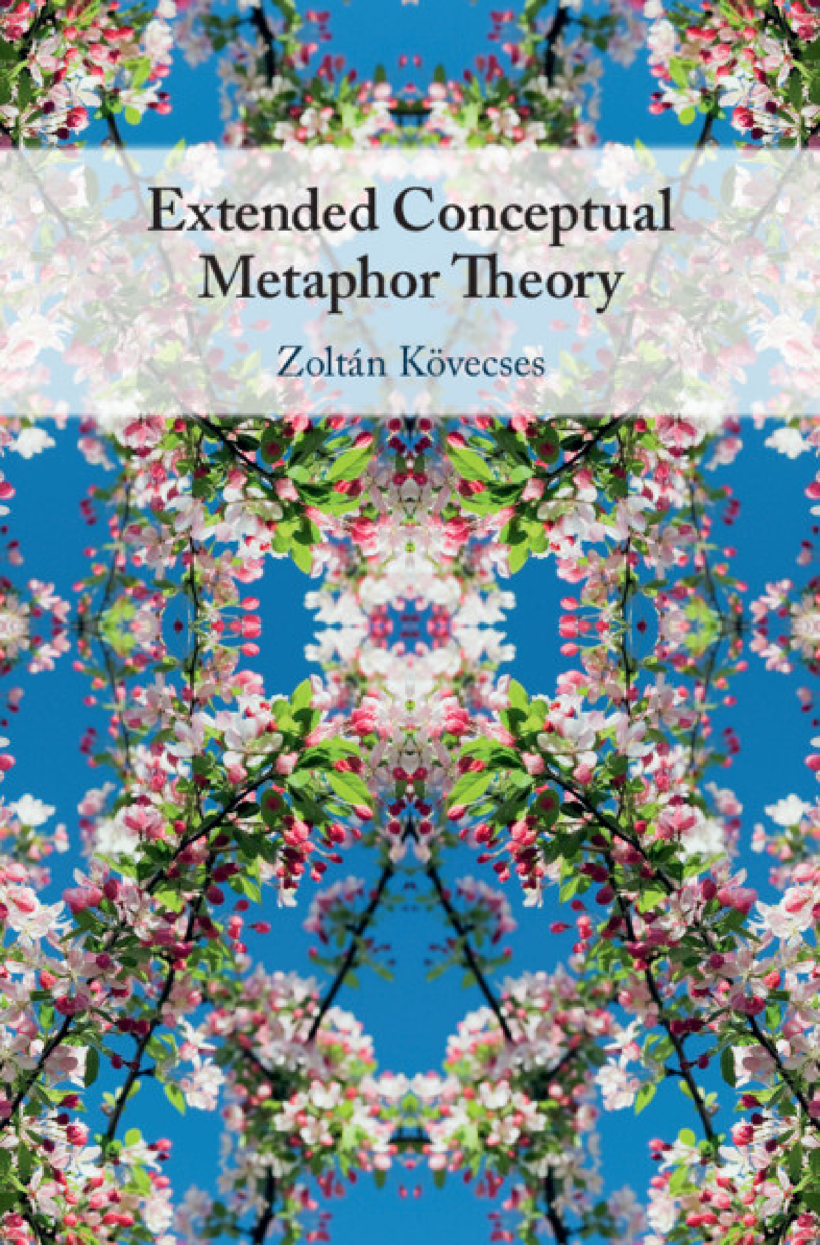

Extended Conceptual Metaphor Theory

Zoltán Kövecses

Extended Conceptual Metaphor Theory

The phenomenon known as metaphor is an extremely complex mental event – we cannot capture its complexity if we tie ourselves to existing standard views on metaphor. This book offers fresh insight into metaphor, updating an established theory, conceptual metaphor theory (CMT), in the context of current cognitive linguistic theory, and clarifying many of the issues that researchers in the study of metaphor have raised against CMT. Starting with an introduction to CMT, the subsequent chapters set out propositions for extended conceptual metaphor theory, including a discussion on whether literal language exists at all, whether conceptual metaphors are both conceptual and contextual, and whether they are both offline and online. Providing a fresh take on a constantly developing field, this study will enrich the work of researchers in areas ranging from metaphorical cognition to literary studies.

