a greater conceptual leap than the metonymy A CHARACTERISTIC COMPONENT OF AN EVENT FOR THE EVENT. Even if *tea* is used to refer to any evening meal whether it includes drinking tea or not, we can at most postulate an additional metonymic shift: AN EVENING MEAL BASED ON TEA FOR ANY EVENING MEAL (which is but one possible instantiation of the more generic pattern AN ITEM IN A CATEGORY FOR THE WHOLE CATEGORY, as in *aspirin* for *any pain killer*). The rest of the metonymic shifts from the plant to the leaves to the drink are only steps in a metonymic chain where each of the items has become conventionalized. The shift from the drink to the meal is just one step in a chain of metonymic shifts that have yielded conventional meanings that do not necessarily take speakers back to the tea plant. A similar reasoning holds for the use of *head* to mean intelligence. It could be argued that head stands for brain (which is in the head), which stands for intelligence. However, there are no metonymic expressions in which the head stands for the brain, but directly for the mind (e.g., *I figured it out in my head* 'mind') or intellect (*He has a good head* 'intellect'). Of course, the brain can be directly mentioned to refer to a person's intellectual abilities (*He has a quick brain*), but it is either the head or the brain that stands for intelligence, not both in a chain. So, the conceptual distance between the two related items is not any greater than for the examples

of linear and conjunctive metonymy. There is no special "figurative" (i.e., metaphor-like) meaning in the head-intelligence connection. Metaphor requires a cross-domain mapping and either a correlation or a resemblance connection between the source and target. Furthermore, metaphor is a reasoning mechanism whereby we think of target elements as if they were source elements. There is no cross-domain mapping from the head to intelligence, nor any resemblance between them or any form of co-occurrence of separate experiences leading to conflation (when we think of the head, we do think of intelligence but not by confusing the latter with the former, but simply because the two concepts stand in a domain-subdomain relationship, as is the case in all metonymic expansion and reduction operations). This observation takes to the second weakness, which is basing the distinction between metonymy and metaphor on the distinction between the syntagmatic and paradigmatic axes in linguistic description. It is true that syntagmatic relations are a matter of contiguity, while paradigmatic relations are based on contrast and supply with sets of options, as in the case of the lexical hierarchies of structural semantics. For example, in this approach to lexical organization, a category like *bird* is a hypernym for lower-level categories such as *sparrow*, *robin*, *ostrich*, etc., which inherit features (e.g., they lay eggs, have a beak, have feathers, etc.) from the higher category, while contrasting among one another on the grounds of other attributes from the same level (in terms of size, shape, color, the ability to fly, etc.). Now, think of a correlation metaphor like MORE IS UP (e.g., *Prices are going up*). This metaphor treats quantity and height as if they were the same concept, not as contrasting notions. It is true that 'going up' could alternate with 'increasing', but not any more than 'hand' could alternate with 'worker' in the metonymy *We need to hire a new hand*. There is no contrast-based choice in either, but rather a choice based on conceptual contiguity, which Dirven, following Jakobson, understands as syntagmatic. There are, of course, non-correlation metaphors that exploit cross-domain

resemblance. But again, there is nothing paradigmatic about source-target similarities in metaphor. For example, the metaphor *Her teeth are pearls* highlights (and probably even exaggerates) the brightness and whiteness of the enamel of a person's teeth by thinking of it in terms of comparable features in pearls. *Teeth* and *pearls* could only be postulated as sister categories of a hyper-ordinate concept such as 'white, bright objects' in a very loose way. This is in fact Gluckberg's (2001) class-inclusion position, which seems to be favored by relevance theorists (see Carston, 2002, p. 373), whose view has been discussed in detail in 3.2.1.2. In this view, a metaphor like *My job is a jail* asserts that the speaker's job is a member of an *ad hoc* category (created on the fly) that has no lexical expression but only conceptual content that can be paraphrased as 'things/situations which are confining, unpleasant, externally imposed, difficult to get out of, etc.'. This superordinate category can be represented as *JAIL for convenience. However, this view runs against two problems. One is that the proposed paraphrase only captures meaning implications resulting from thinking of selected aspects of jobs in terms of corresponding aspects of jails. Jails are uncomfortable and they restrict one's freedom. Being in jail can be an oppressive experience. It is this experience that becomes aligned to the speaker's work experience in the job-jail metaphor. There is no need to classify a job as a type of *JAIL, but simply to think of the job in terms of a real jail and reason about it. The second problem of the class-inclusion view of metaphor is that it cannot apply to correlation metaphors since any hypothetical superordinate category would only have target-domain properties thus rendering the source domain dispensable. Think of MORE IS UP again. There is no *ad hoc* category *UP from which we may abstract properties that can hold for the notion of quantity. That is, we cannot classify quantity as a subordinate category of *UP. The same holds for other correlations: IMPORTANT IS BIG cannot be explained in terms of a hypothetical category *BIG that will lend some of its properties to the notion

of importance. The reason for this is that in experiential co-occurrence there is no similarity judgment, which prevents language users from constructing a common superordinate category. In other words, while we treat quantity as if it were height, we do not align properties between quantity and height.

All these observations point in the direction of disregarding the distinctions between linear, conjunctive, and inclusive metonymies as metonymic types, much less as forming part of a continuum from the metonymic to the metaphoric pole. However, the failure to identify a continuum on the grounds of conceptual distance and class inclusion does not necessarily mean that there is no such a continuum or that a clear-cut distinction between metaphor and metonymy is possible. We will examine other arguments and then defend the view that understanding metaphor and metonymy and their linguistic manifestations (e.g., predicative and referential) as a result of the activity of combinations of cognitive operations (e.g., correlation, resemblance, expansion, reduction, and substitution) renders the attempt to see blurred boundaries pointless. Before we do so in sections 4.4 and 4.5 below, let us examine Barnden's (2010) arguments.

Most theorists agree that metaphor is a cross-domain mapping while metonymy is domain-internal (cf. Barcelona, 2003). This involves the discreteness of domains in the case of metaphor and conceptual contiguity in the case of metonymy. Barnden (2010) points out that the discreteness criterion is not tenable given the existence of primary metaphors based on experiential correlation leading to conflation. Since conflation involves regarding two originally distinct domains as one, the domain-external nature of a mapping is no longer a distinctive feature of metaphor. This brings metaphor close to metonymy. In MORE IS UP motion upward stands for the experientially contiguous notion of increase, in AFFECTION IS WARMTH, a warm temperature stands for affectionate feelings, in GOALS ARE DESTINATIONS, reaching a destination stands

for achieving one's goals, and so on. There are two weaknesses, however, in this line of argumentation. One, which has been noted in Ruiz de Mendoza and Galera (2014, p. 43), is that the "stands for" relationship is a substitution relationship. There is no reasoning system behind it. Thus, in metonymy, we can say that the instrument stands for the musician that plays it (e.g., *The sax and the trumpet have withdrawn from the band* 'the sax and the trumpet players'), but we do not reason about the musician in terms of the instrument. However, in correlation metaphors there is a reasoning system that requires cross-domain alignment even if we mix up concepts. Thus, in the quantity-height correlation an increase is moving up and a decrease is moving down (*Prices go up/down*), differences in the rate of increase can be seen in terms of differences in the speed of motion (*Prices have skyrocketed*) and differences in amount in terms of greater or lesser altitude (*Prices have soared*). In the affection-warmth correlation, we align degrees of affection (or of the lack thereof) with degrees of temperature: a person can be *as cold as ice*, *warmer than the sun*, *cooler than a breeze*, etc. In the case of the goals-destinations correlation, quick or slow progress is treated as quick or slow motion forward, difficulties to progress as impediments to motion, and so on. Another weakness is that conceptual conflation relates concepts differently from metonymy. First, concepts related through metonymy belong to the same knowledge frame (or conceptual domain), while conflated concepts arise from different knowledge frames that can be brought together through frequent co-occurrence, i.e., without strict conceptual codependency (e.g., affection can be shown without physical intimacy or a person's reaching a destination might not have the goal of reaching it). Second, conflation involves a fusion and mixing-up of concepts. Using one or the other becomes indifferent. But the domain-internal relatedness of metonymy keeps the related concepts apart from each other, since there is no mixing-up of concepts.

Barnden (2010) also argues that, beyond the domain of conflation, there are expressions where the domain-internal/external criterion fails to discriminate between metaphor and metonymy. He gives the following example: *There's a snake on the left-hand side of the drawing*. Imagine that this sentence is used to refer to a wavy line. In his view, there are two possible interpretations for *snake*. In one there is a wavy line intended to depict a snake. The word *snake* is thus metonymic for the sketchy representation of a snake. In the other interpretation, which is metaphorical, the word *snake* is used to denote not a snake but a wavy line that resembles a snake. In the two situations, Barden claims, the mapping is domain-external even though the metonymic interpretation should involve a domain-internal mapping, according to most theorists. However, as noted in Ruiz de Mendoza and Galera (2014, p. 43), what Barnden claims to be a metonymic interpretation of *snake* is not. Where *snake* refers to the sketchy representation of a snake, there is a metaphorical mapping where the notion of snake is used to cast light on the image-schematic aspects of the target (the drawing). The misled feeling that there is a metonymy simply arises from the fact that the *there*-construction has been used referentially. But let us remember that metaphor can be used referentially too (e.g., *There comes my tender rose*, used to refer to one's fiancée). In the second interpretation, the speaker draws attention to the image-schematic nature of a line, which looks like a snake, and there is an existential use of the *there*-construction.

Barnden (2010) goes on to argue that the traditional claim that only metonymy, but not metaphor, is based on contiguity can be disputed. According to Barnden the metaphorical use of the word *creampuff* to refer to a weak boxer (e.g., *The creampuff was defeated in two rounds*) is a case of metaphorical contiguity (see 3.2.1.2 for a detailed analysis of this expression to prove that substitution is not only a property of metonymy but also of referential metaphor). This contiguity results from the similarity link between

the boxer's weakness and the sweetness of the creampuff. Two points are in order here, however. One is that similarity is not a form of conceptual contiguity in the sense in which this notion applies to metonymy. In metonymy, contiguity is a matter of frame inclusion of two or more items. That is, two items are contiguous if they belong to the same conceptual frame. This is evidently the case when there is physical contiguity, as in container-content (e.g., *bottle-water*) or part-whole relations (e.g., *hand-laborer*). But it also holds for non-physical connections such as controller-controlled (e.g., *bus-bus driver*) or producer-product (*IBM-IBM computer*). These frame-internal relations are very different from the metaphorical resemblance link. Consider again the teeth-pearls resemblance metaphor, where the whiteness of pearls allows us to think of the whiteness of teeth. The existence of this connection could be argued to create conditions of conceptual contiguity on the assumption that there is a shared feature (i.e., whiteness). But strictly speaking this feature is not shared since similarity is not identity. It is not accurate to say that the teeth and the pearls have a feature in common but only that they resemble in terms of a property. Metaphor is not the transfer or ascription of one or more features. It is treating a set of features (and any other frame elements) belonging to a conceptual domain in terms of corresponding features (or frame elements) belonging to another conceptual domain. The second point relates to the referential use of *creampuff*. As noted in 3.2.1.2, metaphor (not only metonymy) can be used referentially. Since metaphorical expressions, like metonymic expressions, can mention only the source domain, it follows that a referential metaphorical expression can refer to an entity in the world at the same time as the explicit concept that it represents (once the metaphor has been worked out) substitutes for the implicit target concept (i.e., what is meant). Thus, the expression *creampuff* refers to the weak boxer while the concept 'creampuff' substitutes for 'the person that is sweet like a creampuff'. This target representation

results from thinking of the boxer in terms of the cake. The expression *creampuff* could have been used non-referentially: *Cassius Clay was all but a creampuff*. The evident conclusion is that referring to the weak boxer by means of the expression *creampuff* is a matter of metaphor, not of metonymy.

The previous discussion would seem to point in the direction of altogether disregarding the possibility of a continuum between metaphor and metonymy. However, this is only so from the perspective of conceptual categorization. If we think of the use potential of the different kinds of metaphor and metonymy, there is a continuum that ranges from stronger to weaker referential and predicative use potentials. The starting point for this perspective is based on the following properties of lexical metonymy and metaphor:

- Lexical metonymy has a strong referential potential and a weak predicative potential.

- Lexical metaphor has little referential potential but a strong predicative potential.

Lexical metonymy applies to lexical concepts, i.e., conceptual constructs whose structure and scope is conventionally associated with lexical units (Evans, 2009). Non-lexical metonymy holds for situations in which metonymy supports higher-level meaning-derivation processes, such as implicated and illocutionary meaning. In the same way, metaphor can be constructed by placing either two lexical concepts, situations or events into correspondence. Let us now consider the two observations made above. In referential metonymy, the source domain stands for the target domain conceptually and the lexical expression of the source refers to the entity designated by the target domain. In the ham-sandwich-customer metonymy, the expression *ham sandwich* affords access to a concept, the order, which stands for another concept, the customer that has placed the order. In virtue of this "stands for" (or substitution) connection, *ham sandwich* refers not to the object literally designated by the expression but to the metonymic target. By contrast, in

predicative metonymy, there is only a substitution operation at work from a conceptual perspective, while, from the point of view of use, the target domain contains features that hold true of the entity that is the object of the predicative act. The sentence *Professor Jones is a real brain* bears out this point. Here, *brain* stands (or substitutes) for a person with especially high intellectual abilities. The motivation for this interpretation of *brain* is related to our discussion above on the metonymic use of brain to stand for intelligence as in *He has a quick brain*. In *Professor Jones is a real brain* the word *brain* does not stand for intelligence, but for 'person with real intelligence' or 'really intelligent person' because of the equative character of the syntactic construction, which constrains the interpreter to find a metonymic target that matches the nature of the clausal subject. However, predicative uses of metonymy are rare. The reason for this is the domain-internal nature of metonymy. It is generally not viable to map the structural relation between the source and target domains onto the target when one of the two domains involved is part of the other. It is only when metonymy brings out a singular characteristic of the source domain through domain reduction that we can find expressions based on predicative metonymy. This is the case of *He's a real brain* and of other expressions like *She's just a pretty face* ('a woman with beautiful and attractive facial features but no other qualities') and *He is an Einstein* ('an unusually intelligent man'). A highlighted feature can be ascribed predicatively to the object of a predicative act. It may be argued that predicative metaphor works by means of feature ascription. This is not so. There is a crucial difference between predicative resemblance metaphor and metonymy. Resemblance metaphor aligns similar highlighted features, while metonymy selects a feature and ascribes it. In the lexical metaphor *His room was a pigpen* we think of the messiness of the room in terms of the filthiness of a pigpen. In the lexical metonymy *Professor Jones is a real brain* we do not think of professor Jones in terms of a brain, but

we highlight the quality of intelligence and ascribe it to Professor Jones. Lexical metaphor is easy to use predicatively because feature alignment is easily expressed this way. But it also lends itself to referential uses since the highlighted characteristic provides the language user with a densely-packed description that can be safely used to uniquely identify a referent. This means that referential metaphor is closer to metonymy, especially referential metonymy, than predicative metaphor.

We now go back to the question of a non-conceptual continuum between metaphor and metonymy that is consistent with the observations made in (i) and (ii) above. We propose the following continuum:

Predicational metaphor --- predicative metaphor --- referential metaphor --- referential metonymy --- predicative metonymy --- predicational metonymy

In this continuum, predicational metaphor is a cover term for either high or low-level metaphorical (see 4.4.5) thinking based on correlation cognitive operations. Metaphors of this kind are not sensitive to referential uses since they do not have a descriptive function, unlike resemblance metaphors.

The question now is, if there is no conceptual continuum between metaphor and metonymy, how we draw the boundary between them. The solution to this question lies in breaking down each of the two phenomena into simpler cognitive operations. This is tantamount to saying that metaphor and metonymy are epiphenomenal constructs captured by convenient descriptive labels, a situation that also holds for other figures of thought drawn from the literary tradition.

4.3. Metaphor and metonymy in terms of cognitive operations

We argued in section 3.2.1.2.2 that correlation and resemblance underlie metaphor, while domain expansion and reduction apply to metonymy. We also noted that saturation and parameterization where two subcases of metonymic expansion and reduction respectively. One final observation that we made was that resemblance metaphor and expansion or reduction metonymy can each combine with substitution operations, while correlation metaphor could not. When combined with substitution a resemblance metaphor acquires a clear referential potential. In the case of metonymy, substitution is intrinsic to it. However, not all metonymies are used referentially. Metonymy can be used non-referentially too (e.g., *John is a real brain* 'an unusually intelligent person'; *I'll be brief* 'I'll speak briefly'; *I'm thirsty* 'Give me something to drink'). We may wonder why metonymy necessarily involves substitution and why this operation does not invariably endow it with a referential potential. These questions are answered by examining the nature of expansion and reduction operations. Both metonymic operations have starting and final points, but the linguistic expression only mentions the former (the source), while the latter (the target), which represents the intended meaning, remains implicit. Inevitably, since only the source is explicit and calls for the activation of the target, it follows that the source is a substitute of the target. In the case of metaphor, we have a different situation. The metaphoric source does not require the activation of the target. In fact, it is the target that requires the activation of a source domain whose structure and logic allow us to reason about the target. When such a source is found, it is made explicit to provide the required match with the target.

The advantages of breaking down metaphor and metonymy into simpler cognitive operations, however, go beyond motivating their respective predicative and referential potentials. The cognitive-operations account endows the analyst with a powerful explanatory tool capable of making explicit connections among various linguistic

phenomena that have so far undetected commonalities. For example, euphemism and dysphemism, which were preliminarily studied in 3.2.1.2, make intrinsic use of substitution, which may combine with expansion, reduction, or resemblance. Thus, *ample* stands for 'fat' in *She's ample* and *looney bin* generally stands for 'mental hospital'. Evidently, being ample is one of the conspicuous properties of the figure of fat people, i.e., the breadth of their waist. By highlighting a non-negative attribute of fat people and using it to substitute for the whole target concept (fatness) the negative load of the latter is dissipated. Domain expansion thus combines with substitution to produce a metonymy with euphemistic overtones (A CONSPICUOUS COMPONENT OF A PROPERTY FOR THE WHOLE PROPERTY). In turn, *looney bin* is a derogatory expression on two counts: first, *looney* is a short and informal variant of *lunatic*, which is a strongly pejorative word; second, the word *bin* is neutral when used to refer to a container for storage, but not if used to substitute for hospital. A hospital and a bin share some of their topological properties but not their function. As a consequence, if we think of a hospital, where patients are taken care of, as if it were a bin, where objects are stored (or even thrown) away, an undesirable objectification of patients arises. This pejorative situation is worsened by the association of *bin* with *dustbin* or *rubbish bin.* In this book, we will deal with many such connections as we explore the various figures of thought.

The cognitive-operations account is also useful to settle some definitional controversies, especially in the field of metonymy. How to define metonymy is still a matter of controversy in Cognitive Linguistics. There are two traditional positions:

a. Metonymy is a domain-internal conceptual mapping (Lakoff and Johnson 1980).

b. Metonymy is a "reference point" phenomenon (cf. Langacker, 1993; Kövecses and Radden, 1998).

To (a) and (b) we will add (c) below, which, we will argue, provides a meeting point for the former two:

c. Metonymy is a combination of more basic cognitive operations (Ruiz de Mendoza, 2000).

Position (a) has been taken for granted by metaphor theorists following the proposals in Lakoff and Johnson (1980) and their developments in Lakoff (1987, 1990, 1993), Lakoff and Johnson (1999), and Lakoff (2009, 2014). In this approach, metonymy involves a "stands for" relationship within a domain, while metaphor involves a cross-domain "is a" relationship where one domain is used to reason about another separate domain. Metonymy is not used for reasoning. It serves a referential function, as in *The guitar has been drinking heavily*, where *the guitar* means 'the musician that plays the guitar'. The referential value of *the guitar* and the "stands for" connection between the metonymic source and target are felt to be related: if A stands for B, and A is a referential expression, it follows that A refers to B. Finally, for conceptual metaphor theorists, metaphor is a widespread reasoning resource whose importance for the scientific study of the brain is paramount. Since metonymy looks more like a conceptual shortcut, it is only natural that, for these theorists, it is a less interesting phenomenon.

The metonymy-as-a-mapping position has some possible weaknesses. One is that these theorists assume that metonymy is essentially referential, perhaps because of its "stands for" nature, although no explanation has been given as to why. However, this is not a serious problem since it can be fixed without discarding the central assumptions of the position, that is, the existence of a domain-internal mapping where the source stands for the target. We have provided a possible motivation for the high referential and weak predicative potential of metonymy in section 4.2 based on the domain-internal nature of metonymy, which precludes the mapping of source domain structure onto the target thus

favoring simpler source-target shifts. Another perhaps more serious weakness is that it is not always clear when a mapping is carried out inside a domain (metonymy) or across domains (metaphor), since sometimes domains are conflated on the grounds of frequent co-occurrence in our experience or experiential correlation. But, as we have argued before, conflation does not create a domain-subdomain relation, but simply the failure to distinguish between one domain and another except through metacognitive reflection. The domains are still discrete. It could be argued that in correlation metaphors the source domain stands for the target, much like in metonymy. For example, we could say for *a cold person* that 'cold' stands (or substitutes) for 'unaffectionate'. But this view of the source-target links in correlation metaphors is at fault. First, underlying AFFECTION IS WARMTH and LACK OF AFFECTION IS COLDNESS there is a reasoning system involving the cross-domain alignment of conceptual structure: a person can be cold or warm in degrees and when cold we additionally reason that they are distant while when warm we think of them as close. This happens because of our experience of feeling warm while being held affectionately (Lakoff and Johnson, 1999). Descriptions like *a cold and distant person* or *a warm and close relation* are based on this way of reasoning. Second, as we noted, the "stands for" connection is not exclusive of metonymy. We find it at least in referential metaphor, and in euphemism and dysphemism, even when these figures do not make use of metonymy (see 3.2.1.2). Third, in a loose sense, any synonymy relation, taxonomic relations, and even paraphrases can be used in discourse with a "stands for" function; e.g., 'wealthy' for 'rich' in *John is extremely wealthy*; 'bird' for 'sparrow' in *We found an injured sparrow; the poor bird had a broken leg*; 'having aversion to work' for 'being lazy' in *He has aversion to work; in other words, he is lazy*.

Position (b) subscribes to Langacker's (1993) discussion of metonymy as a reference point phenomenon. In reference-point relationships the entity first invoked

allows us to establish "mental" contact with another (spatially or otherwise) related entity. Metonymy has this property. The metonymic source can be regarded as a point of access to its corresponding target. The reference-point perspective has one clear strength. According to Kövecses and Radden (1998), Langacker (1999), and Barcelona (2000), the idea of "affording mental access" is compatible with treating as metonymy a broader range of phenomena than just referential expressions. It can cover predicative, propositional, and illocutionary metonymy. But as Langacker (1993) himself notes, metonymy is not the only linguistic phenomenon that qualifies as a reference-point phenomenon. Another one is the possessor-possessed relationship where the possessor affords access to the possessed object. In this view, the phrase *Mary's friend* requires a shift from the initial focus of attention on *Mary* to Mary's *friend* thereby relegating *Mary* to the background. Metonymy involves a similar shift in focus. In *He has a Picasso* the artist acts as a reference point for a sample of his work, which becomes the center of our attention, with Picasso being backgrounded. A related problem, discussed by Panther (2005), is the fact that the "afford access" view cannot differentiate metonymy, which sets up a contingent relationship between the source and target domains, from constructions involving entailment, which sets up a non-contingent relationship between two terms. In the sentence *The loss of my wallet put me in a bad mood*, 'the loss of my wallet' affords access to the idea of 'non- possession of the wallet'. But this connection is an entailment; it is non-contingent or conceptually necessary, whereas metonymic relations are contingent or conceptually non-necessary: the existence of a guitar does not necessarily entail the existence of a guitar player (who is only taken for granted).

The reader may note that positions (a) and (b), although arising from different cognitive-linguistic traditions, are not necessarily exclusive of each of other. Position (a) makes more emphasis on the nature of the relationship between source and target, while

position (b) highlights the domain-shifting ability of metonymy. Besides, position (b) has no intrinsic definitional validity but simply notes one property of metonymy that is to be complemented with other properties like the contingent nature of the relationship between the domains involved in its interpretation. Position (c) notes other properties of metonymy, which are more fundamental since they provide the groundwork to account for the other properties discussed above in connection to positions (a) and (b). In this third position, metonymy is regarded as a combination of one of two content cognitive operations, domain and expansion or reduction, with the formal operation of substitution. This approach has the following advantages:

1. It is fully compliant with the view of metonymy as a mapping, while endowing this notion with greater meaning than position (a).

2. It is sensitive to the "afford access" view of metonymy. However, rather than just lump metonymy with other reference-point phenomena, it clearly distinguishes metonymy from these other phenomena by providing explicit additional differentiating criteria arising from an examination of the role of domain-subdomain relations in metonymic thinking.

3. It links metonymy up with other linguistic phenomena, among them some cases of euphemism (e.g., *wearing cement*, stands for 'being killed' through domain expansion) and the focal structure of utterances, which are naturally grounded in domain reduction from a more generic to a less generic conceptual construct that is consistent with the context: *We are selling LÍTERATURE!* (not just books as objects, but their contents).

4. It also provides theorists with a strong explanatory tool for other analytical situations. In this book we will deal with four: (i) metonymy-based anaphora (section 4.6.2); (ii) the various combination patterns between metaphor and metonymy (section 4.5.3); (iii) the

metonymic grounding of fictive motion (Talmy, 2000) (section 4.6.3) and of (iv) image-schema transformations (Johnson, 1987; Lakoff, 1987) (section 4.6.4).

5. It allows us to draw a clearer boundary line between metonymy and metaphor by looking at the most basic cognitive processes involved in them (see 3.2.1.2.2).

6. In relation to observation (5), it allows us to dispel the controversy on experiential correlation being a source of metonymic thinking rather than metaphor. Some scholars argue that, since experiential correlation can result in conceptual conflation, so-called correlation metaphors would thus be metonymies. For example, rather than say that *Prices go up* is based on MORE IS UP we could say that it is based on UP FOR MORE. In this view 'going up' stands for 'increasing in quantity' within the domain of quantity-height. However, this line of reasoning is inconsistent with the fact that conflation is a mixing up rather than a unification of concepts. Speakers know that UP is different from MORE. It is also inconsistent with the definition of metonymy based on expansion or reduction, since UP is not a part of MORE or the other way around. What is more, this view of conflation misses the fact that expressions like *Prices go up* involve a reasoning process based on the experiential alignment between quantity and height. This alignment allows to produce expressions such as *Prices go down* (LESS IS DOWN), *Prices have plummeted* (focused on the suddenness of the event), and *Prices are soaring* (focused on the continuity of the increase). Metaphor, but not metonymy, is part of a reasoning system. Finally, as we discussed in section 3.2.1.2.2, experiential correlation only gives rise to metaphor if there is high-level resemblance between the two correlated experiences. As we noted, the metaphor MORE IS UP is possible not only because we see levels rise when quantity increases, but also because these two experiences share the notion of augmentation.

Despite these advantages, the domain expansion/reduction view of metonymy still needs some refinement. Compare the use of *window* in (1) and (2) below:

(1) They had to get in through the window.

(2) He broke the window.

Expression (1) refers to the opening while (2), in its default interpretation, refers to the glass pane mounted in a window frame. Following Croft (1993), we could say that the opening of a window is more central to the notion of window than the window pane since there cannot be a window without an opening but there can be a window without a glass pane. While in both cases we have domain reduction from the whole to the part, domain reduction in *get in through the window* takes place from the whole to a central part, while in *break the window* it takes place from the whole to a non-central part. In the latter case we have metonymic thinking, while in the former we do not. This is evidenced by the oddity of the first of the extensions of (1) and (2), expression (3), but not of (4):

(3) He got in through the window; #I mean through the opening.

(4) He broke the window; I mean the window pane.

Evidently, there are other uses of *window* which do not involve domain reduction: *I can see the window from here*; *That house has no windows*; *They install windows*. These are undeniably literal uses where the whole object is invoked and no metonymic shift is required since the source and target meanings are the same. Recall that a metonymic interpretation requires domain expansion or reduction combined with substitution. When the concept is used literally none of these operations is called for. Nor are they necessary when we focus on a central –and thus definitional– characterization of a concept. By contrast, a substitution operation is called for when attention is shifted to a non-central part of the concept, because of the greater distance between the source and target characterizations.

The situation is different for domain-expansion mappings. In these mappings, the central or non-central status of the subdomain to be expanded is immaterial since it is the matrix domain, as in directly literal expressions, that provides the intended meaning interpretation.

In view of all the considerations made above, metonymy is a conceptual mapping, based on either domain-expansion or domain-reduction, where the source domain stands for the target domain in such a way that, when domain-reduction is called upon, the target domain is not a central characterization of the source. Furthermore, metonymy does not involve reasoning but only perspectivization: the target is envisaged from the perspective of the source. We have a completely different situation with metaphor. Metaphor consists in a cross-domain conceptual mapping built to reason about the target domain in terms of selected properties of the source domain, which includes either low-level structural or attribute-based similarity or source-target experiential correlation and high-level similarity. It should be borne in mind, though, that the concept of mapping is not exclusive of metaphor or metonymy, as pointed out in section 2.8.1 following Ruiz de Mendoza (2014b). In this book, we will explore the existence of non-metaphorical cross-domain mappings of conceptual structure. One such case is hyperbole, which is not based on experiential correlation or perceived similarity, but on simulated similarity (Chapter 5) and another is irony, based on the contrast between an echoic and an observed scenario (Chapter 6).

4.4. A typology of metaphor and metonymy

Since both metaphor and metonymy are mappings, they can be classified by examining the different aspects of the mapping process. Each aspect offers a taxonomic criterion. We suggest the following aspects:

a. The type of cognitive operation licensing the mapping

b. The formal complexity of the mapping system

c. The conceptual complexity of the mapping system

d. The ontological status of the domains involved in the mapping

e. The levels of genericity of the domains involved in the mapping

Let us discuss them for both metaphor and metonymy.

4.4.1. The type of cognitive operation licensing the mapping

Criterion (a) arises from the distinctions between expansion/reduction operations, for metonymy, and resemblance/correlation operations, for metaphor. We have studied these distinctions and their impact for metaphor and metonymy theory in some detail in previous sections (3.2.1.2.2 and 4.3). Correlation and resemblance operations underlie correlation metaphor and resemblance metaphor respectively. While correlation seems to be unique to metaphor, resemblance is shared with the various kinds of simile.

4.4.2. The formal complexity of the mapping system

Criterion (b) is based on the observation that a metonymic mapping is based on only one correspondence, while metaphors can have one or more correspondences (Ruiz de Mendoza, 1997b, 2000). This has some consequences in cognitive and communicative terms. Consider first one-correspondence metaphors. We distinguish two kinds: (i) those

whose source domain contains one single concept; this is the case of correlation metaphors like MORE IS UP (*Prices are soaring*) or IMPORTANT IS BIG (*That's a rather big mistake*); (ii) those that bring several tightly related concepts together into a single cluster that single out a quintessential source property; this is the case of *Achilles is a lion*, where the lion's attributed "courage" results from its instinctually fierce behavior when attacking other animals (cf. Ruiz de Mendoza and Pérez, 2011, p. 178). The reasoning process in these two types of one-correspondence metaphor is kept at a minimum. In *Prices are soaring*, as was noted before, only qualifying aspects of increases in height are used to reason about corresponding aspects of increases in quantity. In *That was a big mistake* only the impact of sizeable objects on people is relevant to reason about the seriousness of a mistake. In *Achilles is a lion*, only the aggressive predatory behavior of a lion is used to understand the warrior's fierceness in battle.

By contrast, in many-correspondence metaphors the reasoning process is richer. Consider the following excerpt from a Linked-in description of a marketing and advertising company:

(5) We're solutions-oriented thinkers. When we're stuck, we find a way to keep going, or look for a different way to approach the issue.[5]

This logic of this description in (5) is grounded in a development of the primary metaphor GOALS ARE DESTINATIONS, which allows us to reason about any goal-oriented activity as if it were a journey. This development requires multiple correspondences:

- Company workers are fellow travelers.

- The company's goals are the destination at the end of the journey.

- Difficulties to progress are impediments to travel.

- Solving the difficulties to progress is sorting out the impediments to travel.

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[5] https://www.linkedin.com/company/dawn-design-studios/about/. Accessed on July 24, 2020.

- Resuming activities is resuming travel.

- Exploring alternative ways to achieve goals is exploring different routes.

Evidently, the reasoning process in a many-correspondence metaphor is more complex than in a one-correspondence metaphor. But this is a trivial difference between the two kinds. A more central difference arises from the ability of many-correspondence metaphors to work in terms of a system. Thus, the meaning implications of each linguistic realization hinge on one correspondence of the system, which is endowed with prominence, through temporary highlighting, against the background of the rest of the correspondences. In (5), 'being stuck' suggests the lack of progress in a project, which can be addressed by exploring new strategies that may lead to the desired results. That is, being stuck is understood as an impediment to travel that can be overcome by finding new routes. It is both highlighted and interpreted against the rest of the correspondences in the system. This is different from the one-to-one straightforward connections provided by the one-correspondence metaphors involved in *Prices are soaring* or *Achilles is a lion*, where the highlighted element is not the whole correspondence but an aspect of it (i.e., the notions of increase and fierce instinctual courage, respectively).

From a formal perspective, one-correspondence metaphors are closer to metonymy since metonymy involves only one correspondence. However, we need to distinguish the situation of source-in-target metonymy from that of target-in-source metonymy. As discussed in Ruiz de Mendoza (2020b), the latter is in fact closer to one-correspondence metaphor since this type of metonymy involves the same kind of highlighting. In source-in-target metonymies, the source, as a point of access, has default conceptual prominence. This means that it does not need to be highlighted for the metonymic operation. The target does not need to be highlighted either since, as a matrix domain, encompasses the whole concept. But in target-in-source metonymies the target

domain is a non-central characterization of the source, which requires highlighting (cf. Croft, 1993) to receive the adequate non-default conceptual prominence. As a result, target-in-source metonymy is closer to one-correspondence metaphor. This is clearly evidenced by the following examples:

(6) There's the rat that betrayed you ('a disgusting person').

(7) The Bank of America has decided to close two of its branches ('executive officers' working for the bank).

(8) The sax has not returned to the studio yet ('the person that plays the sax').

In (6) interpreting the expression "the rat" requires selecting at least two related properties of rats (they are disgusting and can bite you unexpectedly) that are set against the rest of the properties of rats (where they live, what they eat, their morphological characteristics, etc.) through a highlighting process. In (7), a target-in-source metonymy, the executive officers of the Bank of America, are a secondary domain which acquires primary status through highlighting too. In (8) the sax has default prominence so it needs no highlighting, nor does the sax player in the target, since this concept encompasses the source.

4.4.3. The conceptual complexity of the mapping system

Criterion (c) has to do with our ability to create complex units out of simpler ones. This ability has multiple manifestations in language. At the formal level, it underlies the well-known phenomenon of syntactic recursion, whereby a linguistic rule can be applied to the output of the application of the same rule. In English recursion underlies multiple syntactic embedding that is only limited by production and processing factors but not by any impossibility to extend it indefinitely. Compare (9) and (10) where the oddity of (10)

has nothing to do with the misapplication of syntactic rules but with the difficulty of following up on the content multiple embedded clauses:

(9) The woman who smiled at the girl is my neighbor.

(10) The woman who smiled at the girl who smiled at her little brother who smiled at his little cousin who smiled at his little friend who smiled at his uncle who smiled at his wife who smiled at his sister who smiled at his brother-in-law who smiled at reverend Jones who smiled at the congregation is my neighbor.

Recursion is thought by generative linguists to be a universal property of grammar. However, it is a matter of controversy whether this is the case or not, since there is evidence that at least one language, Pirahã, according to Everett (2005), shows no signs of recursion (although see Nevins, Pestesky, and Rodrigues, 2009, for a critical assessment). The universal status of recursion is irrelevant for our discussion. What matters is that recursion is at least a possible –and in fact highly likely– property of languages not only in the domain of syntax but also in conceptualization. It is also important to note that the combination of conceptual structure follows clearly defined patterns whose correct identification allows the analyst to predict the communicative potential of expressions involving such combinations. We have already examined some possibilities in 3.1.2. In general, conceptual recursion underlies the production of metaphoric and metonymic complexes through amalgamation and chaining processes. We will defer further discussion of this issue to section 4.5 in the present chapter.

4.4.4. The ontological status of the domains involved in the mapping

Criterion (d) relates to the ontological nature of the source and target domains. In this connection, Lakoff and Johnson (1980) classified metaphors into ontological, structural, and orientational (cf. Kövecses, 2002).

Ontological metaphors map concrete onto abstract knowledge. One clear benefit of this kind of metaphor is that it allows us to impose clearly delineated structure on less specific conceptual material. Take (11), a case of personification where calling the speaker's name is metonymic for inviting him or her:

(11) In this hot weather, that cold beer is really calling my name!

In it, the speaker's urge to satisfy a physical need (abstract knowledge) is presented as the consequence of the object of desire enticing him or her (a concrete scenario). It is obvious that ontological metaphors are one-correspondence systems where a cluster of homogenous selected properties are shared by the source and target domain. However, not all one-correspondence mappings are ontological metaphors, as is also evident from the variety of examples discussed in 4.4.2.

In Lakoff and Turner (1989), ontological metaphors are redefined in terms of the Great Chain of Being folk model of nature. The Great Chain of Being categorizes physical and behavioral attributes of human beings, animals, plants, natural objects, and artifacts. People are rational, animals are instinctive, plants live passively, natural objects have physical properties, and artifacts are instrumental to human activity. The Great Chain of Being can be exploited metaphorically by bringing into correspondence items from different levels across the model, as in the following metaphors: PEOPLE ARE ANIMALS (*You are a chicken*), PEOPLE ARE PLANTS (She's a tender rose), PEOPLE ARE MACHINES (*My boss is a bulldozer*), ANIMALS ARE PEOPLE (*Her cat hates me*), PLANTS ARE PEOPLE (*The thorns attacked her bare legs*), MACHINES ARE PEOPLE (*This machine doesn't want to spin*).

Structural metaphors view complex abstract concepts in terms of other complex (and usually more concrete) ones. The world of economic activity, in so far as it involves strategic planning, can illustrate this metaphor type. Thus, we can think of business as war, where the economy is a battlefield, competitors are warriors or armies fighting each other, and economic activity is seen in terms of strategy-oriented attack and defense. The sentence *The market prepares to strike back*, where *market* is metonymic for people making business transactions, illustrates this system of correspondences. Structural metaphors are clear cases of many-correspondence mappings. There are other cases of many-correspondence mappings that are not structural, especially those involving complex image-schematic categories such as motion along a path to a destination. Some examples of these metaphors will be discussed below.

Finally, orientational metaphors involve spatial relations such as *up/down*, *front/back*, *in/out*, and *on/off*. We have already discussed MORE IS UP, based on experiential correlation, whose opposite is LESS IS DOWN, as in the expressions *Speak up!* (meaning 'raise your voice') and *Keep your voice down* (meaning 'speak quietly'), which map height onto loudness. Other metaphors exploiting the up/down orientation are: HEALTHY IS UP/SICK IS DOWN (*He's up and about again*, *His health declined suddenly*), CONSCIOUS IS UP/UNCONSCIOUS IS DOWN (*The noise work him up*, *She sank into a deep sleep*), HAPPY IS UP/SAD IS DOWN (*He's feeling up/down*). These metaphors are grounded in other experiential correlations, such as people lying down when sick or unconscious and standing upright or sitting up when healthy or when regaining consciousness.

Lakoff and Turner (1989, pp. 89-96) add an additional category: image metaphors. They involve the mapping of a conventional mental image onto another in terms of their internal structure. In the oft-quoted example *My wife... whose waist is an*

hourglass, the mental image of an hourglass is made to correspond to the mental image of the speaker's wife, with especial emphasis on the parallelism established between the central portion of the hourglass and the woman's waist.

The classification provided by Lakoff and his associates has been refined and expanded by Ruiz de Mendoza and Otal (2002) and Ruiz de Mendoza and Pérez (2011, pp. 169-172) on the basis of a broader and more systematic analysis of source domain types. The refinement starts off from postulating the existence of a general division between structural and non-structural metaphors, where the former type is more complex than the latter. The difference between them is that structural metaphors display a logic system that is not present in non-structural metaphors, where only one highlighted attribute or attribute cluster is at work. Orientational, ontological, and image metaphors fall into the non-structural category. They are slightly redefined to better account for the nature of the source domain:

- In orientational metaphors there is one highlighted element of a non-complex spatial scenario that co-occurs with another element within the same scenario. This is, of course, the case of MORE IS UP, already discussed above.

- Ontological metaphors now refer to any metaphor whose source domain is an element of the Great Chain of Being, which of course includes personification. We thus have two possible situations for ontological metaphors. In one of them, a highlighted Great Chain of Being item is source to another such item in the target (e.g., PEOPLE ARE ANIMALS). In the other, which is the case of the example of personification discussed above, expression (11), a highlighted Great Chain of Being item helps us to understand a relevant aspect of an abstract target.

- Image metaphors. Besides involving the mapping of conventional mental images onto other such images, this metaphor type can also be used in everyday language usually to

make up for the lack of adequate terms for descriptions. This is the case of hair properties like color (e.g., *carrot top* 'intense red-orange', *cinnamon* 'light reddish brown', and *chestnut* 'reddish brown'), and shape (e.g., *beehive* 'piled up in a backward-pointing conical shape', *ducktail* 'combed back in a way that the sides resemble the folded wings of a duck', and *feathered* 'layered, brushed back at the sides').

The structural category contains a basic division between situational and non-situational metaphors. A situation is defined as a dynamic state of affairs consisting of entities that interact at a certain place and/or time (cf. Ruiz de Mendoza and Pérez, 2011, p. 172). Situations can be divided into *scenic* and *non-scenic*. The former are those that are accessible to external observation, while the latter are not, but stay within the realm of inner subjective experience. An example of scenic metaphor is *The workers stood their ground and succeeded in forming the trade union*. Soldiers stand their ground when they keep their position when attacked. This scene is mapped onto any other scene where people refuse to yield in the face of a challenging situation. An example of non-scenic metaphor is *I have a foggy mind today*. In this metaphor, which is a situational elaboration of the non-situational correlation metaphor UNDERSTANDING IS SEEING (cf. *Can you see what I mean*), the lack of visibility caused by fog maps onto the speaker's lack of mental clarity. Having mental "fog" describes an internal subjective experience that is not clearly accessible to the observer.

Non-situational structural metaphors can be topological or non-topological. Topological metaphors are based on images of different degrees of schematicity. A highly schematic topological metaphor contains a non-orientational image-schema, while a less schematic topological metaphor exploits more concrete images. The expression *She went into trouble* uses the motion-along-a-path image-schematic complex where the end-of-path slot is enriched through a container image-schema (or any bounded region in space)

to denote a change of state. The resulting metaphor is a development of CHANGE IS MOTION into A CHANGE OF STATE IS A MOTION TO A DIFFERENT LOCATION, where the location is seen as a bounded region in space. A more concrete image-based metaphor is provided by the following line from Shakespeare's *Romeo and Juliet* (Act Two, scene two):

(12) I have night's cloak to hide me from their eyes.