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Very much belatedly…, to the memory of my little sister, Annika.

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Preface

In a way, this is a very personal book. It is personal in the sense that in everyone's life there comes a time when you notice you are getting a little impatient with how things are going and you want to say what's really on your mind concerning a subject matter that is important to you. I want to do exactly that as regards metaphor. I do not want to be particularly concerned with what other scholars will think or say when they read this book. I just want to lay my (metaphorical) cards on the table. I am at an age when people around you die much more frequently than before and when you realize it can happen any time to you. I feel the time has come to make this move in the game of life.

This of course is not intended as a justification for writing another book on metaphor. It can only explain some of the bold suggestions that go against "standard" views on metaphor and the sometimes very straightforward ways of writing and presenting ideas. What would be a much better justification, though, is that over the past almost forty years I have analyzed thousands or maybe even tens of thousands of metaphors in a variety of genres, modalities, ways, and situations, and that these analyses have given me a certain feel for how metaphors work and an idea of their enormous complexity. I realized, and wish to show in a clear way here, that this complexity cannot be captured if you tie yourself to existing standard views on metaphor, including conceptual metaphor theory (CMT).

At the same time, as can be expected, my starting point is what I take to be a "standard" version of CMT. I believe CMT is a theory that can provide powerful and coherent explanations for a variety of aspects of metaphor. In my judgment, no other theory is as comprehensive as CMT. It took almost forty years for CMT to reach this stage. It's been steadily developing thanks to the many great scholars who played key roles in making it what it is today. I see the present book as just another contribution to this line of development – as an organic part of all the efforts that have been put into making it better.

I am making no claim that the ideas put forward in this book are all brand new or that I am the only one who thought of them. But many of them are new and, in addition, I feel I can reasonably claim that no one has put them together as I have in this book. This overall new view can be characterized by five bold but tentative propositions:

- It may be that there is no literal language at all.
- It may be that metonymies are, in a sense, "more primary" than primary metaphors.
- It may be that conceptual metaphors are hierarchically linked conceptual structures on different levels of schematicity.
- It may be that conceptual metaphors are not only conceptual but also necessarily contextual.
- It may be that conceptual metaphor is simultaneously an offline and online phenomenon (i.e., it is not only offline).

I will be referring to the new view as "extended conceptual metaphor theory," or "extended CMT," for short.

Structure of the Book

The propositions above are discussed in five chapters of the book under the following corresponding chapter titles:

> The abstract unaderstood figuratively, the concrete understood literally, but the concrete understood figuratively? (Chapter 2)
> Direct or indirect emergence? (Chapter 3)
> Domain, schema, frame, or space? (Chapter 4)
> Conceptual or contextual? (Chapter 5)
> Offline or online? (Chapter 6)

These five chapters are preceded by an introduction to CMT, or, more precisely, what I consider to be the "standard" view (the core) of CMT. The discussion in the five chapters is followed by two integrative summary chapters. The goal of Chapter 7 is to identify components of an emerging new theory and to outline its general framework. The goal of Chapter 8 is to assess the responses to the five questions above, together with a brief comparison of the extended CMT with its sister theory, the dynamic systems view of metaphor, as proposed by Ray Gibbs.

Acknowledgments

No book is written in a vacuum. In addition to the vast body of published work on conceptual metaphor theory, in particular, and on metaphor, in general, a large number of colleagues, anonymous reviewers of this book, fellow researchers, students, conference participants, and just ordinary people interested in my work helped me with their ideas and suggestions in many ways.

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Two people have played very special roles in the course of my career as a metaphor researcher. Ray Gibbs has always been available to discuss various issues related to the field and he and his work gave me a huge amount of encouragement and inspiration. And last but definitely not least, without George Lakoff I could not have and would not have done any of my work on metaphor.

1 A Brief Outline of “Standard” Conceptual Metaphor Theory and Some Outstanding Issues

Conceptual metaphor theory (CMT) started with George Lakoff and Mark Johnson’s book, *Metaphors We Live By* (1980).[1] The theory goes back a long way and builds on centuries of scholarship that takes metaphor not simply as an ornamental device in language but as a conceptual tool for structuring, restructuring, and even creating reality. Notable philosophers in this history include, for instance, Friedrich Nietzsche and, and more recently, Max Black. A recent overview of theories of metaphor can be found in Gibbs (2008) and that of CMT in particular in Kövecses (2002/2010).

Since the publication of Lakoff and Johnson’s (1980) work, a large amount of research has been conducted that has confirmed, added to and also modified their original ideas. Often, the sources of the new ideas were Lakoff and Johnson themselves. Given this situation, it is obvious that what we know as CMT today is not equivalent to the theory of metaphor proposed in *Metaphors We Live By*. Many of the critics of CMT assume, incorrectly, that CMT equals *Metaphors We Live By*. For this reason, I will not deal with this kind of criticism in this introduction to CMT.

The standard definition of conceptual metaphors is this: *A conceptual metaphor is understanding one domain of experience (that is typically abstract) in terms of another (that is typically concrete)* (see Lakoff and Johnson 1980). This definition captures conceptual metaphors both as a process and a product. The cognitive process of understanding a domain is the process aspect of metaphor, while the resulting conceptual pattern is the product aspect. In this survey of the theory, I will not distinguish between the two aspects.

In the following sections, I attempt to identify and briefly describe the main features of CMT, as I see them. Other researchers might emphasize different properties of the theory. At the same time, I tried to select those features on which there is some agreement among practitioners of CMT. At the end of the chapter and given the description of the properties, I list a number of outstanding issues in CMT – issues that we need to get clear about in order to make CMT an even more powerful theory of metaphor.

---

[1] This chapter is a revised and enlarged version of a chapter I wrote entitled “Conceptual metaphor theory” in Elena Semino and Zsófia Demjén, eds., 2017, *The Routledge Handbook of Metaphor and Language*, 13–27. London: Routledge.

1.1 The Pervasiveness of Metaphors

In their *Metaphors We Live By*, Lakoff and Johnson (1980) suggested that metaphors are pervasive not only in certain genres striving to create some artistic effect (such as literature) but also in the most neutral, i.e., most nondeliberately used forms of language. CMT researchers, especially in the early stages of work on conceptual metaphors, collected linguistic metaphors from a variety of sources: TV and radio broadcasts, dictionaries, newspapers and magazines, conversations, their own linguistic repertoires, and several others. They found an abundance of metaphorical examples, such as "*defending* an argument," "*exploding* with anger," "*building* a theory," "*fire* in someone's eyes," "*foundering* relationship," "a *cold* personality," "a *step-by-step* process," "*digesting* an idea," "people *passing away,*" "*wandering aimlessly* in life," and literally thousands of others. Most, if not all, of such linguistic metaphors are part of native speakers' mental lexicon. They derive from more basic senses of words and reflect a high degree of polysemy and idiomaticity in the structure of the mental lexicon. The magnitude of such cases of polysemy and idiomaticity in the lexicon was taken to be evidence of the pervasiveness of metaphor. Based on such examples, they proposed what came to be known as "conceptual metaphors." However, it is still an issue whether each and every metaphor we find in discourse belongs to a particular conceptual metaphor. The answer to this question probably depends on the level of schematicity at which we examine metaphors (see Chapter 4).

Other researchers, however, find the presence of metaphor in real discourse less pervasive. As noted by Gibbs (2009), different methods produce different results in frequency counts of metaphors.