Expression (12) maps the image of a cloak covering and thus concealing a person to the image of Romeo sneaking in the dark. Unlike the non-structural uses of images described above which involve one highlighted property of an image, here the focus of attention shifts from the two corresponding images to the meaning implications of the cloak-darkness correspondence. Ruiz de Mendoza and Pérez (2011) have referred to this type of metaphor by the term image-based metaphor, to be distinguished from the image metaphors discussed above.

Finally, we have non-topological structural metaphors. In this metaphor type the structure of the source domain is not simply used to contextualize a highlighted attribute. The role of the source domain is to provide hearers with a system of reasoning about selected target aspects on the basis of non-spatial categories such as actions and events. Two examples of this metaphor type, which have been already discussed above, are A PROBLEM IS A LANDSCAPE (e.g., *We may have to dig deeper for a real solution*) and ARGUMENT IS WAR (e.g., *He was defeated in the debate*).

Let us now briefly consider metonymy from this same taxonomic perspective. Metonymies can operate on concepts denoting objects (in different degrees of abstraction), scales, events, relations, or situations, like metaphor, at any level of genericity (primary, low, high), as described in 3.1.1.1. This calls for a basic division between *situational* and *non-situational* metonymy. Our previous example of

personification, (11), includes a situational metonymy developing the metaphoric source from a situation where someone calls another person's name to the more complex scenario where the person is thus invited to take some course of action. When a metonymy is not situational, it can be scalar, eventive (denoting actions or processes), relational, or object-related:

1. In a scalar metonymy the source can be one point in a scale and the target the whole scale (the matrix domain) or the whole can be the source and the target any other point in the scale. Metonymies of this kind are at work in understatement and overstatement. In understatement, saying *I've just lost a handful of dollars* when the truth is that the speaker has lost a huge amount of money, a lower part of the scale of quantity stands for the higher part designating the real amount of money lost by the speaker or, alternatively, any amount that is surmisable by the hearer. In overstatement we have the opposite situation: a higher point in a scale stands for a lower one. For example, "a whole day" in *John could speak for a whole day* stands for any smaller amount of time that is consistent with what the hearer knows about John. Evidently, scale-based metonymy relates to the cognitive operations of mitigation and strengthening. In their application to the production of understatements and overstatements, these operations respectively take the form of downscaling and upscaling the scalar magnitudes involved (for further details see 5.3.2).

2. Eventive metonymies are those whose source or target domains designate an event, understood as a dynamic controlled or uncontrolled state of affairs (cf. Dik, 1989). As such they comprise actions and processes, which are two kinds of high-level cognitive model. For example, a war is a complex event consisting of a series of controlled actions that typically result in destruction and death. They are associated to places, which can be used to refer to the corresponding war event through a metonymic shift. This metonymy is labeled LOCATION FOR EVENT, where by "event" we refer to a series of related

actions. A well-known example is *Vietnam* for the Vietnam war. The situation can be more complex in expressions like: *Iraq could have become another Vietnam*, where we refer to the consequences of both wars through a second metonymic shift from war action to the results of the action (ACTION FOR RESULT). Other eventive metonymies are RESULT FOR ACTION (*how to be rich*), INSTRUMENT FOR ACTION (*He swiftly chested the ball*), and OBJECT FOR ACTION (*He chose the soup*).

3. Relational metonymies exploit relational cognitive models, that is, those that bring together two (or more) entities in a non-dynamic controlled (e.g., *own*, *stand*) way. A clear example is the metonymy POSSESSOR FOR POSSESSION, illustrated by the expression *This is John* (e.g., 'This is John's drink'). Non-controlled non-dynamic states of affairs (as captured by *be*) do not give rise to metonymies because of their non-decomposable nature.

4. Object-related metonymies are based on either part-whole/whole-part structure or non-scalar attribute-object connections:

a. PART FOR WHOLE: *We all need a* roof *over our heads* ('a house').

b. BODY PART FOR PERSON: *We need to hire a new* hand *for the farm* ('worker')

c. ATTRIBUTE FOR PERSON: Brunettes *are much prettier* ('women with dark brown hair')

d. ATTRIBUTE FOR OBJECT: *the* stars *and* stripes ('the US flag')

e. OBJECT FOR USER: *They are all* stuffed shirts ('smug people').

4.4.5. The levels of genericity of the domains involved in the mapping

Section 3.1.1.1 introduced the notions of primary, low, and high-level cognitive models. We shall now turn our attention to how metaphor and metonymy exploit them. Let us

start with metaphor. As mentioned previously, Lakoff (1993) noted that we think of the structure of events in terms of metaphor. The notion of event is generic, that is, it belongs to what we have called the high level of generalization. The same holds for all event types (e.g., actions, processes) and event elements (e.g., causes, effects). Because of their high-level nature, these notions are difficult to handle in everyday communication. They are also challenging from the point of view of reasoning. This is where embodied metaphor (Gibbs, 2005b, 2006b) comes into play. Embodied metaphor makes use of primary level conceptual structure to talk and reason about high-level concepts. A straightforward illustration of primary-level reasoning is provided by the metaphor STATES ARE LOCATIONS (understood as bounded regions in space), as exemplified by the expression *She is in a bad mood*. Why can we think of states as if they were locations? The answer is to be found in everyday experience in which we associate certain locations with certain states: a tunnel is dark, a tree provides us with a shade where we can feel cooler than under the sun, a hot tub is associated with relaxation and pleasure, etc. The basic logic of this metaphor can be extended. If STATES ARE LOCATIONS, it follows that CHANGES OF STATE ARE CHANGES OF LOCATION (e.g., *Her mood went from bad to worse*), and by further extension, CAUSED CHANGES OF STATE ARE CAUSED CHANGES OF LOCATION (e.g., *Her manners threw me into a depression*). A location can be further envisaged as a point in space (*from bad to worse*), a bounded region (*in a bad mood*), or a surface (*on the mend*). A point in space is used when the emphasis is on the existence of a state, while a bounded region highlights how the state affects the entity that experiences it, and a surface the durative aspect of the state.

It may be noted that we can also use low-level cognitive models to think about events or states. But they work differently. There is a reason for this. Low-level models are less schematic than primary-level models. Because of their nature, low-level models

can address well the non-generic aspects of conceptual structure, but they are not well equipped to deal with the generic aspects. Primary concepts, however, suit this purpose adequately since they have a stripped-down structure and logic. In relation to the notion of location, for example, we may think of being inside or outside it. Inside a location, we can feel protected, but we can also feel that our freedom to move is restricted. On the grounds of this logic, the idea of being in a negative state, such as a depression, which one struggles to overcome, can be expressed as *be in a deep depression*, since a deep place is difficult to get out of. The same logic underlies expressions such as *be immersed/sunk in a depression* and *get/break/pull out of a depression*. Now, compare this exploitation of the image-schematic notion of location with that of more specific locational characterizations, as in the expressions *be in hot water* and *be in the pits of despair/hell*. These expressions draw our attention to the harshest aspects of a person's state. Their underlying logic is the same as with the more schematic uses, but the use of low-level configurations impinges on the non-structural, axiological aspects of the target meaning.

Low-level models can be used metaphorically to reason about other low-level models. When this happens, the result is the highlighting of specific source-domain attributes with corresponding ones in the target domain. Lakoff and Turner (1989) have provided an elegant account of how such attributes are given conceptual prominence in terms of the Great Chain of Being. In terms of this cultural model, humans are characterized by higher-order attributes and behavior (reason, character), animals by physical and instinctual attributes and behavior, plants by biological attributes and behavior, natural objects by natural physical attributes and behavior, and artifacts by structural attributes and functional behavior. When we think of any item in the Great Chain in terms of another from another level, we do so on the basis of the attributes or

behavior that are characteristic of that other level. For example, PEOPLE ARE ANIMALS maps the natural physical attributes or behavior of an animal onto corresponding physical attributes or behavior in a person. Take the expression *He is a sloth*. Sloths are unusually slow-moving animals. This behavioral attribute of sloths is what maps onto the behavior of indolent people who also move slowly and reluctantly. Sloths have other characteristics, of course. For example, they have hook-like claws and they hang upside down from trees. However, these have not been chosen for the metaphor perhaps because of the greater conspicuity of the sloth's slow movements. The metaphor, i.e., ANIMALS ARE PEOPLE, endows animal behavior with human-like qualities. We may thus say that a donkey is stubborn, that a dog is loyal, that dogs hate cats, and so on. Similarly, we can assign human qualities to plants (*These flowers look weary*) and plant-like behavior to humans (*She has blossomed into a lovely young lady*). Natural objects can also be endowed with human attributes (e.g., *The sun smiled down on me*) but only to the extent that there is some aspect of their appearance that looks human (for example, the shape of sun resembles a person's face). Humans can likewise have object-like properties: a rock is a strong, stable, and dependable person (since rocks provide a good foundation to build on); a person's voice can be silky if it is agreeable (as silk is to the touch); a cheesy person is one that tries to be authentic but fails to be so (as an extension of the idea that cheese is a cheap item of inferior quality).

Finally, high-level models can be used as metaphorical source domains too, but only to the extent that they are grounded in primary experience. Let us consider two kinds of object-oriented action verbs: *push*, *kick*, and *hit*, on the one hand, and *break*, *destroy*, and *erode*, on the other hand. The two sets of verbs have affected objects, but only the former involve potential caused motion of the object through physical impact. This means that *push*, *kick*, and *hit* are grounded in primary (in this case, image-schematic) cognitive

models. It is from actions like those denoted by verbs like *push*, *kick*, and *hit* that the caused-motion construction has derived its generic-level structure, which is thus grounded in image-schematic characterizations. However, *break*, *destroy*, and *erode* do not involve image-schemas: *break* and *erode* are change of state verbs and *destroy* expresses cessation of existence. The evidence for this class ascription is provided by the constructional ascription properties of these verbs. Thus, *break* and *erode* can be used in the resultative and inchoative constructions: *The child broke the vase into pieces/The vase broke (into pieces)*; *The stream has eroded the rocks into rounded pebbles/The rocks have eroded (into rounded pebbles)*. However, the verb *destroy* cannot take part in either construction: **The enemy destroyed the city into ashes/*The city destroyed (into ashes)*.

Compare now the use of the caused-motion construction in (13) and (14):

(13) She pushed her son out of the room.

(14) She stared her son out of the room.

Sentence (13) involves externally caused motion resulting from contact by impact. (14) makes use of the caused-motion construction (Goldberg, 1995), like (13), but it does not involve externally caused motion. In (14), there is self-instigated motion resulting from a psychological reaction. Unlike with the verb *push,* there is no physical impact, but the verb *stare* is treated as if it were a verb like *push*. What we have in (14) is a metaphor whereby psychological impact is treated as physical impact and self-instigated motion as externally caused motion where the causer of motion maps onto the causer of the psychological reaction (cf. Ruiz de Mendoza and Mairal, 2007). However, the action associated with *stare* cannot be interpreted metaphorically through verbs denoting changes of state (*break*, *erode*) or cessation of existence (*destroy*), in such a way that examples (15) and (16) are not feasible:

(15) *She stared her son red in the face/into a red face.

(16) *She stared her son.

There is a grammatical mark of the re-construal of the verb *stare* provided by the metaphor mentioned above: the absence of the preposition *at* when *stare* is used with the caused-motion construction. This is evidence that cognition can motivate aspects of linguistic structure and expression. The preposition *at* is used to introduce the target of the action. If the action has an affected object, however, English grammar has chosen the iconic marking of the object by placing the object immediately after the verb: physical impact requires contact, a situation which is paralleled by the syntactic requirements of the caused-motion construction. Obviously, the re-construal of the target of the action as the object of physical impact calls for the elimination of any syntactic mark that disrupts the iconic relation between the action and its object. This situation also holds for figurative uses of the caused-motion construction to express result. This is the case of the prepositional phrase in sentences like *He broke the vase into pieces*, *He cut the paper into different shapes*, and *He kicked the horse into a run*. These uses, which are licensed by the metaphor A CHANGE OF STATE IS A CHANGE OF LOCATION, can be optional: *He hammered the metal flat/ into a flat leaf*. But they are necessary when there is no adjective available to express result or the result (*He hammered the metal into different shapes*) of the action is a new entity (*He hammered the metal into a goblet*) (see Ruiz de Mendoza and Luzondo, 2016).

Metonymy is another cognitive process where high-level cognitive models can be at work with grammatical impact. We will not go into the details of this phenomenon at this stage (see 4.6 for further discussion). An initial exploration of the grammatical impact of high-level metonymies is found in Ruiz de Mendoza and Pérez (2001). Consider the sentence *He began the beer*. As noted by Jackendoff (1997) sentences like these exemplify what he calls enriched composition, a phenomenon that requires exploring the

world knowledge structure of the complement for an extension that is compatible with the verb *begin*. Some possibilities are *He began drinking/bottling/distributing the beer.* Underlying this phenomenon, however, what we have is high-level metonymic thinking: an object stands for the action in which the object is involved, which we can label OBJECT FOR ACTION. It is this metonymy that licenses the use of the verb *begin* followed by the object of an implicit action. This is a trivial observation, though. A non-trivial question is why objects can stand for actions. The answer lies again, as with metaphor, in our everyday experience. The object of an action is a perceptually salient element of the action scenario. This makes it an adequate candidate to put the action in a perspective where the object is what matters. A sentence like *He began the beer* is preferably used in a communicative situation in which the speaker has full trust that the hearer can derive the type of action from the context. In fact, the optimal use of *He began the beer* versus *He began drinking/bottling/distributing the beer* is one in which specifying the action would bring an undesirable degree of redundancy into comprehension (the hearer would have a right to wonder about why the speaker offered information that is evident). A similar communicative logic applies to expressions guided by the metonymy GENERIC FOR SPECIFIC (e.g., *She did her nails* 'She cut, filed, and put nail polish on them'), which we have treated in 3.2.1.2.2. The verb *do* is highly generic and can be used as a "wildcard" that varies according to the content of its object. Misinterpretation risks are minimum while the production and processing load of the message is lower than with a more specific expression. High-level cognitive models thus offer communicative effectiveness at little cost.

It must be noted that high-level metonymy, unlike high-level metaphor, is not necessarily grounded in primary experience. The reason for this is quite simple. Metaphor is used for reasoning while metonymy is used for economy and perspective. It would be

impractical to try to reason about a high-level construct, independent of our bodily experience, through another high-level construct, especially if a primary model with corresponding structure is available.

4.5. Metaphoric and metonymic complexes

In 3.2.1.2.2 we discussed inferential content operations resulting in metaphor and metonymy. Such operations can combine in succession (chaining) or at the same time (amalgamating). The effects of a combination depend on the kind of cognitive model and operations involved. Thus, metonymic expansion, by itself, is used for reasons of expressive economy, but it also makes use of a conceptually prominent item to afford access to the implicit conceptual material. Domain reduction, on the other hand, narrows down a concept thereby highlighting part of it. As a consequence, the highlighted item gains a degree of conceptual prominence that it did not have before.

When combined with domain reduction in a chain, the operations of expansion and reduction allow for the economic expression of a conceptually prominent item based on a complex conceptualization. The sentence *He has too much lip* can be taken in the sense of 'he makes too many promises hastily'. As an instrument of speech, the lip is metonymic for the action of speaking. The action is then narrowed down into its ability element. As an instrument, a lip is conceptually prominent in the domain of speaking; i.e., it has default or primary prominence. However, in the sentence above, as an enabling factor, it acquires non-default or marked prominence. The following sections discuss the various combinatory patterns involving metaphor and metonymy and pin down the nature of the phenomena that they underlie.

4.5.1. Correlation with resemblance

Metaphor makes use of correlation and resemblance operations, as we have noted in section 3.2.1.2.2. Sometimes, these two operations may cooperate, as in the use of *population bulge* to describe a sudden, temporary increase (Ruiz de Mendoza, 2005; Ruiz de Mendoza and Pérez, 2011). The word *bulge* designates a protruding part on an object, i.e., one that extends outward past its usual limits. This metaphor, which maps physical size onto quantity, is exemplified by the sentence *The population bulge of boomer parents has been expanding the market*. This use of *bulge* can be explained on the grounds that, in our everyday experience, bigger size tends to correlate with a greater quantity. Also, the bigger an object the larger the amount of material that it contains. There are other terms that can be used to designate a sudden temporary increase in the size of a population such as *bump*, and *hump*. However, others, such as *protrusion* or *protuberance*, although close in meaning to *bulge*, *bump*, and *hump*, do not apply to populations. The reason for this is to be found in the fact that the correlation operation does not act alone in these metaphorical expressions but is supported by a resemblance operation. Population growth is visually represented by means of curved graphs with peaks and valleys that resemble bulges, lumps, or humps. In addition, the target-domain idea of temporary growth is captured by the notions of bulge, lump, and even hump, since these are expected to go flat. This is not necessarily the case with protrusions and protuberances.

In the cooperation between correlation and resemblance, correlation is more central. This is only natural since correlation gives rise to primary metaphors, which are experientially more basic. In the case of *population bulge* the correlation between size and quantity is prior to its visual depiction, which has a supportive role. Another example

is provided by the expression *a galloping inflation*, which results from combining the correlation metaphor PROGRESS IS MOTION and the resemblance metaphor INFLATION IS A GALLOPING HORSE, which is but one possible specification of ABSTRACT ENTITIES ARE OBJECTS. The correlational nature of the former metaphor is evident from our experience of moving to achieve the goal of reaching a destination. The latter, by contrast, works on the grounds of the similarities between a scenario in which a horse, which is a characteristically fast animal with high endurance, runs at full speed, with the consequent difficulty in controlling it, and another scenario in which the rate of increases of prices is high, long-lasting, and hard to control. Of course, these and other similarities are resemblance specifications of the more basic correlation metaphor. These resemblance features are essential to characterize this metaphor. Note that not all kinds of motion expressions can parallel the implicational structure of quick uncontrolled inflation. Here are some inadequate expressions: *a *sprinting inflation* (since 'sprint' suggests a short run and inflation develops over time); **a leaping inflation* (since 'leap' suggests a sudden and swift jump, while inflation is not sudden but progressive); **a striding inflation* (since 'stride' is to take a single long step, which eliminates the possibility of duration present in the notion of inflation).

4.5.2. Expansion with reduction

The combination of expansion and reduction cognitive operations gives rise to metonymic chains. A full discussion of metonymic chains is offered in Ruiz de Mendoza (2017a). Let us review some of them.

- Domain expansion with domain reduction. Consider the sentence *The radio says the attacks started in the city*. The radio stands for the communication system that includes a

broadcasting station and its equipment. The communication system, in turn, stands for the communicator. The first metonymy involves domain expansion (<) and the second domain reduction (>):

> < radio (the electronic device used to listen to a broadcast) < radio communication system (broadcasting station and radio receivers) > communicator

- Domain reduction with domain reduction. The German trademark Aspirin has been popularized to designate its product, a painkiller that can be sold in different forms, one of them being tablets. There are two domain reduction operations in a sequence:

> Aspirin (trademark) > aspirin (the chemical compound) > an aspirin (a tablet)

- Domain reduction with domain expansion. This metonymic chain is commonly used in English to make authors stand for a sample of their work: *Cervantes*, for example, can mean both this author's literary production (e.g., *We all find Cervantes amazing*), which only requires one metonymic shift (AUTHOR FOR WORK), and the medium of presentation of part of it (e.g., *Cervantes is in the bookshelf next to Milton*), which adds an extra shift (AUTHOR FOR WORK FOR MEDIUM):

> author (Cervantes) > (artistic) work/contents < medium of presentation of contents (e.g., a book)

- Domain expansion with domain expansion. An interesting example if this chain is provided by the word *symphony*, which can refer to an orchestral composition, to the orchestra playing it (i.e., a *symphony orchestra*), to the event (a concert) where the orchestra plays (e.g., *Did the Queen like the symphony?*), and even to the place in which the concert takes place (e.g., *Did the Queen really go to the Houston symphony?*). Each of these metonymic shifts involves domain expansion:

> The instrumental piece < an orchestra playing the instrumental piece
>
> < the event in which the piece is played

< the place in which the event takes place

4.5.3. Expansion or reduction with resemblance

The various forms of simile and non-correlation metaphors are based on resemblance. Resemblance operations can combine with domain expansion or reduction, giving rise to what Goossens (1990) termed metaphtonymy. As noted in Ruiz de Mendoza and Díez (2002), and Ruiz de Mendoza and Otal (2002), this phenomenon consists in the metonymic elaboration of either the source or the target domain of a metaphor through expansion and reduction. Thus, four basic interaction patterns emerge:

- Metonymic expansion of the source domain of a metaphor, as in *He left with his tail between his legs* (in fear). The expression outlines part of the full metaphoric source where a dog is beaten and runs away in fear and pain rather than face its aggressor. This scenario maps onto any other in which someone avoids facing a more aggressive opponent.

- Metonymic expansion of the target domain of a metaphor, as in *My lips are sealed*, said when one is promising to keep a secret. It involves hyperbole in the metaphoric source based on an exaggerated description of how the speaker shuts his mouth. A seal is material used to close off an opening to prevent the escape of a liquid or gas. The metaphoric source depicts an unreal situation where the speaker has sealed his lips. The target contains a situation in which the speaker closes his lips tightly. The extended idea that this action is a sign of his commitment not to reveal a secret is a further metonymic elaboration of the metaphoric target.

- Metonymic reduction of the source domain of a metaphor, as in *Your son is an Einstein*. This metaphor is intended as a compliment to the hearer's son. Einstein, in the metaphoric

source, stands for his exceptional intellectual abilities, which are highlighted through metonymic reduction. This highlighted structure is used by the speaker to present his view of the hearer's son's intellectual achievements. In a context where it is clear that the hearer's son, though outstanding, is not as exceptional as Einstein, the metaphor can have a hyperbolic effect. Unlike *My lips are sealed*, which contains the hyperbole in the unreal source of the metaphor, the hyperbolic meaning here arises from the metaphoric mapping itself.

- Metonymic reduction of the target domain of a metaphor: *She offered me her heart*. The metaphoric source domain is constructed on the basis of the offering frame. The target domain is about receiving love, which is culturally envisaged as being "in" the heart. In the metaphoric target, 'love' is accessed metonymically from the notion of heart.

4.5.4. Correlation with correlation

This combination underlies metaphorical amalgams of two kinds. These are single-source metaphorical amalgams and double-source metaphorical amalgams. It also underlies metaphoric chains. All these phenomena have been discussed in Ruiz de Mendoza and Galera (2014), later refined in Ruiz de Mendoza (2017a) and Miró (2018).

In single-source metaphorical amalgams one self-standing correlation metaphor is built into the conceptual layout of another self-standing correlation metaphor that acts as a matrix metaphor. A case in point is provided by the incorporation of UNDERSTANDING AN IDEA IS PERCEPTUALLY EXPLORING AN OBJECT (e.g., *He couldn't grasp the idea at all*) into IDEAS ARE OBJECTS (e.g., *He's been toying with that idea for some time*) (Ruiz de Mendoza, 2008), which is used in expressions such as (17), (18), and (19):

(17) He got the idea across to her.

(18) The idea came up to me.

(19) How did the idea come about to him to start a company?

In (17), an idea is set in motion from the communicator to the addressee who can then explore the idea and learn about it. The matrix metaphor maps the causer of motion onto the communicator, the object of motion onto the idea, the destination of motion onto the addressee, and the reception of the object onto having access to the idea. The other contributing metaphor, where understanding an idea is treated as the result of the perceptual exploration of the object, is licensed by the logic of the source domain of the matrix metaphor: once an object is received it is accessible to inspection. Example (18) contains a different elaboration of the matrix metaphor: the idea is seen both as a moving object and as a hidden object that surfaces. Once it surfaces, it becomes accessible to the senses. Here there is no communication frame, but an emergence frame. In (19), the source of the matrix metaphor is based on the complex image-schematic notion of motion around obstacles up to a destination. This destination is the point in which it can be accessed, explored, and even used, which is the information supplied by the other contributing metaphor. This combined source is mapped onto the target where an idea matures with occasional difficulties until it can be put to use.

In double-source metaphorical amalgams, two self-standing correlation metaphors have the same target domain, thus providing complementary perspectives on it. Miró (2018) illustrates this kind of amalgam with the idiomatic expression *to have one's head in the clouds* ('to be impractical, aloof, and fanciful'). The target meaning revolves around a person's lack of awareness of reality and his lack of control of ideas. There are two complementary source domains that contribute to this target meaning: one is being "up", far from the ground (the clouds stand for that upper position), which is

suggestive of fancifulness; the other is the detachment of one's head (the locus of ideas and rational thought) from the rest of the body, which suggests lack of normal consciousness (cf. Lakoff, 1996).

Metaphoric chains are sequences of two self-standing correlation metaphors, where the target domain of one of them becomes the source domain of the other. Ruiz de Mendoza (2017a) discusses, in this respect, the English phrasal (-prepositional) verb *break off (from)*, which, conveys total, abrupt physical separation of part of an object from the whole object (e.g., *Several fragments broke off from the boulder*). This same expression is also used to refer to the discontinuation of emotional relations (e.g., *She broke off from her family*) and to separation from a group because of dissent (e.g., *Several small groups broke off from the main Church*). It is in this last interpretation that a metonymic chain is required: in the chain, the institutional separation of part of a group of people from the group (target) is first seen as the physical abandonment of the group (source/target), which is in turn seen as the separation of part of an object from the whole object (source).

We have not found any example of resemblance (or similarity-based) metaphors combining into chains or amalgams. Since there are cases, as discussed in 4.5.1, of similarity-based metaphors being integrated into correlation metaphors, it follows that the latter type is more basic than the former. This postulate is consistent with the generally accepted view on the primary nature of correlation metaphors.

4.6. Metaphor, metonymy, and grammar

Metaphor and metonymy can have an impact on grammatical phenomena in several ways. The reason behind this is that what we call grammar (covering at least, morphology and syntax) is not separate from conceptual organization, as has been emphasized by scholars working within Cognitive Linguistics from its inception (e.g., Lakoff, 1987; Langacker, 1987; Fillmore, Kay, and O'Connor, 1988; Talmy, 1988; Goldberg, 1995). In this section, we will discuss different grammatical phenomena where metaphor and/or metonymy can play a role.

4.6.1. High-level metaphor and metonymy

The idea that metaphor impinges on grammar is as old as Cognitive Linguistics. Lakoff (1990, 1993) noted that we reason about the structure of events by means of metaphor. There are multiple ways to do this. Some have lexical consequences. For example, because we can see non-motional action as if it were motion (e.g., *He went through the files*), it follows that specific manner of action is specific manner of motion (e.g., *He waded through the files*). The action-as-motion metaphor here has consequences in terms of lexical choice (*wade* versus *go*). On other occasions, there are consequences for the use of non-lexical parts of speech such as prepositional and adverbial constituents. Some illustration is provided by the sentence *The chairman is out of step with the rest of the committee*, where disagreement is seen as the lack of physical alignment (i.e., by being "out of step") while moving forward. Another set of consequences is for argument-structure constructions like those studied by Goldberg (1995). For example, we can see a change of state as if it were a change of location, as in *The news sent her into a depression*. This metaphor also underlies some transitive resultative expressions. Compare *He hammered the metal flat* and *He hammered the metal into a ring*. The result of hammering

in the second example is not the change of a property, as in the first one, but the creation of a new object. This idea cannot be captured by an adjective, so a natural strategy is to think of the resultant property as a location that can be reached by the object. In essence, the metaphor whereby a change of state is treated as a change of location allows for the extension of a causal transitive construction into a resultative construction, which would otherwise not be possible. In this case, the metaphor affects the expression of result. But metaphor can also affect the selection of verbal predicates for a given construction (Ruiz de Mendoza and Mairal, 2008). Take again the caused-motion construction. As pointed out in 4.4.5, this construction requires caused-motion verbs, as in *The boy pushed/kicked/hit the ball into the ditch*. However, other verbs can be used with it. Here are some examples:

(20) She beckoned him into her bedroom.

(21) She stared him out of the room.

(22) They laughed him out town.

(23) He stared him into silence.

(24) I laughed him out of patience.

(25) She loved him back to life.

Examples (20), (21), and (22) express literal motion, while (23), (24), and (25) convey figurative motion used to denote a change of state. The reason for this is the activity of an underlying high-level metaphor whereby psychological (or emotional) impact and its consequences (the target) can be treated as if it were physical impact and its consequences (the source). This metaphor licenses the verbal predicates used in the examples above, while precluding other transitive predicates that do not express the kind of impact covered by the metaphor, as shown by examples (26) to (29) below:

(26) *She owned him into the car.

(27) *They killed him onto the dock.

(28) *They destroyed her reputation out of existence.

(29) *They contemplated her work out of the project.

Metaphorical amalgams can also shape grammatical structure in a similar way (Ruiz de Mendoza and Pérez, 2011). This can happen in the form of single-source and double-source amalgams, discussed in 4.5.4. An example of high-level single-source amalgam is found in the following sentence: *She slapped me into silence*. The implicational structure of this sentence requires the cooperation of two self-standing metaphors: AN EFFECTUAL ACTION IS CAUSED MOTION and A CHANGE OF STATE IS A CHANGE OF LOCATION. The first of these two metaphors is the matrix metaphor that incorporates the second one. In the first one, the agent plays the role of an effector, i.e., a doer of an action that has material consequences, and the patient plays the role of an effectee, i.e., the object that experiences the consequences of the effector's action. Since such consequences involve a change of state, the second metaphor naturally becomes part of the first one. In this second metaphor the initial and resultant states are respectively seen as the source and destination of motion. By integrating the second metaphor into the first one, the normal consequences of slapping a person (e.g., experiencing pain and redness in the cheeks) are deprofiled and new consequences are added (becoming silent). These consequences cannot be accounted for by simply adding a causal ingredient to the second metaphor to convert it into A CAUSED CHANGE OF STATE IS A CAUSED CHANGE OF LOCATION, as in *She sent me into despair* ('She caused me to despair'), which contains no amalgam.

Let us now discuss an example of high-level double-source metaphorical amalgam: *She slapped silence into me*. Here, there is only one target domain where someone (an effector) causes someone else (an effectee) to acquire a new property

(silence), and two complementary source domains, caused motion and possession, each of which contributes different perspectives on the target: in one set of correspondences, the effector in the target is the causer of motion in the source, the object of caused motion is the new property, and the effectee is the destination of motion; in a complementary set of correspondences, the effectee is also the new possessor of an object and acquiring the new property (i.e., the resultant state) is gaining possession of an object. This complementariness of two source domains mapping onto one same target underlies the central meaning implications of the expression under study: becoming silent is not a natural or a voluntary process but the result of someone else's aggressive behavior; in real life (the combined sources) we can be affected by an object that is forced to reach our position, especially if we retain it as if it were a possession; in the metaphorical target, we are affected by someone's aggression, especially if we do nothing about it.

As noted in 4.4.5, metonymy can motivate grammar too (cf. Ruiz de Mendoza and Pérez, 2001; Panther et al., 2009; Brdar, 2017). Rather than activate a reasoning process, like metaphor, it works by providing alternate ways of reconstruing a state of affairs designated by an expression exploiting a high-level cognitive model. Let us briefly recall a few examples of linguistic phenomena where high-level metonymy plays a role. Some of them have been mentioned in 4.4.5. Note that cases (a), (b), and (c) are a matter of the adaptation of lexical structure to constructional requirements, while (d) and (e) involve argument-structure constructions reflecting grammatical processes such as the subcategorization of a verbal predicate in a transitive framework (d) and intransitivization with object-to-subject promotion (e):

a. Categorial conversion: *She ovened the cake for too long* (where the oven is the instrument used to bake a cake) (INSTRUMENT FOR ACTION) (cf. Kövecses and Radden, 1998 for similar examples)

b. Subcategorial conversion: *Put Mexico in your life* (where Mexico stands for Mexican culture) (AN ENTITY FOR ONE OF ITS ATTRIBUTES).

c. Parameterization of generic predicates: *I'll do the dishes* ('wash') (GENERIC FOR SPECIFIC).

d. Enriched composition (Jackendoff, 1997, p. 61): *She chose/enjoyed/began the beer* ('She chose/began/enjoyed drinking//bottling/distributing, etc. the beer') (OBJECT FOR ACTION).

e. Intransitivization with object-to-subject promotion: *The vase broke* (where, of course, someone or some unidentified force broke the vase') (PROCESS FOR ACTION).

Besides being cognitively economical, high-level metonymy provides its target meaning with a different representational perspective. In *Put Mexico in your life* the country is given conceptual prominence. Consequently, the target cultural attributes are seen from the perspective of such attributes being unique to the country. In *The vase broke*, the inchoative construction endows the syntactically raised object with agentive properties, which are typical of subjects. This is, in origin, a "pretense" strategy (Ruiz de Mendoza and Miró, 2019) in which the speaker presents the object of a predication as if it acted on itself thereby substantiating the omission of the real agent.

High-level metonymic chains can also constrain argument-structure constructions. This is the case of middle evaluative constructions in English. Like the inchoative, these constructions present an action as if it were a process. Unlike the inchoative, they exhibit an evaluative marker which evaluates either the processual or resultative parts of the reconstrued action (Ruiz de Mendoza and Peña, 2008). Consider examples (30) and (31):

(30) This meat cuts easily.

(31) This knife cuts well.

(30) evaluates the process, while (31) evaluates the result of the process. This difference, which is consistent with the possibility of using a split construction to paraphrase the process-oriented variant (*It is easy to cut this meat*), but not the result-oriented variant (**It is well to cut (with) this knife*), is captured by assigning the simple metonymy ASSESSED PROCESS FOR ACTION to the former and the double metonymy PROCESS FOR ACTION FOR (ASSESSED) RESULT to the latter. This last metonymy communicates the idea that there is an inherent property of the knife that makes it yield good results when used to cut.

Unlike what is assumed in standard accounts of Construction Grammar (e.g., Goldberg, 1995, 2006), the incorporation of lexical structure into constructions can go beyond mere conceptual compatibility. For example, pretense constructions present a state of affairs in a way that differs from what happens in reality, as we have seen above with respect to the inchoative and middle evaluative constructions. For a predicate to be built into these constructions, it needs to be amenable to reconstrual through high-level metonymy. This happens with predicates like *break*, *open*, and *cut* because of the kind of scenarios that they invoke. We can say that a vase "broke" if we see it broken and we know that it was not so before but we cannot identify the agent. The same holds for doors opening and closing when we lack perceptual access to the agent. Similarly, if our attention is focused on whatever makes an object easy or difficult to cut, in a cutting scenario, it is only natural that we will reinterpret the scenario as if it were agentless. Finally, we can easily reconstrue the role of the instrument of some actions on the grounds of experience. Take, in this connection, the instrument-subject construction *The hammer broke the window*. In a sense, the hammer, although literally the instrument, does break the window since it touches the glass thus causing it to break. This enables us to shift our

focus of attention from the true agent (the person that wields the hammer) to the instrument itself and endow it with agentive qualities.

4.6.2. Metonymy and anaphora

Compare anaphoric reference in these two sentences:

(32) General Motors plans to stop advertising on Facebook after determining its paid ads had little impact on consumers.

(33) Table 4 has complained again that his meal is cold.

In (32), the anaphoric pronoun (*its*) agrees in gender and number with its antecedent (*General Motors*). The antecedent, in its turn, is metonymic for the people that are in charge of the advertising policy of General Motors. In this metonymy, the target domain (the workers) is a subdomain of the source domain (the company). In (33), the anaphoric pronoun (*his*) does not agree in gender and number with its antecedent (*table 4*). The antecedent is also metonymic here: the customer's table stands for the customer sitting at it. In this example, however, it is the source domain (the customer's table) that is a subdomain of the target domain (the customer at the table). Cognitive linguists have made some attempts to deal with this irregularity in grammatical agreement between the anaphoric pronoun and its antecedent. Fauconnier (1985) tried to apply his Identification Principle to solve the problem. According to this principle, if two objects *a* and *b* are connected by means of a pragmatic function, a description of *a* may serve to identify *b*. He also argued that in metonymy-based anaphora the choice of anaphoric pronoun was influenced by its reflexive or non-reflexive status and by the animate or inanimate nature of the trigger (i.e., the metonymic source) and target. Stirling (1996) has attempted to systematize the various animate/inanimate source/target combinations to find regularities,

but she has only been able to formulate possible tendencies. One of such tendencies is that an inanimate trigger calls for an animate target. However, this tendency is easily falsified with examples like the choice of *its* as anaphoric for *General* Motors. That is, relying on the animate/inanimate distinction cannot explain why *General Motors* and *table 4* above, in both of which the trigger is inanimate, has different anaphoric solutions, one where the anaphoric pronoun is inanimate and the other animate.

A better solution is provided by our account of metonymy as based on either of two cognitive operations, expansion or reduction. As pointed out, the former underlies metonymies whose source domain is a subdomain of the target domain (e.g., *table 4* for the customer at table 4), while the latter underlies metonymies whose target domain is a subdomain of the source (e.g., *General Motors* for some of its workers). The main regularity that we find is that the anaphoric pronoun seems to agree in gender and number with the main domain rather than with a subdomain. This explains why the anaphoric pronoun is neuter in the General Motors example, since General Motors, the source (or trigger), the main domain, is neuter. It also explains why the anaphoric pronoun is masculine in the table 4 example, since the main domain, i.e., the customer, which in this case is the target, is masculine.

This regularity has been termed by Ruiz de Mendoza (2000) the Domain Availability Principle (DAP), according to which only the matrix (or main) domain of a metonymic mapping is available for anaphoric reference. It underlies metonymy-based anaphora of various kinds:

a. Low-level domain expansion metonymies (the target is the matrix domain), as exemplified by *The sax has the flue so* he (*it) *won't come to today's rehearsals*, *We need the best helping hand that we can get but how are we going to pay* him (*it)*?*, and *There is just one bus on strike, and* he (*it) *won't return to work by any means*.

b. Low-level domain reduction metonymies (the source is the matrix domain), as illustrated by *Over the last year, Sears has bought five franchise operations and* it (*they/*he/*she) *now plans to buy 54 stores from Kmart Holdings, I wouldn't tie my shoes* ('shoelaces') *before polishing* them (i.e., the shoes)*; cf. He first untied his shoes and then changed* *them (i.e., the shoelaces) *for thinner ones,* and *Norman Mailer likes to read* himself (i.e., his own work) *every night.*

c. High-level domain expansion metonymies (the target is the matrix domain), as shown by *I* can see ('I actually see') *street gangs fighting each other nearly every day;* it ('actually seeing the gangs fighting') *is a sad experience* (POTENTIALITY FOR ACTUALITY; cf. Panther and Thornburg, 1999), and *What's* that noise ('the cause of that noise')*? Is* it ('the cause of that smell') *a burglar?* (cf. *#That noise is a burglar* vs. *The cause of that noise is a burglar*) (EFFECT FOR CAUSE; cf. Panther and Thornburg, 2000).

d. High-level domain reduction metonymies, as in *What's that bird?* ('what kind of bird is that?'*) Is it a robin?* (GENERIC FOR SPECIFIC; cf. Panther and Thornburg, 2000). (Note the correctness of saying *Is that bird a robin?*; this is possible because the metonymy in question motivates class-inclusion constructions), and *What's that building*? ('the identity of that building') *Is it the Royal Palace?* (GENERIC FOR SPECIFIC; Ruiz de Mendoza and Pérez, 2001).

The examples above all follow the DAP, as evidenced by the selection of anaphoric pronoun in each of them. The examples exploiting high-level metonymies are very interesting since the account for constructional behavior. They explain why we say *I can see* for *I see*, why the formal part of the *What's That X?* construction has the value of 'what is the cause of that X?' or 'what kind of X is that?'. In this respect, note that we postulate a subdomain-domain relationship between potentiality and actuality, between effect and cause, and between specificity and genericity. As we consider each relation,

we should have in mind that language captures naïve thinking rather than expert models of the world. Consider potentiality first. This notion is generally understood as the inherent capacity for an action to become such. It follows that the ability to do is a subdomain of what we actually do. Second, an effect is understood as whatever is brought about by a cause or agent. In the metonymy the effect does not stand for the agent but for the underlying cause which originates the effect. The effect is thus a subdomain of the reason for the effect to hold, which is the cause. Third, specific-generic relations are but type-of relations. For example, a robin is a type of bird and the Royal Palace is a type of building. A concept is generic if it applies to an entire group or class, of which more specific categories are seen as constituting elements. This makes specific entities subdomains of the class or generic category to which they belong.

This discussion points to metonymy-based anaphoric reference as being a conceptual phenomenon whose grammatical manifestation does not follow grammatical but cognitive constraints. Agreement between the anaphoric device and its antecedent depends on whether the matrix domain of the metonymy is the source or the target domain. The situation, however, can be more complex than described above when other principles or factors converge with the DAP (cf. Ruiz de Mendoza and Díez, 2004). Here are some of them:

a) Anaphoric device constraint. The anaphoric device cannot be metonymic itself. Consider first the following examples where the antecedent is constructed on the basis of a domain-expansion metonymy:

    (34) The ham sandwich left without paying. He was upset.

    (35) The ham sandwich left without paying. #It was inedible.

    (36) The ham sandwich left without paying. *He was inedible.

Example (34) follows the DAP, while (35) violates it, thus creating an oddity, since, as revealed by (34), only the notion of customer is available for an anaphoric operation. However, as (36) shows, since the property of being inedible applies to the ham sandwich and not the customer, interpreting *He was inedible* as referring to the ham sandwich would require the anaphoric pronoun itself to be metonymic. This not possible in virtue of the general constraint formulated above.

The same constraint holds when the antecedent involves a domain-reduction metonymy, as evidenced by (37) to (39):

(37) Nixon bombed Hanoi and he did not know what he was doing.

(38) Nixon bombed Hanoi but #they were under orders.

(39) Nixon bombed Hanoi and *he was a special unit.

Only example (37) follows the DAP. The air force under Nixon's command cannot be used for anaphoric reference, which makes (38) odd. (39) is to be disregarded on account of the fact that *He was a special unit* would require a metonymic shift from *he* to the air force, in violation of the general constraint.

b) Domain Compatibility Principle (DCP). This principle applies whenever there are two matrix domains in metonymic chains. The two domains should in principle be available for anaphoric reference, but the tendency is to select the one that is semantically more compatible with the predicate of the sentence containing the anaphoric pronoun. For example, *Plato is on the top shelf* (AUTHOR FOR WORK FOR MEDIUM) would allow for either the first matrix domain (the author) or the last (the medium) to be referred to by a conjoined anaphoric predication. We envisage these possibilities:

(40) Plato is on the top shelf. It is bound in leather.

(41) Plato is on the top shelf. #He is bound in leather.

(42) Plato is on the top shelf. You'll find he is a very interesting author.

(43) Plato is on the top shelf. *It is a very interesting author.

The predicate *bound in leather* in (40) calls for the second matrix domain in the author-work-medium chain and this is the reason why (41) is not feasible. The predicate *a very interesting author*, naturally, calls for the first matrix domain, which precludes the use of a neuter pronoun as subject, as evidenced by (43).

c) Domain Precedence Principle (DPP). This principle also applies in the case of metonymic chains, but it is secondary to the DCP. It calls for the selection of the first matrix domain for anaphoric reference except in situations where the DCP requires the final matrix domain to be used for the anaphoric operation. Evidently, the DCP overrides the DCP in the selection of *it* as the anaphoric pronoun to refer to Plato in (40). However, the tension between the two principles is attested from the possibility to use anaphoric *he* instead, although it results in a slight oddity, as shown by (41). This use preserves the DPP but violates the DCP.

Before we close this section, some observations are necessary. There are some uses of anaphora that may seem metonymic, but they are not. One is what we can call implicative reference, which is a case of anaphoric reference to an implicated frame element. In the literature the cognitive activity involved in this form of reference has been labeled bridging inference (Clark, 1977; Clark and Marshall, 1981). This implicational phenomenon is typically based on the use of generic *they* as the anaphoric pronoun. Let us consider a few examples:

(44) I called the garage and they will have the car ready by tomorrow.

(45) I took my car to the garage and they will have it ready by tomorrow.

(46) Wall Street is in panic and they will keep in panic for some time.

In (44) there is a domain-reduction metonymy from 'garage' to 'worker who answered the phone'. However, the anaphoric pronoun (*they*) refers to the garage workers in general,

not necessarily to the one that attended the customer over the phone. By contrast, example (45) contains no metonymy, but it makes the same use of *they* to refer back to a frame element. This is evidence that, with implicative reference, *they* is not anaphoric to a metonymy. Finally, in the case of (46), the pronoun *they* makes implicated reference to stock brokers. But note that with this example we could also have metonymy-based anaphora: *Wall Street is in panic and* it *will keep in panic for some time*.

There is a well-known phenomenon called deferred indexical reference that can be explained on the basis of the DAP. Deferred indexical reference is described as the process whereby an indexical is used "to refer to an object that corresponds in a certain way to the contextual element picked out by a demonstration" (Nunberg, 1995, p. 110). A clear example of this sort of reference is provided by the sentence in (47), uttered in a context in which the speaker is showing a car key to the hearer:

(47) This is parked out back.

According to Nunberg (1995), deferred indexical reference allows for a conjoined sentence to use as subject the item picked out by the demonstration, as in (48):

(48) This is parked out back and may not start.

We think this observation is consistent with the DAP. The car key is a subdomain of the speaker's car. As such, it can stand for the car through domain expansion. Since the car is the matrix domain, it becomes available for anaphoric reference, even if the anaphoric pronoun is omitted (cf. *This is parked out back but it may not start*). The only difference with other cases of domain expansion is that the source domain (a subdomain of the matrix 'car') is not expressed lexically or through a predication, but is accessed through the indexical use of the demonstrative pronoun *this*.

It may be interesting to note that it is not possible to say (49):

(49) *This key (I'm holding) is parked out back.

This observation does not affect the validity of the DAP. The explanation for the impossibility of (49) is very simple: deferred reference is blocked out by the use of an indexical phrase (*this key* or *this key I'm holding*) as a non-attributive definite description (Donnellan, 1966) uniquely identifying a referent. This also explains why a waiter in a restaurant can say *The ham sandwich is waiting for his check* but not **This ham sandwich I'm holding is waiting for his check*.

In further support of the account of deferred indexical reference that we offer here, consider example (50) (the speaker is also showing the key to the hearer):

(50) #This only fits the left front door and is parked out back.

There is deferred reference in the first clause, but no metonymy from the indexical to the car. Elliptical *it* in the second clause refers to 'the key' with its described properties, which precludes the metonymy (cf. **The ham sandwich is stale, and he is getting upset*).

Deferred indexical reference, which is metonymic, should be differentiated from non-deferred demonstrative reference, which is not metonymic but can be associated to a metonymy. Consider the following sentence: *This is Harry* ('Harry's drink'), uttered in a pub by one of Harry's friends while pointing to a glass containing his drink. There are two phenomena at work here. One is the use of the pronoun *this* to make non-deferred demonstrative reference to the glass with the drink. It would be possible to list this sort of reference with the other reference point phenomena identified by Langacker (1993), such as possessive constructions and metonymy, since it affords access to the intended referent. The other is the metonymic shift from 'Harry' (the customer) to the drink (his order), which is a case of domain reduction. The customer, Harry, as the matrix domain, is available for anaphoric reference: *This is Harry, but* he *just walked out*. However, because of the strongly ostensive context, we can also make reference to the drink: *This is Harry; please, don't touch it*. In this situation, the anaphoric pronoun *it* has the drink

referred to by the demonstrative pronoun as its antecedent, in much the same way as in *This drink is Harry's; please, don't touch it*. Both kinds of reference can in fact be combined in the same conjoined utterance: *This is Harry; please,* he*'ll be upset if you touch* it. However, note the slight oddity of saying #*This drink (I'm holding) is Harry* (rather than *Harry's*), because of the imbalance between the economy of using metonymy in the predicate and the lack of economy of unnecessarily combining description and demonstration in the subject.

To end with this section, we will refer to predicate transfer, a phenomenon also identified and discussed by Nunberg (1995, p. 111). Predicate transfer is defined as the use of the name of a property that applies in one domain to entities in another domain provided that the two domains correspond in some way. In Nunberg's (1995) example, a customer hands his car key over to a car park attendant while saying: *I am parked out back*. The property of 'being parked out back' is transferred from the domain of cars to the domain of people. In terms of metonymy, there is domain reduction: the driver (matrix domain) stands for his car (a subdomain of the driver in terms of the owner-possession and controller-controlled relations). The notion of driver is available for anaphoric reference, as in other examples. Thus, *I am parked out back and* (I) *have been waiting for 15 minutes* is possible because the anaphoric pronoun *I* is linked to the matrix domain (the driver). By contrast, we cannot have anaphoric reference to the target domain (the car): *I am parked out back but* *it *may not start* since it would break the DAP.

4.6.3. On the metonymic grounding of fictive motion constructions

We have discussed in section 4.6 the impact of metaphor and metonymy on several grammatical phenomena, including lexical-constructional integration as applying to

argument-structure constructions. A subgroup of these configurations, like the inchoative and middle constructions, were identified as pretense constructions, characterized by a mismatch between the semantic and syntactic functions of the conceptual object or the instrument. In this section, we will postulate the existence of simulation-based constructions. Talmy's (2000) well-known notion of fictive motion is an example of such constructions. We will start with some classic examples of fictive motion:

(51) The highway goes from New York to Chicago.

(52) A narrow staircase goes up to the top level.

(53) The trail starts at the spring.

(54) The road winds up through the mountainside to the village.

(55) Once over the hill, the street leads into a large facility.

(56) The lane leads into the inner court.

In Talmy's theory, examples like these reflect our perception of longitudinal space as we scan it with our eyes. There is no motion, but our brains interpret what we perceive in terms of motion. We cannot argue that these examples are metaphorical, since there is no cross-domain mapping from a moving object to a static object. It is not possible to create a mapping in which the logic of the target domain is disrupted by forcing onto it the non-corresponding source-domain structure and logic (cf. Lakoff's Invariance Principle). Rather than metaphor, there is imaginary motion. Thus, each of the sentences above requires a mental simulation of motion along a path.

For fictive motion the existence of a path is not necessary, as shown by examples (57) to (59):

(57) The fence runs along the coastline.

(58) The river meanders along farming fields.

(59) A line of trees runs along the edge of the playing fields.

A likely reason why this happens is the mind's ability to recreate a path based on the observation of a moving object, which is consonant with the fact that, as noted by Peña (2008), the motion image-schema presupposes the existence of a path, but not the other way around. Fictive motion expressions thus require a motion verbal predicate and a location expression denoting any element of the path and/or motion image-schemas, such as the beginning of motion, the course of motion, or the end of motion. Furthermore, the subject of the fictive motion expression is any conceptual construct directly denoting a path (e.g., a road, a lane, a trail, a street) or involving a path-like spatial configuration (e.g., a fence, a river, a line of trees). When combined with a motion predicate, the result calls for the hearer to make a mental simulation of motion along the path. These syntactic and semantic regularities allow us to treat fictive motion as a constructional phenomenon. In addition, we may note that fictive motion expressions are semantically underdetermined. For example, a non-fictive paraphrase of (57) could take the following form: 'There is a fence parallel to (an observable portion of) the coastline such that if we were to travel along the fence we would be traveling along the coastline simultaneously' (cf. Ruiz de Mendoza, 2017b, p. 318). This paraphrase, which captures the essentials of the target meaning of the fictive-motion expression, spells out the conceptual material that is implicit in it. The fictive-motion expression is thus the object of a domain-expansion metonymic operation. A similar logic applies to all the other examples. Take (51). This fictive-motion expression is roughly equivalent to 'If we were to travel along this highway from one end to another, we would start in New York and end up in Chicago'. This paraphrase captures, like the previous one, the whole mental simulation that makes its corresponding fictive-motion expression possible. At the same time, the mental simulation of motion licenses the constructional layout for these expressions. In

the construction the path is the non-congruent agent (realized as a syntactic subject) of the motion event depicted by the rest of the predication.

4.6.4. Metaphor, metonymy, and image-schema transformations

Image-schema transformations were initially identified and discussed by Lakoff (1987). Johnson (1987, p. 26) has also noted their existence and other scholars have addressed some of the implications of this interesting proposal for polysemy (e.g., Dewell, 1994; Cienki, 1998), the dynamic nature of image-schematic configurations (Dewell, 2005) and for psycholinguistic accounts of knowledge organization (e.g., Gibbs and Colston, 1995) (see also Oakley, 2007). In Lakoff's account, image-schemas can become other image-schemas depending on our subjective construal of a state of affairs. One example if the *path-focus to end-point focus transformation*, which may take place when we imagine the path of a moving object and then focus on the point where it will stop. This transformation underlies the use of the preposition *over*, which generally calls for a dynamic verbal predicate, as in (60), with a non-dynamic verb, as in (61), which is focused on the final point of the curved –first upward and then downward– trajectory followed by the ball.

    (60) The ball flew over the wall.

    (61) The ball is over the wall.

    (62) The ball is on the other side of the wall.

However, note that (61) differs from (62) in the fact that the former presupposes caused motion from one side to the other side of the wall. This implicit meaning calls for a more refined interpretation of the phenomenon under scrutiny. In this alternative interpretation, the path and end of path are not dissociated image-schemas (Peña and Ruiz de Mendoza, 2009). Instead, these constructs are elements of an image-schematic complex, a notion

which we discussed in 3.1.2.2. The complex includes motion along a path from a source to a destination. If we take the meaning that is implicit in (61), as described above, a paraphrase of this sentence could be 'The ball has been caused to go up one side of the wall and down the other side without making contact with the wall until it has come to a stop'. Evidently, *over*, which invokes a whole path with a source, an object moving in a curved upward-downward trajectory without making any relevant contact with any object within its range of trajectory, is metonymic for the end point of its trajectory. This would be a case of metonymic domain reduction. The path-focus to end-point focus transformation is but the result of a metonymy operating on an image-schematic complex. Since this transformation involves mentally reconstructed motion, which also took place in fictive-motion constructions, we can think of this type of image-schema transformation and of fictive motion as subcases of simulated motion. In the case of this transformation simulated motion is presupposed, while in the case of fictive motion the simulation of motion is imposed on the object that is treated as if moving as its topological characteristics are perceptually scanned.

Another example of image-schema transformation is *multiplex to mass*, which is exemplified by such expressions as (63) to (65):

(63) The rioters poured through the streets.

(64) The audience trickled into the hall.

(65) A big number of protesters gushed out to Martyrs square.

The rioters in (63), the people in the audience in (64), and the protesters in (65) are individuals, but, in these examples, they are construed as forming an undifferentiated mass. Needless to say, there is a perceptual factor underlying this specific construal, since, viewed from a distance, a collection of individuals that are close to one another look like a mass. This appearance is further reinforced by the fact that the individuals in a crowd

often display the same motion patterns, which makes them similar to substances. Still, they are individuals seen as a mass. In other words, the multiplex-mass image-schema transformation is a case of metaphor whose target is a collection of individuals (e.g., a crowd) that are close to one another and display the same motion patterns so much so that from a distance they look like a homogenous mass. The metaphorical source is recruited from the domain of substances. These cannot be broken down into components through mere visual inspection and tend to move with continuity which can only be temporarily broken by obstacles. This source-target relationship is licensed by image-schematic resemblance.

4.7. Metaphor-like figures

We have discussed metaphor as a basic figure of thought. Traditional rhetoric recognizes the existence of other tropes that relate to metaphor. Here we will describe the following: simile, zoomorphism, kenning, allegory, analogy, paragon, and synesthesia. From these, simile, analogy, and synesthesia seem to have received some more attention both in the cognitive-linguistic literature and in other traditions, including linguistic pragmatics. It is not our intention to offer an exhaustive overview of approaches to each of them, but rather to make explicit connections between these figures and the basic cognitive operations involved in metaphor. In so doing, we will observe that some of these figures are in fact the result of combining basic cognitive operations into bundles and/or applying such operations to different kinds of conceptual structure. The resulting account unifies and simplifies the existing listings of figures of thought.

4.7.1. Simile

In rhetoric, a simile is seen as a figure of thought based on comparing two objects, A and B, in such a way that the comparison departs from our common expectations. Take the utterance *A lawyer is like a priest; he can't disclose anything he learns from his clients.* The lawyer-like-priest relationship here is a bare comparison but not a simile, since the grounds for the comparison is an aspect of a lawyer's practice that is commonly known to be shared with priests. However, the comparison *My lawyer is like a priest, kind, loving, and caring with his clients* does seem to depart from our regular world-knowledge expectations about a lawyer's practice. It can be considered a case of simile. Glucksberg's (2001) well-known example *My lawyer is like a shark* is even a clearer case, since the relationship between a lawyer and a shark is by no means conventional. This sentence could refer to the lawyer's voracity in monopolizing cases, to his aggressiveness, ruthlessness, or even his "predatory" qualities (e.g., by unscrupulously taking advantage of others for his own gain). *Like* similes in English are open-ended. However, the grounds for comparison can be made explicit by means of the connectors *as ... as* or *more/-er ... than*. Some examples are: *She's as sweet as/sweeter than honey*; *He's as quiet as/quieter than a mouse*; *My dog is as fast as/faster than lightning* (cf. Cuenca, 2015).

Some theorists like Tversky (1977), Fogelin (1988), and Miller (1993) have claimed that simile and metaphor are functionally equivalent, the only difference being one of syntactic expression. This claim is consistent with the observation that similes can be converted into resemblance metaphors by eliminating the syntactic marks of comparison, as evidenced by the similarity in meaning between the simile *My lawyer is like a shark* and its corresponding metaphor *My lawyer is a shark*. However, there are two problems with the equivalence assumption. One is that, evidently, not all similes can

be clearly converted into metaphors, as evidenced by the oddity of saying *She is honey, He is a mouse,* and *He is lightning.* The other is that there is empirical evidence that, when there is such a convertibility, metaphor and simile are interpreted differently by experimental subjects (cf. Glucksberg, 2001; Glucksberg and Haught, 2006). In general, metaphor is more constrained by interpretive convention than simile and expressions based on simile usually give rise to a broader range of possible interpretations in the absence of a clear-cut context. For *My lawyer is like a shark* experimental subjects provide the interpretations specified above and even others referring to physical capacity (e.g., swims fast, is strong and powerful). For *My lawyer is a shark* the predominant interpretation is that the speaker's lawyer takes advantage of others for personal gain.

In view of this difference, Glucksberg and Haught (2006) argue that metaphor is a categorization assertion, while simile is an assertion on similitude. This view is consistent with experimental evidence in which, when subjects are asked to associate properties to metaphor and *like* similes, they choose higher-level properties for metaphor and lower-level properties for simile. Thus, the properties associated to the expression *Ideas are diamonds* are those of valuable entities in general, while for *Ideas are like diamonds* the properties relate to the actual gem, such as being rare, desirable, or bright. The non-equivalence view has been supported by other theorists, such as Chiappe and Kennedy (2000), Dancygier and Sweetser (2014), and Romano (2015). They claim that metaphor is preferred when the relationship expressed is easy to pick up. By contrast, simile is preferred when the relationship is not as clear. This is the same as saying that the interpretation of simile is open-ended, while in metaphor it is more constrained, probably by convention. This potential open-endedness of simile accounts for the frequent discourse need to elaborate on it. For example, in *Her teeth are like pearls*, we could map onto teeth such properties of pearls as their small size, their round shape, their

smoothness, whiteness, and brightness. The following examples restrict these possibilities discursively: *Their teeth are like pearls, gleaming behind well-rehearsed smiles*[6]*; I can't help but notice that your teeth are like pearls! How do you get them so white?*[7]*; His teeth are like pearls and diamonds and emeralds and rubies and everything in the world that is shiny*.[8]

In simile, the interpreter will choose one from among several features. In metaphor, on the other hand, the feature or set of related features to apply to the target is pre-established by convention or, if not, one conspicuous feature or a cluster of related features will apply. In the case of *Her teeth are pearls* it is usually the brightness of the teeth that is understood in terms of the brightness of pearls. In *Her eyes are shooting stars*, which is unconventional, we can think of the streak of light produced by a shooting star in the sky at night as mapping onto the contrasting luminosity of the pupils against the background of the rest of the eye. Finally, note that there are linguistic strategies to pin down the interpretation of open-endedness of metaphor and *like* similes. In English, a nominal complement (which is but the syntactic realization of a completion cognitive operation) can serve this purpose: while the meaning of *Her eyes are (like) an ocean* is open (ocean-like eyes are not only blue in color, but also deep, crystalline, watery, etc.), in the sentence *Her eyes are (like) an ocean of tears* the metaphor focuses on the abundance of tears.

In terms of cognitive operations, resemblance-based metaphor and simile are built on resemblance operations. The difference has to do with how the search for cross-domain similarities is constrained in each case. In the case of metaphor, the constraints are based

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[6] https://amp.usatoday.com/story/news/world/2016/05/09/inside-north-koreas-surreal-restaurant-empire/84129576/. Accessed on March 16, 2019.
[7] http://www.neopets.com/ntimes/index.phtml?section=485995&week=435. Accessed on March 16, 2019.
[8] https://www.wattpad.com/8409818-my-finest-hour-chapter-1. Accessed on March 16, 2019.

on conspicuity, while in *like* similes they arise from the context of situation or they are offered by the speaker through discourse elaboration. This approach to the difference between metaphor and simile is consistent with the categorization view of metaphor versus the comparison view of simile. The search for similarity in metaphor is grounded in perceptual conspicuity. For example, a lawyer is a shark because lawyers and sharks exhibit "predatory" (ruthless, aggressive) behavior to their victims. Since both lawyers and sharks share this conspicuous behavior, it follows that both can be categorized as "predatory." By contrast, the search for similarity in simile is local, i.e., it focuses on listing attributes that the source and target have in common, in the understanding that one or more may be the case in connection with the context or subsequent discourse. As a consequence, if a person is "like" a shark, it will have to be so as constrained by the context. For example, the person may be aggressive or a voracious eater, but this feature is not viewed as categorizing the person; it simply describes a feature of the person that is consistent with what we know about him.

4.7.2. Zoomorphism and anthropomorphism

The term 'zoomorphism' is broad. It applies to any portrayal of a non-animal entity as if it were an animal. History is rife with such depictions, which can have an artistic, symbolic, mythological, or religious character. The Egyptian gods were often portrayed as animals or as hybrid. In one of its most common depictions in Greek mythology, the minotaur (or bull of Minos) had the head and tail of a bull but the body of a man. The New Testament records the appearance of the Holy Ghost in the form of a dove (Matthew 3:16; Luke 3: 22). This image was likely highly meaningful to the Jews of that time who had Noah's story in their minds. Following the Flood, Noah sent out a dove three times

(Genesis 8: 8-12). The first time the dove returned. The second time the dove also returned but it brought a freshly-plucked olive leaf meaning that the waters were abating from the earth. The third time the dove did not return, meaning that it had found land. For the ancient Jews the dove became a symbol of God's peace after judgment (the Flood).

Zoomorphism can be reflected in language, which has made scholars regard it as a literary device often used to describe characters. For example, people's features and behavior can be described in terms of corresponding features and behavior in animals. A clever person is a fox, a clumsy person is a bull or an ox, a brave one is a lion, and so on. Since zoomorphism is focused on similarities, it follows that it can take the form of resemblance metaphor (e.g., *He brayed at the joke*, *He got on his hind legs*, *You're hogging the couch*) or of the various types of simile (*strong like an ox*, *as silent as a mouse*, *an eagle-like nose*). However, resemblance operations are not necessarily the only factor in metaphors and similes of this kind. There are some properties of zoomorphic metaphors and similes that are worth mentioning. One is their intrinsically hyperbolic nature. This results from the fact that when people select any animal feature to build a metaphor or a simile, they do so on the basis of how outstanding they find the feature. In terms of its bulk and the way it moves an ox looks clumsier than the person to whom we ascribe this feature. The same holds for the braveness of lions, the slyness of foxes, the cowardice of chicken, etc. These characteristics are more pronounced in the animals than in the humans. A second property relates to how we understand the animal features that we use to reason about humans. In this connection, Lakoff and Turner (1989) argued that before we use PEOPLE ARE ANIMALS, we first need to attribute human features to animals. Let us take their example, *Achilles is a lion* ('courageous'), which we have briefly addressed above in section 4.4.2. Lakoff and Turner note that lions are not "courageous." This is a human attribute. So, what people do to produce and interpret this

metaphor is treat a lion's behavior when fighting in terms of this human attribute by virtue of the converse metaphor ANIMALS ARE PEOPLE. This allows people to think of Achilles's courage in terms of a lion's attributed "courage." In Lakoff and Turner's view, these two converse metaphors cancel each other out. However, we do not think this explanation is correct. It is a mistake to think that the metaphor in *Achilles is a lion* maps lion's "courage" onto the warrior's courage. What is mapped is lion's instinctual and fierce behavior when fighting other animals, or when chasing its prey, onto the warrior's behavior in battle. The mapping allows us to think of Achilles's fierceness and determination in terms of a lion's unstoppable fierceness. Since we cannot expect that kind of behavior in a cowardly warrior, it naturally follows that Achilles is seen as a brave warrior. This kind of reasoning process takes the form of a condition-consequence reasoning schema: if a warrior is fierce and aggressive, it follows that he is brave. That is, the meaning implication that Achilles is brave is but the result of a metonymic domain reduction process whereby the consequence part of condition-consequence reasoning schema is highlighted. There is only one metaphor, PEOPLE ARE ANIMALS, which maps animal behavior onto human behavior, and metonymic reduction of the target domain of the metaphor. The second property of zoomorphic metaphor and simile is, therefore, its sensitivity to target-domain metonymic elaboration in terms of domain reduction. Finally, let us discuss the third property. For this purpose, think of the use of the word *pig* to refer to someone whose behavior we find disgusting. Miró (2018) has offered an analysis of this metaphor as involving an amalgam of PEOPLE ARE ANIMALS and IMMORALITY IS FILTH, which is licensed by the high-level metonymy EFFECT FOR CAUSE. The question is why we can see immoral people as filthy animals (e.g., pigs). One possible motivating factor is our experience of feeling disgusted at the sight and smell of pigs, which are physically dirty animals. Pigs wallow

in their own excrement mixed with mud. In much the same way, we may feel disgusted at people's immoral behavior. In naïve thinking, similarity of effects leads to similarity of causes. As a consequence, immoral people and pigs are revolting because they are similarly "filthy." Behavior-based zoomorphic metaphors and similes may be the result of amalgamating more basic metaphors as supported by an experientially-grounded licensing factor, as is the case of the EFFECT FOR CAUSE metonymy. One observation is worth making in this respect. It relates to the role of the EFFECT FOR CAUSE metonymy in figurative thought. We have already noted that it underlies hypallage (see 3.1.1 and the extensive treatment of this figure as a metonymy-like one in 4.8.1), where the same kind of naïve reasoning about equality of effects involving equality of causes endows the metonymy with the ability to license an effect-denoting attribute to its causer. However, this is not only a property of hypallage and some zoomorphic mappings. Later on, we will briefly attest the existence of a similar licensing role in synesthesia (see 4.7.4). In any event, the case of PEOPLE ARE ANIMALS is special. In it, the EFFECT FOR CAUSE metonymy does more than just allow for a metaphorical amalgam to take place. This metonymy serves as a pointer to the status of the metaphors to be combined. In the integration of PEOPLE ARE ANIMALS and IMMORALITY IS FILTH, where the former is a resemblance metaphor and the latter a correlation metaphor, the EFFECT FOR CAUSE metonymy is what allows us to make a plausible connection between immorality and filth since both can be seen as equally disgusting, that is, since the effects are similar. That is, the behavioral similarity between people and pigs depends not on what they do (people can behave immorally and pigs wallow in filthy mud) but on the effects of what they do on others. The EFFECT FOR CAUSE metonymy thus makes PEOPLE ARE PIGS subsidiary to IMMORALITY IS FILTH (cf. Ruiz de Mendoza, 2017a).

The term 'anthropomorphism' designates the attribution of human characteristics and/or behavior to animals and deities. When extended to other non-human entities, whether real or imaginary (e.g., natural or artificial objects), it takes the name of personification. Besides artistic depictions, anthropomorphism abounds in literature (e.g., fables) and in cartoons and movies (e.g., animated stories). Metaphor exploits anthropomorphism either to reason about a world entity or to highlight specific attributes of it. As an example of the latter function, think of the use of the term *head* to refer to the leader of an organization, or to the *eyes* and *ears* to designate those that collect potentially relevant information. In turn, the *heart and soul* of a party is the person that provides entertainment, but the *heart and soul* of an organization is the person that plays the most vital role in it. By contrast, anthropomorphic metaphors can also be used to reason about a given situation. This is the case of the expression *Listen to your body*, uttered in the context of promoting one's health, which suggests learning through a figurative conversation with one's own body about its needs in terms of healthy lifestyle choices.

It must be noted that these anthropomorphic metaphors do not happen alone but are grounded in metonymy. For example, we can think of an organization as if it were a body with different parts mapping onto different kinds of members (with the head being the leader, the hands the workers, the heart a person playing a vital role, etc.), but each of these correspondences is possible by virtue of each body part being metonymic for the role it plays in the body. Thus, since the head stands for the faculty of reason, through metonymic reduction, in the metaphoric mapping the head is the person that has the ability to lead on account of his or her mental abilities for this role. The metonymy is part of the metaphoric source, which is one of the metaphtonymic patterns discussed in section 4.5.3. The metonymic grounding can still be more complex. Take the case of the expression *the heart and soul of a party* ('the most important part of a party'), which

maps a person onto a party. This is typical metaphorical thought. But the source domain is elaborated metonymically through domain reduction. Since the heart and soul of people endow them with physical and spiritual liveliness, the two "parts" or aspects of a person constituting the metaphorical source can in principle stand for those two features (Ruiz de Mendoza, 1999b). But the heart and soul of a party is not only the liveliest person enjoying himself or herself at a party. The "heart and soul" causes others to enjoy themselves. There is thus a second EFFECT FOR CAUSE metonymy that further develops, through domain expansion, this meaning component.

Zoomorphic and anthropomorphic mappings can be conceptually complex, combining metaphor with metonymy and metaphor with metaphor. This happens when such mappings refer to behavioral rather than physical properties of entities. The reason for this is that while the latter are directly accessible to perceptual scrutiny, behavioral properties depend on the way in which we interpret the actions of target entities, which requires a greater degree of conceptual elaboration.

4.7.3. Analogy, paragon, kenning, and allegory

Analogy is a structural resemblance that preserves part-whole structure and logic across discrete conceptual domains (see Ruiz de Mendoza and Pérez, 2011). As advanced in 3.2.1.2.2, analogy makes use of the following analogical schema, based on a premise-conclusion reasoning correlation: if A is to B as C is to D, then A is C and B is D, where one of the two equations can be tighter than the other. For example, we can say that the heart is a pump on the basis of the fact that the heart causes blood to circulate around the body in the same way as a pump circulates a fluid around a hydraulic system; i.e., the heart (A) is to the circulatory system (B) as a pump (C) is to a hydraulic system (D), so

the heart is a pump (A is C), and the circulatory system is a hydraulic system (B is D). It goes without saying that thinking of the heart as a pump provides a tighter equation that thinking of the circulatory system as a hydraulic system. It is for this reason that sentences like *The heart is a pump,* or *The heart pumps blood around the body* are more natural than #*The circulatory system is a hydraulic system*.

Analogy does not need to be captured by a metaphorical linguistic expression. In fact, it may prefer expression through a *like*-simile, especially if the analogical schema is not self-evident or has not become entrenched in the linguistic system. Consider the well-known example of analogy that relates the atom to the solar system. In both there is a central body, which has most of the mass, and smaller orbiting bodies attracted by the central body. In this analogy, the electrons (A) are planets (B) and the Sun (C) is the nucleus (D). However, a metaphorical expression like *Electrons are planets* is harder to interpret than its corresponding simile: *Electrons are like planets*. This is so because simile directs the hearer to search for any kind of similarity, including structural resemblance, while metaphor calls for more self-evident (or at least conventional) shared properties. Simile can also make fully explicit the grounds for the connection (i.e., the fact that electrons and planets orbit around a central body) thereby facilitating interpretation even more: or *Electrons are like planets orbiting the Sun*.

Analogy is not operational on account of a shared attribute or element between the two terms of the comparison (i.e., between the source and target domains), even if such an attribute or element can be identified. For example, the heart is "a pump" primarily by virtue of its function in the circulatory system and only secondarily by virtue of sharing (functional) properties with pumps (causing fluids to flow). However, compare the metaphor/simile *Your eyes are (like) sapphires*. This example is based on the fact that the two terms of the comparison share a property to a certain extent (their bright light

blue color). However, there is no structural relation between the two terms of the comparison and something else, which prevents the application of the analogical schema.

In any event, there are cases of analogy where attribute-based resemblance does seem to play a role, even if only a supportive (and thus secondary) one. For example, a person's nose can be called "a trunk" on account of its excessive length, or a "beak" because of its length and shape, and a person's hands can be called tentacles if they have a strong sticky grip (e.g., *Keep your tentacles off her*). Still, note that these properties are ultimately subsidiary to the underlying analogical correlations: a nose is to a human's face as a trunk is to an elephant's face or a beak is to a bird's head; a hand is to the rest of a person's body as a tentacle is to an octopus's body.

Although resemblance metaphors based on attributes rather than on structural relations are not analogical, an attribute can be made part of a structural relationship thus supporting or enriching analogical reasoning. In the metaphor *Your teeth are pearls* there is no structural analogy, but a description of the nature of an attribute of the hearer's teeth. However, in the expression *the pearls of your mouth*, we find analogical relations: the teeth (A) are to the mouth (B) as the pearls (C) to the oyster (D). The question is that the analogy does not result from the shared whiteness of the teeth and pearls but from part-whole relations. The expression *the pearls of your mouth* is fundamentally an enriched analogy where an attribute-based mapping from the whiteness of the pearls to that of the teeth is built into the analogical architecture specified above.

Note that, out of the four items of an analogical schema (A is to B as C is to D), only C cannot be made implicit. The rest are derivable from world knowledge or contextual clues. Compare (66) and (67):

(66) The heart (A) pumps (C) blood around the body (B).

(67) The doctor says I have to take care of myself. My old pump (C) is beginning
to fail.

If we take into account the metonymy from 'body' to the 'body's circulatory system',
(66) makes explicit all items except D. Example (67) only makes C explicit.

Some analogies are highly creative. This leads the speaker to provide enough
interpretive cues. This may require making explicit several items in the analogical
schema. Consider this verse from the book of *Proverbs* in the *Bible*:

(68)

"As cold waters to a thirsty soul,

So is good news from a far country." (*Proverbs* 25:25)

This analogy makes an implicit comparison between the effects of receiving good news
to the effects of drinking cool water when thirsty. The comparison is possible through the
support of the CAUSE FOR EFFECT metonymy. This is the analogical correlation,
where item B is implicit:

A: (receiving) good news from a far country

is to

B: [the receiver of the news]

as

C: (drinking) cold water (when thirsty)

is to

D: a thirsty person

So, the good news (A) is cold water (C), and the receiver of the news (B) is a thirsty
person (D).

Since A stands for the (pleasant) effect of receiving good news from a far country and C stands for the (refreshing) effect of drinking cold water when thirsty, the real analogy is about the effects, which are comparable.

Only item B in the analogy is implicit, since it is easily derivable from A (receiving good news involves the existence of a receiver). The rest of the items have been made explicit by the author since they are not easily recoverable from world knowledge. Following the analogy (good news is cold water), an expression like *I have drunk your cold waters* (meaning 'I have received your good news') should be theoretically possible, but difficult to interpret on the basis of common world knowledge. The part of the analogy that connects cold waters to thirst is to be made explicit so that the effects of drinking cold water when thirsty can be related to similar effects when receiving good news.

Metonymy-supported analogical reasoning may lead to the creation of paragons or paradigmatic cases of people or events. Paragons have already been studied by Brdar and Brdar-Szabó (2007) as based on metaphor-metonymy combinations. Here we add the observation that the metaphor is the analogical kind. Consider the situation where Vietnam is used to stand for the Vietnam war: *We all want to forget Vietnam* (LOCATION FOR EVENT). The effects of this war were devastating in terms of military and civilian deaths and it has been regarded by many as a sad chapter in the United States history. This explains why some political commentators, afraid of a protracted United States war against Iraq in the 2000s, warned against it as potentially being *a second Vietnam,* or *another Vietnam*, where *second* and *another* have a reinforcing value (cf. *Iraq could be a Vietnam*), thereby highlighting the uniqueness of the Vietnam war as a paradigmatic case of a disastrous unsustainable overseas war. The reasoning process underlying this form of conceptualization is one of metonymy-supported analogy, where

the war stands for its consequences: the Iraq war (A) is to the potential consequences of the Iraq war (B) as the Vietnam war (C) is to the attested consequences of the Vietnam war (D). Without this second metonymic elaboration there is no analogy. The analogy licenses expressions like: *We don't want the Iraq war to be a second Vietnam war*; or simply, if we apply LOCATION FOR EVENT: *We don't want Iraq to be a second Vietnam.*

Another example of paragon is the sentence *Jim Carrey is the Einstein of comedy*, where we see Jim Carrey's skills and talent (A) in the domain of comedy (B) as comparable to Einstein's (C) paradigmatic talent in the domain of physics (D). In this paragon, Einstein stands for his talent and Jim Carrey's for his. Since, according to general belief, Einstein's brilliance in physics has not been surpassed, the mapping from the physicist to the comedian results in a hyperbolic effect. The hyperbole in this example is more noticeable than in the Vietnam-to-Iraq mapping. The extent of the hyperbolic effect depends on to what extent the property in the source differs in degree from that in the target each against its own domain of reference.

Kenning is an old Norse circumlocution in the form of a compound that uses figurative language in the place of a noun. A ship is thus termed *wave's horse* or *sea steed* and the sun is the *sky candle*. In present-day English some writers have adapted kenning to modern usage. For example, Seamus Heaney uses *bone house* to refer to a skeleton. Evidently, kenning is a form of resemblance metaphor combined with substitution to achieve its nominal referential value. However, on closer inspection, kenning is closer to analogy than to feature-based resemblance metaphor. This is so because each item in the compound is cued by the other to activate one of the items of an analogical schema. Thus, in *sea steed*, the head noun *steed* is cued by *sea* to activate the notion of 'land', while the noun *steed* cues *sea* to activate the notion of 'ship':

A steed (A) is to [the land] (B) as [a ship] (C) is to the sea (D); so, a steed is [a ship] and [the land] is the sea.

Finally, allegory is also based on analogy. Traditionally, allegory has been defined as the expression of generalizations about human existence by means of symbolic fictional characters, places, and events. This is the view found in the *International Standard Bible Encyclopedia* (see the entry for "allegory" in Bromiley, 1979), in the context of Biblical studies, where allegory plays a very important role, but also in linguistics, as is the case of Goatly (1997). As noted by Crisp (2005, p. 325), this view comes close to defining allegory as an "extended" metaphor which can take different narrative forms, such as a fable or a tale.

A well-known example of this figure is Plato's famous allegory of the cave. In it, a group of prisoners are chained in a cave all of them facing a blank wall. They can only see shadows that are projected on the wall by the objects in front of a fire behind them. One of the prisoners manages to get out of the cave and see the real objects. He returns to those in the cave and tells the others about what he has seen, but the chained prisoners refuse to believe him. The prisoners represent common people that can only have access to shadows of reality. The runaway prisoner is the philosopher that manages to find out about reality. Reporting on reality is teaching common people about the real world, but these people ironically refuse to learn the truth. Evidently, each target element represents a class, which is a matter of the metonymy MEMBER FOR CLASS (e.g., 'aspirin' for 'any painkiller'). Thus, the chained prisoner that escapes (source) maps onto a philosopher that stands for the whole class of philosophers. Similarly, the slaves in the cave map onto people in the world, which stand for anyone except philosophers. The objects map onto a set of philosophical ideas, which stand for all possible such ideas. There is a basic form of analogical thought in this allegory, since the runaway prisoner

and the chained prisoners are to perceptual truth as the philosopher and common people are to ideal truth.

Allegory can take more complex forms, also sensitive to analogical thought. Consider Aesop's classic fable "The Tortoise and the Hare." The tortoise challenges the hare to a race. Strikingly, because of her excess of self-confidence in her running skills, the hare decides to take a nap in the middle of the race and oversleeps. Because of this, the tortoise wins the race. As in metaphor, we have the following target-source correspondences, which result in a metaphorical amalgam combining correlation and resemblance metaphors:

a. A talented and overconfident person (T) is a hare (S)

b. An untalented but persevering person (T) is a tortoise (S)

c. Achieving success in life (T) is winning a race (S)

d. Winning the competition (T) is achieving victory in the race (S)

The basic layout of this system of correspondences is provided by the correlation metaphor ACHIEVING SUCCESS IN LIFE IS WINNING A RACE, which is enriched with low-level resemblance correspondences between specific skills and personality traits of the characters. These are provided by a chained combination of the metaphor ANIMALS ARE PEOPLE, which is used to personify animals, with PEOPLE ARE ANIMALS, which is in turn used to ascribe the features of the personified animals to people, as described in (a) and (b) above. However, the interpretation of the allegory requires the people that inherit the features attributed to the hare and the tortoise to be classes of people. This is achieved through a double domain-expansion metonymy that applies to the people of the PEOPLE ARE ANIMALS metaphor: ATTRIBUTE FOR PEOPLE FOR THE WHOLE CLASS OF PEOPLE HAVING THAT ATTRIBUTE. This metonymy is a development of MEMBER FOR CLASS. Thus, we have people that

inherit the feature of being "slow" (metaphorical for talented), but are naturally persevering, and others who inherit the feature of being "fast", but are naturally overconfident. These two kinds of people (the target of PEOPLE ARE ANIMALS) define one class each. Note that this specific metonymic ingredient is essential for allegory to be such. It separates allegory off from other metaphor-related figures, especially from paragon. Recall that paragon contains the opposite metonymy: A PERSON FOR AN OUTSTANDING ATTRIBUTE (e.g., Einstein for his unequalled intelligence).

What is more, this system of correspondences responds to the essential criteria for analogical thinking: The skills and character of people (A, target) are to the domain of success in life (B, target) as the skills and attributed character of personified animals (C, source) are to the domain of success in a race (D, source).

In this allegory, the licensing factor for metaphoric source-target correspondences (a) to (d) above to be workable is the analogical relationships A is C and B is D. The B is D relationship is precisely the metaphor ACHIEVING SUCCESS IN LIFE IS WINNING A RACE. This correlation metaphor is a specification of the primary metaphor GOALS ARE DESTINATIONS (see sections 4.2 and 4.4.2). In principle, this metaphor, besides being based on experiential correlation, which involves high-level resemblance (the feeling of achievement when satisfying a goal and when reaching a destination), is also intrinsically analogical. Thus, if a sales team announces that they have "reached their sales goals", the sales personnel are to their goals as travelers are to their destination. However, not all primary metaphors make use of analogy: MORE IS UP (*Salaries may be rising in June*), INTIMACY IS CLOSENESS (*They are really close friends*), SIMILARITY IS CLOSENESS (*These two colors are really close*), and UNDERSTANDING IS GRASPING (*He able to grasp the most complex philosophical notions*) are just a few examples in this respect. These metaphors, unlike GOALS ARE

DESTINATIONS, are not based on the structural alignment of corresponding source and target elements but only on the ascription of high-level properties to target elements in terms of their co-occurrence with the source. We already noted these common properties in section 3.2.1.2.2: MORE IS UP hinges on the common experience of increase involved in the accumulation of objects and in seeing objects reach higher positions; SIMILARITY IS CLOSENESS is based on the similar experience of spatial contiguity when comparing objects and when objects are close to one another; UNDERSTANDING IS GRASPING is grounded in the similar experience of awareness when understanding the nature of objects and when touching them.

4.7.4. Synesthesia

According to the traditional view, in synesthesia one sense is described in terms of another. In Dante's *Divine Comedy*, in the first canto, the "inferno" is depicted as the region where *the sun is silent*. This depiction binds the senses of sight (the sun) and hearing (silence) in such a way that they can be used interchangeably (Ruiz de Mendoza, 2020a, p. 24). This is not essentially different from what happens with the conflation of concepts characteristic of correlation metaphor. Thus, we can say that prices *increase* (quantity) or *go up* (height) because the two concepts, quantity and height, are bound up with each other in our minds through their frequent co-occurrence in our daily experience. The difference is the licensing factor. While metaphor is licensed, as we saw before, by experiential correlation constrained by high-level resemblance, the licensing factor in synesthesia is different. In Dante's example, it is the high-level EFFECT FOR CAUSE metonymy. The use of 'silent' for 'dull' is based on the similarity of effects (the lack of intensity) in two different domains (sound and light). A similar conceptual pattern is

followed by other common synesthetic metaphors: in *a dark cough*, the effects of darkness within the domain of sight resemble the effects of coughing within the domain of hearing; in a *loud color*, the high-intensity impact of loudness maps onto a similar high-intensity impact in the domain of color; the adjective *sharp* (which belongs to the domain of touch, as in a sharp edge) can be applied to the domain of smell (*a sharp odor*), taste (*sharp-tasting cheese*), light (*a sharp flash of lightning*), or sound (*a sharp whistle*), on account of the intensity of the sensory perception involved. We can also have the opposite conceptual pattern at work. Thus, the metonymy CAUSE FOR EFFECT can motivate synesthesia, as is the case of the expression *thick speech*, which is slurred speech that causes misunderstanding in the same way as the thickness of fog or of a forest is a barrier to vision. Another example is provided by the expression *a quiet color*, which is a color that causes people to feel at peace in the same way as a noiseless environment.

Some scholars hold that these uses of synesthesia are not metaphorical, largely on the same grounds as others who propose that correlation metaphor is essentially literal because of experiential conflation. The argument is that there are two kinds of synesthesia. One is neurophysiological. In neurophysiology a "synesthete" is a person that actually perceives (i.e., does not compare) sensations in domains different from the original sensory input (Rich and Mattingley, 2002). For example, hearing a particular sound or of visual symbols (e.g., letters or digits) might induce vivid experiences of color, taste, or smell. Evidently, there is no figurativeness in this situation. The second kind of synesthesia involves cross-modal associations. These are not necessarily metaphorical. Thus, Winter (2019) observes that there is empirical evidence that five-year-old children can match the brightness of visual stimuli with the loudness of a sound. For these children the phrase *loud color* is not figurative since brightness and loudness are bound to each other. In our view, this argument is close to the postulate that experiential conflation does

not produce metaphor since the two conceptual domains involved are one and the same in our minds, i.e., they are "conflated" into one. However, in *loud color* there is no conflation resulting from the co-occurrence of experiences, as in MORE IS UP (seeing levels rise and fall as quantity increases or decreases). Instead, there is a perception of similarity of effects which leads to the association of inherently unrelated causes (both the color and the sound are intense; cf. Barcelona, 2008, and section 3.2.1.2.2 herein). Furthermore, the existence of conflation based on an 'effect-cause' correlation does not preclude the existence of metaphorical thought in the same way as with MORE IS UP. As argued by Ruiz de Mendoza and Galera (2014, p. 43), standard correlation metaphor involves a reasoning process that follows the guidelines of cross-domain alignment. For example, if 'more' is 'up' (*Prices are rising*) it follows that 'less' is 'down' (*Prices are going down*). This can be a fast process (*Prices have skyrocketed*), or it can be gradual (*Prices are building up*), and so on. This means that there is a metaphor which maps not only height onto quantity but also many other elements of the process of ascending and descending onto those of increase and decrease. In the case of *loud color* there is also a reasoning process, but it is based on the effect-cause structure, which is a high-level pattern. The crucial element is the intensity of a loud noise in the source and of color in the target. So, we can have *hushed* or *strident* colors, which capture our reasoning about the strength of effect of a color in terms of the different degrees of impact of sounds. This view of synesthesia is generally consistent with the one defended by Strik Lievers (2017), who argues for the metaphorical status of examples of synesthesia like *loud color*, but with one difference. Strik Lievers (2017, p. 89) emphasizes the idea that this expression is not perceived as conflictual by speakers because it is lexicalized. This would explain why some scholars think that *loud color* and similar examples do not represent cases of figurative thinking. However, the observations made above on the productivity of the

cross-modal mapping as a reasoning schema point in a completely different direction. The pattern is still active, at least partially, which means that the reason why some speakers of English may not realize that they are speaking metaphorically when using this phrase is to be found elsewhere. A good answer to the problem, given the discussion above, is the activity of the EFFECT FOR CAUSE metonymy licensing the connection through a high-level resemblance operation. In naïve thinking, similarity of effects leads to similarity of causes, which can thus become part of a metaphorical mapping.

4.8. Metonymy-like figures

This section will be focused on a selection of figures that arise from two different aspects of metonymy:

a. High-level metonymic thinking. This aspect is relevant to account for hypallage, antonomasia, anthimeria, and proverbs.

b. Source-target inclusion relations and part-whole structure. The correct understanding of the difference between source-in-target and target-in-source metonymy substantiates the consideration of synecdoche as a subcase of metonymy rather than a figure of speech in its own right. It also allows us to regard merism as a case of source-in-target (or domain expansion) metonymy.

4.8.1. Hypallage

We discuss hypallage first, since it links up with our previous discussion of high-level metonymic thinking. Hypallage has traditionally been defined as a "transferred epithet"

(cf. Huddleston and Pullum, 2002, p. 558) or a semantic "transposition of words" (Bussmann, 1996, p. 523). Admittedly, these are rather vague definitions, since there are cases of metonymy and synesthesia that involve the transfer or interchange of attributes. This is clearly the case of *loud color*, which can be argued to transfer the attribute of loudness from the domain of sound to the domain of color. However, it is also the case of attribute transfers involving non-sensory domains, as illustrated by these expressions: *a happy day*, *a restless night*, *a sad novel* (Dupriez, 1991, p. 213). These examples result from the application of the EFFECT FOR CAUSE metonymy: the states of being happy, restless, or sad are the effects resulting from causal events that make one happy, restless, or sad.

While hypallage seems to arise from EFFECT FOR CAUSE, other related high-level metonymies can also give rise to hypallage. An *idle walk* is a walk in which a person walks idly. The head of this noun phrase expresses the result of the action, which stands for the action itself (RESULT FOR ACTION). Through this metonymy the real scope of the meaning of the adjective *idle* is the action of walking thus becoming a specification of manner (walking idly) from a conceptual perspective. This metonymic elaboration of the adjective can be captured by the following label: ATTRIBUTE OF THE RESULT OF AN ACTION FOR THE MANNER IN WHICH THE ACTION IS CARRIED OUT. The combination of this metonymy and RESULT FOR ACTION gives rise to the interpretation of *idle walk* as 'walking idly'.

Another case of combination of hypallage with metonymy is provided by the following well-known example: *His coward lips did from their color fly* (William Shakespeare's *Julius Caesar*, Act 1, sc. 2). This statement is used by Cassius to accuse Caesar, before Brutus, of ordering a retreat in a difficult battle (flying from one's colors suggests running away from one's own flag). A person's lips cannot be 'coward'; only

the person can. But cowardly people can be expected to behave in ways that can be considered signs of cowardice. 'Coward lips' are thus not only the lips that belong to a cowardly person, but also a telltale sign (i.e., an effect) that the person has acted cowardly (the cause). The lips are metonymic for the emperor's action of ordering a retreat (INSTRUMENT FOR ACTION), which is seen as a sign of his cowardly conduct (EFFECT FOR CAUSE).

In view of the examples above, a more precise definition of hypallage is the licensed attribution, through high-level metonymy, of a property that holds true for a domain of reference designating one entity or state of affairs to another entity that does not belong to such a domain. It differs from synesthesia and correlation metaphors grounded in the EFFECT FOR CAUSE metonymy in the fact that the domains involved do not relate through a cross-domain resemblance operation, but through a domain internal high-level metonymic mapping.

4.8.2. Antonomasia

Antonomasia consists in replacing a noun by a reworded appellative or a periphrasis (Bussmann, 1996, p. 67). The appellative is constructed by selecting a unique, conspicuous, or otherwise relevant property of the entity designated by the replaced noun. These properties are metonymic for the target entity (ATTRIBUTE FOR ENTITY) either directly or indirectly. Through ATTRIBUTE FOR ENTITY, *the Almighty* is a name for God, because God is uniquely all-powerful, and *the eternal city* is Rome on account of the well-known strength and power of the Roman empire in ancient times. Joan of Arc was called the Maid of Orleans by virtue of her being a conspicuous member of the category of maids serving in Orleans. Here, the category (the maids of Orleans) stands

for one of its salient members (Joan of Arc) (CATEGORY FOR MEMBER) on the grounds of one of the relevant properties of the member (working as a maid). The *Lamb of God* refers to Jesus Christ because he was meek and mild like a lamb and also because he offered himself in sacrifice as lambs were sacrificed in ancient Hebrew altars. The opposite metonymy, MEMBER FOR CATEGORY, underlies another form of antonomasia based on the use of a proper name to express a general idea. For example, the term *Odyssey* is used metonymically to designate any long adventurous journey on account of the Greek epic poem describing the hardships of the ten-year homebound journey of Odysseus after the fall of Troy. That is, an *Odyssey* is a member of the category of long, hard, eventful journeys. Through metaphor, the term can be further used to refer to a complex spiritual quest or even other likewise challenging pursuits. Another example of MEMBER FOR CATEGORY is the use of Scrooge, the protagonist of Charles Dickens' 1843 novella *A Christmas Carol*, as a salient example of the category of misers. Scrooge is known for his avarice, which makes him lack charity in any degree with those in need.

In view of the evidence, antonomasia involves a formal substitution cognitive operation supporting either (i) a metonymic expansion operation whereby an attribute of an entity, whether invoked directly or indirectly as defining a category, stands for the entity that is characterized by such an attribute or a category, (ii) or a metonymic reduction operation whereby a category stands for an entity that is characterized by the properties that define such a category.

4.8.3. Anthimeria

This figure of speech is defined as the use of one part of speech for another (e.g., a noun for a verb or the other way around). From the point of view of grammar, it underlies so-called grammatical conversion. For example, the noun *book* is used as a verb with the meaning of 'make a reservation', as in *book a flight*. In Cognitive Linguistics, it has long been acknowledged that grammatical conversion is motivated by metonymy. These are some examples provided by Kövecses and Radden (1998, pp. 54-55) within the action idealized cognitive model or action frame, which, in our approach, has the status of a high-level construct:

(69) Author a book (AGENT FOR ACTION)

(70) Blanket a bed (OBJECT FOR ACTION)

(71) Give me one bite (ACTION FOR OBJECT)

(72) A deep cut (ACTION FOR RESULT)

(73) To summer in Paris (TIME PERIOD FOR ACTION)

(74) To porch the newspaper (DESTINATION FOR MOTION)

Of course, as Kövecses and Radden themselves point out, these are examples of zero derivation in morphology and there are ways of marking derived nouns or verbs grammatically in English and many other languages. For example, the agent-action connection has a morphological solution in *producer-produce* where the agent is created by the addition of the suffix *-er* to the verb. However, observe that the derivation pattern is different for *author*, which is naturally an agent from which the verb is obtained through the metonymy.

The use of metonymy to produce nominal or verbal derivations is highly productive in English. Here are some common everyday uses:

(75) Google ('use Google to search') (MEANS FOR ACTION)

(76) Text ('use a text message to communicate') (MEANS FOR ACTION)

(77) Oven a cake ('use an oven to bake a cake') (INSTRUMENT FOR ACTION)

(78) Head a project ('lead the project') (HEAD FOR USING THE HEAD TO LEAD, that is, INSTRUMENT FOR ACTION).

(79) Medal at a championship ('win a medal') (OBJECT FOR ACTION)

(80) To truth ('tell the truth') (RESULT FOR ACTION)

It is also possible to use high-level metonymy for other cases of categorial conversion outside the action frame. For instance, the adjectives *rich* and *poor* can become nouns within the syntactic frame of a preceding definite article in its generic identifying function (cf. its use in *The elephant may become extinct*): *the rich* and *the poor*. The metonymy here is ATTRIBUTE FOR ENTITY FOR COLLECTION. The motto *Live fearless* uses the adjective *fearless* in a predicative function, while the grammar of English would canonically call for a manner adverb (*Live fearlessly*). The motto can be paraphrased as 'live in such a way that as a result you will be fearless', which suggests that the predicative use of *fearless* is licensed by the metonymy RESULT FOR ACTION FOR MANNER OF ACTION.

These observations call for a definition of anthimeria that takes into account the role of high-level metonymy as a licensing factor of categorial conversion. Anthimeria is, therefore, a high-level metonymy whereby (i) an entity can stand for any of its properties or for any relational process (e.g., an action) in which it is involved, or conversely (ii) a relational process can stand for any of its aspects or for any entity involved in it in any of its roles.

4.8.4. Proverbs

We have discussed the metonymies CATEGORY FOR MEMBER and MEMBER FOR CATEGORY in relation to antonomasia. These metonymies also support other forms of conceptual organization. For example, in relation to CATEGORY FOR MEMBER, in everyday use of English we often use words denoting categories to refer to items that belong to such categories. This happens frequently when we cannot remember the word for the more specific item. We say *bird, dog, cat* for the members of the categories in question such as a sparrow, a beagle, and a Siamese, respectively. On the other hand, MEMBER FOR CATEGORY applies in situations where a salient member of a category is easier to retrieve from memory than the term identifying the category. This is often the situation with trademarks like *Aspirin* ('a painkiller'), *Hoover* ('a vacuum cleaner'), and *Macintosh* ('a raincoat').

In fact, CATEGORY FOR MEMBER and MEMBER FOR CATEGORY are but subcases of the higher-level metonymies GENERIC FOR SPECIFIC and SPECIFIC FOR GENERIC, respectively (cf. Barcelona, 2011, p. 22, for a similar view). This is so because a member of a category is also a token of a type (e.g., a Siamese is a type of cat), that is, a specific category within a generic one defining a class. But there are other metonymic situations which respond to generic/specific relations. Some are relevant from the point of view of lexical interpretation. A case in point is the use of generic lexical items which have to be adjusted in context, like the adjective *good* or the verb *do*. The adjective *good* has highly schematic meaning. *Good* describes a positive or in any way desirable entity, situation, or event: a good experience is a desirable experience, a good joke is one that makes people laugh, a good student is one who has better grades than the average, a good Christian is one who observes the precepts of his or her religion, a good neighbor is one who follows the rules of coexistence in the community, a good football match is one which has provided a pleasurable experience to viewers, a good rest is one which is

beneficial to health, and so on. The verb *do* has to be adjusted in a similar manner, depending on its context of use: *do the dishes* may mean 'wash the dishes', but in a context in which two people are decorating household items, it could mean 'decorate': *You do the dishes and I will do the rest of the stuff*. Both the use of *good* and *do* in these examples is grounded in the GENERIC FOR SPECIFIC metonymy. At a non-lexical level, there are constructions that are motivated by this same metonymy. Panther and Thornburg (2000) have discussed the *What's That N?* construction: *What's that bird?* ('What kind of bird is that?'). Asking a question to identify a type that is explicitly pointed at through the demonstrative adjective is odd. This situation calls for a re-construal of the question as one about the token. One possible adequate answer could be: *It looks like a woodpecker*. In terms of the account of cognitive operations laid out in the previous chapter (3.2.1.2.2), the GENERIC FOR SPECIFIC metonymy underlies the parameterization operation. It will have become evident by now that generic formulations are based on high-level cognitive models, while specific descriptions consist of low-level cognitive models.

The GENERIC FOR SPECIFIC metonymy can also apply beyond the lexical and argument-structure constructional domains. That is the situation of proverbs (also called adages or aphorisms). A proverb is defined as "a memorable saying expressing a perceived truth or moral lesson" (Brown and Miller, 2013, p. 365). In our view, a proverb is echoic of what society takes to be intellectual, moral, or behavioral truths. The following proverb illustrates the situational application of the GENERIC FOR SPECIFIC metonymy: *It is better to have loved and lost, than never to have loved at all*. This proverb expresses a universal truth about love relationships which is applicable, through parameterization, to the specific situation that the hearer or a third party is going through; e.g., the hearer might be weeping over his or her protracted loneliness after having been

abandoned by a spouse. The explicit generic truth is metonymic for the implicit specific situation to which it applies.

Other proverbs are based on a chained combination of SPECIFIC FOR GENERIC and GENERIC FOR SPECIFIC metonymies. This happens when the proverb does not directly express the universal truth, which has to be derived from it by means of an abstraction cognitive operation. This operation is supported by the SPECIFIC FOR GENERIC metonymy. Then, the generic structure thus derived can be applied to other specific situations with which the initial source situation shares the generic-level structure. This happens through a parameterization operation supported by the GENERIC FOR SPECIFIC metonymy. By way of illustration, consider the expression *Don't cry over spilt milk*, expressed as way of advising the hearer not to lament a mistake that cannot be undone or a problem that cannot be solved. This paraphrase captures the target meaning of the first metonymy in the chain, SPECIFIC FOR GENERIC. This meaning is thus available to be mapped onto any other specific situation where someone is expressing sorrow over a misfortune (e.g., one in which someone has lost a large sum of money over an unwise investment).

Given the analysis provided above, a proverb is the indirectly or directly expressed generic formulation of an allegedly accepted intellectual, moral, or behavioral truth applicable to more specific situations whose underlying generic structure they share with generic formulation.

4.8.5. Synecdoche

There is little consensus in the definition of synecdoche (cf. Burkhardt, 2010). Traditionally, it has been defined as:

a. A figure of speech in which "an expression referring to a part of some entity is used to refer to the whole entity", as illustrated by the use of *sails* to refer to ships (Brown and Miller, 2013, p. 430).

b. A special "form of metonymy in which the part stands in place of the whole or (less commonly) the whole in place of the part" (Clifton, 1983, p. 173); e.g., in *All hands on deck!*, *hands* stands for sailors, while in *Clean the* house, *house* refers to the parts of the house that people commonly clean.

c. A way of referring to an entity by means of either a semantically narrower term (e.g., *Washington* for the United States of America) or a broader term (*America* for the United States of America) (Bussmann, 1996, p. 1163) (see Todorov, 1970).

Within the context of Cognitive Linguistics, Seto (1999, 2003) has discussed synecdoche in terms of the two taxonomic relations of genus for species (*stone* for jewel) and species for genus (*hoover* for vacuum cleaner). A similar position is held by Nerlich and Clarke (1999).

Definitions (a) and (b) make part-whole and/or whole-part relations the differentiating factor to separate synecdoche from (other cases of) metonymy. Definition (c) relegates metonymy to part-for-part relations within a domain (e.g., *That's Jeanette*, meaning 'Jeannette's drink' within the context of a bar) while synecdoche covers any sort of domain-subdomain connections. Seto's proposal, in turn, discards part-whole structure to favor type-token/token-type relations, which we have discussed as underlying the GENERIC FOR SPECIFIC and SPECIFIC FOR GENERIC metonymies.

We may wonder what makes part-whole/whole-part and type-token/token-type relations special to merit differentiated treatment in an account of figures of speech. In principle, there is no clear reason why these relations should be favored over others. Their cognitive status is not more special than the one for possessor-possessed, controller-

controlled, container-content, cause-effect, agent-action, and others. Besides, as noted in Ruiz de Mendoza (2020a, p. 27), it is often the case that part-whole/whole-part structure can be applied to metonymic mappings grounded in other domain-subdomain relations. Table 1 contains some examples:

Table 1. Part-whole and whole-part structure

Domain-subdomain relations	Examples
PART FOR WHOLE	ATTRIBUTE FOR PERSON: *Blonds are not very common in this country* (a person's attributes are also seen as part of the person). MATERIAL FOR OBJECT: *He will always carry plastic* (plastic is the material of a credit card and part of it). EVENT FOR LOCATION: *We went to the opera* (the opera is both the performance and the place where the performance takes place).
WHOLE FOR PART	PLACE FOR PRODUCT: *They bought the best champagne* (the sparkling wine drink is a product of the historical region of Champagne in the North of France and also part of what this country produces). COMPANY FOR EXECUTIVES: *Chrysler has shut down four plants* (as decision makers the executives of the company control the company but they are also a part of it).

	ANIMAL FOR MEAT: *We don't like to eat lamb* (the lamb is the source of the meat as a product and also the meat is part of the animal).

We may also wonder whether it is theoretically tenable to distinguish domain-subdomain relations from "part-for-part" (or subdomain-for-subdomain) relations. This brings in the question of whether there are metonymies in which part of a domain stands for another part of the same domain. An example of this purported metonymy type was provided above: *That's Jeannette*, where Jeannette stands for her drink. But it is not difficult to see this example as a case of alternate metonymic construal rather than of a figure of speech different from metonymy in its own right. It could be a source-in-target (or domain expansion) mapping if the drink is envisaged as part of our experiential domain about Jeannette. This view of the metonymic relationship underlying this example is consonant with the account of the Domain Availability Principle provided in section 4.6.2. We can refer to Jeannette's drink by mentioning Jeannette or through a genitive construction with or without mention of the possessed object: *That's Jeannette's drink* or *That's Jeannette's*. In the metonymy the drinker is the matrix domain and the drink a subdomain. If we want to make anaphoric reference to the drinker, the metonymy is a better expressive solution: *That's Jeannette, but she'll be back in a minute* vs. *#That's Jeannette's, but she'll be back in a minute.* However, if we want to make reference to the drink, the genitive is preferred: *That's Jeannette's, so don't drink it* vs. *#That's Jeannette, so don't drink it*. Other examples of alternate construal are:

- RULER FOR ARMED FORCES / CONTROLLER FOR CONTROLLED: *Bush attacked Iraq*. It is a target-in-source metonymy if we think of the armed forces as being under the ruler's command (controlled-for-controller). However, it can also involve a

part-for-part contiguity shift, provided that we think of the ruler and the armed forces as two elements belonging to the same "functional" domain (cf. Barcelona, 2009), i.e., a domain which brings together different experiences which can be somehow related for meaning construction purposes (in this case the domain of war). Anaphoric reference selects the controller-controlled solution, where the anaphoric pronoun agrees in gender and number with the controller, as the matrix domain: *Bush attacked Iraq and he/*they had a great success*.

- PRODUCT FOR PRODUCER / MEDIUM FOR WORK FOR AUTHOR: *Professor Smith's book tries to redefine quantum physics*. It is a case of the double mapping MEDIUM FOR WORK FOR AUTHOR (combining domain reduction with domain expansion) or it can be interpreted on the basis of a conceptual shortcut from the medium to the author, both being profiled against the base domain of literary production. Again, anaphoric reference calls for the solution based on domain inclusion, where the medium is the main matrix domain and the author a secondary matrix domain. As such, both domains can fall within the scope of the anaphoric pronoun: *Professor Smith's book tries to redefine quantum physics but it/he is really hard to read*.

The existence of alternate kinds of metonymic construal is a strong reason to discard making a distinction between synecdoche and metonymy on the grounds of domain-inclusion versus part-for-part relations within a domain. Postulating synecdoche for one of the kinds of construal would amount to saying that what is actually a defining feature of metonymy, i.e., its ability to supply different vantage points from which to see an implicit target within a single functional domain, is not defining but is shared with another construct which has no unique definitional properties.

4.8.6. Merism

Merism is related to part-for-whole metonymy, but, unlike synecdoche, it has a differentiating factor. It results from bringing together two or more contrasting items within a domain in such a way that, together, they stand for any other item in the domain and, because of that, for the whole of it. They are very common in everyday language use. For example, merisms like *rich and poor*, *young and old*, and *kind and cruel* are used to mean 'everybody', each from the vantage point provided by the contrasting items. In these examples, each of the contrasting items designates one of the ends of a continuum. The contrasting ends, in combination, stand for any entity that can be placed along the continuum and, as a result, for the whole. Other examples are: *here and there* ('in every random place between the areas close to and far from the speaker')*, now and then* ('at any possible time between the present and the future; therefore, 'occasionally')*, high and low* ('everywhere')*, and *near and far* ('all over').

Sometimes, merisms can combine to cover a number of possible situations that relate to a common scenario. This is the case of marriage vows, where the spouses promise to be love each other in whatever circumstance: *for better for worse, for richer for poorer, in sickness and in health*.

Another type of merism is the result of mentioning two or more complementary aspects of a domain, which do not cover all of the broader domain to which they belong. Peña (forthcoming) has termed this kind of merism bare merism and defines it as merism which is not based on contrast. For example, the lock, the stock, and the barrel are conspicuous parts of a gun, but not all of them. Other parts are the trigger, the rib, the muzzle, and the sight. But the expression *lock*, *stock*, and *barrel* is used adverbially to mean 'entirely', as in *They were selling everything they had, lock, stock and barrel*. Another example with a similar meaning, but in the context of belief or emotional

reactions, is *hook, line, and sinker*, which are part of the fishing line (other parts being the leader, the swivel, and the glass bead): *He fell for the idea hook, line, and sinker* ('without reservation').

4.9. Constraining metaphor and metonymy

Lakoff (1990, 1993) put forward the *Invariance Principle* as a general constraint on metaphorical mappings. The formulation of this principle arose from Lakoff's observation that the target domains of metaphorical mappings place topological organization requirements on the selection of adequate source domains. According to the Invariance Principle, metaphorical mappings preserve the cognitive topology (or image-schematic structure) of the source domain without violating the inherent image-schematic structure of the target domain. Thus, for a container schema a source-domain interior maps onto a target-domain interior and an exterior onto an exterior, but we cannot map an interior onto an exterior or the other way around. The metaphor *He's full of anger* can illustrate this point. Here, anger is figuratively seen as a substance which can fill the interior of a person, conceptualized as a container. In the metaphor, the interior of the container image-schema maps onto the interior of a person's body, and an exterior onto an exterior, but we cannot map an interior onto an exterior or the other way around. By contrast, in *We could see the anger on his face*, where *anger* stands for the signs of anger, it is the exterior of the person that is invoked. While anger and other emotions are found inside the body, the signs of those emotions are external to the body and, as such, they are treated as observable. The logic of these two metaphors is, therefore, consistent with

the Invariance Principle in that it requires the preservation of the exterior-to-exterior and interior-to-interior correspondences.

The Invariance Principle only holds for image-schematic structure. However, source-target alignments are also invariant with respect to other kinds of generic-level structure (e.g., color, behavior, psychological impact). By generic-level structure is meant any conceptual characterization that generalizes features in common among low-level characterizations for which we have specific sensorimotor programs (e.g., we know how to interact with a chair, but not with "things" in general; cf. Lakoff, 1993). For example, if we map sapphires onto eyes, the relevant property is color (*Her eyes are sapphires*); if we map a hunting dog's skill of tracking game persistently, the relevant attribute is behavioral (*She's been dogging me the whole day*); when we say that a business is "big", it is the psychological impact that both big objects and important institutions cause on people that is at work. Ruiz de Mendoza (1998) formulated the *Extended Invariance Principle* to account for this sort of analytical situation. In this reformulation of Lakoff's initial postulate, the generic-level structure of the source domain is preserved in a way that is consistent with the meaning implications of the target of a metaphorical mapping. The Extended Invariance Principle offers some advantages over previous formulations in its application to metaphor:

- The Extended Invariance Principle is sensitive to the fact that image-schemas, despite their primary and possibly pre-conceptual nature (Johnson, 1987), are generic-level configurations. This is evidenced by their ability to be enriched by lower-level conceptual characterizations; e.g., if we compare *to be in a tight spot* and *to be in a quagmire*, we see that both suggest that there is a problematic situation affecting someone, but in the latter expression, the situation is not only difficult but also frightening or even dangerous. These

and other meaning implications are imported from our knowledge about the risks of falling into a quagmire.

- The Extended Invariance Principle offers a constraining factor for all kinds of metaphors, not only those grounded in image-schemas, as illustrated by PEOPLE ARE ANIMALS, which often maps animal behavior onto human behavior (e.g., *He is a lion*, where a lion is fierce and instinctual when fighting or chasing other animals).

Our approach to extended invariance also holds for other figurative uses like simile and metonymy. To begin with, it applies to simile in the same way as to resemblance metaphor while interacting with the other principles that regulate the ascription of source attributes to the target which we have discussed before, especially those pertaining to the open-endedness and tightness of the similarity relationship. In *Her eyes are as blue as the ocean* the Extended Invariance Principle ensures that color is mapped onto color, whereas in *Her eyes are like the ocean*, it allows us to map a broader range of properties: to color, we can add, for example, correspondences associated with physical and perceived depth and transparency.

The notion of extended invariance applies to metonymy and its associated figures by ensuring the preservation of generic-level structure in domain internal relationships. The controller-for-controlled metonymic relationship provides good initial illustration (Ruiz de Mendoza and Galera, 2014, p. 142). This relationship is preserved in sentences like *The buses are all on strike today*, *App-based taxis have decided not to operate on Tuesday*, and *That's a cautious truck*. It is violated in **Bus horns are on strike*, **Windshields have decided not to operate on Tuesday*, and **That's a cautious truck cab*. Even though bus horns, windshields, and truck cabs can be manipulated, they are not central to the controlled-controller relationship within the domain of driving a vehicle. In

the context of this relationship, the controlled entity is the vehicle as a whole, with the parts of the vehicle being secondary to the driver's overall intent.

Other metonymic relationships follow a similar rationale. Take the object-for-material metonymic relationship, as illustrated by sentences like *She wears/loves/hates mink*, *They won't buy/sell mink*, *He can't tell the difference between mink and rabbit*. The Extended Invariance Principle licenses these uses of the term *mink* on the grounds of their correct preservation of the object-material relationship. However, we cannot refer to any other part of the animal to signify its fur (which we like, wear, buy, sell, etc.). For example, *She loves mink's legs* could mean that she likes wearing (or eating, collecting, etc.) mink's legs, but not the fur. The sentence *In the US everybody carries plastic to pay for everything* illustrates the converse metonymy MATERIAL FOR OBJECT, which is also based on the preservation of the object-material relationship. It would make less sense, or no sense at all, to refer to the credit card by mentioning any other of its elements: **She carries a magnetic stripe/a 16-digit number/an expiration date*, etc.

As argued above, the Extended Invariance Principle also applies to metonymy-related figures. Let us give some examples:

- Anthimeria: Google is a means to search for words on the Internet (*He Googled his own name*), but not the result of such searches (i.e., the occurrences): **We have obtained three Googles*.

- Aphorisms based on SPECIFIC FOR GENERIC: *The pen is mightier than the sword*. Here, the pen is to be envisaged as an instrument of writing, which is to be seen as having an identifiable result.

- Hypallage: *a sad novel*. This expression is based on the EFFECT FOR CAUSE metonymy, which is only possible if its constituting effect-cause relationship is preserved. In *a sad novel* the content of the novel is seen as the cause of sadness (the effect) in its

readers. Since the novel and sadness fit their assigned roles, hypallage is possible. Note, by contrast, that there is no hypallage in *pleasant/enjoyable/hateful novel* since the adjectives cannot participate in the 'effect-cause' relation (the reader is not pleasant, enjoyable, hateful).

The Extended Invariance Principle does not act alone as a constraint on metaphor, metonymy and related figures. The *Correlation Principle* is another cooperating factor. It was first described in Ruiz de Mendoza and Pérez (2011) in its connection to metaphor and then identified for metonymy too in Ruiz de Mendoza and Galera (2014, p. 143). In general, this principle calls for the selection of the best possible source domain in accordance with the implicational structure of the target domain or of the source-target relationships. What is understood by "best possible" is regulated by the balance between the pragmatic criteria of economy versus effect, as propounded in Relevance Theory (Sperber and Wilson, 1995). In its application to metaphor, this principle is the reason why a harsh debate between angry opponents is better described as war rather than, for example, a skirmish. It is also the reason why fast progress in a task requires using a fast means of transportation in the source (e.g., *Tim flew through his notes*), and why being deeply affected by a complex situation that is almost impossible to deal with is better described as being trapped, enmeshed, entangled in it rather than simply as being caught in it.

For metonymy, the Correlation Principle guides the search for the most relevant source domain in terms of its potential to afford access to the intended target. These are some relevant examples:

- A patient's ailment for the patient: *The gallbladder needs a new IV*. This use is grounded in the fact that in the therapist-patient relation the patient's illness is generally the most relevant element.

- A hotel room number for the customer: *Room 3 is asking for a warm blanket*. The reason for this metonymy is that the room is the most relevant element of the hotel-customer relation within the domain of lodging.

- A meal order for the restaurant customer: *The mushroom omelet wants wheat toast as well*. The motivation for this metonymic use is that the waiter-customer relation hinges on the customer's order.

- Other metonymic sources are possible if called for by special contextual circumstances; e.g., nurses could easily refer to a patient by the trait that they hate most (*Mr. "Grumpy" is calling again*).

The Extended Invariance Principle and the Correlation Principle are general principles which apply to any figurative use of language to the extent that it is based on the selection of conceptual structure for a mapping to take place, whichever the exact nature of the mapping (that is, independently of the kind of cognitive models and operations involved in it). There are other principles, however, which are bound to specific figures because of the special nature of the cognitive models and cognitive operations which are at work in them. We will refer to these specific constraints in our treatment of hyperbole and related figures (section 5.4), and of irony, paradox, oxymoron, and their associated figures (section 6.6).

CHAPTER 5. HYPERBOLE

5.1. Defining and understanding hyperbole: An outline of descriptive and pragmatic approaches

While hyperbole has been allegedly portrayed as the most common trope after metaphor (Kreuz et al., 1996), if compared to the wealth of studies on metaphor and metonymy all throughout history, its research is still in its infancy. Whether it is a trope of its own or not has been also subject to controversy. The last few years, nonetheless, have witnessed an upsurge of interest in hyperbole within the Cognitive Linguistic paradigm, notable examples being the studies by Herrero-Ruiz (2009), Ruiz de Mendoza and Galera (2014), Peña and Ruiz de Mendoza (2017), and Barnden (2015, 2017a, 2018ab).

This chapter is consistent with the proposals in Ruiz de Mendoza (2014) and with the findings in Peña and Ruiz de Mendoza (2017), who explore in detail the cognitive operations that account for the communicative impact of hyperbole and distinguish between purely inferential and constructionally-based hyperbole. Additionally, in line with work in Ruiz de Mendoza's (2014, 2020a) and as argued in section 3.1, hyperbole is to be understood in terms of a cross-domain mapping. This chapter thus contributes to exploring hyperbole further in terms of cognitive modeling. After providing an overview of the different approaches to the study of hyperbole, a more exhaustive and elaborated classification of hyperbole than the one laid out in Peña and Ruiz de Mendoza (2017) is offered. We pay special attention to the 'X is not Y but Z' construction, a form of corrective juxtaposition with an intensifying function that had been preliminarily analyzed in Peña and Ruiz de Mendoza (2017, pp. 58-60). Then, in consonance with the

aims of the present book, this chapter explores hyperbole-related figures like over- and understatement, auxesis, meiosis, and litotes, especially in terms of strengthening and mitigation operations as unifying descriptive and explanatory factors. Finally, the last section is devoted to how hyperbole and its related figures are constrained.

In this first section, as mentioned, we critically review the main theoretical contributions to the study of hyperbole by highlighting their strengths and weaknesses. Our discussion is thus divided into four subsections. The first three parts, the treatment of hyperbole in rhetoric, in psycholinguistics, and in pragmatics and discourse, pave the way for a combined cognitive-pragmatic understanding of hyperbole.

5.1.1. Hyperbole in rhetoric

There seems to exist some consensus among scholars holding different views on hyperbole as regards its definition as an overstated representation of reality. However, studies on hyperbole have zeroed in on different aspects. Since late antiquity, hyperbole was extensively and almost exclusively dealt with within the framework of rhetoric to the detriment of linguistics and the main emphasis was placed on its definition, classification, and exemplification.

The term hyperbole ('to throw beyond') dates back to Aristotle's times. It was defined as a means to overstating the truth through maximization and minimization. It was recognized to exhibit a unique character whose communicative power is not based on any subtle innuendo but on its straightforward, disruptive force. In classical rhetoric, hyperbole was intimately bound up with the art of persuasion (and thus, with power). While sticking to the claim that as a trope it obscures the truth, Quintilian and Aristotle already envisaged one of its fundamental traits, its ability to convey emotions. Aristotle's

(*Rhetoric* I, 2) three-fold distinction of the aspects of persuasion attests to this fact. Any outstanding orator attempting to bring their audience around to his way of thinking had to carefully pay attention to *ethos* (the speaker's credibility and charisma), *pathos* (the mood of the speech that arouses the emotions and passions of the audience), and *logos* (the appeal to the rational side of the audience through syllogistic arguments whose major premise was accepted by the audience beforehand). Claridge (2011, p. 217) points out that hyperbole can faithfully partake in all three aspects of persuasion, not only in pathos. Regarding logos, heightening or belittling relevant aspects of reality can be appropriate and even beneficial. By means of pathos, speakers make their way into their hearer's hearts to mold their opinions. Finally, in order to influence other people's thoughts, the speaker has to seek the right balance between overstatement and understatement. According to Cicero, hyperbole endows speech with brilliance. Quintilian, however, argues for the need to use this trope in a balanced way, since flamboyant hyperbole could lead to unnaturalness and ostentation.

Another concern within rhetoric was the classification of hyperbole. Demetrius' taxonomy constitutes one of the first relevant classificatory attempts of this figure of speech. Three main types are distinguished, which we illustrate with our own examples:

a. Hyperbole based on simile, which focuses on a shared property between two entities (e.g., *Her eyes are like the ocean*).

b. Hyperbole resting on gradation, in which a trait serves as the grounds for comparison between two entities, one of which is characterized by that feature to a higher degree than the other (e.g., *My grandfather is older than a dinosaur*).

c. Hyperbole built on the basis of incongruity (e.g., *It was so cold I saw polar bears wearing hats and jackets*).

While (a) and (b) are syntactically codified, hyperboles triggered by incongruity cannot be assigned any fixed syntactic form (Brdar, 2004, p. 374).

Cicero offered another typology of hyperbole which includes five categories, which we also illustrate with our own examples:

1. Expressions that state more than is factually true and are implausible literally speaking (e.g., *I'm so hungry I could eat a horse*).

2. Similarity-based exaggeration (e.g., *He's as fast as a hare*).

3. Hyperbole grounded in comparison (e.g., *He's greater than anyone else*).

4. Emphasis through particular properties or signs (e.g., *That bag weighs a ton*).

5. Hyperbole rooted in metaphor (e.g., *His heart is gold*).

Except for the first type of hyperbole put forward by Cicero, the remaining classes comprise – and are characterized by – identifiable formal properties (Brdar, 2004, p. 374).

All in all, the rhetoric tradition should be praised for its pioneering incursions into the study of hyperbole, especially in terms of its definition and of its classification, both of which have provided grounds for today's research on the phenomenon. Interestingly enough, current definitions of hyperbole are much in line with the initial definitions of the phenomenon in terms of exaggeration (e.g., Carston and Wearing, 2015), overstatement (e.g., Colston and Keller, 1998), extremeness (e.g., Norrick, 2004), and excess (e.g., Cano-Mora, 2009).

5.1.2. Hyperbole in psycholinguistics

Psycholinguistic inquiry meant a new turn and a significant step forward in the treatment of hyperbole. As pointed out in section 2.5, uncovering the psychological processes involved in the identification of figurative language is one of the main concerns of

psycholinguistic research. Gibbs and Colston (2006, 2012) argue against two widely held assumptions that had pervaded the majority of previous approaches to figurative language: (i) the existence of a well-defined dichotomy between literal and so-called nonliteral language and (ii) the presupposition that figurative language is an encompassing notion that embraces several similar phenomena that researchers should cope with in the same way. On the basis of these assumptions, Gibbs and Colston (2012, pp. 3-4) observe that the variety of figurative language uses is such that it demands distinct processing modes. Accordingly, they claim that literal and figurative language are processed in different ways.

If compared to figures like metaphor and metonymy, especially in the last three decades, which have witnessed an upsurge of experimental work (Glucksberg et al., 1982; Gibbs and Gerrig, 1989; Keysar, 1989; Giora, 1997; Gernsbacher et al., 2001; Coulson and Van Petten, 2002; Bowdle and Gentner, 2005; Gibbs, 2006b, 2013; Gibbs and Matlock, 2008; Hussey and Katz, 2009; Wolff and Gentner, 2011; Giora et al., 2012), psycholinguistic work on hyperbole is still scarce. Some areas of interest are identified in this respect: the corpus-based empirical research carried out by Kreuz et al. (1996), Kreuz et al. (1996, 1998), McCarthy and Carter (2004), Cano-Mora (2009), Nemesi (2010), and Claridge (2011); experimental work that looks into the role of hyperbole in the expression of irony (Kreuz and Roberts, 1995; Colston and Keller, 1998; Colston and O'Brien, 2000; Filippova and Astington, 2010); and studies that set hyperbole and metaphor interpretation in contrast (Deamer et al., 2010). Moreover, psychological work on this figure of speech also focused on the peculiarities of its use across cultures (Cohen, 1987; Edelman et al., 1989; Cano-Mora, 2003-2004), on the psychological processes at work in understanding this phenomenon (Colston and O'Brien, 2000; Gibbs and Colston, 2012) and, to a lesser extent, on its production.

Much in line with Gibbs and Colston's (2012) claims against the similarity of all figurative language and starting off from the relevance-theoretic account of metaphor and hyperbole as loose uses of language, Rubio-Fernández, Wearing and Carston (2015) designed and carried out three experiments which gave evidence that, contrary to the long-standing assumption of the concomitant nature of metaphor and hyperbole, there were significant differences between both. Similarly, in their experimental work Deamer et al. (2010) noted the lack of meaningful difference between the reading times of hyperboles and literal language, while reading times stand out as significantly distinct if metaphorical and hyperbolic utterances are considered.

The negligible role assigned to hyperbole by some researchers has been such throughout history that, as observed, it was thought not to exist independent of other tropes. However, with the passage of time hyperbole was given its due place as an autonomous form of figurative language without ignoring its ability to interact with other forms of figurative language in significant ways. This is attested by the bulk of psycholinguistic research focusing on the interplay between hyperbole and irony (Kreuz and Roberts, 1995; Colston and Keller, 1998; Colston and O'Brien, 2000; Filippova and Astington, 2010) or hyperbole and metaphor (Deamer et al., 2010).

Owing to the paucity of experimental research on hyperbole, Burgers et al. (2016) claim that a method for the identification of hyperbole is required. Strikingly enough, taking as a basis an operational definition of hyperbole that rests on three main pillars (the existence of a scale, a clash involving magnitudes between propositional and intended meaning – the former being larger than the latter – and the pragmatic urge to identify an ontological referent), Burgers et al. (2016) launch an operational definition of hyperbole as "an expression that is more extreme than justified given its ontological referent", which bears a close resemblance to definitions of hyperbole in rhetoric. Starting

off from this characterization of hyperbole, they put forward the Hyperbole Identification Procedure (HIP) as an eight-step method for identifying hyperbole in discourse. Burgers et al. (2016) claim that a procedure like this is a prerequisite for conducting experimental research on hyperbole.

In sum, psycholinguistic work on hyperbole should be credited with substantiating through experimentation the assumption that hyperbole is a form of figurative language in its own right, despite its interaction with other figures of speech that fruitfully combine with it, especially metaphor and irony, a point which has been preliminarily made in section 3.1 in the analysis of metaphorically-based hyperboles such as *She is an angel*.

5.1.3. Hyperbole in pragmatics

Hyperbole has also been examined from a pragmatic perspective. Defined as a non-descriptive use of language, it involves a mismatch with reality based on disproportionate exaggeration. This is another aspect that is captured from the rhetorical tradition. In this connection, Grice's (1975) Cooperative Principle and its maxims underlie some well-known pragmatic accounts of this figure of speech. Scholars like Bhaya (1985), Clark (1996), and Haverkate (1990) distinguish clearly between acts of lying and hyperbolic uses of language, where only the latter are admissible from a social standpoint. As noted by Haverkate (1990, p. 103) hyperbole is not a lie but "a description of the world in terms of disproportionate dimensions." Norrick (2004) makes a distinction between hyperbolic uses that violate the truthfulness maxim, known as extreme case formulations (ECFs) (e.g., *brand new*, *She never*, *the easiest question in the world*; see also Pomerantz, 1986), and expressions that do not obey the quantity maxim, also called non-extreme hyperboles (e.g., *I've told you a zillion of times not to do that*). Hyperbole thus involves a scale with

ECFs at one end and mild cases of hyperbole at the other. In a similar vein, Dynel (2016, 2017) has argued that hyperbole patterns with metaphor, irony, hyperbole, and meiosis inasmuch as they flout the first maxim of quality and identifies two categories of irony: metaphorical irony, on the one hand, and meiotic and hyperbolic irony, on the other. The former is construed in terms of the joint activity of so-called "as-if-implicature" and irony-based implicature. The latter does not bring about an "as-if-implicature" and its most outstanding feature is deemed to be its essentially evaluative nature, much in line with *pathos* in rhetoric. Dynel also acknowledges that hyperbole and meiosis can be used autonomously as independent figures. Additionally, Dynel questions that these two forms of figurative language are a result of flouting the Gricean quantity maxims.

Within the pragmatic approaches to hyperbole, Relevance Theory, which characterizes hyperbole (like metaphor) as a loose use of language, places emphasis on the interplay between this figure and others such as irony (Kreuz and Roberts, 1995; Gibbs, 2000b), and metaphor and simile (Carston and Wearing, 2011; Rubio-Fernández, Wearing, and Carston, 2013, 2015), while challenging the well-entrenched assumption that metaphor can be distinguished neatly from hyperbole and meiosis. The rationale for this distinction is to be sought in the assumption that the latter figures, but not metaphor, are grounded in shifts of meaning along a single dimension involving either a heightened (hyperbole) or a lessened state of affairs (meiosis). In contrast to this, relevance theorists argue that metaphor and hyperbole, as well as other figures, are arranged along a continuum of loose uses of language. However, this is not tantamount to stating that there is no significant difference between metaphor and hyperbole, as experimental research has shown (Rubio-Fernández, Wearing, and Carston, 2015; see section 5.1.2). Furthermore, hyperbole has also been studied as a marker of sarcasm (Kunneman et al.,

2015) and as underlying humor based on the manipulation of a conceptual scale (Bergen and Binsted, 2003).

5.1.4. The need for a cognitive account of hyperbole

In a complementary way, hyperbole can also be productively studied from a cognitive perspective in terms of strengthening and mitigation operations on scalar concepts (Ruiz de Mendoza and Pérez, 2003; Ruiz de Mendoza and Peña, 2005; Ruiz de Mendoza and Galera, 2014; Peña and Ruiz de Mendoza, 2017; Ruiz de Mendoza, 2020ab). Strengthening is used by the speaker to produce the exaggeration effect, while mitigation is used by the hearer upon detecting the mismatch between what the speaker says and the situation refereed to. This view draws from previous accounts the assumption that hyperbole is a conspicuous overstatement where exaggeration is used for effect. What this perspective contributes is the specification of the cognitive mechanisms resulting in such an effect. However, the two cognitive operations mentioned above by themselves do not fully account for the meaning impact of hyperbole. Like metaphor, hyperbole, as noted in Ruiz de Mendoza (2014b, p. 190), consists in a cross-domain mapping where an upscaled conceptual representation sets up an imaginary source domain that helps us reason about the target domain, a real-world state of affairs. The mapping reveals the speaker's reaction to the target domain in terms of the upscaled source. Consider the sentence *John can smell pizza from a mile away*. The imaginary source domain contains a fictitious scenario in which there is a person characterized by an extraordinary sense of smell, which is implausible for human standards. This domain lends its structure to the target domain, the real-world situation in which a person can smell pizza from a long distance due to his exceptional sense of smell. In addition, the mapping contains the

speaker's emotional reaction to John's real ability understood in terms of the emotional reaction (e.g., of astonishment) which the imaginary ability would produce if it were real. To capture the meaning effects of this utterance, the hearer needs to become aware that he or she has been presented with an upscaled representation, which is mapped onto reality. Such a realization requires the downscaling of the fictitious scenario to make it match the real one, if manifest, or at least one which can be considered realistic. The hearer's attention is thus drawn to John's unusual and unique sense of smell, which prompts an emotional reaction of astonishment. Also note that, as will be discussed in greater detail later on in section 5.3.2, the scalar contrast between the upscaled source and the real-world target is what allows the hearer to measure the impact of the hyperbolic meaning.

5.2. The cognitive perspective

Identifying hyperbolic expressions in naturally-occurring discourse is not only a thorny issue but also a methodological prerequisite for a fine-grained study of hyperbole. As pointed out in section 5.1.2, Burgers et al. (2016) have recently argued for the urgent need to develop a method for identifying hyperbole in discourse in order to conduct serious experimental research on this figure. To this end, Burgers et al. (2016) have designed the procedure known as the Hyperbole Identification Procedure (HIP). The HIP, which requires the previous identification of ironic and metaphorical presence, comprises eight steps:

1. Read the whole text.

2. Check every clause in the text for irony by using the Verbal Irony Procedure (VIP).[9]

3. Examine every lexical unit in the text to search for metaphorical uses applying the Metaphor Identification Procedure (MIPVU).[10]

4. Consider the first lexical unit in the text. If that unit is metaphorical, examine its metaphoricity: if the unit is conventionalized, replace it by the conventionalized metaphorical meaning during coding; if the lexical unit is novel, replace it, when coding, with the intended metaphorical meaning. If the lexical unit is ironic, the intended ironic meaning should take the place of such a unit during coding. Finally, the lexical unit should be coded as such if it is not either metaphorical or ironic.

5. Check if the lexical unit or its codification involves a scale of quality or quantity. If this is the case, locate it on a scale ranging from the lowest to the highest value. If this does not hold, mark it as non-hyperbolic and proceed to analyze the following lexical unit employing the same procedure.

6. Identify the ontological referent of the lexical unit or its replacement within the context of the text. If the information provided by the text is not enough, use other sources like the dictionary or *Wikipedia*. Place the range of admissible values of the ontological referent onto the scale.

7. Check whether the lexical unit or its replacement falls outside the range of reasonable values of the ontological referent. Only if it does, the expression is hyperbolic.

8. Consider the next lexical unit.

The HIP allows for the systematic identification of cases of hyperbole (pure or combined with metaphor and/or irony) when a lexical unit or its replacement is significantly upscaled. However, this procedure misses a range of cooperating factors which may help

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[9] The VIP is a method applied to discourse in order to trace irony (Burgers et al., 2011).
[10] The MIPVU is an elaborated version of MIP, a method used to check discourse for metaphor (Steen et al., 2010).

in a more effective detection of potential hyperbolic uses. Such factors are part of the proposal for the detection of hyperbolic uses in context provided by McCarthy and Carter (2004, pp. 162-163). Eight characteristics of utterances can reveal the presence of hyperbole:

1. Discrepancy with context.

2. Shifts in footing: there exists some sign indicating a shift in footing to a conversational frame containing impossible worlds or manifestly counterfactual scenarios.

3. Counterfactuality not construed as a lie: the hearer perceives that the main point of the utterance is not to deceive him/her.

4. Impossible worlds: hyperbole involves the building and interpretation of impossible worlds.

5. Listener's uptake: the addressee shows signs of collaborative behavior by laughing or making use of asserting back-channel markers and/or partakes in the counterfactuality, impossibility, contextual disjunction, etc.

6. Extreme Case Formulations and intensification: the expression moves in a continuum of extremities by making use of adjectives like *limitless* and *gigantic* and/or extreme intensifiers such as *completely* and *exactly*.

7. Syntactic support: syntactic devices like polysyndeton (e.g., *billions and billions and billions*) strengthen the intensification of the expression.

8. Relevant interpretability: the figure qualifies as relevant to the speech act performed. Nonetheless, there might be also consistent reasons to believe in the feasibility of literal construals triggered for the sake of interaction/affection.

McCarthy and Carter (2004) offer a broad range of factors which can play a role in the characterization of hyperbole. However, as pointed out in Peña and Ruiz de Mendoza (2017, pp. 44-45), some of them are not only applicable to hyperbole. For example, irony

also results from a manifest clash with reality (see chapter 6). It is for this reason that Prandi (2017) classifies hyperbole as a figure of "textual conflict" alongside allegory, irony, hyperbole, tautology, litotes, negated metaphor, euphemism, and rhetorical questioning (see section 2.9). As regards changes in prosody, they also apply to irony and humorous remarks. Moreover, counterfactual scenarios and impossible worlds can be prompts to make the hearer get involved in mental simulation of alternative scenarios (e.g., hypothetical conditional sentences). Hearer's uptake by laughing and/or other forms of back-channeling can be found in any kind of collaborative conversational behavior. In addition, extreme case formulations and polysyndeton may trigger hyperbolic uses only if they combine with contextual disjunction. Finally, relevant interpretability is an essential requirement in conversation so that communication is not thwarted. Besides these specific problems, some more general issues should be addressed. McCarthy and Carter (2004) attempted to surmount potential problems like those noted above by asserting that for any expression to be qualified as hyperbolic, it should at least exhibit three of the characteristics listed above. However, this only begs the question of which three characteristics should combine to elicit a hyperbolic reading of a particular expression. Evidently, one of the main strengths of McCarthy and Carter's (2004) characterization of hyperbole is to be found in their inclusion of syntactic, pragmatic, and discourse evidence. However, when it comes to picking out a relevant combination of characteristics, should it be an amalgam of syntactic, pragmatic, and discourse traits or is the kind of evidence immaterial? In other words, does the nature of the conditions to be met for an expression to count as hyperbolic matter? Should one of those sets of conditions (syntactic, pragmatic, and discourse features) prevail over the others? And, finally, what determines the number of requirements to be satisfied for an expression to be perceived as hyperbolic?

We noted above that McCarthy and Carter's (2004) proposal can help improve some aspects of Burgers et al.'s (2016) Hyperbole Identification Procedure. In turn, the Hyperbole Identification Procedure makes up for some of the drawbacks inherent in McCarthy and Carter's (2004) procedure, especially since some of the features that may prompt a hyperbolic expression might also be indicative of the presence of other figures like metaphor and irony. In a complementary way, the problematic issues detected above might be unraveled by bearing in mind not only the communicative and formal aspects of hyperbole but also its cognitive import. Moreover, we adopt a usage-based approach to the analysis of our data that takes into account, like previous accounts, both formal and non-formal clues for the identification of hyperbole in discourse. In addition, prime importance is granted to disjunction with context. While McCarthy and Carter (2004) acknowledge the importance of this feature for the recognition of hyperbole, they do not give it its due place. This is regarded only as one of the characteristics that, in combination with two other traits, can point to the presence of hyperbole. We take sides with Burgers et al.'s (2016) claim that the clash with the context should be given primary status in the recognition of hyperbole. In our view, as advanced in section 5.1.4, this is cognitively substantiated by postulating a cross-domain mapping from a hypothetical to a real scenario, which allows the hearer to pin down the nature of the speaker's emotional reaction including its intensity.

5.2.1. Classifying hyperbole: Coding and inferencing

Arranging hyperbolic uses into neatly delineated categories has been one of the main concerns of research on hyperbole. This is due to its heterogenous and ubiquitous nature. As noted in section 5.1.1, part of the effort in rhetoric was directed to organizing

hyperbolic expressions into classes. Demetrius' and Cicero's classifications are illustrative in this respect. Demetrius put forward a three-fold distinction into simile-based hyperbole, hyperbole resting on comparison, and hyperbole exploiting incongruity. Cicero's taxonomy is made up of five types: (i) uses depicting situations that go beyond the bounds of possibility if taken literally; (ii) hyperbole based on similarity; (iii) hyperbole resting on comparison; (iv) hyperbole obtained by placing emphasis on particular signs or properties; and (v) metaphorical hyperbole.

Since then, several classificatory attempts have focused on grouping the various mechanisms that might prompt hyperbole into organized sets. A relatively recent typology, albeit based on a much older one by Spitzbardt (1963), has been provided by Claridge (2011, ch. 3). This exhaustive classification, which displays a great range of variation, results from an in-depth analysis of some corpora or part of them, mainly the *British National Corpus* (*BNC*), the *Santa Barbara Corpus of Spoken American English* (*SBC*), and several diachronic corpora. Seven kinds of hyperbole are postulated:

- Single-word hyperbole: Claridge (2011, p. 49) argues that this is the most frequent realization of hyperbole in the *BNC*. It represents more than two thirds of the data. The hyperbolic load of the utterance is provided by a single word, especially belonging to the grammatical categories of nouns or adjectives. For instance, the noun *minute* in *Wait a minute*, uttered by someone who is a far cry from being ready in a short time, would primarily trigger the hyperbolic reading of this expression.

- Phrasal hyperbole: phrases of various kinds can also prompt hyperbole. For example, the noun phrase *the holiday of a lifetime* is clearly hyperbolic in the following text: *I rang him about it last night and he can't wait to see you! And there'll be sun, sea, art and ice cream! Plus lots of interesting places on the way down there. It's the holiday of a lifetime!* (*COCA*).

- Clausal hyperbole: sometimes the hyperbolic effect extends beyond a single word or phrase. Claridge (2011, p. 56) attributes the hyperbolic force of *Nobody ever learns anything* to the joint activity of the three universal descriptors (i.e., absolute expressions) *nobody*, *ever*, and *anything*. Claridge (2011, p. 56) also includes within this category expressions whose hyperbolic impact is not the result of identifiable formal features but of semantic incongruity, as in the following example: *They visited so many vineyards she had to declare him*, said by a woman when speaking about her daughter's and husband's holiday in France and their return to Britain.

- Numerical hyperbole: large rounded-up numbers can be a source of hyperbolic effects; e.g., *dozens, hundreds, thousands, millions, billions,* and the indefinite *zillions*.

- Superlative-based hyperbole: superlatives might be responsible for creating hyperbolic contexts. For instance, the superlative in *That was the easiest question in the world* encourages an upscaled representation of the state of affairs being described in this sentence.

- Comparison-based hyperbole: Demetrius and Cicero already identified comparison as a phenomenon likely to prompt hyperbole. The combination of the two items to be compared should yield an extremely mismatched situation. The hyperbolic import of the sentence *My grandfather seemed as old as the hills to me* rests on a magnified comparison whereby a person is attributed a characteristic that is implausible for human standards.

- Repetition-based hyperbole: duplicating certain items or phrases can also give rise to hyperbole by virtue of the cumulative character of the resulting expression. This holds for the expression *hundreds and hundreds and hundreds* in *Ric Flair has had hundreds and hundreds and hundreds of one-hour matches* (*COCA*). However, as claimed by Claridge (2011, p. 67) herself, that repetition per se does not always result in overstatements.

To the best of our knowledge, Claridge's (2011) classification is the most fine-grained typology of hyperbole to date. However, it is not free from shortcomings (Peña and Ruiz de Mendoza 2017, pp. 53-54). Generally speaking, some categories overlap and much emphasis is placed on the formal properties of hyperbole to the detriment of non-formal features. While undeniably categories may have blurry boundaries, an excessive merging of categories can lend itself to confusion and undermine the classificatory power of a typology. Single-word, phrasal, and clausal hyperboles stand out as basic types on which the rest of groups hinge. Numerical hyperbole can be expressed by means of a single word (e.g., *endless*, as in *We used to have endless arguments about politics*), a whole phrase (e.g., *billions of + NP* as in *There were billions of flies in the room*), or a clause (e.g., *His heart is twice the size of his body*). Claridge (2011, p. 48) herself endorses such a position. Thus, no separate category should be set up. Regarding superlative-based hyperbole it is usually realized by means of phrases, either noun phrases (e.g., *the most intelligent person in the world*) or adjectival phrases (e.g., *the easiest of questions*), and hyperbole resting on comparison usually occurs in the context of phrases (e.g., *bigger than the sun*, as in *The author is bigger than the sun*) or clauses (e.g., *I avoid mornings like the plague*). Moreover, we might wonder whether the threefold distinction among single-word, phrasal, and clausal hyperbole is of any consequence for research on hyperbole. As a matter of fact, hyperbole-prone expressions are potential prompts for exaggeration that can only be disambiguated in context. No doubt, some expressions are more sensitive to hyperbolic readings than others. For example, extreme case formulations stretch reality beyond what is reasonable more frequently than other units. However, even extreme case formulations should be interpreted in context. Consider *never* in (i) *I've never been to Australia*, and (ii) *She never stops talking*. (i) describes a conceivable state of affairs. By

contrast, (ii) oversteps the bounds of reason since there is no human being that can speak non-stop.

Additionally, it is questionable that repetition is a distinct category of hyperbole. Claridge (2011, p. 67) argues that only a small number of repetitions are responsible for creating hyperbolic scenarios. They rather play emphatic and emotive roles. Claridge exemplifies hyperbolic repetition by means of examples like *(Cassandra) jumping around, jumping around, jumping around*. While both iteration and hyperbole can communicate similar meaning effects, this example (and similar others, such as *and chewing it and chewing it and chewing it and chewing it*) is not, strictly speaking, a hyperbolic realization. These verbal groups contribute to conveying the speaker's emotional reaction to a given state of affairs (irritation at someone's continuous jumping) but do not depict a counterfactual scenario. Alternatively, the same emotional reaction could have been expressed by a hyperbolic expression like *She jumped around non-stop*.

Claridge (2011, pp. 40-44) also distinguishes between basic and composite hyperbole. The element that differentiates these two categories is the nature of the domains involved. While basic hyperbole is domain-preserving, composite hyperbole is domain-switching or metaphorical. The former is exemplified by sentences such as *I was freezing!*, where the domain of temperature plays a key role and no shift of domains takes place. Conversely, in *John is a dinosaur*, two domains are involved, one of which (dinosaurs) is the metaphorical source of the other (humans). Claridge's typology of hyperbole draws on Lausberg's (1990, p. 75) distinction between pure and combined hyperbole. The former is built on the basis of disproportionate spatial units. The latter results from the interplay of different tropes, especially metaphor and irony, and does not typically exploit spatial categories. Nonetheless, Claridge objects to Lausberg's grouping of metaphorical and ironic hyperbole into the same set. We take sides with Claridge's

claim that hyperbole can be used for the effect of irony but is not linguistically realized by irony. Consider the example *Of course, your father is a dinosaur* in a context in which the speaker is ironically making reference to a son's opinion on his father's age on account of the father's way of raising his son. The son's opinion runs counter to reality since his father is a thirty-year-old man and behaves accordingly. The ironic meaning stems from the speaker's echo of the son's opinion (that his father is very old and thus acts as such by, for instance, not allowing him to go out until late). The term *dinosaur* is metaphorical and hyperbolic. More precisely, the hyperbole is built on the basis of the metaphor: being as old as a dinosaur is simply unattainable by humans. The ironic effect of this example does not derive from the hyperbolic use of the concept 'dinosaur' but from the fact that what the sentence conveys is an echo of a false judgment that is at variance with reality. Here hyperbole plays an enhancing function of the ironic overtones of the speaker's echoic comment.

In consonance with Peña and Ruiz de Mendoza's (2017) work, a broader classification of hyperbole can be postulated that is articulated around the notions of coding and inference. As a result, constructional and inferential hyperbole are put forward. As a matter of fact, these notions underlie all previous classifications of hyperbole either implicitly or explicitly. This simple distinction dates back to the rhetoric tradition, as is the case of Demetrius' category of hyperbole based on incongruity and Cicero's distinction of hyperbolic uses portraying far-fetched situations. As stated in section 5.1.1, Brdar (2004, p. 374) already observed that some uses of hyperbole within Demetrius' and Cicero's typologies derived from contextual incongruity, while others rested on identifiable syntactic units. The hyperbolic input of the former cannot be assigned to any syntactic unit in particular. By contrast, in the latter, which are cases of constructionally-cued hyperbole, the hyperbolic load is mainly supplied by syntactic

units. This renders them impossible to paraphrase in a way that fully captures the whole range of meaning implications of the original hyperbolic use (Brdar, 2004, p. 374). Thus, while incongruity-based hyperbole is to be described at the conceptual level, the other kind of hyperbole must be approached from a formal perspective. While essentially endorsing Brdar's claim that two different kinds of hyperbole must be postulated, one point of divergence emanates from a careful examination of the data. Metaphorical hyperbole, which is regarded as belonging to the formal type, is not always constructional. No doubt, the conceptual level takes the predicative form 'A IS B' and some metaphorical hyperboles are linguistically realized by fitting into this predicative pattern (e.g., *My father is a dinosaur*). However, at the lexical level, many metaphorical expressions do not conform to a specific syntactic structure. By way of illustration, consider the example *I don't want to get burned again* as an instance of the LOVE IS FIRE metaphor. The hyperbole is built on the basis of this conceptual metaphor. In spite of being metaphorical, the hyperbolic meaning results from contextual incongruity rather than from some specific syntactic clue. That is, the expression *get burned* is metaphorical and hyperbolic only if understood within the context supplied by the whole sentence.

In Claridge's (2011) typology of hyperbole, much emphasis is placed on the formal properties of hyperbole to the detriment of non-formal features. However, in her discussion of clausal hyperbole, she argues that sometimes "it may be difficult to attribute hyperbolic contributions to individual items, although the sentence meaning is literally unlikely or even absurd; these cases need to be included here as well" (Claridge, 2011, p. 55). Thus, her taxonomy also reveals implicitly the need to posit a distinction between constructional and inferential hyperbole.

Constructional hyperbole can be defined as a highly-conventional, cognitively entrenched form-meaning pairing invariably describing a (virtually) impossible or

counterfactual state of affairs based on a disproportionately magnified scalar concept. As shown, the existing literature on such hyperbolic prompts is abundant, especially the fine-grained treatments of extreme case formulations (Pomerantz, 1986; Norrick, 2004; Edwards, 2010; Whitehead, 2015). It can be summarized as follows (see Peña and Ruiz de Mendoza, 2017, p. 55):

a. Units involving incommensurately scaled-up gradable concepts: adjectives (e.g., *endless*), adverbs (e.g., *dramatically, always, never*), and verbs (e.g., *kill*).

b. Quantification: numerical units such as high cardinal numbers (e.g., *billions*), high ordinal numbers (e.g., *umpteenth*), universal quantifiers (e.g., *all, every*), and pronouns (e.g., *everything, everyone, everybody, everywhere, nothing, nobody, anything*).

c. Comparatives: they conform to patterns like 'X IS AS/SO adjective AS Y' (e.g., *She was as stupid as a gnat*), 'X IS LIKE Y' (e.g., *My mother is like a mosquito buzzing around my ears*), or 'X IS ADJECTIVE $_{COMP}$ THAN Y' (e.g., *I am so much more beautiful than the nymphs of the sea*).

d. Superlatives: they appear in configurations such as 'X IS 'THE' ADJECTIVE $_{SUP}$ NOUN IN/OF', as in *That was the easiest question in the world*.

It follows from the foregoing inventory of hyperbolic pointers that a further distinction can be made from a formal perspective: (i) some of these constructional patterns are fixed elements such as those in (a) and (b) and (ii) another group of configurations contain both fixed and variable elements like the ones in (c) and (d).[11] By way of illustration, consider the following examples:

   (1) My father is always working.

   (2) My mother is like a mosquito buzzing around my ears.

---

[11] It goes without saying that many more structures should be added to this list, especially to set (ii). The patterns presented here constitute only a small sample.

In (1), the hyperbolic load is mainly contributed by the frequency adverb *always*. This is not tantamount to assigning the whole hyperbolic sense to this linguistic item nor is it accurate to postulate an unequivocal hyperbolic intent whenever this adverb modifies a sentence. *Always* is a hyperbole-prone lexical item that can lead to a hyperbolic construal of a sentence. However, this adverb can also occur in non-hyperbolic contexts such as *You should always clean your teeth after meals*. Regarding the hyperbolic weight of this adverb and similar linguistic indicators, these only draw attention to a conceivable hyperbolic scenario. Context plays a decisive role when it comes to identifying hyperbole. In (1), it is completely implausible for a person to be always working since this exceeds the limits of human nature. This impossible scenario adds to the hyperbole-prone adverb thereby giving rise to a hyperbolic meaning associated with the expression of some emotional reaction. Without being embedded in a wider context, this adverb can prompt a variety of emotional responses; e.g., the daughter's sadness due to her father's busy schedule, which prevents him from devoting some more time to her; the daughter's complaint about the little time her father spends with her; or even the speaker's joy because she does not like being told off by her father when she misbehaves at home.

The hyperbolic meaning of (2) is obtained on the basis of the comparison between a human being and an irritating animal making too much noise. The pattern 'X IS LIKE Y' is usually associated with the expression of a negative emotion (e.g., irritation, annoyance) on the part of the speaker if the X slot is occupied by a human being and Y is represented by an animal, an entity at a lower position on the Great Chain of Being.

In contrast, on other occasions, no specific linguistic indicator is present but still we have a perceptible hyperbolic meaning. Consider the following excerpt:

(3) I was helpless. I did not know what in the world to do. I was quaking from head
    to foot, and could have hung my hat on my eyes, they stuck out so far (Mark
    Twain, *Life on the Mississippi*)

The hyperbolic load of (3) is not provided by any linguistic item in particular but by a manifest mismatch with reality that very much depends on heavier contextual requirements than constructional hyperbole to be identified.

An interesting upshot of the previous discussion is that our distinction between inferential and constructional hyperbole can be somehow refined or reformulated. We claim that, in line with mainstream research on hyperbole, in fact both kinds of hyperbole result from incongruity. Incongruity involves divergence from other things or situations that exist or occur in the same context and therefore qualify as strange. Thus, the difference between constructional and inferential hyperbole lies in the source of such discrepancy, whether it is triggered by specific syntactic patterns (and to a lesser extent by context) or exclusively by contextual requirements. For the sake of illustration, take examples (1) and (3) above. The hyperbolic import of (1) emanates from the disproportion created by the joint activity of the adverb *always* and the context in which it is embedded when set in contrast with the real-world situation. It is no doubt incongruous to state that a person is "always" working since this is unfeasible for human standards. In (3), the inconsistency emerges exclusively from the context without the aid of any specific constructional pattern. There is an obvious incompatibility between an imaginary situation in which a person's eyes are so wide open that they can serve the function of a hanger and the factual situation in which this person's eyes stick out in an odd way.

The degree of inconsistency is another issue that needs to be addressed. Whether hyperbole is constructional or inferential is immaterial to the degree of incongruity. The

higher the degree of incongruity, the greater the hyperbolic import of the expression in question. Consider the following examples:

(4)

> RIVERA: Cindy, how long have you and Joey been married?
>
> Ms. ADAMS: Since the Stone Age for God's sake. For 40 years. I was 16.
>
> (*COCA* 1992)

(5) This suitcase weighs a ton.

(6) He turns back to the car and it is covered by several cats, all black, all Steenwycks. He turns back around and the entire street is covered by hundreds of cats. They rear up hissing. (*COCA* 2004)

Example (4) portrays an impossible and implausible situation that yields the hyperbolic construal of the utterance. The clash between the fictitious situation of a person having been married since the Stone Age and the actual scenario, in which the speaker means that her marriage is lasting more than expected or desired, brings to the fore the emotional intent emerging from the highly incongruous source situation. The main focus of (4) is to convey Ms. Adams' boredom or, in general, any negative appraisal of the state of affairs being depicted by the expression. However, (6) features a conceivable, albeit perhaps far-fetched, scenario. While it seems out of proportion to state that a street is fraught with hundreds of cats, it is still conceivable, and thus, the level of incongruity and hyperbolic import of the expression is lower than in (4). The speaker might be trying to convey his surprise at the great quantity of felines on the street. An intermediate case of hyperbolic expressions on the scale of likelihood of the imaginary scenario is exemplified by (5). The existence of a one-ton suitcase is hardly conceivable but not wholly unlikely. The speaker is frustrated at the great impediment this weighty suitcase represents for him. All things considered, the higher the degree of probability of the imaginary scenario of an

utterance, the lower its degree of hyperbolic impact. The impossible imaginary situation in (4) yields a higher hyperbolic load than the hardly conceivable but not wholly unlikely scenario in (5), and higher too than the far-fetched but still feasible situation in (6). Moreover, the higher the degree of incongruity of an expression, the higher its hyperbolic import and its emotional impact. This gradability is summarized in Table 1:

Table 1. Gradability of hyperbole on different scales

Likelihood of hyperbolic scenario	Degree of incongruity of the expression	Degree of hyperbolic load of the expression	Degree of emotional impact on the hearer
Impossible/unconceivable	High	High	Strong
Hardly conceivable but not wholly unlikely	Moderate	moderate	Moderate
Conceivable but far-fetched	Low	Low	Weak

In sum, hyperbolic expressions range from situations depicting unconceivable scenarios to those portraying conceivable but far-fetched contexts. Other dimensions such as the degree of conventionality of the purported hyperbolic use could be also integrated into our approach. McCarthy and Carter (2004, p. 157) point out that extreme formulations are not necessarily regarded as absurd or counterfactual and they usually exhibit some conventionality (e.g., *x was absolutely covered in mud*). If an allegedly hyperbolic expression is deeply entrenched in the speakers' minds, at face value it will lack the intensity of a brand-new ad hoc hyperbolic use. For this reason, Claridge (2011, p. 37)

states that "the more conventional a hyperbolic interpretation is, the weaker will be its emotional impact." Notwithstanding this objection, the contextualization of such expressions or a given twist of the extreme formulation can provide them with an original flavor which could run counter to conventionality expectations. For instance, the extreme case formulation *umpteenth* collocates very frequently with the noun *time*. Out of the 220 occurrences including this hyperbole-prone numeral which have been retrieved from the *COCA*, 150 combine fruitfully with the noun *time* mainly to yield hyperbolic loaded uses. The hyperbolic import of this noun phrase does then qualify as conventional to speakers. However, the expected co-occurrence of the numeral with the noun that minimizes the hyperbolic load of the expression can take a turn and be shaped into a novel (or at least less frequent) use that qualifies as less established – and as a result as more noticeable – by using other intensifiers like *thousand* or *umpteenth gazillionth*, as exemplified in (7) and (8):

> (7) I want to -- for the umpteenth thousand time, I would like to say to all of you Democrats and all of you liberals and all of you in the mainstream press, … Rush Limbaugh and pals -- it doesn't matter -- we can't do anything to you unless you screw up (*COCA* 1994)

> (8) Compassion in the Republican Party -- I say again for the umpteenth gazillionth time, compassion in the Republican Party and in a Rush Limbaugh America will be defined by not how many people are on welfare but rather by how many people no longer need it... (*COCA* 1996)

Absurd hyperbole fits into the category we have included as involving an impossible or unconceivable imaginary scenario. Absurd hyperbole permeates the literature on this figure of speech (Barnden, 2018a) and runs parallel to such other figures as metaphor and irony, as attested by the work by Kapogianni (2011) on absurd ironic remarks or by

Musolff (2017) on absurd metaphorical instances. Interestingly enough, in line with our concern for a broad-ranging, unified treatment of figurative language, Barnden (2018a), elaborating on the ATT-Meta pretense-based approach to metaphor (Barnden, 2015, 2016), broadens the scope of his analysis to address ironic and hyperbolic utterances in a similar way to metaphor. Regarding hyperbole, according to Barnden, three scales are key to offering a full-fledged and cognitively plausible account: the addressed scale, the speaker affect, and the protagonist affect. Mainstream research on hyperbole has focused on the addressed scale and has overlooked the fundamental role played by the speaker and protagonist affect, both of them measured along an intensity scale. No doubt, any thorough and accurate treatment of hyperbole must direct attention to its interactive dimension. In the absurd hyperbole *I agree with you 200%*, Barnden (2018b) argues, the maximum degree of agreement on this addressed scale is 100%. This threshold limit value is overridden by the speaker's eagerness to convey unconditional support. This is contributed by the nonsensical percentage 200%, which accounts for the absurdity underlying the example. This incongruity, as advanced in table 1, brings about a high degree of hyperbolic load and a great impact on the hearer. In contrast, Barnden (2018b) also distinguishes what he calls liberal hyperbole, which corresponds to our two other kinds of hyperbole (those involving hardly conceivable but likely scenarios and conceivable but far-fetched situations). It portrays possible but unreasonable contexts of use for default interpretations or for human standards. The literal value is potentially included in the expression. For instance, regarding Barnden's example *Mary has hundreds of living relatives*, Mary could actually have hundreds of living relatives as opposed to cases of overt hyperbole, such as absurd hyperbole, in which, to quote an instance, nobody can be married to another person since the Stone Age. While our account and Barnden's theory are essentially concomitant in some respects, our study postulates

a hyperbolic continuum with varying degrees of likelihood of the imaginary scenario that correlate with different levels of hyperbolic incongruity, hyperbolic import and emotional impact on the addressee. We claim that this gradability of hyperbole on different scales should be made explicit and the relationship held among the various scales should be delineated to account for the heterogeneous nature of this figure of speech.

5.2.2. Hyperbole as a cross-domain mapping

There is a growing awareness in the literature on hyperbole that its construal is contingent upon the existence of two domains, contexts or situations, one of them displaying a magnified representation of a state of affairs, the other being the real-world scenario. These two domains are set in contrast and some emotional meaning is conveyed. A cognitive approach is concerned with the way in which this emotional component is obtained and with the way in which the two domains are set in correspondence to produce the appropriate meaning implications.

According to Claridge (2011, p. 38), hyperbolic meaning results from a transferred interpretation arising from the reconciliation of the apparent conflict between the hyperbolic expression and its literal counterpart. This re-construal is based on either pragmatic inferencing or the choice of one of the salient meanings of a polysemous linguistic unit, context lying at the basis of both pragmatic and semantic processes. The transferred meaning conveys an attitudinal or emotional ingredient, which is the essence of hyperbolic uses. By contrast, Ruiz de Mendoza (2014b) and Peña and Ruiz de Mendoza (2017), on the one hand, and Barnden (2018ab), on the other hand, go beyond Claridge's explanation in terms of lexical contrast and frame their discussion at the situational level. In other words, in their accounts, the hyperbolic and literal expressions involved in

hyperbole are but hints that activate whole scenarios, namely a hypothetical or imaginary situation (the pretense in Barnden's terms) and a real-world situation.

As outlined in section 3.1.1.2, situational models are complex inasmuch as they consist of an amalgam of events and they may be embedded within other situational scenarios. For the sake of illustration, consider example (4), which we reproduce here for convenience:

(4)

RIVERA: Cindy, how long have you and Joey been married?

Ms. ADAMS: Since the Stone Age for God's sake. For 40 years. I was 16. (*COCA* 1992)

The marriage scenario involved in this exchange includes at least two people meeting each other for the first time, getting to know each other, becoming involved in a love relationship, and making the decision of legally becoming a couple with a view to spending the rest of their lives together, as specified in their marriage vows. Knowledge of this model together with our knowledge of human relationships in general allows us to grasp some of the meaning implications of the exchange in (4). Ms. Adams' response implies that she is tired of her marriage and that perhaps that she regrets having married Joey. This negatively-loaded emotional component partially arises from the fruitful combination of the hyperbolic expression *since the Stone Age*, interpreted within the marriage scenario alluded to, with the complaint value of the expression *for God's sake*. The meaning implications arising from the overstatement are strengthened by the final part of the text (*For 40 years. I was 16*), which points to the idea that, in retrospect, Cindy realizes she was too young when she got married and, because of that, not mature enough to make such an important decision.

In application of the classification of non-situational and situational models made in section 3.1.1.2, the marriage scenario is a low-level model of a descriptive kind since it is made up of scripted sequences of low-level actions. Attitudinal low-level scenarios are meant to display the speaker's emotional or attitudinal response to concrete situations and events. The expression *for God's sake* used in example (4) has become stably associated with negative emotions such as annoyance, boredom, impatience, or frustration. This expression, together with Cindy's response *since the Stone Age* and with our knowledge of marriages and human relationships, activates an attitudinal scenario whose main focus is on the frustration and annoyance the speaker feels towards the situation. We get this emotional meaning through inference. Rivera's question presupposes that the couple married in the past. Cindy does not limit herself to simply offering the information the speaker is asking but goes beyond providing factual content into an implicated display of her emotions.

As has been noted before, hyperbole maps an imaginary or hypothetical scenario onto a real-world situation. Both scenarios are low-level cognitive models displaying an attitudinal ingredient and are fully coincidental except for the time component, which brings in a gross counterfactual distortion. In the case of (4), the expression *Stone Age*, which is metonymic for a remote past time, calls up a counterfactual scenario consisting of the following sub-scenarios:

(9)

  i.   Cindy met Joey at some point in the remote past.

  ii. Sometime after (i), Cindy and Joey got married.

  iii. Cindy feels she has been married to Joey from the remote past until the moment of speaking.

iv.   The situation in (iii) makes Cindy feel frustrated, annoyed, bored, etc.

Cindy's statement *Joey and I have been married since the Stone Age*, which contains the lexical metonymy noted above, affords direct access to (ii) and (iii), which, in turn, through a non-lexical process of metonymic expansion activates the whole counterfactual scenario. Then, through domain reduction, the emotions of frustration, annoyance, and boredom experienced by Cindy after several years of marriage are highlighted. This is part (iv) of the scenario. The combination of expansion and reduction operations constitutes a metonymic chain, as discussed in section 4.5.2. All this conceptual structure including the degree of prominence assigned to part (iv) of the scenario is mapped onto the real-world situation, or target scenario, whose structure is spelled out in (10):

(10)

i.   Cindy met Joey when she was very young.

ii.   After some years of meeting each other, exactly 40 years ago, Cindy and Joey got married.

iii.   Cindy feels that 40 years of marriage are a very long period of time.

iv.   Cindy feels frustrated, annoyed and bored after 40 years of marriage.

Section 5.3.2 will further elaborate on this view of hyperbole by considering the role of mitigation in adjusting the elements of the counterfactual scenario to real-world proportions from the point of view of the hearer.

5.2.3. Hyperbolic constructions

In section 5.2.1, a distinction was made between constructional and inferential hyperbole. Incongruity underlies both of them, we further argued, but whereas the former is triggered by particular syntactic configurations and by context, the latter is exclusively contingent

on contextual requirements. Moreover, hyperbolic pointers can be either fixed patterns (e.g., *never, infinitesimal, once in a lifetime, once in a blue moon*) or configurations including both fixed and variable elements. This section focuses on constructional hyperbole. A simple example of constructional hyperbole is *X is as/so + adj.+ as Y*, as illustrated by (11):

(11) He is as ugly as sin, long-nosed, queer-mouthed, and with uncouth and somewhat rustic, although courteous manner (*COCA* 2012).

This formal configuration is sensitive to hyperbolic uses because of its comparative structure, which can easily result in simile. Simile, like ontological (Great Chain of Being) metaphor uses source domains with attributes which far exceed the corresponding ones in the target (e.g., in *Her teeth are pearls*, the whiteness, brightness, and overall beauty of pearls is taken to be greater than that of teeth).

A less trivial case of hyperbolic construction is *X is not Y but Z*, a form of corrective coordination which has an intensifying function capable of generating hyperbolic effects (Peña and Ruiz de Mendoza 2017). Barnden (2017a, p. 112) points out that a similar strengthening effect can be achieved through other mechanisms, like the booster *literally* in metaphorical occurrences (e.g., *Journalists are literally animals*). Notice should be taken at this point that, in fact, boosters are to be distinguished from hyperbole-prone items. The former increase the hyperbolic load of an expression, while the latter simply signal potentially hyperbolic configurations. Both kinds of device are ultimately dependent on their context of use and are usually treated in the literature on hyperbole as if they were the same construct. The *X is not Y but Z* construction performs a strengthening function but the hyperbolic indicator underlying this configuration is the pattern *X is Z*. Take the example *She is an angel*, which has been studied in section 3.1 as a metaphor whose hyperbolic nature stems from the conspicuous mismatch between

human and attributed angelic behavior. This predicative use ascribes angel-like features to a woman, mainly extreme kindness, and its hyperbolic meaning arises from the recategorization of a human being into an unrivalled exemplar of goodness. The hyperbolic import of this expression can be heightened by the intensifying potential of the pattern *X is not Y but Z* (e.g., *She is not a woman but an angel*), which works on the basis of a combination of two factors: the negation of a prospective default assumption on how to categorize X (*not a woman*) and the effect of contrast between Y and Z, where Z is an upscaled version of Y. In *X is Z* the hyperbolic effect is achieved merely through the contrast between X and Z. In *X is not Y but Z*, by contrast, there are two sources of hyperbolic effect.

No doubt, the hyperbolic weight of an utterance like *She is an angel* could also be accentuated by the use of *literally* (cf. *She is literally an angel*), among other boosters (e.g., *really*). As noted by Nerlich and Chamizo (2003), the original meaning of *literally* in the 16th century is 'in a literal sense, according to the exact meaning of the word or words used'. This meaning underwent a semantic change and came to indicate that what follows must be taken 'in the strongest admissible sense'[12] by the end of the 17th century. The effects of this semantic change have persisted over time, so both meanings coexist nowadays. Additionally, as is the case with hyperbole-prone items, boosters also display different degrees of schematicity. For instance, compare the adverb *literally* with the *X is not Y but Z* pattern, which contains both fixed and variable elements.[13] A two-fold distinction could be drawn between lexical and structural hyperbolic-signaling devices and boosters.

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[12] Both senses of the adverb *literally* have been taken from the *etymonline dictionary* at https://www.etymonline.com/search?q=literally
[13] For ease of exposition, we have not distinguished hyperbolic pointers from boosters but this theoretical distinction must be borne in mind.

In the *X is not Y but Z* hyperbole-intensifying pattern, the items X, Y, and Z determine the axiological value of the emotional reaction expressed by a given speaker. Regarding form, the slots represented by X, Y, and Z are open to parameterization. X is realized by a noun phrase, yielding the pattern *NP1 is not NP2 but NP3*. Y and Z are set in contrast and compared on a scale on which they are placed at very – sometimes extremely – distant points either implicitly (for instance, goodness and beauty in 'woman' vs. 'angel') or explicitly (e.g., size in 'small' vs. 'infinitesimal'). In this construction, X and Y hold a relationship of membership inclusion in the sense that X is a member of the category Y, as in *Jane is not a woman but an angel*, in which Jane is, by definition, an entity classified into the category 'human being', more precisely 'woman'.

Let us now examine the different realizational variants of *NP1 is not NP2 but NP3*. Within this pattern, the various cases are constructed on the basis of either metaphor or metonymy. As pointed out in sections 3.1.2, 5.1.2, and 5.2.1, the emergence of metaphor (among other tropes) as a way of producing hyperbolic effects is widely acknowledged (Lausberg, 1990; Brdar-Szabó and Brdar, 2010, p. 391; Deamer et al., 2010; Carston and Wearing, 2015; Popa-Wyatt, 2020). Metaphor-based examples can involve cross-level recategorization in terms of the Great Chain of Being or be based on the same level of this hierarchy. Let's first deal with the former, where two subcases are possible:

a) Those involving a mapping where NP3 is ranked higher in the Great Chain of Being than NP2. As pointed out in 4.4.4, this folk model of categorization describes a hierarchical structure whereby God and the angels are placed at the top, followed in order of complexity by humans, animals, plants, and inanimate substances (Lovejoy, 1936; Lakoff and Turner, 1989, pp. 167-168). In principle, although not invariably, if NP1 is recategorized as a form of existence occupying a higher position in the Great Chain of

Being, the overall assessment of the state of affairs being described will be positive, as shown in (12):

(12) She is not a woman, but an angel![14]

Angels are also traditionally believed to be the epitome of goodness and beauty. These qualities map onto corresponding but necessarily less intensely perceived qualities in the woman referred to by (12). In contrast, other expressions like (13) are explicit as to the attribute which NP1 possesses to incommensurate proportions. This does not mean that other aspects such as extreme kindness and goodness are not conjured up by (13), but beauty is the feature that the speaker wishes to highlight.

(13) This is not a woman, but one of the most beautiful angels of heaven.[15]

In (12) the mapping from angel to human contributes the hyperbolic effect of the expression. In (13) this effect is further enhanced by the use of the superlative. However, the hyperbolic load is mitigated by the partitive *one of the most*, which here acts as a softener or detensifier. This illustrates the feasibility of combining enhancers and softeners to produce mitigated hyperbolic effects. Moreover, as pointed out by Edwards (2010: 352), extreme case formulations are brittle in factual terms since they can be easily refuted or even cancelled out. Using a softener results in a weaker claim so that the accuracy of the description is less questionable, while, undoubtedly, an absolute superlative (e.g., *She is the most beautiful angel of heaven*) can produce a greater hyperbolic impact. Nonetheless, in all three examples the speaker's emotional reaction, one of admiration, is highly positive.

Consider now example (14):

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[14] Google Books, The invisible spy, in *The Novelist's Magazine*, Volume 23, p. 185. Accessed on September 15, 2018.
[15] Google Books, Margaret Oliphant. 2012. *The Makers of Florence: Dante, Giotto, Savonarola; and Their City*, p. 25. Accessed on September 15, 2018.

(14) A celibate of such spotless chastity is not a human being, but a God indeed.[16]

In (14), emphasis is achieved by means of the joint activity of the corrective coordination and the use of the adverb *indeed*, a booster of the illocutionary force of the utterance. However, the extremity of the statement is somehow softened by the use of the indefinite article, which is not one of the conventional detensifiers listed in the literature, but suggests that the celibate referred to, although unusual, is not unique. The god-like feature which is attributed to the subject is celibacy since divine creatures are not subject to mundane necessities. Both the hyperbolic import of (14) and the clash between the imaginary scenario and the observable situation are moderate if compared to the extreme hypothetical expression in (14') below. As a result, the emotional impact of (14) on the potential addressee is weaker than in (14'). The attitudinal element brought about by this contrast in (14) and (14') is admiration or surprise to different degrees.

(14') A celibate of such spotless chastity is not a human being, but God indeed.

By contrast, expressions in which NP3 denotes a form of existence higher on the Great Chain of Being than NP2 can also carry a negative axiological load. Consider (15):

(15) And McDermott says that she is not a woman, but a devil.[17]

In (15), a female human being is metaphorically portrayed as a devil, an entity ranking higher than humans on the Great Chain of Being, with a special focus on wickedness. As in (14), the forcefulness of the assertion in (15) is softened by the use of the indefinite article. However, in this example, the mitigating role of the indefinite article is based on its generic meaning (i.e., any devil), which could be contrasted with *the Devil* as the major personification of evil. Evidently, this other use would produce a much more impactful hyperbole.

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[16] Google Books, Joshua David Stone. 2001. *How to Achieve Self-Realization Through Properly Integrating The Material Face of God: A Compilation*, p. 230. Accessed on September 15, 2018.
[17] Google Books, Justin D. Edwards. 2005. *Gothic Canada: Reading the Spectre of a National Literature*, p. 106. Accessed on September 20, 2018.

The analysis of our data reveals that expressions like (15) are less productive than those like (12)-(14). Recategorizing an entity as another higher on the Great Chain of Being tends to yield positive connotations. Endowing entities with a greater degree of complexity usually brings about positively-loaded situations, mainly because the attribute which is either overtly or covertly singled out for the mapping is generally a unique one. b) Cases in which NP3 is lower in the Great Chain of Being than NP2. Two subcases are to be distinguished: the speaker can take a positive or a negative stance towards the state of affairs described.

As illustration of the cases in which the main aim is to insult, reprimand, complain about NP1 or take other forms of negative stance towards NP1, consider (16), (17), and (18):

(16) Plato would say that he who knows not this is not a Man, but a Beast.[18]

(17) How can you be faithful to a man who can neither see nor hear, who is not a human being but only a lump of flesh that breathes?[19]

(18) We end up paying big time and many are not travellers but leeches sucking the maximum out of the human rights act.[20]

The metaphors in (16) and (17) are used derogatorily. Human beings are conceptualized as lying midway between the world of spiritual beings and the world of physical creation. They are in fact an ensemble of material and spiritual dimensions. This makes them unique. However, if the instinctual part of humans overrides the very essence of human beings, they can fall prey to their passions. This is reflected in (16) and (18). Taking into account its philosophical context, (16) singles out the absence of intellectual abilities, while (18) focuses on the parasitic nature of leeches, which feed on the blood of other

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[18] Google Books, Euclid, André Tacquet. 1727. *The Elements of Euclid: With Select Theorems Out of Archimedes*, p. 41. Accessed on September 20, 2018.
[19] Google Books, Barbara Cartland. 2014. *The Outrageous Lady*. Accessed on September 20, 2018.
[20] iWeb www.bournemouthecho.co.uk. Accessed on September 20, 2018.

animals. In both examples, the intention is to prompt for an emotional reaction of contempt: in (16) by lowering man to the status of a beast (non-rational, instinctual, filthy, etc.) and in (18) by focusing on the disposition of some people to take advantage of others while giving nothing in return. As a matter of fact, the PEOPLE ARE ANIMALS metaphor is mainly exploited to single out undesirable traits and forms of behavior of people, especially to focus on their lack of control and thus their tendency to fall prey to their primal instincts (López-Rodríguez, 2009, p. 81).

In (17) we have an interesting situation where the speaker depicts a man as a lump that can breathe. As a non-sentient entity, a lump occurs lower in the Great Chain of Being than plants, animals, and humans. Unlike other natural objects (e.g., precious stones) a lump is not characterized by any especially positive property. It is a mass without any definite shape. This is, in itself, a source of derogatory meaning effects: it has no clear identity or function. As a non-sentient entity, it lacks features which we generally ascribe to higher levels in the Great Chain of Being, especially the ability to feel and reason. The only higher-level feature which (17) assigns to the man is the ability to breathe, which is not particularly noteworthy for a human. In sum, the hyperbolic import of (17) is even higher than the one in (16) and (18) because man is treated as an entity which is at the lowest part of the scale. Since the hyperbolic load of (17) is stronger than the one in (16) and (18), the emotional impact on the potential addressee is also greater.

Now let us consider examples (19) and (20):

(19) … most of them aren't just male, they're white males … They do it because they have been raised in a world where women are not humans but prizes, and so they can't see them as individuals.[21]

(20) … women in pornography are not subjects but objects, not fully human.[22]

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[21] iWeb takashi0.tumblr.com. Accessed on September 23, 2018.
[22] iWeb fightthenewdrug.org. Accessed on September 23, 2018.

Ultimately, (19) and (20) are exploitations of the notion of 'object', which underlies any item at the lowest level of the Great Chain of Being. This notion acts as a metaphorical source to talk about women as perceived by men in a male-oriented society. Objects are instrumental to the desires of their users, so people can feel guiltless when using them. But people using other people as if they were objects can be considered mistreatment or abuse. There can be degrees of abuse, which is why (19) and (20) have a hyperbolic value. Thus, example (19) is a hyperbolic reflection on the way in which males are argued to see women. The hyperbole is constructed on the basis of the metaphor WOMEN ARE PRIZES. The source domain is NP3 and the target is NP1 in the construction, while NP2, which is negated, is the category to which NP1 naturally belongs. The contrast between NP3 and NP2 is based on the fact that prizes are granted after winning a competition, but people are not. Example (20) is based on the metaphor WOMEN ARE OBJECTS. As in (19), the source and target domains correspond to NP3 and NP1, with the negated NP2 providing the category to which NP1 should be ascribed. The contrast here is between objects and subjects. It is based on the fact that objects are acted upon, while subjects are actors. The freedom to act is the scalar property underlying the hyperbolic effect in this example.

According to our data, the converse situation, i.e., one in which the speaker praises or boasts about the behavior or appearance of the entity designated by NP1 in uses in which such an entity is lower in the Great Chain of Being than the one denoted by NP2, is less productive than the previous situation. Consider in this connection examples (21) and (22):

(21) … Pyotr Ignatyevitch, my demonstrator, a modest and industrious but by no means clever man of five-and-thirty, already bald and corpulent; he works from morning to night, reads a lot, remembers well everything he has read—and *in that*

way he is not a man, but pure gold; in all else he is a carthorse or, in other words, a learned dullard (italics ours).[23]

(22) Daniel Day-Lewis is not a man but a work of art. He is the type of man I love: lean, intelligent, elegant.[24]

In (21) there are aspects of a person which are treated positively and others negatively. The metaphor in example (21) treats a human as gold. This is in principle highly positive because of the great value which this precious metal has. Gold is something people desire to have. Example (22) depicts a person as a work of art, which is positive too because of its connotations on elegance and related attributes. Both (21) and (22) make use of hyperbole, which is intensified by the classificatory nature of *NP1 is not NP2 but NP3* construction. This makes the properties of the entity designated by NP3 override the normal state of affairs in which the protagonist is seen as excelling beyond human qualities. However, the example in (21) qualifies its initial positive statement by making it an exception related to the man's memory skills. In everything else he is a "dullard" like a "carthorse." This makes this man's characterization a highly uncomplimentary one.

Animals and plants are not very productive in our corpus of *X is not Y but Z* hyperbolic realizations. In these two domains, there is a strong tendency to use the construction for mere neutral correction of a potentially erroneous assumption made by the audience. Take examples (23) and (24):

(23) Technically, a silk worm is not an animal but an insect.[25]

(24) Prototaxites is not a plant, but a fungus.[26]

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[23] Google Books, Anton Chekhov. 2012. *The Grasshopper and Other Stories.* Accessed on September 23, 2018.
[24] https://www.theguardian.com/film/2018/jul/07/elena-ferrante-daniel-day-lewis-work-of-art. Accessed on September 23, 2018.
[25] https://livegreen.recyclebank.com/column/question-of-the-day/which-of-these-fabrics-is-not-derived-from-an-animal. Accessed on September 23, 2018.
[26] https://www.sciencedaily.com/releases/2007/04/070423080454.htm. Accessed on September 23, 2018.

These examples are meant to refute long-held folk assumptions regarding the scientific categorization of some creatures. The adverb *technically* in (23), which might otherwise be a hyperbolic booster in contexts like the ones in previous examples, is here employed literally to highlight the veracity of a given state of affairs. There are some remarkable exceptions to this, though. Some occurrences involve a mapping from animals to people (i.e., they are instantiations of the ANIMALS (PETS) ARE PEOPLE) and are axiologically positive. This is the case of the personification of the dog in (25):

(25) Chase Is Not a Dog but My Only Son.[27]

The personification of pets is often used to single out their intelligence and loyalty to their owners. As pointed out by López-Rodríguez (2009, p. 83), pets are not exploited by humans in order to benefit from their work, meat, or skin. Their main function is to keep their owner's company. Because of this, they enjoy some human rights like sharing the space of household members. Being described as an only child, the dog in (25) is supposed to be pampered and even spoilt, which reinforces the hyperbolic intent of the expression. This brings about positive connotations. While pets are categorized as animals, they rank higher in the Great Chain of Being than other animals like livestock and wild animals on account of their position closer to human beings. They are even given proper names in Western culture. This is not based on accurate scientific description but emanates from our anthropocentric view of the world, which makes its way into language. Moreover, this makes pets more suitable than other animals for hyperbolic recategorization.

Finally, inanimate beings cannot be downgraded through recategorization since they represent the lowest category on the Great Chain of Being. By contrast, they might

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[27] https://www.daily-sun.com/printversion/details/371770/2019/02/17/Chase-Is-Not-a-Dog-but-My-Only-Son. Accessed on September 23, 2018.

be upgraded. However, our search for this kind of examples yielded very few instances of hyperbole, one of them being (26):

(26) It is not a car, but a member of the family.[28]

Some people are so fond of their cars that they consider them to be one of their most cherished possessions. It is obviously far-fetched to metaphorically depict a car as a person, a member of the family. The feature that is singled out for focal attention is the great love for material things which we profess, as if they were part of our family and we take care of those people we love most. The level of impact of (26) on the addressee is strong since an entity at the lowest position in the Great Chain of Being is assigned attributes of entities ranking much higher.

Regarding metaphors with hyperbolic effects based on the same level of the Great Chain of Being, the analysis of our corpus points to their lower productivity if compared to those hyperbolic examples of metaphor involving cross-level categorization. In these specific metaphors, the speaker's assessment of the state of affairs depicted by the hyperbolic utterance can be charged with positive or negative overtones. Let's deal with both subcases in turn:

(27) If you, like Pollan, believe that fast food is not food but rather an "edible foodlike substance" (or that KFC is not actually chicken), then you can safely assume that many people are not eating food, let alone cooking it.[29]

(28) Possibly 99% of the items in supermarkets is not food, but food like substances, like milk, which the body has to deal with. Milk is so highly processed nowadays ...[30]

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[28] http://www.topexamdump.com/mn0-400.html. Accessed on September 23, 2018.
[29] https://ourworld.unu.edu/en/food-rules-so-eat-food. Accessed on September 23, 2018.
[30] https://jivitaayurveda.com/detoxing-is-not-a-myth/. Accessed on September 23, 2018.

The point of the use of the *NP1 is not NP2 but NP3* formulation in (27) is to emphasize the fact that fast food is not healthy food but a lower-quality edible substance. The *-like* suffix in *foodlike* contributes to charging this expression with a negative value (if it is only like food, then it is not real food). However, fast food is still food, which is why the example involves an exaggeration. The analysis of (28) is akin to the one of (27) but with one difference. To its hyperbolic effect of (28) adds the reference to 99% of the items in a conventional supermarket disqualifying from being food. This disproportionate exaggeration is only toned down by the adverb *possibly*. However, a closer examination of the textual clues in (28) reveals that the 'food' referred to is actually metonymic for processed food. This is another factor contributing to softening the hyperbolic impact of (28). In this connection, contrast (27) and (28) with (29):

(29) "I consider that this is not food, but garbage - waste that is unfit to eat."[31]

The hyperbolic impact of (29) is evidently stronger than that in (27) and (28). The reason for this is found in the greater conceptual distance between food (NP2) and garbage (NP3) than between food and a substance that at least is edible. Garbage is both disgusting and inadequate for consumption.

Take now (30), where Nigeria is denied its status as a country and then portrayed as a "den" of criminals:

(30) The Nigeria separatist leader Nnamdi Kanu, has said that, "Nigeria is not a country but a den of thieves, deceivers, the gullible and reprobates.[32]

The word *den* is negatively loaded because of its association with wild beasts. Nigerians are thus figuratively portrayed as wild animals, which degrades their status as human

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[31] Google Books, G. O'callaghan. 2007. *Ravenlock*, p. 30. Accessed on September 23, 2018. 'This' in this example makes reference to some fruit.
[32]
https://www.google.com/search?q=%22is+not+a+country+but%22&ei=ItKQXoC6GoCdjLsPtreB0AI&start=70&sa=N&ved=2ahUKEwiA05fT1N7oAhWADmMBHbZbACo4PBDw0wN6BAgLED4&biw=1185&bih=622. Accessed on September 23, 2018.

beings and highlights their uncontrolled and violent nature. This metaphorical construal triggers the hyperbolic reading of (30) and accounts for its negative axiological value.

The attitude shown by the speaker can also be positive in some examples of hyperbole rooted in metaphors based on sister categories within the Great Chain of Being:

(31) Mr. Ferguson's wife kept saying "this is not a house, but a mansion." Indeed, it was just a house to many of us but to her and her family it was a mansion.[33]

(32) The fastest Ferrari is not a car but a train.[34]

In (31) and (32) a house is figuratively construed as a mansion, a larger and more luxurious kind of dwelling than a simple house, and a Ferrari is mapped onto a train in order to bring into focus the great speed it can reach. In the context of (31), both 'house' and 'mansion' are hyponyms of the superordinate term 'dwelling'. Mr. Ferguson's wife's perception of reality is distorted because of her impoverished situation, which lies at the basis of her re-construal of a house as a mansion. Example (32) also exploits two sister categories (car and train) but with a different logic than what is generally the case in the *NP1 is not NP2 but NP3* construction. In (32), NP1 (the fastest Ferrari) is the metaphorical source, while NP3 (a certain train) is the target. The meaning impact of this specific metaphorical exploitation of the construction is stronger than in *This is not a train but the fastest Ferrari*. The reason for this constructional behavior lies in the fact that (32), by rejecting the categorization of the sports car as a car, draws attention to the explicit fastness of the car. Note, in this respect, that the superlative adjective cannot be removed in (32) without creating an important oddity (# *A Ferrari is not a car but a train*), but it can in the standard use of the construction (*This is not a train but a Ferrari*).

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[33] https://www.heritageibt.com/hbl-hand-in-hand-ministries/. Accessed on September 23, 2018.
[34] https://www.motoring.com.au/the-fastest-ferrari-is-not-a-car-but-a-train-30000/photos/. Accessed on September 23, 2018.

Now consider expressions (33) and (34). In these examples, NP2 and NP3 are not co-hyponyms but belong to different semantic domains. This results in a stronger hyperbolic impact than the one generated by the co-hyponymy relationships in (31) and (32).

(33) Chevrolet kamaro is not a car but a fairy tale.[35]

(34) This is not a car, but a mansion on wheels.[36]

While most realizations of the *NP1 is not NP2 but NP3* construction rest on metaphor, a few examples are based on metonymy. Brdar (2004) and Brdar-Szabó and Brdar (2010, p. 391) point to the paucity of research on the metonymic grounding of hyperbolic expressions. The last few years have witnessed a moderate rise of interest in the use of metonymy to generate hyperbolic effects. We have dealt with this topic in connection with scalar metonymy in 4.4.4 and with some cases of paragon such as *Jim Carrey is the Einstein of comedy* in 4.7.3, and scholars like Brdar (2004), Brdar-Szabó and Brdar (2010), Littlemore (2015, p. 94), Herrero-Ruiz (2018), and Peña (2019) have also addressed this issue. As noted in Peña (2019), metonymy supports hyperbole. Relying on the uppermost end of a scale or situation to refer to a lower point on the scale (for instance, the metonymic use of *always* to mean 'usually') seems especially apt to set up a magnified scenario. However, the opposite situation also holds, as observed by Herrero-Ruiz (2018, pp. 57-63). Highlighting a very prominent subdomain to stand for the whole domain to which it belongs can bring about a hyperbolic outcome consistent with the idea of stretching the truth disproportionately. For instance, *I melted my credit card* is analyzed as a situational metonymy whereby one of the last stages within the shopping scenario (paying for the items the customer has acquired) provides metonymic access to the whole

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[35] https://www.youtube.com/watch?v=f7DMxTC7jA4. Accessed on September 23, 2018.
[36] https://www.carwale.com/rollsroyce-cars/phantom-2016-2015/user-reviews/599/. Accessed on September 23, 2018.

scenario. Alternatively, it can also be construed as a realization of the EFFECT FOR CAUSE metonymy since the effect (the fact that the credit card "melted") grants access to its cause (spending a lot of money on many items to be paid by repeatedly swiping one's credit card) (Herrero-Ruiz, 2018, p. 57). Take (35):

(35) … compared to you, she's nothing but a pretty face (*COCA* 2011)

Metonymic expressions like *She is nothing but a pretty face*, meaning that a woman is attractive but in no way intelligent, provide a pejorative view of human beings. This is a variant of the *NP1 is not NP2 but NP3* construction. Note that "nothing" is the functional equivalent of "neither a woman nor anything else." We have the same hyperbolic intensification as in the rest of the uses of *NP1 is not NP2 but NP3*. It implies that a woman is denied her existence as a female human being with the capacity to think and reason and is only assigned attributes associated with physical appearance, as metonymically invoked by the mention to the pretty face.

Other related and productive variants of the *X is not Y but Z* hyperbolic construction are *X is not Y, X is Z*, which involves corrective juxtaposition instead of coordination, as exemplified by (36), and *X is not Y but rather Z*, where the booster *rather* further enhances the hyperbolic load of the expression in question, as shown by (37):

(36) … *he is not a man; he is an angel*; for he comes here twice a year, sometimes oftener, and sets a number of prisoners free (italics ours).[37]

(37) … she is "not a woman," but rather a monster who has forgotten her duties as homebound companion to man and mother to his children.[38]

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[37] Google Books, *The Ladies' Monthly Museum*. 1821. Volume 13, p. 94. Accessed on September 23, 2018.
[38] Google Books, Marie Lathers. 2012. *Space Oddities: Women and Outer Space in Popular Film and Culture, 1960-2000*, p. 7. Accessed on September 23, 2018.

5.3. Hyperbole-related figurativeness

This section is concerned with the examination of figurative uses of language that relate to hyperbole. First, two main sets of such figures will be identified: (i) those related to overstatement, whose most basic form is hyperbole, but which also include auxesis; and (ii) those associated with understatement, mainly meiosis and litotes. Second, these figures will be addressed in terms of the cognitive operations which underlie both their production and understanding with a view to contributing to the unified framework of figurative language offered in this book.

5.3.1. An account of figures related to hyperbole: Definition and scope

Before examining the cognitive operations underlying hyperbole and related figures, let us first define them. First, we will focus on attitudinal figures which maximize emotional impact; then, attention will be paid to attitudinal figures which minimize emotional impact.

5.3.1.1. Overstatement, hyperbole, and auxesis

Some terminological confusion is observed in the use of the notions of overstatement, hyperbole, and auxesis. This terminological chaos inevitably spills over into the definition, the scope, and the understanding of the cognitive grounding of these figures. Overstatement is a cover term for hyperbole and auxesis in spite of the fact that overstatement and hyperbole are very often used interchangeably in the literature and that auxesis is a type of extreme hyperbole. Note, in this regard, that even though all figures of speech can vary in strength for emphasis, very much like many non-figurative language

(e.g., through the use of emphasizers), this feature is the essence of hyperbolic uses of language, so that the distinction between extreme and less extreme uses can be considered constitutive of a figure of speech. This is the case of auxesis, as will be evidenced below.

As pointed out in section 5.1, hyperbole is a typical form of overstatement which goes beyond the bounds of acceptability or reason if taken literally and which is used for effect. No literal counterpart can do justice to the whole range of implications brought about by a hyperbolic expression. The greater the degree of mismatch of the hyperbolic scenario with the real-world situation, the greater the emotional impact on the addressee. Stretching the bounds of reality can be done to different degrees. Norrick (2004) makes a distinction between extreme and non-extreme hyperbole. According to this author, the former includes Extreme Case Formulations or EFCs (Pomerantz, 1986; Norrick, 2004). As advanced in 5.1.3, Norrick argues that extreme hyperbole blatantly flouts the first maxim of quality, the so-called truthfulness maxim, of Grices's (1975) Cooperative Principle, in contrast with non-extreme hyperbole, which constitutes a flagrant violation of the first maxim of quantity or maxim of informativeness. In fact, in our view, extreme and non-extreme (or mild) cases of hyperbole are only part of a continuum. The brittle nature of ECFs in factual terms is offset by the greater hyperbolic import of an expression. While a non-extreme hyperbole might be both construed literally and figuratively, there is less room for such ambiguity in the case of extreme hyperbole. For instance, example (38) depicts an implausible scenario.

(38) He works non-stop.

(39) He works from morning to night.

If the speaker wants the force of his utterance to be as strong as possible and to make sure the addressee interprets it as an ostentatious exaggeration, he is more likely to use (38) than a milder expression like (39).

In any event, it should be noted that (i) expressions containing ECFs do not unquestionably result in hyperbolic uses,[39] and (ii) some extreme hyperboles are not built on the basis of an ECF. Absurd hyperbole (e.g., *I agree with you 200%*[40]) is a special kind of extreme hyperbole for two main reasons: it does not lend itself to a literal interpretation whatever the context and its hyperbolic intent is not necessarily contributed by an ECF.

On the basis of these observations, we have put forward the taxonomy of hyperbolic uses discussed in section 5.2.1 by taking into account the likelihood of the hyperbolic scenario, which correlates with the degree of incongruity, of hyperbolic load, and of conventionality of the expression, as well as with the degree of emotional impact on the addressee. Thus, three different kinds of hyperbolic expressions are postulated: those portraying impossible/unconceivable hyperbolic scenarios (for instance, absurd hyperboles like *I agree with you 200%*), those depicting hardly conceivable but not wholly unlikely hyperbolic scenarios (Barnden's example *Mary has hundreds of living relatives*), and those involving conceivable but far-fetched hyperbolic domains (*I think there are thousands of people in the same ship*).

We might wonder how and where auxesis could be accommodated within this taxonomy, which hinges on the gradability and heterogeneous nature of hyperbole. Auxesis has traditionally been defined as an extreme case of hyperbole, as illustrated in (40), where being very hungry is expressed as *dying of hunger*:

(40) You have to be… dying of hunger to eat one of those disks of processed flour and grease. (*COCA* 2012)

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[39] See the analysis of the examples *My father is always working* and *You should always clean your teeth after meals* in section 5.2.1.
[40] Example taken from Barnden (2018b, p. 232).

Auxetic uses fit into our first two types of hyperbole. This means that they typically describe impossible hyperbolic scenarios or hardly conceivable but not wholly unlikely hyperbolic scenarios.

Additionally, in rhetoric the notion of auxesis has been applied to arrangements of words or clauses in a sequence of climactic order and gradually increasing force. In this sense, a two-fold distinction can be drawn between non-hyperbolic and hyperbolic auxesis, as exemplified by (41) and (42) respectively:

(41) 'Was it possible they heard not? Almighty God! – no, no! They heard! – they suspected! – they knew!' ("The Tell-Tale Heart," 5:94)

(42)

"Neptune's ocean was this blood

Clean from my hand? No. This my hand will rather

The multitudinous seas incarnadine,

Making the green one red."

Example (41) expresses a climactic increase in communicative force but it does not qualify as hyperbolic since reality is not overstated. By contrast, as argued by Ruiz de Mendoza (2020b, p. 491), (42) exemplifies hyperbolic auxesis. Macbeth's words set up an unconceivable scenario in the first two lines. The protagonist shows remorse for having slain the king by hinting at the impossibility of there being enough water in the sea to cleanse his hands. He further enhances this implausible scenario by adding a second unlikely situation whereby the blood flowing out of the king's body, now in Macbeth's hands, makes the seas red. There is a gradual increase of communicative force arranged in a sequence of climactic order which is intended to bring into focus the speaker's emotional reaction of extreme guilt and remorse.

5.3.1.2. Understatement, meiosis, and litotes

Understatement has been used as a cover term for those expressions of less strength than expected or desired (Ruiz de Mendoza 2020a, p. 30). A situation or item is presented as less important, relevant, or smaller in order to belittle the impact of the magnitude or significance of the purported situation or item on the addressee. In this sense, understatement is regarded as the reverse of overstatement. For example, imagine that (43) is uttered by a girl whose boyfriend usually spends long hours waiting for his girlfriend to make up and get ready to go out. The girl tries to downplay the situation thus making it less costly to her boyfriend.

(43) I'll be ready in a second.

One of the main concerns in the study of understatement and related figures is their connection with irony. According to Gibbs (2007), understatement is but a variety of irony. It is true that both understatement and irony perform some common pragmatic functions since they are usually funnier, more criticizing, and more expressive of the contrast between expectations and reality (Colston and O'Brien, 2000). However, understatement is not always tinged with ironic overtones. In fact, we could distinguish between standard (or non-ironic) and ironic understatement. By using standard understated expressions, the speaker minimizes the forcefulness of an utterance to mitigate any potential annoyance or discomfort in the potential hearer. It is because of this mitigatory nature that understatement has been associated with face saving strategies (Hübler, 1983, ch. 4).

In ironic utterances the speaker mainly gets across an attitude of skepticism, scorn, or negative judgement (see section 6.1.2). Irony is mainly a face threatening act. Compare (43) above with (44) below:

(44) Yeah, of course, your son is an angel.

If addressed by a teacher to a lenient father to make him aware of his son's naughty behavior, (44) is an ironic statement of reproach. This is a face threatening act which seeks to contradict the father's erroneous assumptions about his son. In verbal irony, as will be discussed later, echoing a previous assumption involves an act of pretended agreement, which means the opposite of what the speaker says. The use of *angel* in (44), in contrast to non-hyperbolic expressions (cf. *Yeah, of course, your son is really well behaved*), conveys a more markedly skeptical speaker's attitude thus strengthening the impact of the ironic statement.

Now take (45), which is an instance of ironic understatement:

(45) Well, that went smoothly.

This expression is to be interpreted as making reference to a comment on a disastrous dinner party. It is an example of understatement because it uses a lower point on an assessment scale than reality calls for. Since its meaning is exactly the opposite of what it explicitly expresses, it is characterized as ironic, and its main function is to express strong criticism towards the event.

Understatement can be constructionally cued by means of linguistic items known as downtoners or detensifiers, mainly compromisers (e.g., *rather*, as in *His books tend to be rather densely written*), diminishers (e.g., *somewhat*, as in *We were somewhat tired after our long walk*), minimizers (e.g., *a (little) bit*, as in *This may be a little bit painful*), or approximators (e.g., *in some respects*, as in *He is in some respects a good politician*), questions (e.g., tag questions, as in *That wasn't so bad, was it?*), and modal expressions (e.g., modal adverbs such as *presumably* in *John is presumably a psycho*).[41]

Regarding meiosis, this figure has been traditionally defined as the understated counterpart of auxesis, that is, as an extreme case of understatement. Meiosis involves an

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[41] For a detailed study of linguistic pointers to understatement, see Hübler (1983).

extreme understated description of a scalar feature of a given state of affairs. Consider (46), which is an example taken from Salinger's *The Catcher in the Rye*:

(46) I have to have this operation. It isn't very serious. I have this tiny little tumor on the brain.

The speaker belittles the importance of a serious medical condition probably to attenuate the emotional impact on the addressee. This is in fact achieved thanks to the joint activity of litotes (*It isn't very serious*) and meiosis (*I have this tiny little tumor on the brain*), which exemplifies the possible cumulative character of understatement.

Litotes is another form of understatement built on the basis of double negation (e.g., *She's not unhappy*) or of simple negation in combination with an axiologically negative lexical item/expression (e.g., *Romney is not a bad debater*). The emphatic nature of litotes is contributed not only by the contrast between what is said and what is meant but also by the marked nature of negative sentences:

(47) That's nice. I mean, I'm not unhappy about that.

Example (47) reproduces some of Robert Redford's words in an interview. He talks about his early career as an actor and admits that, during his apprenticeship years, he saw himself characterized as a glamorous and good-looking man, which he regards as "sort of weird." By saying (47), Robert Redford implies he was not very happy about that, but that he accepted it as part of his apprenticeship. Had the actor been truly euphoric, he could have used any unmarked counterpart of (47) like *I'm happy about that*. As argued by Horn (2017, p. 88), the negation of contraries results in weaker affirmations than their corresponding positive adjective would convey. Horn further observes that expressions like (47) implicitly conjure up a scale (<not unhappy, happy>), according to which a weaker property W (in this case, *a little bit happy* or *slightly happy*) is affirmed but a stronger alternative S (like *(very) happy*) is implicitly negated.

Expressions negating an axiologically negative lexical item do not necessarily convey the meaning of their positive counterparts. The scale <not unhappy, happy> is divided into different areas which correspond to different degrees of (un)happiness. Expressions like (47) delineate a zone of indeterminacy along this scale from 'not unhappy' to 'happy' in which the hearer is bestowed the responsibility of exactly determining the degree of happiness with the help of context, bearing in mind that the positive extreme does not apply. The speaker tries to mitigate the force of what he means (He was only slightly happy about the fact of having had to play the role of the stereotypical attractive actor in his first years as an actor), which contributes to a more polite speech act.

The fact that double negation or the simple negation of an axiologically negative lexical unit does not inexorably bring about the affirmation of the corresponding positive lexical item is evidenced by the non-redundant character of second sentence in (48):

(48) Romney is not a bad debater. In fact, he is a very good one.

5.3.2. Hyperbole-related figurativeness and cognitive modeling

Studying the cognitive processes that underlie the generation and interpretation of hyperbole-like figures is of paramount importance within the cognitive-linguistic framework. This section first examines the cognitive operations underlying overstatement, hyperbole, and auxesis. Then, the cognitive activity involved in understatement, litotes, and meiosis is addressed.

5.3.2.1. Cognitive modeling in overstatement, hyperbole, and auxesis

There are two cases of overstatement: hyperbole, and auxesis, where the latter is an extreme case of the former. Overstatement involves three main cognitive operations. Two of them, strengthening and mitigation, are converse operations which respectively relate to the speaker's and the hearer's role. The other operation, contrast, holds in either perspective. In this connection, consider example (49):

> (49) My teacher said my brain was the size of a pea. He made my life miserable
> by singling me out in the classroom as a failure.[42]

This expression can be understood in the context of a person remembering the hardships he had to face as a student with learning difficulties. Let us focus on the sentence *My brain was the size of a pea*, whose hyperbolic meaning is accessed by setting up a conceptual cross-domain mapping. In the context of a teacher's despair over one of his students' poor performance, the source domain contains an imaginary scenario where the student's brain is as small as a pea. The target domain is the real-world scenario in which the student has fewer intellectual abilities than the teacher would desire. From a scientific perspective, brain size weakly correlates with intelligence. However, the assumption that there is a strong correlation is a commonly held one in everyday thought. This accounts for its reflection in ordinary language use where a bigger brain is judged to be better than a smaller brain. Now, the scale of size covers a range of possibilities between the ends of extreme-case smallness and bigness. Overstatements can apply to any part of a scale other than the absolute ends. In (49) it applies to the part of the size scale found between what is considered the average size of a child's brain and increasingly smaller sizes other than extreme-case smallness. Since the size of a pea is very small compared to the size of even a small-sized child's brain, the expression is highly hyperbolic. In terms of cognitive operations, referring to the size of the child's brain in this way involves upscaling the

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[42] https://www.brainyquote.com/quotes/willard_wigan_563034. Accessed on December 17, 2018.

relative smallness of the brain with the consequent strengthening of the meaning effect. Of course, greater exaggeration is still possible, with a greater meaning impact (e.g., *a brain the size of a speck/ a nano particle*, etc.; see Ruiz de Mendoza, 2021, p. 299). In turn, the discrepancy between the imaginary strengthened representation and reality calls for a cross-domain contrast cognitive operation. This contrast is what eventually leads the hearer to the derivation of non-denotational meaning implications relative to the speaker's attitude in connection with the context of the utterance. At the hearer's end processing an upscaled (or strengthened) meaning representation calls for the reverse operation, that is, for downscaling (or mitigating) the meaning representation. Mitigation occurs as a result of the deconstruction of the mapping as a way to adjust the imaginary source to realistic proportions and detect the intensity of the contrast provided by the speaker's strengthened representation.

The following question now arises. If auxesis and hyperbole make use of the same cognitive operations, how can we delimit them? The answer is quite simple: we have put forward a classification of hyperbole-related figures which rests on a series of criteria. One of them is the degree of likelihood of the hyperbolic scenario. The more unlikely the situation described by the fictitious scenario, the greater the degree of incongruity between this counterfactual scenario and the factual situation and the stronger the emotional impact on the hearer. Thus, auxetic hyperbole, especially absurd hyperbole, is based on a maximal degree of contrast, versus those cases of hyperbole whose imaginary scenario is conceivable, where contrast with the real-world situation is not so conspicuous. That hyperbole is a figure of contrast has been postulated by several researchers from different perspectives (Ruiz de Mendoza and Galera, 2014; Prandi, 2017; Peña and Ruiz de Mendoza, 2017; Walton, 2017; Popa-Wyatt, 2020). Popa-Wyatt (2020), elaborating on Walton's (2017) work, claims that hyperbole intrinsically involves

a contrast between two points – a real situation and what is expected or desired – overstating the gap between them. Walton (2017) observes that in order to refer to a large quantity, speakers tend to overemphasize how small it is. Conversely, in order to express how small something is, speakers usually overstate how big it is. Both Walton and Popa-Wyatt argue for the need to postulate a scale for measuring a target property, the property (or situation) that is to be scaled up by the speaker and scaled down by the hearer to come to terms with reality. Walton (2017) distinguishes between explicit content (EC), what the linguistic expression explicitly says, and assertive content (AC), which makes reference to what is meant. The speaker misrepresents a property, to which he assigns a larger size, more importance, or more relevance than it factually involves. A point of reference is required to quantify the contrast, what Popa-Wyatt calls the gap, between the imaginary scenario and the real-world situation. This point of reference is provided by the speakers' expectations or desires according to context. In this regard, the notion of salient contrast (SC) is introduced to define the discrepancy between what the speaker means and usual expectations or desires. This amounts to stating that in overstatement the gap between the explicit content and the speaker's expectations and/or desires (the normative point in Popa-Wyatt's terms) is greater than the distance between such expectations and/or desires and what is meant (the assertive/implicit content). Let us take again the one-ton suitcase example, briefly mentioned in 5.2.1: *This suitcase weighs a ton*. The standard weight of a large suitcase is approximately 20-23 kilograms. This is the point of reference against which a hyperbolic expression can be generated. The more weight the speaker attributes to the suitcase (explicit content) taking into account the average heaviness of baggage, the greater the incongruity of the overstated expression. As shown by Figure 1, the distance between what is expected and what is literally stated (gap 1) is greater than the gap between usual assumptions and what is meant (gap 2).

GAP 1

- - - - - - - - - - - - - - -

speakers'
expectations
(20 kilos)

assertive
content
(many
kilos, e.g
50 kilos)

explicit
content
(a ton)

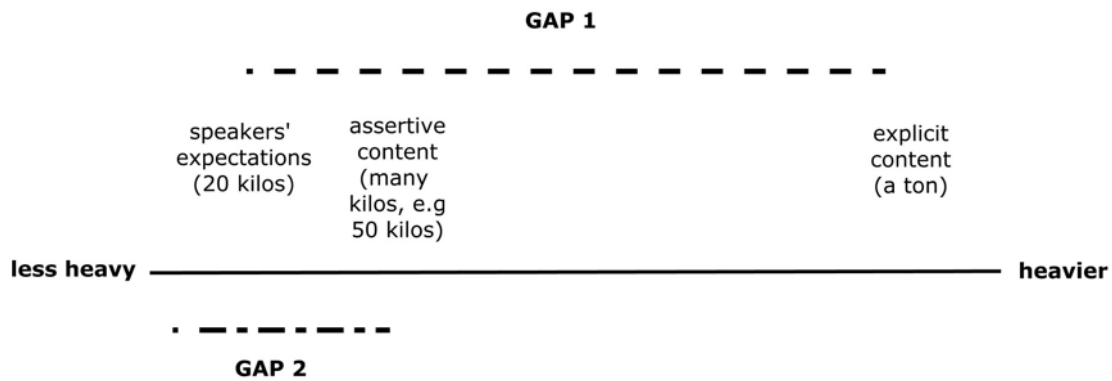less heavy ——————————————————————————— heavier

- - - - - -

GAP 2

Figure 1. Contrast in the overstated expression *This suitcase weighs a ton*

A further observation can be made in this connection. Take the following expressions:

(50) I think there are thousands of people in the same ship.

(51) I think there are millions of people in the same ship.

Following previous remarks in section 5.3.1.1, (50) is to be analyzed as an example of a potentially hyperbolic expression in which a conceivable, although far-fetched, scenario is portrayed. This is uttered by someone looking at a cruise ship carrying its maximum capacity, 900 passengers. However, (51) would be another feasible hyperbolic expression in this same context but the fictitious scenario depicted by the expression is unconceivable (there is no cruise ship with such capacity). Choosing between (50) or (51) depends on speakers' expectations and their aim to produce a weaker/stronger emotional impact on their audience. If speakers' expectations are the same in (50) and (51), the speaker would opt for (51) to generate a more intense emotional impact than the one involved in (50). In order to achieve this effect, the degree of contrast between speakers' expectations and the explicit content (gap 1.2), on the one hand, and between speakers' expectations and the assertive content (gap 2.2), on the other hand, is stronger than that of (50), as shown in Figure 2. In sum, hyperbolic expressions setting up unlikely source scenarios (including, but not limited to, auxesis) involve a stronger and more conspicuous contrast than hyperbolic uses featuring conceivable scenarios. The less likely the imaginary scenario

of a hyperbolic expression, the greater and more striking the contrast between such source scenario and the target real-world situation.
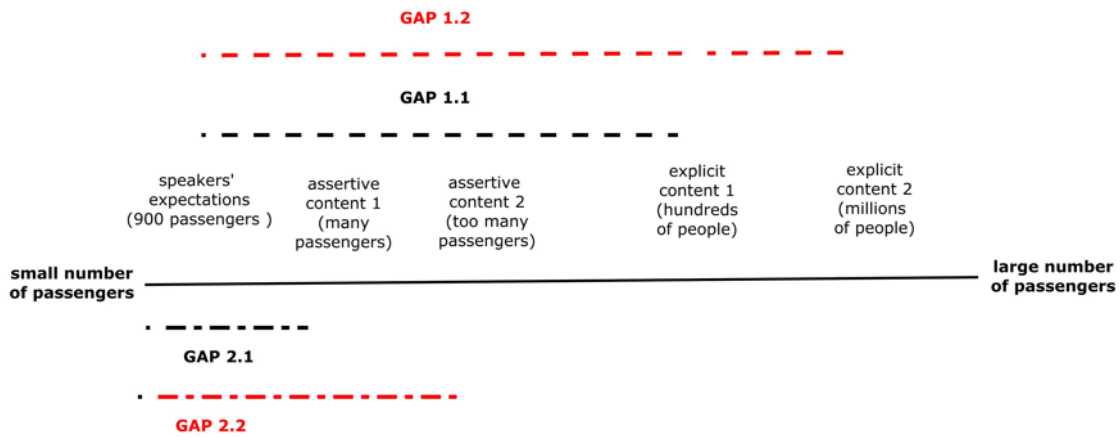

Figure 2. Contrast in *I think there are thousands of people in the same ship* vs *I think there are millions of people in the same ship*

While contrast, strengthening, and mitigation qualify as necessary cognitive operations for hyperbole to be produced and construed, echoing only underlies cases of ironic hyperbole such as *This is the best film I have ever watched* (uttered by a filmgoer getting bored to death by a film to mean that it was a poor-quality film). Additionally, when hyperbolic effects stem from metaphor and metonymy, the cognitive operations of resemblance (as in *She is an angel*) and expansion/reduction (as in *I melted my credit card*) are also at work.

5.3.2.2. Cognitive modeling in understatement, meiosis, and litotes

In understatement a hypothetical scenario and a real-world scenario clash in order to bring about some emotional impact on the potential addressee. This involves exactly the same cognitive process as overstatement. Nonetheless, while overstatement makes use of upscaled conceptual representations supporting the creation of a counterfactual source domain, in the case of understatement we have the reverse situation, i.e., one in which the hearer gets involved in strengthening an initially scaled-down representation of a real

state of affairs. Thus, both in overstatement and understatement contrast works in combination with processes of strengthening and mitigation. However, these two figures differ in important respects. From the point of view of the generation of overstated and understated effects, strengthening and mitigation play the key role respectively. As far as the construal of overstated and understated expressions is concerned, hearers make use of mitigation and strengthening respectively. Take example (43) again (*I'll be ready in a second*). Two scenarios unfold: the imaginary scenario in which the speaker gets ready in a second, which seems very unlikely if set against human standards, and the real-world situation in which the speaker gets ready in, for instance, half an hour. These two situations clash to prompt an emotional response. The speaker is worried about her usual delay in getting ready, which she knows makes her boyfriend get annoyed, and lessens the situation by means of a mitigation operation. This calls for a collaborative addressee, the boyfriend, who gets involved in upscaling this softened representation of the factual state of affairs.

Focusing on the role of contrast, Walton (2017, p. 113) claims that an understated expression like *There are a couple of cops out there*, used to express the speaker's surprise at the number of cops (approximately a dozen) on the street corner in front of his house, "collapses" the gap between the assertive content (a considerable number of cops) and the salient contrast (what we have called speaker's expectations or desires, fewer than quite a few). While this kind of analysis works perfectly well for examples like this, other understated expressions require a different method of analysis. Consider expression (46) again: *It isn't very serious. I have this tiny little tumor on the brain*. In an example like this, how can we determine speaker's expectations or desires? No doubt, the speaker would rather have a tiny tumor or no tumor. However, this does not seem to be so relevant as an aspect to be taken into consideration as the factual situation, the real-world scenario.
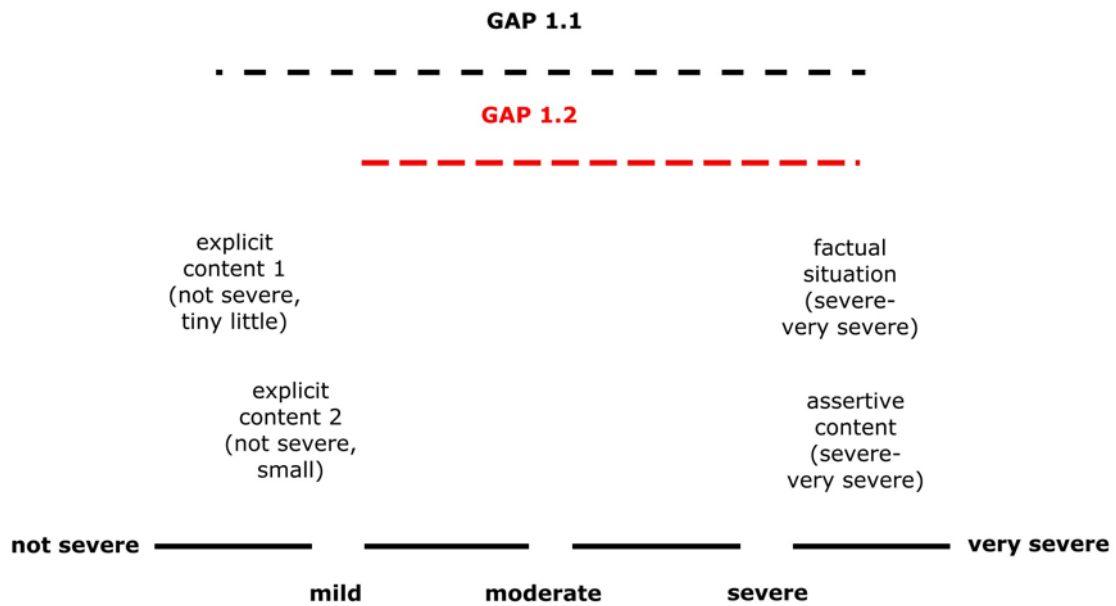
We might put forward a scale of cumulative illness rating score, as illustrated in Figure 3, where the gap between the explicit content (a tiny little tumor, meaning the illness rating score is 'not severe') and the factual situation (a larger tumor whose rating score might be 'severe' or 'very severe') is maximized (as is the case with overstatement and related figures; gap 1) and the distance between the factual situation and the assertive content is minimized (in fact, there is no gap between them).

Figure 3. Contrast in *It isn't very serious. I have this tiny little tumor on the brain*

As far as the difference between standard understatement and extreme cases of this figure (meiosis, litotes) is concerned, compare *I have this tiny little tumor on the brain* with (52):

(52) I have this small tumor on the brain.

As diagrammed in Figure 4, in extreme cases of understatement the distance between the explicit content and the factual situation (and assertive content) (gap 1.1) is larger than the gap between these two concepts in standard understatement (gap 1.2), generating in this way a stronger contrast that results in a greater emotional impact on the potential addressee.

Figure 4. Contrast in *I have this small tumor on the brain*

In sum, strengthening, mitigation, and contrast (in varying degrees, as was the case with hyperbole, overstatement, and auxesis) are the cognitive operations involved in all cases of understatement, meiosis, and litotes. However, other cognitive operations can play a relevant role in the production and understanding of these figures. For instance, if understatement is ironic, echoing will also contribute to the cognitive substratum of this figure and related ones.

5.4. Constraining hyperbole and related figures

In essence, the account of hyperbole and understatement presented in this chapter considers these related phenomena as a matter of a cross-domain conceptual mapping, like metaphor, where a distorted representation of an entity, a situation, or an event in the source domain is used to reason about corresponding elements in the target domain. The source domain is constructed through the activity of a strengthening (hyperbole) or

mitigating (understatement) cognitive operation on a scalar concept. A scalar concept is one that acts as serial domain of reference for other concepts which are arranged at fixed intervals along such a domain in an increasing and decreasing succession. Strengthening thus applied results from upscaling the magnitude (i.e., the rank or position) of a concept on a scale, whereas mitigation is achieved by downscaling it. We have also noted that central to a hyperbolic mapping or to one producing an understatement is highlighting the attitudinal aspects arising from the way in which the target entity, situation, or event impacts the speaker, which is enhanced in the case of hyperbole and attenuated in the case of understatement. This means that what is central about the hyperbolic utterance *This suitcase weighs a ton* is to understand the frustration that a weighty but real suitcase produces on the speaker as he or she tries to lift it in terms of the frustration that an imaginary one-ton suitcase, impossible to carry, would cause on the speaker. Contrast, however, for the same context of a very heavy suitcase, the understatement *It's light like a feather*, which is used to dismiss the possibility that the speaker may feel that the real weight of the suitcase may bother the speaker.

The question now arises as to what constrains the degree of strengthening or mitigation needed to characterize the intended meaning of an understated or overstated utterance. In section 4.9, we noted that there are some general constraints which range over all figurative uses of language. These are the Extended Invariance Principle and the Correlation Principle. Other principles are specific to certain figurative uses. Let us first see how the general principles regulate the use of hyperbole and understatement and then we will account for the figure-specific principles.

In hyperbole and in understatement the unreal source domain is constructed by upscaling a scalar concept. In hyperbole the exaggeration ingredient is a source of emotional reactions, which together with the rest of relevant source elements contributing

to the emotional reactions, maps onto corresponding target elements. In the hyperbole *I have told you a thousand times not to do that!*, the imaginary emotional (over-)reaction of repeating the same instruction a thousand times maps onto a corresponding reaction in the target, which the speaker views as overly high. The imaginary frequency maps onto the real frequency and the unreal emotional reaction onto the real one. That is, frequency maps onto frequency and emotional reactions onto emotional reactions. Obviously, since Extreme Case Formulations and auxesis follow the same source-to-target domain reasoning pattern, these observations on the preservation of generic-level structure in the source and target hold for these figures too. A similar situation applies to understatement and its extreme form, meiosis. For example, the exclamation *It's just a scratch!* requires mapping the imaginary situation of someone having only minor wounds after a severe accident onto the real one where the wounds are more serious. The central element is, as with hyperbole, the speaker's emotional reaction. Here, the elements of seriousness of a situation and the emotional reaction it produces (in reality and in the figurative world) are the generic-level elements of structure which the source and target share.

Litotes also abides by the Extended Invariance Principle. Consider the construction *It's not (completely) unreasonable X*, used when in fact X is quite reasonable. On a continuum (or scale), not being unreasonable can represent any degree of reasonability, not necessarily the positive end of the continuum. Contextual factors generally help make the necessary pragmatic adjustments to hypothesize which parts of the continuum are more likely to be referred to by the speaker. Since it works on the grounds of a scale, litotes needs to follow its structure and logic. On the other hand, *n X* are to be excluded as cases of litotes (they could be taken as literal) since they negate a part of the scale that is nearly midway between the two extremes. Only negating the end of a scale can exert a mitigating function.

Finally, the Correlation Principle works with the various kinds of hyperbole and of understatement by leading the speaker to select what he or she judges to be the best possible source domain to capture the attitudinal meaning implications required by the target situation. For example, when we call a bad wound a scratch, the Correlation Principle has been used to capture the implication that the speaker is not worried about his wound at all. By contrast, in hyperbole the speaker's emotional reaction in the target situation is such that it calls for a scaled-up source; e.g., we can call someone a Superman if we admire his physical strength.

There are two specific principles at work too, which were briefly described in Ruiz de Mendoza and Galera (2014) and by Peña and Ruiz de Mendoza (2017). Here, we provide a more elaborate account. One of them, called the *Principle of Scalar Pragmatic Adjustment*, applies to all hyperbole-related figures in situations which do not involve a closed scale. Such an adjustment occurs in connection with our analysis of contextual factors. Litotes, understatement, and hyperbole are highly sensitive to this principle. Thus, the litotes in *not unreasonable* can refer to slightly different degrees of reasonability. The intended degree can only be determined in terms of consistency with the context in which the expression is used; that is, it is a matter of pragmatic adjustment. Similarly, the exact degree of scalar adjustment required by the understatement in *I'm quite happy with my new job* (if we suspect the speaker is more than just "quite" happy), which suggests modesty, necessarily hinges upon contextual factors. Finally, the target of the hyperbole conveyed through the simile in *He's as silent as a mouse* can only be identified (or constructed) if we conjure up a context where the protagonist makes so little noise that he goes unnoticed. Perhaps, the protagonist is only slightly less silent than a mouse or simply quite silent even if still noticeable.

The other principle, called the *Principle of Scalar Symmetry*, only applies to figurative uses involving understatement based on a closed scale. In these uses, the target of a downscaled source is a symmetric point in the upper part. For example, *It hurts a (little) bit* can apply to a situation where the speaker feels "a lot" of pain (its symmetric point in the scale), but nothing extreme like unbearable excruciating pain. Similarly, *a few* can be interpreted as *many* in *I guess Paul McCartney wrote a few good songs*, in a context in which the speaker believes that McCartney wrote many good songs. Consider the use of *slight* ('minor') in the following sentence: *Revealing the content of her medical records could involve a slight breach of trust*. Its denotational target meaning is 'serious' or 'important', its symmetrical opposite in the context of degrees of seriousness. Like all cases of hyperbole-related figures, the speaker trusts on the hearer noticing the clash between the (understated or overstated) literal source meaning and the co-textual and/or contextual interpretation conditions. The clash is resolved denotationally by finding the intended target, whose communicative impact is evaluated in non-denotational terms.

The *Principle of Scalar Symmetry* does not apply to hyperbole and the rest of the figures involving overstatement. For example, *You never tell the truth* does not mean that the speaker thinks the hearer *always* tells the truth, but only sometimes, fewer than the speaker would find acceptable. Similarly, the extreme case formulation in *You always lie*, if not used ironically, is not a laudatory remark conveying the speaker's belief that the hearer never lies. What is more, hyperboles based on closed scales are rare because of their inherent pragmatic inefficacy if taken as such: *You often lie* can hardly be used to convey hyperbole because its content is easily conceivable. This is so even if the hearer is known to seldom lie. The conceivability of the situation depicted by the sentence blocks out a hyperbolic interpretation and, in the face of a discrepancy between what is said and what is the case, other interpretations would arise: the speaker might be taken to be wrong,

or to be lying, or just to be ironic. This is not the case with understatement because of the cultural asymmetry between exaggeration and minimization, where only the latter is inherently positive, probably because it preserves other people's public image (or *face*; cf. Brown and Levison, 1987). Ultimately, beyond exaggeration or minimization, what this peculiarity in the application of the *Principle of Scalar Symmetry* points to is to the importance of either default or context-based inconceivability for an expression to qualify as a case of hyperbole or understatement.

CHAPTER 6. IRONY

6.1. Defining verbal irony: From rhetoric to pragmatics

A wide variety of disciplines have shown interest in irony, a figure of speech aimed at conveying the speaker's attitude like hyperbole. Although mainly concerned with language, as is the case of rhetoric, philosophy of language, psycholinguistics, or literary theory, sometimes these disciplines are not centrally interested in linguistic issues. For instance, beyond its analysis of irony in terms of language use, philosophy has also looked at irony from an ideological point of view, with a view to understanding how it changes people and the world. This is the case of the well-known approach taken by Kierkegaard, who saw irony as the linguistic manifestation of dialectical thought (see Kierkegaard, 1841, in Hong, 1989). Also, each discipline has used its own analytical tools to unveil the workings of irony. For example, literary theory focuses many of its efforts on determining the connection between aesthetic pursuits and socio-cultural issues that account for the use of irony in some literary periods and writers to the exclusion of others. Rather than dissect the ironic phenomenon, they tend to situate it in its socio-cultural and historic context. By contrast, linguistic analysis is more clearly geared to breaking down the ironic act into its constituents and finding a way to explain the role of each constituent in connection with specific communicative intentions.

This chapter will first make an overview of traditional linguistic approaches to verbal irony, focusing on those produced within the domain of inferential pragmatics. It will then explain the basis of the integration of cognitive modeling into the study of irony following up on previous work by Ruiz de Mendoza and Galera (2014) and Ruiz de

Mendoza (2017c). Then, it will discuss the benefits of integrating elements from both pragmatics and cognitive modelling into a synthetic approach to irony in connection with the developments carried out by Ruiz de Mendoza and Lozano-Palacio (2019ab, 2021). We will then address the relationship between irony and figures of speech that can be considered to be related to irony, such as antiphrasis, sarcasm, banter, satire, and prolepsis. We will also briefly discuss others, like paradox, and oxymoron, which are not variants of irony, but because they contain some elements of this figure, could be mistaken with it. To conclude, we will discuss possible constraints on irony and we will further integrate the resulting exploration into the broader account provided by Ruiz de Mendoza and Galera (2014) and Ruiz de Mendoza (2017c).

6.1.1. Traditional approaches

Throughout history, irony has been approached from the point of view of different disciplines that are mainly (although not exclusively) interested in language. Within rhetoric, irony was originally considered a resource that was used to persuade, a deceptive linguistic device that had the potential of presenting the truth under a different form. For example, Quintilian defined it as a figure where "what is understood is what is opposed to what is said" (*Institutio Oratoria VIII,* 6.54, cf. Morrison, 2011, our translation). The use of irony as a rhetorical tool was mainly framed within the domain of politics, where irony was used to convince a jury of someone's guilt or innocence or to elaborate a speech to gain more voters. Although irony may still be used with this purpose in the present day (Al-Hindawi and Kadhim, 2017), the initial definition provided by rhetoric has proven to be insufficient to explain the phenomenon. In more recent times, and focusing on the idea of the hidden meaning in irony, Leech (1969) described irony, like hyperbole, litotes, and

metaphors, as an "honest deception" where a speaker hides the truth but seeks the intended meaning to be revealed. The element of deception, somewhat differently, is also present in Grice's (1975) explanation of irony within the framework of his well-known Cooperative Principle. Grice's approach is intently sketchy and was meant to simply understand irony as a flouting (or ostentatious breach) of the first maxim of quality, the so-called maxim of truthfulness, of the Cooperative Principle. The idea behind this breach of the maxim is that the speaker "pretends" to mean X while meaning Y. This insight into irony has given rise to Pretense Theory (Clark and Gerrig, 1984), while the insufficiency of the analysis of irony in terms of maxims has been addressed by Attardo (2000), who puts forward an approach to irony in terms of "relevant inappropriateness." These proposals will be addressed in section 6.1.2.

Irony has also been studied in depth within literary theory, where it has been analyzed from the perspective of its manifestation in literary works. In other words, it has dealt with the use of irony as a tool to enrich and endow texts with complexity. Authors like Muecke (1970), Booth (1974), Hutcheon (1994), or Colebrook (2004) have taken up the challenge of accounting for irony as a literary phenomenon and have explained the different uses of irony as a product of their socio-cultural context. They have also explored the factors that evidence the interpretation of irony as such (vid. Hutcheon's 1994 concept of 'discursive community'). This point is of particular interest, given the heavy presence of socio-cultural factors in irony. If an interpreter from Thailand is presented by a New Yorker with an ironic remark about a minor aspect of American politics, the remark will very likely pass unnoticed, since the interpreter and the ironist may not share the necessary knowledge about the socio-cultural context. Studies produced by literary theorists show the greater complexity of literary uses, and usually provide us with an in-depth consideration of the socio-cultural context in all its richness.

Linguistic studies on irony, by contrast, tend to focus on its communicative aspects from the point of view of dynamic speaker-hearer interaction in everyday use. Ruiz de Mendoza and Lozano-Palacio (2019a) have discussed some of the convergences between the linguistic and literary perspectives on irony.

6.1.2. Communicative approaches

Within the field of present-day linguistics, we find initial signs of interest in irony in inferential pragmatics, starting from Grice (1975), who, as noted above, explains irony as a flouting of the first Maxim of Quality ('do not say what you believe to be false') of his well-known Cooperative Principle, as advanced in 2.7.1.2. In essence, to Grice, there is no difference between irony and an ostentatious lie, one in which the speaker pretends to be saying the opposite of what he means. However, this view of irony does not motivate the reason for the pretense, nor explain the attitudinal element that other scholars (e.g., Wilson and Sperber, 2012) have noted in it. It does not discriminate well either between irony and other communicative situations where speakers "make as if to say" what they do not believe in, among them, other figurative uses of language (e.g., metaphor, metonymy, hyperbole), and some humorous remarks, as in banter. For example, when the speaker says that the eyes of his beloved are sapphires, he does so while trusting that she is going to access meaning implications about the color, brightness, and beauty of her eyes. To her the speaker is not being literally (or descriptively) true, but only interpretively so. This involves 'flouting' a maxim. There is no intention to deceive, but only a pretense of deceit. The same holds for banter or friendly teasing. Consider the following remark in (1) in the context of friendly teasing between friends:

(1) *You're happily married, but your wife isn't.*

The sentence *You're happily married* is obviously not literally true in the context of the ensuing adversative remark (*but your wife isn't*), which evidences that the speaker does not think his friend has a happy marriage. Following the Gricean approach, this example of banter would also be a case of flouting the maxim of truthfulness.

Many scholars have been aware of the need to fix this problem in the Gricean approach to irony (and other non-literal uses of language). One attempt to sort out this weakness is Attardo's (2000b) discussion of irony in terms of "relevant inappropriateness." Inappropriateness is a violation of felicity conditions against the background of social expectations. When such a violation satisfies communicative goals, it becomes relevant inappropriateness. For example, imagine a situation in which a friend of the speaker's, Ron, is showing off his knowledge of classical literature. The speaker, who believes Ron is not any more than a mediocre aficionado, makes the following remark:

(2) *Yes, Ron, you sure know a whole lot about the classics!*

The speaker's statement is contextually inappropriate to the extent that it is evident that he thinks Ron is not any good in classical literature, but it is relevant since it communicates something meaningful about Ron's boastful behavior. Attardo certainly fixes some of the problems inherent in a narrow Gricean approach by supplying at least one distinguishing property of irony, to wit, the non-arbitrary incongruity between what is said an what should be expected. That is, irony is more than not telling the truth in an open way. However, while adding the property of relevant inappropriateness is a step forward in the right direction of capturing the social aspects of irony, it does nothing to account for the speaker's attitude, which is central to the notion (cf. Dynel, 2018, p. 182). The importance of this remark is all the more evident if we compare irony and paradox. In paradox, there is also incongruity between what is stated and the hearer's assumed

expectations. The following assertion comes from Oscar Wilde's play *Lady Windermere's Fan*:

(3) *I can resist anything except for temptation.*

One's expectation about temptations is that people either resist them or fall into them. The initial part of the remark suggests that the speaker is boasting about his ability not to be enticed into any form of behavior against his will. This would include sinful temptation, which is socially unacceptable and thus something to be avoided. But the exception introduced in the second part is precisely based on socially unacceptable behavior. This example can also be explained as a flouting of the maxim of truthfulness (the speaker makes it evident that he does not want to mislead the hearer when he discloses the exception to his initial assertion) and as a violation of social norms (one is not expected to avowedly declare his inability to withstand temptation). Therefore, the difference between paradox and irony lies somewhere else. One evident difference between the incongruity in (3) and (2) is the speaker's dissociation from what is said in the latter, but not in the former. In this regard, Alba-Juez (2014) has pointed out that irony has an element of inferred contradiction and that there is an evaluative component in verbal irony, which is gradable and indissolubly linked to the attitudinal component strongly advocated by relevance theorists (e.g., Wilson and Sperber, 2012), hence going one step further from Gricean pragmatics. In the course of this chapter, we will go into the role of the attitudinal component of irony in greater depth.

Beyond Gricean pragmatics, the most notable debate within pragmatics remains between Relevance Theory and Pretense Theory. However, we believe that these two seemingly opposed approaches are actually complementary. We start with Pretense Theory. This account explains irony as an act of pretense: the speaker adopts a pose that he expects the interpreter to detect, so that the interpreter can find out the intended

meaning underlying the pose (Clark and Gerrig, 1984). According to Clark and Gerrig (1984), the ironic speaker is an actor performing a role, who even imitates the voice of the character he performs. However, noting that the ironist "plays a role" boils down to not much more than noting that the ironist manifestly exhibits a dissociative attitude, which, in verbal expression, is often accompanied by what Attardo (2000b) has termed ironic indices, which includes special intonation and stress patterns and such morphological devices as agreement adverbials (*yeah*, *right*, *sure*) and phrases like *so to speak, everybody knows, one might say*. Although this is not mentioned by Attardo, it is interesting to observe that the special intonation and stress patterns point to a dissociative meaning, while the agreement adverbials are used to express or reinforce the speaker's pretense of being in agreement with a previous belief, and the other phrases suggest awareness of a non-descriptive use of language. These are three elements of irony that will be discussed in section 6.3. In any event, there is more to irony than pretending to perform a role.

A number of prominent researchers like Kumon-Nakamura et al. (1995), Currie (2006), Récanati (2007), and Barnden (2017b) have addressed some of the potential problems of Pretense Theory and developed some of its theoretical postulates. However, they have not looked into the inferential process that leads to the derivation of ironic attitudes. Thus, Kumon-Nakamura et al. (1995) argue for a combination of pragmatic insincerity and violation of expectations when the ironic speaker "pretends" to perform a speech act by "alluding" to an expected state of affairs that has been somehow been "violated." Evidently, the notion of pragmatic insincerity is the same as the notion of pretense, which is basically the same as Grice's flouting of the truthfulness maxim. The violation of a state of affairs is equivalent to Attardo's inappropriateness and to the traditional postulate that irony involves saying the opposite of what is the case.

Interestingly enough, the notion of 'allusion' to an expected state of affairs comes very close to the notion of echo in Relevance Theory, which is a promising step in a "pretense" account. But, as in other theories, there is no provision for the attitudinal element which is clearly present in irony. Furthermore, there is no account of the inferential process followed in the derivation of ironic meaning. Currie (2006) does mention that the pretense ingredient of irony is intended to draw attention to a state of affairs that the speaker considers ridiculous. It is true that some cases of irony arise from the speaker's desire to raise awareness on a foolish situation (as in our example of Ron's boasting above), but this is not a necessary condition for irony. Imagine John boasts before his friends: *I can resist any temptation*. This remark is simply met with silent skepticism, but then, late in the evening in the same day, he is seen staggering his way down a street under the influence of alcohol. One of his friends passes the following snide remark in (4):

(4) *Yeah, right, there is John after his daily victory over temptation.*

The target of this remark is John's boastful remark, not the situation at hand. Finally, Recanati (2007) and Barnden (2017b) make emphasis on the importance of the "imagined context." More specifically, Barnden (2017b) argues for a refinement of this notion as the foundation of ironic contrast, which he considers to be of three kinds: between the ironic target's presumed cognitive states (thoughts, perceptions, emotions) and the real world, between his or her cognitive state and surrounding circumstances (the fictional "drama world" around the ironic act), and between those circumstances and the real world. This refinement, which should be a welcome addition to Pretense Theory, allows for a fine-grained specification of different potential drama situations. However, the account still misses the chance to link the different pretense scenarios to their attitudinal inferential output.

On the other hand, Relevance Theory has defined irony as echoing a belief, a thought, or a norm-based expectation and expressing an attitude of dissociation towards this thought (Wilson and Sperber, 2012). The notion of echo, which was defined in 3.2.1.2.2. as the partial or total repetition by the speaker of other people's previous utterances or attributed thoughts, proves the classical account of irony and Gricean pragmatics insufficient to explain irony. Later proponents of Relevance Theory (cf. Hamamoto, 1998; Seto, 1998; Yamanashi, 1998) have worked within Wilson and Sperber's (1981) framework of the use-mention distinction, always under the assumption that the echo is an invariant feature of irony. Nevertheless, work by Garmendia (2018) and Ruiz de Mendoza and Lozano-Palacio (2019ab) has pointed out that not all cases of verbal irony are echoic, hence leaving an analytical gap in this approach. For Ruiz de Mendoza and Lozano-Palacio (2019ab), irony arises from a combination of factors, more specifically the clash between a pretended agreement scenario and an observable scenario, which gives rise to a parameterizable attitudinal inference conveying the speaker's dissociation from the set of beliefs characterizing the pretended agreement scenario.

Cognitive Linguistics has also set its eyes on irony. Within the framework developed by Fauconnier and Turner (2002), Blending Theory has provided an explanation of irony (Coulson, 2005; Tobin and Israel, 2012; Dancygier and Sweetser, 2014). Coulson (2005) claims that in verbal irony the hearer is confronted with a blend that must be "unpacked" into two input spaces: an expected reaction space and a counterfactual space, which contradicts the reaction space. For instance, in the example given by Coulson, *I love people who signal,* uttered by a driver who has just been cut off in traffic, the speaker does not mean what he says, and the hearer is confronted with a blend between the actual situation that the speaker wishes had existed. However, this

approach does not take into account the attitudinal element of irony and does not give a role to the observable situation.

Finally, psycholinguistics has produced experimental work on irony that complements the findings made by linguists. Within psycholinguistics, Giora (1995, 2001) and Giora et al. (2005, 2009) have shed light on irony comprehension in connection to salience, while Colston and Gibbs (2002) have cast light on several aspects pertaining to the production and processing of irony. Giora (2002), within the context of Giora and Fein's (1999) Graded Salience Hypothesis (GSH), where salience is treated as depending on frequency, conventionality, and prototypicality, has argued that processing irony is based on the priority of salient over less salient meaning. Giora (2009) has further argued that irony is one form of indirect negation which does not involve the cancellation of a message and its replacement by an implicated one, but the processing of both the negated and implicated meaning, which allows to work out the differences between them. In turn, Colston and Gibbs (2002) have supported experimentally the greater complexity of irony in contrast to metaphor. These findings within psychology call for a model of irony that emphasizes contrast between conflicting assumptions and that explores the cognitive processes involved in its greater complexity when compared to other kinds of figurative meaning. We will argue in 6.2 that the cognitive-modeling approach that we put forward here on the grounds of previous work by Ruiz de Mendoza and Galera (2014), Ruiz de Mendoza (2017c), and the refinements in Ruiz de Mendoza and Lozano-Palacio (2019ab), can fully incorporate the findings mentioned above.

Finally, Artificial Intelligence has accepted the challenge of studying the elements of irony that are possible to detect and systematize computationally. Although not purely linguistic, the findings of these disciplines have concomitances with pragmatics and cognition, and are of great help to guide empirical work by these disciplines. For example,

Veale and Hao (2010) note the difficulty of treating irony computationally because of its heavily contextualized nature (see also Reyes and Rosso, 2014). However, in their discussion of simile as a frequent framing device for irony, they also note the frequent correlation between certain formulations of simile and ironic meaning. A case in point is the form *as not-P as V*, where P is a salient property of V (e.g., *as useless as digging a well in the desert*). Veale and Hao (2010) hypothesize that if the agent learns from overlapping simile descriptions that the salient property in question (P1) often implies another property (P2) (e.g., *useless* implies *worthless*), then *as not-P2 as V* is also likely to be seen as ironic. A sense-disambiguated database of similes could thus help to develop a computationally-tractable model of ironic meaning. It may be interesting to note that syntactic configurations like the one mentioned by Veale and Hao (2010) are in fact the form part of constructions with a high ironic potential. In this respect, Veale (2012) has discussed the *X is about as Y as Z* construction, which can be illustrated by expressions like (5):

(5) *That's about as useful as buying one shoe*.

Of course, this construction is only ironic in contexts in which someone believes that X is useful, while it is evidently the case that it is not.

Veale's computational explorations evidence the heavily contextual nature of irony, which makes its computational tractability a complex issue if compared to metaphor and metonymy, which are more frequently conventionalized in meaning, and to simile and hyperbole, which are often conventionalized in form. One possible way to deal with this problem is based on Attardo's discussion of indices of irony, since they are formal indicators of the likely presence of irony and, as such, could be postulated to have constructional value.

6.2. Irony and cognitive modeling

As we have seen in the previous section, the attention devoted to irony by the various academic disciplines has also attracted the attention of cognitive linguists, who have explored irony mainly from the point of view of conceptual integration or Blending Theory. Within the framework of Cognitive Linguistics, an alternative approach has been outlined by Ruiz de Mendoza and Galera (2014, pp. 177-197), who provide an account of verbal irony based on cognitive modeling, that is, on the cognitive processes that structure the ironic phenomenon. Focusing on verbal irony, these authors claim that in irony we find an incongruity between what is said and what is found to be observably the case. This contrast becomes evident to the hearer and gives rises to specific overtones, which are often perceived as humoristic. For instance, let us imagine a situation where a brother and a sister are comparing the size of their feet. The sister calls the brother "bigfoot", which irritates him. However, in vengeance, he throws the following ironic remark on the size of his sister's ears:

(6) *Yeah, right, like you are a Barbie doll; just find a mirror and look at your tiny perfect ears.*

In (6), the brother's reply to his sister's insult is ironic since there is an incongruity between what the brother says (that his sister's ears are small) and what is observably the case (that the sister's ears are larger than average). A hearer who perceives this contrast will most likely find this incongruity humorous and at the same time ironic since the brother's remark shows his attitude of dissociation from his sister's expectation that he would not find any weakness in her to make her the target of an analogous taunt.

Ruiz de Mendoza and Galera (2014) have noted the importance of textual and contextual information in the interpretation of irony as such. To these authors, unlike in metaphor, a potential literal interpretation of a statement intended to be ironic is not implausible. Thus, the metaphorical expression *My boss is a pig* can hardly be taken literally, while there is nothing in the ironic remark *What a wonderful time we had with your mother-in-law!* that precludes a potential non-ironic interpretation. The reason for this is that, as a largely context-dependent figure of speech, the interpretation of irony hinges on such factors as whether the interpreter is successful or not in identifying all the elements that lead to the ironic interpretation of an utterance (cf. Gibbs and Izett, 2005) including their shared knowledge (cf. Kreutz and Caucci, 2009, p. 335). However, in spite of the acknowledgement of the role of the context in irony, and the work carried out by psycholinguists (see section 6.1.2), these remarks remain programmatic given the variety of other contextual factors (e.g., historical periods, culture or subculture) which are involved in the interpretation and production of irony.

In addition, Ruiz de Mendoza and Galera (2014) provide initial insights into the analytical potential of Relevance Theory and Pretense Theory to explain irony. These other insights have been more thoroughly developed in Ruiz de Mendoza (2017c) and Ruiz de Mendoza and Lozano-Palacio (2019ab, 2021) (see section 6.3). Ruiz de Mendoza and Galera (2014) take sides with Wilson and Sperber (2012) and support their claim that echoing is key to explaining irony. However, they note that echoing should be taken as a cognitive operation rather than a mere repetition of someone's beliefs or thoughts. What is more, given the ever-present contrast in irony between what is said and what is observably the case, echoing has to be seen in its interaction with contrast operations. As noted in section 3.2.1.2.2., echoing has the status of a cognitive operation, more precisely

an inferential content operation. In the present section, the notion of echoing will be addressed in detail.

As noted in 3.2.1.2.2, echoing relates to irony. Galera's (2020) exploration of the cooperation of other cognitive operations in the interpretation of echoic language sheds light on the nature of the echo. For instance, developing previous ideas in Ruiz de Mendoza and Galera (2014), this author points out, the processes of comparison by contrast and comparison by resemblance, which have been studied in connection with metaphor and simile (Ruiz de Mendoza and Pérez, 2003; Ruiz de Mendoza, 2011), can both be involved in ironic and non-ironic uses of language. Echoing is far from being a content operation exclusive to irony; it is a cognitive operation that can be found in other uses of language. Galera (2020) proposes a distinction between echoic mention (as used by Wilson and Sperber, 2012) and echoing, whereby the former involves the repetition of an utterance that is representative of a given situation while the latter is a cognitive mechanism that involves the manipulation of conceptual material which we access through echoic mentions.

The notion of pretense, from Pretense Theory, has additional explanatory potential for an account of irony based on cognitive modeling. Thus, although Ruiz de Mendoza and Galera (2014) take echoing as a central feature of irony, they also introduce a meaningful claim about the role of pretense. To Ruiz de Mendoza and Galera (2014), irony is almost invariably complemented by pretense since in verbal irony we find the speaker's simulation of a belief or thought.

6.3. Towards a synthetic approach to irony

In spite of the lack of dialogue between disciplines, some scholars (cf. Popa-Wyatt, 2014) have drawn attention to the need of finding points of convergence between Pretense Theory and Relevance Theory and of examining their combined potential to account for verbal irony. Within Cognitive Linguistics, Ruiz de Mendoza and Galera (2014), and Ruiz de Mendoza (2017c) provide initial insights in this respect too. Ruiz de Mendoza (2017c) has argued in favor of a scenario-based account of irony that brings together elements from Cognitive Linguistics and inferential pragmatics by acknowledging the status of the ironic echo as a cognitive operation that can be used to build internally coherent conceptual scenarios that may be combined with other cognitive operations.

Ruiz de Mendoza (2017c) explains that echoing a thought and contrasting two scenarios are two cases of inferential cognitive operations that give rise to specific meaning effects (the speaker's attitude), but that the complexity in the cognitive activity involved in irony requires additional inferential operations and one concept-building operation. Ruiz de Mendoza (2017c) argues in favor of the incorporation of elements of Pretense Theory into the scenario-based account of irony but points out that this account does not explain the origin of the attitudinal component in irony. This author further points out that the notions of pretense and echo are two sides of the same coin, and that the pretended act is an echoed act, while the intended act is the ironic implication. The resulting approach borrows the notion of echo from Relevance Theory while acknowledging that the ironic speaker may pretend to believe something that he does not truly believe in. Ruiz de Mendoza (2017c) thus explains verbal irony as the implicit range of attitudinal meaning conveying the speaker's dissociation from an explicit or attributed belief or set of beliefs on account of a clash between such beliefs and what to the speaker is attested to be the case. The explicit or attributed beliefs constitute an echoed scenario, while the attested state of affairs is an observable scenario. Let us take again example (6),

an utterance told by a brother to his sister, which we reproduce here for clarity of exposition:

(6) *Yeah, right, like you are a Barbie doll, just find a mirror and look at your tiny perfect ears*.

The brother's utterance is ironic since he builds an echoed scenario (that his sister is perfect like a Barbie doll and, thus, she has perfect ears), which clashes with the observable scenario (that his sister's ears are larger than average). The brother uses this clash to dissociate himself from the belief that his sister's ears have a regular size.

More recently, Ruiz de Mendoza and Lozano-Palacio (2019a) have further explored the convergences between Pretense Theory and Relevance Theory by claiming that it is possible (and desirable) to integrate analytically productive elements from both approaches into a broader and more comprehensive theoretical framework. Having observed the analytical gap resulting from the lack of dialogue between the various disciplines that have looked at irony (e.g., literary theory, philosophy, rhetoric), and based on Ruiz de Mendoza (2017c), these authors add a key element in the analysis of irony: the socio-cultural context. This theoretical move unveils aspects of the complexity of the phenomenon that stem from the contextual nature of irony. Ruiz de Mendoza and Lozano-Palacio (2019a) provide a classification of ironist and interpreter types and relate them to the pragmatic notion of felicity and the success of the ironic outcome. These authors distinguish between solidary and non-solidary communicators, and naïve and non-naïve interpreters. The solidarity of ironists is based on whether they make an effort to help the interpreter understand the irony. An elitist ironist may choose not to help the interpreter in order to show superiority, while a solidary ironist may support understanding to raise the hearer's awareness on an issue or just for the sake of transparent humor. On the other hand, interpreters may have more or less necessary knowledge, and be more or less

capable to detect the clash between two scenarios and the attitudinal element arising from this clash. The possibilities resulting from the combination of these categories explain the degree of felicity of the ironic outcome. Ironies may be more or less felicitous depending on both the solidarity of the ironist and the naivety of the interpreter. Let us contrast some ironic situations. First, Sam, who works as a programmer, is having a hard time trying to fix a bug in a complex code. His friend John, who is always irritatingly unaware of how hard Sam's work can be at times, drops by and invites him to go out with him and have fun in a social event. Sam reacts by uttering (7) and John naively responds (8):

(7) *I'd sure love to, John, but you know how we computer nerds love to rewrite all these code lines over and over again.*

(8) *Come on, John. Just learn to have fun with real people instead!*

It is obvious that John, as a naïve interpreter, has missed the point of Sam's ironic remark, whose status as an elitist ironist is reinforced. However, a non-naïve interpreter would have understood that he was bothering Sam. Sam's remark is echoic of the social stereotype about computer nerds: they would love to socialize but they feel unable to and focus on their computer work. This echo clashes against the real situation: Sam is really pressed for time to fix a problem. The ironic implication arises from Sam's mocking John's belief in the stereotype. Now, imagine that John is still a naïve interpreter but Sam is a solidary ironist. The context is the same as described above. This time Sam reacts as show in (9):

(9) *I'd love to go, but you know I'm a computer nerd and can't socialize.*

(10) *It's just irony, my good friend.*

(11) *Yeah, right, have fun with people, but I'm a computer nerd and can't socialize.*

If John gives evidence that he has not understood the irony, Sam has two possible solutions: one is to make explicit the ironic import of his reaction, as for instance in (10); another is to overdo ironic marking through intonational and gestural support (e.g., winking, nudging) and the use of ironic indices in the form of adverbials, as in (11). We have the same echoic and observable situations specified above, but the echo is further strengthened by the ostentatious deployment of linguistic and paralinguistic indicators of irony.

6.3.1. Ironic complexity

In later work and based on the premise that not all ironic echoes are equally complex, Ruiz de Mendoza and Lozano-Palacio (2019b) explore the strategies to endow the ironic echo with complexity. Based on previous work in Ruiz de Mendoza (2017c), these authors build their study of echoic complexes on the scenario-based approach to verbal irony where ironic meaning is defined as a contextually adjustable meaning inference that results from a clash between an observable and an echoed scenario. According to this proposal, in verbal irony, an ironist may use (i) socio-historical references, (ii) echoic compounding, (iii) multi-operational echoes, (iv) echoic chains, or (v) cumulative echoes to add complexity to the ironic echo. Although the degree of pervasiveness of these strategies varies, it is almost invariably the case that verbal ironies are not as simple as they may seem at first glance. Even one of the stock examples of verbal irony, (12), involves an echo based on a metaphor whereby Mary is figuratively described as an angel.

(12) *Mary is an angel*.

Echoes may be combined syntactically and refer to parts of a single ironic event, as in the case of ironic compounding, as illustrated by (13). Cumulative echoes, on the other hand,

are based on the consecutive appearance of echoic terms that refer to the same target, as in (14). In echoic chains, an ironic echo is built (completely or partially) on a previous echo. Let us take example (15) below where Laura and Michael are speculating about their common friend John. Laura believes John is an undercover agent. Michael ironically replies (15a). One day, however, both friends find a document that proves that Laura's hypothesis was true. And so, echoing Michael, she utters (15b). In this example, Laura's second utterance ironically echoes Michael's utterance, which was ironically echoing Laura's initial belief that John was an undercover agent. Ruiz de Mendoza and Lozano-Palacio also cite the elaboration of an echo by using socio-cultural references.

(13) *Yeah, right, Sally is the best runner, and Lucas is slow as a turtle, some things never change*.

(14) *Charles is a mean person, a devil, a fiend, an enemy of democracy*.

(15) a. *Yeah, right, John, an undercover agent.*

   b. *Yeah, right, John, an undercover agent indeed!*

Finally, Ruiz de Mendoza and Lozano-Palacio (2021) go one step further in the construction of an integrated approach to irony and put forward a unified approach that brings together verbal and situational irony, traditionally studied separately, under a single analytical paradigm. Ruiz de Mendoza and Lozano-Palacio (2021) furthermore solve the debate between Relevance Theory and Pretense Theory by structuring their approach around two central theoretical constructs: the notions of 'epistemic scenario' and 'pretended agreement'. They define an epistemic scenario as the conceptual correlate of a state of affairs that someone believes to be highly likely or certain to occur. This category is key to accounting for the unifying nature of this paradigm, since it can deal with all types of irony in terms of a clash between an epistemic and an observable scenario. Now, where does the notion of echo come in, and where is the element of

pretense? Ruiz de Mendoza and Lozano-Palacio (2021) claim that the epistemic scenario may be echoic (cf. Ruiz de Mendoza, 2017c) or not. In other words, the echo is not the only strategy that may be used to build an epistemic scenario, although it is a recurrent one in verbal irony. In situational irony, of course, echoing has no place since this is an inherently verbal strategy. In turn, the element of pretense is also tied to verbal irony, where ironists act as if they were in agreement with a given state of affairs (generally built through an echo). Interpreters, according to Pretense Theory (Clark and Gerrig, 1984) are expected to detect the ironist's pretense. In their development of this proposal, Ruiz de Mendoza and Lozano-Palacio (2021) argue that, in verbal irony, the ironist builds a pretended agreement scenario, defined as the implicit or explicit convergence of beliefs consisting in knowledge of a given topic, event, or situation, on whose nature speaker and hearer are presumed to concur. Let us illustrate this with an example. Let us first analyze an instance of verbal irony. Laura and Dan went to a car race together, and Laura, who is a car aficionado, found the race to be overpriced and disappointing. On the other hand, Dan, who knows nothing about cars, was amused by the sight of cars moving around and entertained by seeing the audience's enthusiasm. The following conversation takes place between them:

(16) a. *Thank you so much for bringing me to the race. It was the greatest show I've seen in years! Definitely worth every penny!*

b. *Yeah, right, a top race; definitely money well spent*.

(16a) is Dan's observation once the race is over. To this, Laura ironically replies with the utterance in (16b). Laura pretends to agree with Dan's opinion about the race by using the ironic markers *yeah*, *right*, and later displaying her seemingly convergent opinion about the nature and price of the event. However, Dan is expected to detect that such opinions are not literally the intended meaning of Laura's utterance. The clash we observe

in Laura's irony takes place between her alleged belief that the race was fun and worth all the money she spent (the epistemic scenario), which aligns with her friend's opinion, and the fact that she found the race dull and expensive (the observable scenario). In this case, the epistemic scenario is based on an echo, since Laura voices Dan's beliefs about the race in order to make them clash with her own opinion about it.

6.3.2. Historical uses of irony

The history of irony as a rhetorical and literary figure has allowed scholars to identify a number of distinct historical uses each of which has its origin in a given time period. Ruiz de Mendoza and Lozano-Palacio (2019a) have noted that some of these uses are basic and evolve over time across historical periods and geographical locations in the form of readapted uses. All of them are the product of irony being conceived as serving different purposes arising from the needs associated with specific historical periods. Drawing from traditional scholarly discussions, Ruiz de Mendoza and Lozano-Palacio (2019a) distinguish the following basic uses: (i) Socratic irony; (ii) rhetorical irony, (iii) satirical irony, (iv) dramatic irony, (v) metafictional irony. Each type can be found across history and its degree of prominence across historical periods depends on a number of socio-cultural factors. Only Socratic, rhetorical, and satirical irony are verbal. The other uses are ways of devising and/or depicting ironic situations which can be conveyed verbally. Let us briefly discuss first the non-situational uses and then those of a situational nature.

Socratic irony is an instrument used to challenge people's beliefs. Socrates used to do so by feigning lack of knowledge. In *Republic*, one of Socrates' dialogues collected by Plato, the philosopher pretends to praise sophist Thrasymachus as they discuss the notion of justice:

(17) *Don't be obstinate but do me a favour to reply and don't be chary of your wisdom, and instruct Glaucon here and the rest of us*.[43]

Thrasymachus, who argues that justice is the advantage of the stronger, goes into a display of how clever he is, which Socrates uses to lead the sophist into difficulty. In this form of irony, the ironist echoes what the sophist believes about himself, but through dialogue he gets the sophist to understand his argumentative weaknesses. As noted by Colebrook (2004, p. 23), Socrates did not necessarily use irony to mean the opposite of what he said, but to place the interlocutor in a position to discover the real value of what he said. In our view, he created conditions for misled hearers to dissociate themselves from previous erroneous beliefs and be better prepared to find truth, i.e., the attested facts that constitute what we call the observed scenario. This process reveals the philosopher as a solidary ironist and his interlocutors as unknowingly naïve interpreters who are assisted to become non-naïve as they understand the errors in their initial postulates.

Rhetorical irony is used for persuasion. To some extent it may resemble Socratic irony in this respect. However, the two kinds of irony have crucial differences. An obvious one is that in rhetorical persuasion is not necessarily directed to prepare the interpreter to discover truth. In addition, in rhetorical irony the interpreter is often different from the ironic target. This is so because the ironist's intention is to disparage a third party, who is not supposed to understand the irony. A common way of achieving its persuasive goal is to produce an echoed scenario that includes the belief that someone's attitude is admirable. This belief clashes with the observed scenario, which is known to the ironist and his audience but not to his target. Rhetorical ironists are elitists in their relationship with the target, but not to the interpreter, who is supposed to be capable of sharing the ironist's understanding of the situation in question. This type of irony can thus

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[43] Example taken from Hamilton and Huntington (1961, p. 588).

promote group solidarity and cohesion (cf. Kaufer, 1977) while victimizing the ironic target. For example, in Demosthenes's speech number 18, the orator subtly ironizes about Aeschines, one of the ten Attic orators, by revealing the latter's pretense to have enjoyed the hospitality of Macedonian kings, thus breaking any expectation concerning his dignity. Then, to enhance the ironic impact, Demosthenes calls on the audience to unite him in his mockery of Aeschines.

Just like Socratic and rhetorical irony, satirical irony is intended to raise awareness on social issues. Ruiz de Mendoza and Lozano-Palacio (2019a, p. 163) have contrasted two well-known examples of satire. One is Juvenal's *Satire Nine*. The other is George Orwell's *Animal Farm*. Juvenal ironizes on the sad situation in which Naevolus, a professional homosexual that has lost his occupation, finds himself by pretending to sympathize with him:

> (18) "Be not afraid; so long as these seven hills of ours stand fast, pathic friends will never fail you: from every quarter, in carriages and ships, those effeminates who scratch their heads with one finger will flock in."

Naevolus, the ironic target, is a naïve interpreter, while any audience that is acquainted with Juvenal's ideas knows that he is stating the opposite of what he means. But what is important here is that Juvenal's real target is not only Naevolus, but also what he stands for, i.e., professional homosexuality. As in allegory, where each element stands for a class, in satire the ironic target stands for the whole class to which it belongs. *Animal Farm* is a satirical tale denouncing the evils of Soviet-era Stalinism. In the tale, the animals of a farm revolt against the humans running the farm. The new animal leaders (two young pigs, Napoleon and Snowball, respectively standing for Stalin and Trotsky) teach and educate the animals, but then Napoleon and Snowball compete for preeminence. Napoleon wins, takes all the credit for Snowball's ideas, and uses the dogs

to purge the farm from Snowball's supporters. The animals are virtually enslaved and the pigs start to resemble humans, while the high ideals of the revolt are perverted. Ruiz de Mendoza and Lozano-Palacio (2019a) note that there are two ironic layers in this satire. One layer, which is external to the tale, is built on the basis of the allegorical connections between the plot (the echoed scenario) and historical reality (the observed scenario). The other layer is internal to the tale. It is based on the clash between the ideal situation in which the animals thought they were going to live in (the echoed scenario) and the harsh reality they experience later (the observed scenario). Since not all readers may be aware of the connections between the tale and reality, the internal clash serves the function of cueing for these external connections and the contradictions between the ideals of the Russian revolution and the dramatic shift away from them during Stalinism.

Dramatic, tragic, and metafictional irony are cases of what Ruiz de Mendoza and Lozano-Palacio (2021) term *communicated situational irony*. Situational irony has been traditionally separated off from verbal irony as if they were virtually unrelated phenomena. However, they are not. Let us examine a potentially ironic situation. Imagine you are receiving couple therapy by an allegedly competent marriage counselor and then you find out, to your dismay, that your counselor has recently filed for divorce. You may feel the situation is confusing or upsetting; you may even have other emotions about it. If, as part of those emotions, you now feel skeptical about the quality of the counsel you can receive from your counselor, the situation described can be considered ironic for you. It is ironic not only because it breaks your expectations but also, more importantly, because you adopt an attitude of personal dissociation from your previous expectations. It may thus be argued that this is where verbal and situational irony converge, that is, in the existence of a clash between what one sees and what one expected, which gives rise to an attitude of dissociation. The difference would then be that in verbal irony the clash

involves other ingredients like the pretense and the echoic elements. However, this is only apparently a difference, since both elements are but a joint manifestation of someone's expectations about what the world should be like. In fact, an ironic echo is, as observed, but a form of expressing pretended agreement with someone's attributed words or thoughts. Pretended agreement can also be expressed by means of other linguistic mechanisms, like the adverbs *yes, right,* and *sure*, which are often used in combination with one another or with an echo to strengthen the pretense element of the agreement formulation. Compare the pragmatic proximity of Jane's alternative ironic remarks in the exchange in (19). The situation is one in which Jane is worried that Mary will break their mutual trust. Eve tries to reassure Jane that this will not happen, but then Mary discloses the information and Jane ironizes about this fact:

(19)   Eve: *Mary won't tell anyone, don't worry.*

         Jane: *Yeah, sure / No, Mary won't tell anyone! / Yeah, right, she won't tell anyone*.

Interpreting the pragmatic value of an expression of pretended agreement is a characteristic of verbal irony that has the same function as the invocation of a set of conventional assumptions about the nature of a state of affairs. Ruiz de Mendoza and Lozano-Palacio (2021) use the label *epistemic scenario* to group these two possibilities. Then, both in verbal and situational irony, there is an observable scenario. In the example of situational irony given above, this scenario consists in a situation in which the patient discovers his marriage counselor is filing for a divorce. In the example of verbal irony in (19), this scenario contains the attested situation in which Mary betrays Janes' trust.

     Situational irony can be narrated. For example, the shocked patient whose marriage counselor is unable to preserve his own love relationship could talk about this incident to a friend and even observe that it is ironic: "Do you want to hear something

shocking? I've been having marriage counseling sessions for weeks with a therapist that is now getting a divorce." In a TV show or in the theater, we could have the same ironic situation performed by actors. The analytical situation thus created is not essentially different from that of dramatic and metafictional irony. Dramatic irony was oriented to teach the audience a lesson. The ironist is a solidary one that wants his audience to understand the inerrancy of fate. Sophocles' *Oedipus the King* is a paradigmatic case. The oracle tells Oedipus that he will kill his father and marry his mother. Oedipus tries to escape his fate but the audience is aware time after time that his attempts are futile. They lead him in the wrong direction despite false appearances. This means that those in the audience can detect the clash between the protagonist's erroneous assumptions and what they witness as spectators. Their knowledge allows them to dissociate themselves from the protagonist's mistakes and realize that there is no way to avoid the dictates of fate. Metafictional irony is a different but related case. Take Chaucer's *The Canterbury Tales*. Here the author speaks through the characters to challenge literary conventions by giving the audience evidence that the tales, as fiction, are only a pretense of reality behind which there is a creative agent. This allows those in the audience to dissociate themselves from the appearance of reality of fiction. There is a clash between the expectation of authenticity of fiction and its real nature. In this form of irony, the author is solidary with his audience, who are expected to play non-naïve roles. But this is not necessarily the case in some of its developments. Romantic irony and postmodern irony are examples of metafictional irony where the author takes the role of an elitist ironist who makes the reader question the literal meaning of the text. As noted in Ruiz de Mendoza and Lozano-Palacio (2019a), this is evident in magic realism, which brings together a realistic view of life and the world of dreams and fantasy. This is a central feature of Rushdie's *Shame* and Carter's *The Bloody Chamber*. These works necessitate a non-naïve interpreter. In

Shame, Rushdie uses the fairytale format to build a Pakistan-like world that satirizes Pakistani politics.

This typology of ironic uses, combined with our previous insights into the convergences and divergences between verbal and situational irony, leads to a refinement of the taxonomic criteria for situational irony (see Ruiz de Mendoza and Lozano-Palacio, 2021). This taxonomy is grounded in the way in which epistemicity is handled. Let us keep in mind that in all cases of irony there is an expectation about what a state of affairs should be like and that ironic meaning is a consequence of the dissociation from such an expectation when confronted with the attested state of affairs. In the case of verbal irony, the speaker expresses such a dissociation, while in the case of situational irony, there is a witness to a state of affairs that dissociates himself or herself from a previous expectation about it. Obviously, in situational irony, the epistemic scenario is not expressed verbally, but the situation that has been identified as possibly ironic can be communicated (e.g., by narrating it). This is where the boundary line between verbal and situational irony can be best drawn: in verbal irony the utterance contributes to the development of ironic meaning; by contrast, in situational irony, even in cases in which there is communication about it, the irony is independent of the report on it.

Irony can be communicated monomodally or multimodally. Monomodal irony is not always verbal, though. It is also possible to develop irony communicatively through visual means. A characteristic example of visually communicated irony is found in the artwork of present-day British cultural icon and street artist Banksy. One of his recent paintings, produced in the context of the coronavirus lockdown in the United Kingdom, is found in Southampton General Hospital, hung in a foyer near the emergency department. The painting shows a child kneeling by a wastepaper basket where he has trashed his Spiderman and Batman model figures while holding the figure of an NHS

nurse. The nurse, whose arm is stretched forward in a way that resembles that of Superman while flying to one of his missions, is wearing a facemask, a nurse's cape, and an apron with the red cross emblem. The ironic effect results from the clash between our expectations about a child's favorite Superhero toys (the epistemic scenario) and the depiction of the child treating the nurse as his new superhero while discarding the others (the observable scenario). The nurse's status as a superhero, in turn, is cued by the superimposition of partial structure from the image of Superman onto the image of the nurse.

As for the multimodal communication of irony, one obvious way in which this can happen is through the combination of suprasegmental features and gestural support with the content of utterances. As has been shown by Attardo et al (2003), there are prosodic cues in the form of contrastive pitch which combine with facial expression markers (e.g., a blank face) to point to the possibility that there may be an ironic intent. A slow prosodic tempo could be an additional factor too (cf. Bryant, 2010). Another way is by combining visual and textual cues. This communicative strategy abounds in social media posts. A typical post will include a picture and a text that depicts a state of affairs which clashes with the content of the picture, where the picture would actually be expected to match the description provided for the text. In one of the examples offered by Schifanella et al (2016), there is an empty waiting room at what looks like an airport terminal with a small canteen. The text reads *Look at the crowds of people there are to sell to*. The epistemic scenario is provided by the text, which echoes a common assumption that airport canteens and waiting rooms are extremely busy places most of the time. The picture, however, contradicts such an assumption by providing direct visual evidence of an empty waiting room and canteen. The multimodal combination is ironic

to the extent that it manages to convey the ironist's dissociation from the common expectation while raising awareness about it in others.

Situational irony is not developed communicatively. It just happens and, once detected, it can be communicated monomodally (e.g., by means of words, images, gestures, etc.) or multimodally. It is even possible to simulate the occurrence of an ironic situation and communicate it. Two basic ways of doing this are narratives (e.g., stories in novel or tale format, like *Oedipus the King*) and performances (e.g., films, TV series, and theater plays like *Oedipus the King*). The possibility to construct fictional ironic situations allows for multiple compositional techniques. For example, Lozano-Palacio and Ruiz de Mendoza (2022) have noted the existence of a phenomenon termed *delayed situational irony*. This happens when the irony-building process starts off at some point of a narration or a performance but it is completed at a later stage. In Jane Austin's *Pride and Prejudice*, Darcy makes a derogatory remark on the woman he found unsuitable for him to dance with: *She is tolerable but not handsome enough to tempt me*. This remark is used to open up the creation of on an epistemic scenario which later on clashes with the observable scenario when Darcy falls in love with that woman.

Table 1 below summarizes the basic ironic events when we correlate how it becomes manifest with the different modes of communication.

Table 1. A taxonomy of situational and non-situational irony

Types				Examples	
Situational (not developed communicatively)	Naturally occurring	Non-communicated		a situation that clashes with our expectations	
		Communicated	Monomodal	Narrated	a news report on a naturally occurring

				ironic situation
			Performed	a theatrical representation on a naturally occurring ironic situation
			Visually represented	a painted depiction of a naturally occurring ironic situation
			Multimodal	a vignette combining images and text representing a naturally occurring ironic situation
	Simulated	Monomodal	Narrated	a novel, a tale, etc., telling a fictional ironic situation
			Performed	a theatre play, a TV sitcom, a film, a skit representing a fictional ironic situation

			Visually represented	a comic strip with images and without text depicting a fictional ironic situation
		Multimodal		a comic strip combining images and text representing a fictional ironic situation
Non-situational (developed communicatively)	Monomodal		Verbal	a remark echoing a belief that clashes against attested reality
			Visual	an image that echoes a belief that clashes against attested reality
	Multimodal			a combination of images and text where either the images or the text represents either an echo or attested reality

6.4. Irony-based figures of speech

This section will provide a brief account of antiphrasis, sarcasm, banter, satire, and prolepsis. Let us deal with each of them in turn.

6.4.1. Antiphrasis

Antiphrasis is generally taken as an ironic or humorous (but not contemptuous) use of words in senses that oppose their commonly accepted meanings (see Dupriez, 1991, p. 49). In terms of this definition, its status as a self-standing figure of speech could be questioned. However, it has enough uniqueness that we can at least defend its status as a variant of irony. Let us see what allows us to argue in favor of a special treatment of antiphrasis.

Traditional accounts distinguish two types of antiphrasis. In both of them the speaker is solidary with the hearer, who is expected to be non-naïve, but in one of them the speaker expresses his or her discontent with a situation that is verifiable from the context, while in the other the situation is made explicit in the utterance itself. For example, a student may say, while holding a 500-page book that he or she has to read: *Yes, really brief!* Or the student may add explicit information about the length of the book: *Yes, really brief! 500 pages!* The difference between these two types of antiphrasis is of little theoretical consequence for a scenario-based approach to irony, which assumes that both the echoed scenario and the observable scenario can be constructed on the basis of (partially) explicit and/or implicit information. To illustrate this, we will consider some modified versions of example (20), a case of potentially ironic negative statement provided by Giora, Givoni, and Fein (2015). The context is one in which the speaker tries to raise the hearer's awareness on a student's lack of organization.

(20) *He's not the most organized student*.

(21) *Yeah, right, clean, orderly and efficient! Well, he's not precisely the most organized student* [explicit echo and explicit observable context]

(22) *Yeah, right, clean, orderly and efficient!* [explicit echo and implicit observable context]

(23) *He's not the most organized student* [implicit echo and explicit observable context]

(24) *Well, please, just look at his homework* [implicit echo and implicit observable context]

Example (21) can illustrate the second type of antiphrasis distinguished in the literature, where the echoed and observable scenarios are explicit. Example (22) is akin to the first type, where only the echoed scenario is called upon explicitly. Examples (23) and (24) provide other options that have been missed in traditional accounts of antiphrasis. They run parallel to the following modified versions of the 500-page book example given above:

(23') *500 pages!* [implicit echo and explicit observable context]

(24') *Well, please, just look at the book* [implicit echo and implicit observable context]

In general, while these observations make it theoretically unnecessary to distinguish antiphrasis from common irony, we still note that antiphrasis can be argued to enjoy a variant status on two grounds: (i) its highly specific attitudinal component, since antiphrasis is characterized by a sense of (positively) humorous dissociation from the echoed thought, and (ii) its greater emphasis on the contrast part than on the echo or pretended agreement.

6.4.2. Sarcasm

Interestingly, sarcasm and banter can also be defined in terms of how attitudinal dissociation is handled. Sarcasm is generally distinguished from other cases of irony in its acid, contemptuous overtones. It for this reason that the rhetorical tradition has seen it

as the hallmark of verbal aggression (cf. Haiman, 1998). That means that sarcasm is offensive and should be differentiated from playful banter, which is only apparently aggressive, but actually serves as a way of establishing (or reinforcing already existing) speaker-hearer comity. In both ironic figures, what we have is different parameterizations of the element of attitudinal dissociation. Let us contrast sarcasm and banter.

There are constructions that are potentially sarcastic. One takes the general form *X could not Y even if Z*, as in the hypothetical conditional sentence *You could not win this competition even if you were the only one taking part in it*. This construction can be preceded by ironic markers like *Yeah, right*. However, these markers do not have the content of the expression directly arising from the construction, which constitutes the observable scenario, but from an implicit echo: *Yeah, right, you think you could win this competition*. The first part of this construction (the apodosis) points to someone's general incapacity to perform an action (*X could not Y*), which is already potentially impolite, and the second part (the protasis) to the impossibility of conceiving of a scenario where the general incapacity might not hold. This second part, which is hyperbolic, is what endows the construction with its high sarcastic potential on account of the kind of absurd situation that it calls up, i.e., one where the hearer loses even in the absence of rivals, thus highlighting how hopelessly unskilled he or she is. *X could not Y even if Z* has a high potential to convey sarcasm because it has been shaped by speakers to build a presupposed echoed scenario and an explicit observable scenario. Thus, the apodosis presupposes the hearer's belief in the opposite of its propositional content, thus generating an implied echo echoed scenario. At the same time, the apodosis builds an observable scenario, constrained by the apodosis, which depicts the hearer's inability to win a competition in the most favorable conditions.

There are other constructions that can be easily used sarcastically, but the potential to convey sarcasm may vary. For example, if compliments, which should be positive, clash with the observable situation, can turn into irony, and, if offensive, into sarcasm. A typical construction used to make compliments is: *I/we (all) (just/sure) love X*, as in *We all just love the way you help us understand complex topics*. This sentence can be a real compliment, but it can also be ironic if it echoes the hearer's erroneous belief that he or she can explain complex topics in an accessible way. It is not sarcastic in a default interpretation, but it could be if the speaker knows the hearer is oversensitive to critical remarks on his or her explanatory abilities. However, compare: *We all just love the way you lie to all of us!* This pretended compliment works by echoing the hearer's erroneous belief that he can deceive the speaker and others without being caught. The X variable in the construction has been saturated with accusatory information, which turns the remark into a possible case of sarcasm. Again, it is the specific parameterization of the element of general speaker's dissociation into a more specific accusatory (and thus offensive) one that distinguishes remarks of this kind from common irony. We now turn our attention to another more subtle way of handling the dissociation element, which is the one found in banter.

6.4.3. Banter

An example of playful banter is the utterance *What are you up to, cheeky devil!* used in the context of friendly teasing, i.e., one in which it is evident that the speaker does not think that the hearer's behavior is intrinsically impudent or evil, but only playfully mischievous. Here, the speaker's dissociation from the hearer's behavior is only apparent. As a type of irony, banter makes use of the expressive resources of this figure: *cheeky*

devil, understood metaphorically, would be an accusation of bold and evil behavior, from which the speaker should feel dissociated. But the opposite is meant, that is, the speaker likes the apparent misbehavior. Thus, the expression *cheeky devil* is an echo of what the speaker should think given the hearer's unexpectedly mischievous behavior. However, the speaker's dissociation is a pretended one. This means that banter is characterized by a second-order dissociation: speakers dissociate themselves from their own dissociation-bearing echoes. The message implicitly conveyed through this communication strategy is that, contrary to social sanction or expectations, the speaker actually abides by the content of the echoed thought, while pretending the opposite.

Some scholars have argued that banter is not irony. One of them is Leech (1983), who discusses both figures from the point of view of their politeness effects. Leech (1983, p. 144) argues that irony (in its sarcastic form) is an apparently friendly way of being offensive, whereas banter is an apparently offensive way of being friendly. That is, sarcasm is "mock-politeness" and banter is "mock-impoliteness." What Leech fails to note, however, is that, while there can be cases of pretended politeness in sarcasm (e.g., *Do help yourself!*, said to someone who is obviously helping himself or herself already), this is not a necessary condition, as evidenced from the evident impoliteness of the examples of sarcasm discussed above. Banter, on the other hand, is sensitive to a definition in terms of politeness since all cases of banter are impolite in appearance. This meaning effect is part of the attitudinal component of banter, which, as noted above, is one of second-order dissociation. The false dissociation could be aggressive (and impolite) against the hearer (or another target), but the second truthful dissociation proves the opposite thus turning the apparently aggressive utterance into a non-aggressive (and polite) one.

6.4.4. Satire

As noted in Ruiz de Mendoza (2020a, p. 31), the term satire has been most often used to designate a literary technique used to expose, criticize, and even ridicule individual, institutional, and social frailties. It has a large-scale and a small-scale application. The former has given rise to a literary genre, whose definitional status is somewhat complex and still controversial (cf. Quintero, 2007, pp. 6–10). For example, while it has been noted that satirical compositions are not necessarily humorous, it is also true that humor is one of their main characteristics, including reflexive humor (Zekavat, 2019). But we are here more interested in the small-scale use of satire, which is where it acquires its status as a figure of speech. It is at this level where a definition of satire hinges on the communicative impact of utterances recognized as exploiting this figure. For example, in in Mark Twain's *The Adventures of Huckleberry Finn* (Chapter 16), the protagonist muses on the rewards of behaving according to social conventions:

> (25) *Well, then, says I, what's the use you learning to do right when it's troublesome to do right and ain't no trouble to do wrong, and the wages is just the same?*

The social convention questioned in the remark in (25) is an implicit echo prompted by Huckleberry Finn's own reflection on what he takes as observable to reality. He is troubled by an experiential paradox, which is that doing what is right can put one into trouble as much as doing what is wrong, which is anyway easier. There is thus a clash between what social conventions (and the associated promises) stipulate (the echoed scenario) and what real experience dictates (the observable scenario). This clash results in an inference on the speaker's attitude of dissociation from the fruitless social conventions, which in the context given casts doubt on them. In essence, Huckleberry

Finn's remark can be considered satirical since it exposes an important social contradiction. Satire is thus defined as a form or irony whose attitudinal component is one of dissatisfaction with the contradictions inherent in an individual's behavior or beliefs, or in any aspect of an institutional or a social system. The speaker's dissatisfaction can further be specified, depending on the context, as one of mere disappointment or more negative and/or aggressive attitudes such as anger or contempt.

6.4.5. Prolepsis

Finally, we will devote a few lines to prolepsis, a figure of speech where the speaker first raises an objection (which he or she understands someone could raise against his or her argumentative line) and then answers it (Walton, 2007, p. 106). This figure features an echoed thought, a statement that clashes with such a thought, and the speaker's dissociation from the echoed thought. However, there are two differences between prolepsis and standard irony. One is that in prolepsis, unlike in irony, the dissociation is not implicit, but an explicit element of the speaker's argumentative strategy. The other is that in prolepsis the speaker does not pretend to agree with the echoed thought, since it is explicitly denied through the objection. Two related constructions that are commonly used in prolepsis are: *It is difficult/hard to see/understand how X, unless Y/without Y*; and *It's not clear/evident, etc. how X, unless Y/without Y*. Consider example (26):

> (26) *It is not clear how the company is going to provide a good customer service unless it rethinks its basic policies*.

The *anticipatory it* part of the construction raises an apparent objection which questions the echo of an attributed thought (i.e., someone believes that the company provides a good customer service). The objection is in fact the observable scenario in the form of the what

the speaker thinks is attested reality (the company does not provide good service) and the answer to the objection (the solution to the problem) is supplied by the negative conditional (the company has to rethink its basic customer service policies). The implicit echo can be made explicit and strengthened with ironic indices of the kind discussed by Attardo (2000b): *Yeah, right, the company provides a good customer service. It is not clear how the company is going to provide a good customer service unless it rethinks its basic policies.* As noted above, the existence of an explicit objection makes the speaker's dissociation explicit and dilutes the possible existence of a pretense element. This makes prolepsis a fringe case of irony.

6.5. Exploiting cross-domain contrast further: Paradox and oxymoron

Prolepsis is an argumentative strategy used to contradict others. The clash takes place between what someone is supposed to believe and what the speaker believes to be the case. This aligns prolepsis with irony. Paradox also works on the basis of a clash. However, the clash is internal to the speaker's stated belief. From a cognitive-linguistic perspective, we can define paradox as the result of an internal clash between the default interpretations of several aspects of the same predication (i.e., predicate-argument relations each designating a given state of affairs) or between several predications explicitly or implicitly arising from the same utterance, such that the clash can resolved by shifting or re-construing frames of reference. Some examples are (27) and (28):

(27) *My mother loves and hates my father*.

(28) *If you want peace, prepare for war*; *I am nobody.*

Consider (27). It is logically impossible to love and hate the same person at the same time. However, it is possible to love some aspects of a person and hate others, or also to have good feelings against a person on certain occasions and bad feelings on other occasions. Thus, the logical impossibility does not hold for situations in which either love and hate feelings do not apply to the object in toto or they are not held invariably. Take now example (28), which consists in a condition-consequence sequence where the condition part specifies a goal that is in appearance incompatible with the action suggested in the consequence part. In principle, there seems to be little logic in making preparations to go to war if one is searching for peace. However, giving proofs to any potential warmonger of one's power to wage war can act as a deterrent. The logical inconsistency of the utterance can again be sorted out by changing the frame of reference from 'making war preparations to attack' to 'ensuring peace by deterring hostile powers'. Finally, let us consider the oddity of *I am nobody*. This is a case of an implicit existential presupposition (involving the existence of the speaker who makes the assertion) being in conflict with the explicit predication (designating the inexistence of the speaker who makes the assertion). From a logical perspective it is not possible to predicate the existence and inexistence of the same entity at the same time and place. A re-construal of the content of the sentence can address this problem and endow it with a combination of metaphorical and hyperbolic meaning, which can be paraphrased as 'I am completely ignored by others as if I didn't exist'. Other interpretations are, of course, possible, through changes in the frames of reference. For example, it could be an expression of exaggerated personal humility or of a true feeling of worthlessness.

Oxymoron is very close to paradox. The difference is that oxymoron does not involve predications but simply clashing properties of an entity. For example, we cannot logically say that a substance is *icy hot,* since these adjectives designate opposite

temperatures. This is not a problem, though, if we change the frame of reference. We can say that a pain reliever based on menthol, camphor, and lidocaine is *icy hot*, since its ingredients cause a cooling sensation which is then followed by a warming one. There are many popular examples of oxymoron. Some are resolved through changes in frames of reference: *a well-known secret* (referring to a secret that has ceased to be such), *a wise fool* (someone who appears to be a fool but is actually surprisingly wise), *alone together* (when a couple is by themselves, only together with each other). Others require metaphorical re-construal: *living death* (a state of existence that is as bad as death itself), *a deafening silence* (a noteworthy silence, based on the psychological similarity of effects between the psychological impact of intense noise perception and of unbearable silence), *a sad smile* (smile is metonymic for a failed attempt to simulate one).

Paradox and oxymoron, like verbal irony and related figures, exploit cross-domain or cross-scenario contrast. However, the function of contrast in paradox and oxymoron is primarily denotational, while irony is eminently connotational, as evidenced by the fact that the nature of its attitudinal component is what gives irony (and its associated figures) its distinctive quality as such. What is more, in verbal irony we know that the speaker is expressing an attitude because the speaker pretends to agree with what someone else has said or thought. In paradox and oxymoron there is no pretense. Since these figures are denotational, the speaker places the clashing elements as truthfully belonging together, although they do not seem to, thereby putting on the hearer's shoulders the responsibility to work out the way in which they are compatible and meaningful. However, a note is in order at this point. While paradox and oxymoron are essentially denotational, they can be embedded in a connotative context which highlights attitudinal meaning effects. For instance, in *Save money by spending it*, the selling-buying scenario is activated and reframed to come to terms with the expression. The more money a customer spends on

certain items, the more discount he will get. Additionally, this advertisement aims at drawing the attention of the potential target audience and at bringing about some emotional impact on them to promote consumerism. Thus, paradox and oxymoron qualify as denotational figures of speech but they might also contain an attitudinal component.

6.6. Constraining irony, paradox, and oxymoron

We have discussed the importance of ironic echoes as a form of pretended agreement in verbal irony (section 6.3.1). Echoes are assumptions and, as such, they can be weaker or stronger, depending on how well they capture, from a metarepresentational perspective, the nature of the echoed conceptual representation. A weak echo may weaken the ironic import of an utterance; i.e., there is a communicative need to maximize the echoic nature of an utterance for it to be clearly perceived as ironic. Imagine an old man who suffers from joint pain, which gets worse with wet weather. He had hope for enjoying some sunny days, but instead, he finds himself in the middle of a series of rainy days. In this scenario, the expressions in (29) carry different degrees of felicity:

(29)

Low felicity or infelicity: *Oh, that's good* [no clear echo]. *Another rainy day!* [real situation].

Medium felicity: *Just what I wanted* [weak echo] *Another rainy day!* [real situation].

Strong felicity: *Great. Just what I wanted. A sunny day!* [strong echo] [real situation derived from context].

Since a stronger echo endows the ironic utterance with a higher degree of felicity, it follows that the *maximization of the ironic echo* is a clear way for the speaker to convey irony successfully. The tendency to maximize ironic echoes is a consequence of the Correlation Principle, which directs speakers to choose the best possible source structure to convey the intended target meaning implications. In irony, the speaker maximizes the resemblance between the original thought and its echo to provide the best possible contrast with the observed scenario.

The maximization of ironic echoes is simply a tendency that can be counteracted by intended echoic inaccuracy. An echo is not necessarily an exact repetition of a previous utterance or an attributed thought. It can be an interpretation with varying degrees of accuracy. An inaccurate echo can have a calculated meaning effect. Consider the example (30), provided by Seto (1998, p. 248) as a way to prove that sometimes irony may not be based on an echo:

(30)   A: Sorry, I haven't got enough money.

B: You always haven't enough money

However, this is simply an example of loose echo, reworded through indirect speech with a first-to-second person perspective shift. An accurate echo of what A says would be based on the direct repetition of A's apology:

A: Sorry, I haven't got enough money.

B: Yeah, right, "Sorry, I haven't got enough money."

A loose echo can result from recall problems or, as in *You always haven't enough money*, it may be directed to re-shape part of the content of the message with some extra meaning effects. When the latter is the case, it necessarily runs counter to the tendency to maximize the echo. The reason is that contrast with the observable scenario is partially sacrificed to the production of a different range of meaning effects. In the case of *You always haven't*

enough money, the speaker's accusatory tone is enhanced by the use of the second person singular perspective.

Echoic inaccuracy may be unintended. This is often the case when we echo someone's thoughts, since we can at best make guesses as to their nature. Imagine a situation in which Paul realizes that John, his dearest brother, who has a wild imagination, is too keen on reading stories of alien contacts and abductions. One day, Paul decides to ironize on what he is beginning to suspect is one of his brother's wishes, to visit other worlds with his brother: *Sure, John, one day we will be taken away to far-away galaxies; you and me together*. This utterance cannot be but an interpretation of John's thoughts. It is necessarily an approximation.

Contrast can also be maximized. This typically happens in paradox and oxymoron. A clear example is the oxymoron in *a sober drunkard*, since 'sober' and 'drunkard' are in full contraposition. Note that there can be other cases of maximized contrast for the notion of drunkard: *an abstinent drunkard* is a drunk person that struggles to abstain from drinking but falls once and again; *a clear-headed drunkard*: a person that has a strikingly clear mind despite his drunkenness. On the other hand, non-maximized contrast yields less straightforward cases of oxymoron: *a calm/moderate drunkard* (although not prototypical, a drunk person can be mild and calm); *a non-indulgent drunkard* (drunkards are prone to excess, but there are people that cannot metabolize alcohol and get drunk with moderate amounts of it).

Maximization of contrast is also crucial for paradox. Take again the common expression *I must be cruel to be kind*, which speakers use as a way to explain away the infliction of pain on others provided that it is for their own good. Shakespeare puts this expression in Hamlet's lips (*Hamlet*, Act 3, Scene 4). The prince had stabbed the eavesdropping Polonius mistaking him with villainous Claudius, his mother's new

husband. Finding out that he had killed the wrong person, Hamlet still takes advantage of his mistake to stir his mother into awareness of what she is doing, that is, betraying her previous husband out of pure sensuality. Hamlet must be cruel to his mother now (he could kill her husband to take revenge) if that will dissuade her from betraying her former deceased husband with Claudius. He is harsh to his mother only to protect her from the consequences of her misled behavior. Knowledge of Hamlet's development allows us to make sense of the 'cruel-kind' clash through reframing. But at the same time such reframing is called for by the choice of a maximized contrast between the idea of being cruel and being kind at the same time. Much of the force of Hamlet's statement would have been lost with a less maximized contrast, thereby yielding less felicitous cases of paradox: #*I must be unsympathetic/insensitive/uncompassionate to be kind*.

CHAPTER 7. CONCLUSION

This monograph has offered a unified theory of figurative language which is compatible with the central postulates of Cognitive Linguistics. While most of the initial work on figurative language within this framework was mostly focused on metaphor and, to a lesser extent, on metonymy, the last decade has witnessed an upsurge of research on other figures of speech which had been overlooked up to then. This work contributes to this growing concern.

We have aimed to combine explanatory breadth with analytical delicacy. This has required us to find similarities and differences among the various forms of figurative language by adopting a usage-based approach. The notion of mapping, which in Cognitive Linguistics has exclusively been applied to the definition of metaphor and metonymy, has been found to lie at the core of the characterization of all figures of thought (Ruiz de Mendoza, 2014b). However, the diverse nature of figures of speech has required us to complement this analytical tool with an account in terms of cognitive operations, which have proved useful to address the common denominators underlying such heterogeneity. Breaking down the different figures of thought into cognitive operations also helps us disentangle the complexity of figurative language and, at the same time, group figures into integrated sets. Thus, cognitive operations have been found to be both cohesive and discriminating devices. Our analysis has revealed the following:

- Cognitive operations can help draw the boundary between different figures of speech. For instance, the limits between metaphor and metonymy are so fuzzy sometimes that a cognitive continuum between them has been postulated (Dirven, 1993; Ruiz de Mendoza, 2000). However, the cognitive activity that underlies their production and understanding contributes to elucidating this demarcation problem. While resemblance or correlation lie at the basis of metaphor, metonymy exploits reduction or expansion.

- The same cognitive operation(s) can underlie two or more figures of thought. Notwithstanding this similarity, their exploitation differs in terms of production and interpretation or they can be applied to different degrees. Take the case of overstatement and understatement. While both make use of strengthening, mitigation, and contrast, in overstated utterances, the speaker upscales a state of affairs, which the hearer downscales to make it compatible with the real-world scenario. On other hand, in understatement, the speaker belittles the seriousness or importance of a state of affairs and the hearer gets involved in maximizing it to adjust it to the real situation. Besides this conspicuous variation in the production and construal of overstated and understated representations, the role played by contrast has proved to be of paramount importance. The degree of contrast between the explicit content and the factual situation, on the one hand, and the distance between the factual situation and the assertive content, on the other, determines whether we have a case of extreme occurrences of overstatement (auxetic hyperbole) or of understatement (meiosis). Both auxesis and meiosis are based on a maximal degree of contrast. This sets these cases apart from hyperbolic and understated examples whose source domain features a conceivable scenario. Therefore, contrast is a gradable notion.

The issue of the denotational or attitudinal meaning effects involved in the miscellaneous collection of figures of thought has also shed some light to our analysis. Drawing on Ruiz de Mendoza's (2020a) original distinction in which metaphor, metonymy, paradox, and oxymoron pertain to the denotational group and irony and hyperbole to the attitudinal kind, a further degree of refinement has been introduced. The two-fold distinction between denotational and attitudinal figures has been extended to accommodate a category consisting of potentially hybrid cases like paradox and oxymoron. In fact, these two figures of speech provide an interesting case in this respect. While essentially being denotational since they are a matter of re-framing or re-construal,

they can also be used to convey emotions and attitudes. In this book, the three types of figures have been carefully examined. Chapter 4 has addressed purely denotational figures like metonymy and metaphor (and their respective related figures), chapter 5 and the four first sections of chapter 6 have been devoted to hyperbole and hyperbole-like figures (including understatement, litotes, and meiosis) and to irony and irony-based figures of speech as fundamentally attitudinal figures, and finally section 6.5 has explored paradox and oxymoron as denotational figures with implicational overtones.

Chapter 2 has offered a critical account of different approaches to the study of figurative language. Starting off from the delimitation of the controversial notion of figurative language, especially as understood in contrast to literal language, this chapter has highlighted the strengths and weaknesses of the diverse perspectives. From Aristotelian times to the present the fascinating world of figurative language has been the concern of major theoretical frameworks. This discussion has led to a combined pragmatic-cognitive account which has brought together crucial insights from both points of view, especially from Relevance Theory and cognitive modeling, including the study of how combinations of cognitive operations within the context of conceptual mappings endow utterances with a specific communicative potential.

Chapter 3 has provided the reader with an innovative review of the notions of cognitive model and cognitive operations. As far as cognitive models are concerned, a highly detailed and up-to-date taxonomy has been laid out. New light has been shed on the classical distinction between metaphor, metonymy, propositional models, and image-schemas, which are here organized into two main sets: operational (metaphor and metonymy) and non-operational (propositional knowledge and image-schemas); the former are built on the basis of the latter. By focusing on their level of abstractness and/or genericity, primary, low, and high levels of categorization have also been identified. A

further distinction is posited between situational and non-situational or propositional cognitive models. The former, in turn, can be descriptive, attitudinal, and regulatory. Scalarity constitutes another criterion to classify non-situational cognitive models into scalar and non-scalar. Additionally, the observation that cognitive models can work both in isolation or in combination with others underlies the dichotomy between basic and simple cognitive models. As far as cognitive operations are concerned, particular attention is given to inferential ones because of their relevance in connection to figurative language. More specifically, the treatment of content operations (vs formal ones) is given special prominence and a preliminary overview of the operations related to the major figures of speech is offered.

Chapters 4, 5, and 6 have provided a fine-nuanced analysis of metaphor, metonymy, hyperbole, irony, and their related figures, as well as of paradox and oxymoron, with emphasis on the cognitive activity involved in them, and on the constraining factors -both those which range over all these figurative uses of language and those that are specific to certain figurative uses- that that apply to them. Then, after delimiting the notions of metaphor and metonymy, which have been found to show fuzzy boundaries in the cognitive-linguistic literature, chapter 4 has offered a typology of these figures. The classificatory criteria are the type of cognitive operation licensing the mapping, the formal and conceptual complexity of the mapping system, and the ontological status and the levels of genericity of the domains involved in the mapping. Other topics like the grammatical impact of metaphor and metonymy and metaphoric and metonymic complexes are addressed. In addition, this chapter has discussed metaphor, metonymy, and their related figures: simile, zoomorphism, anthropomorphism, analogy, paragon, kenning, allegory, and synesthesia in the case of metaphor; and hypallage, antonomasia, anthimeria, proverbs, synecdoche, and merism, in the case of metonymy.

The analysis has been especially focused on the cognitive operations which they share and which make them different. While metaphor and metonymy have traditionally been the subject of much debate, this is the first time that a unified account in terms of their cognitive substratum is provided. It allows not only for a thorough description of metaphor and metonymy but also for a principled account of the figures of speech related to them and of the combinatory possibilities of the cognitive operations involved in their production and construal. This also holds for the remaining figures of speech dealt with in this monograph.

Chapter 5 has been focused on hyperbole and related figures like over- and understatement, auxesis, meiosis, and litotes. These figures have been discussed in terms of strengthening, mitigation, and contrast cognitive operations. An overview of the literature on hyperbole has supplied relevant analytical elements which can be integrated into our own account, while some aspects of the phenomenon which are in need of further elaboration have been identified. The chapter adds a discussion of the factors that contribute to a thorough characterization and understanding of hyperbole. These factors are the likelihood of hyperbolic scenario, the degree of incongruity of the expression, the degree of hyperbolic load of the expression, the degree of emotional impact on the hearer, and the degree of conventionality of the purported hyperbolic use. This chapter has also elaborated on the distinction between constructionally-cued and inferential hyperbole, with a fine-grained examination of the *X is not Y but Z* hyperbolic construction, which is mainly grounded in metaphor and, to a lesser extent, in metonymy. The discussion on hyperbole-like figures (overstatement, hyperbole, and auxesis, on the one hand, and understatement, litotes, and meiosis, on the other) has mainly focused on their delimitation and on the cognitive operations they exploit, with especial emphasis on the gradable notion of contrast.

Finally, chapter 6 has studied irony in terms of the principles of cognitive modeling. It has examined linguistic evidence on the centrality of echoing as an important cognitive operation frequently involved in the construction of pretended agreement scenarios, which are but a kind of epistemic scenarios. The notion of epistemic scenario has likewise proved useful to bring together verbal and situational irony into a unified account. This chapter has also shown that ironic meaning is the result of a parameterizable inference arising from the clash between a pretended agreement (or epistemic) scenario and an observable scenario. The general inference is one of speaker's dissociation from the epistemic scenario. The different parameterizations of this inference give rise to a range of attitudinal connotations which underlie the distinction between different irony-like figures (e.g., antiphrasis, sarcasm, banter, satire). The case of prolepsis is different, since its value hinges on its argumentative role rather than on the specific nature of the attitudinal element. We have also discussed the issue of complexity in irony, with a special focus on the communicative role of echoic compounding, multi-operational echoes, echoic chains, and cumulative echoes. The resulting theoretical apparatus has then been tested against a broad range of ironic uses, many of which have been attested in literary criticism and rhetoric. We have noted that all uses of irony are either situational or non-situational and that the former can be communicated. We have thus correlated all these cases with their different modes of communication, either monomodal or multimodal, thus producing a rich taxonomy of ironic types. This chapter ends with a discussion of paradox and oxymoron, two figures of speech that are grounded in contrast operations, like irony, and determines their theoretical status in connection with irony. We have noted that the former are denotational figures with attitudinal implications, while irony is purely connotational. Thus, contrast in irony serves to produce an attitudinal inference, while contrast in paradox and oxymoron calls for a reinterpretation of the

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clashing items in terms of frame-shifting or re-construal even though it can also bring about implicational overtones.

We hope that this volume has contributed to an improved understanding of the fascinating world of figurative language through the introduction of the notion of cognitive operation as a central criterion which helps us identify both similarities and differences among the different figures of speech. The result has been, we hope, a more accurate characterization of the various figures both alone and in interaction.

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