1.2 A More Technical Definition of Conceptual Metaphors

The standard definition of conceptual metaphors we saw in Section 1.1 can be reformulated somewhat more technically as follows: *A conceptual metaphor is a systematic set of correspondences between two domains of experience*. This is what "understanding one domain in terms of another" means. Another term that is frequently used in the literature for "correspondence" is "mapping." This is because certain elements and the relations between them are said to be mapped from one domain, the "source domain," onto the other domain, the "target." Let us illustrate how the correspondences, or mappings, work with the conceptual metaphor ANGER IS FIRE. Before I provide the systematic conceptual mappings that constitute this metaphor, let us see some *linguistic* *metaphors*, first, as derived by the lexical method, then, as derived by corpus studies, that make the conceptual metaphor manifest in English (the distinction between lexical and corpus-based studies will be taken up in Chapter 4):

> That kindled my ire.
> Those were inflammatory remarks.
> Smoke was coming out of his ears.
> She was burning with anger.
> He was spitting fire.
> The incident set the people ablaze with anger.

We can find several of these linguistic metaphors in corpus-oriented work as well, such as Charteris-Black's most recent book (Charteris-Black 2017). Let us take the following examples:

> Therefore the wrath of the Lord **was kindled against His people,** So that He abhorred His own inheritance. (Psalms 106:40) (Charteris-Black 2017: 80)
>
> McInturff backed McCain's decision to ignore the minister's **inflammatory** anti-America comments because it would have been seen as race-baiting and **sparked** *racial anger* and protests. (Charteris-Black 2017: 44) (bolding on "inflammatory" added, ZK)
>
> Her *ears* were **burning** *with rage*. It was a commingling of pride, anger, pain and frustration that determined what she was able to do in the next few moments. (Charteris-Black 2017: 49)
>
> I see him now – his eyes **blazing** forth with indignation and his rusty tousled head of hair standing on end – leading forth on the miseries of the Gorbals district and the East End of Glasgow: I was quite moved: I thought everybody appreciated to the full the enthusiastic and **fiery speech**: The whole passion of the man called out for justice to be handed out to the working classes in the various parts of the city. (Nicholson, 18th June 1947) (Charteris-Black 2017: 164) (bolding on "blazing" added, ZK)

Given such examples, the following set of correspondences, or mappings, can be proposed:

> the cause of fire ➔ the cause of anger
> causing the fire ➔ causing the anger
> the thing on fire ➔ the angry person
> the fire ➔ the anger
> the intensity of fire ➔ the intensity of anger

With the help of these mappings, we can explain why the metaphorical expressions listed earlier mean what they do: why, for instance, *kindle* and *inflammatory* mean causing anger, and why *burning, spitting fire*, and being *ablaze* with anger indicate a high intensity of anger, with probably fine distinctions of intensity between them. As can be seen, the mappings are provided at a general level in standard CMT. However, as, for example, Charteris-Black (2017) points out, there can be subtle differences between, for instance, the causes and intensities of target concepts that are indicated by various specific lexical items. As an example, we can mention the words *kindle, spark, inflammatory*, and so on, that refer to different kinds of causes. The mappings as usually formulated are not sensitive to this level of specificity. (But the way this can be remedied in CMT will be discussed in Chapters 4–6).

The generic set of mappings is systematic in the sense that it captures a coherent view of fire that is mapped onto anger: There is a thing that is not burning. An event happens (cause of fire) that causes the fire to come into existence. Now the thing is burning. The fire can burn at various degrees of intensity.

Similarly for anger: There is a person who is not angry. An event happens that causes the person to become angry. The person is now in the state of anger. The intensity of the anger is variable.

The mappings bring into correspondence the elements and the relations between the elements in the fire domain (source) with elements and the relations between the elements in the anger domain (target). Indeed, it seems reasonable to suggest that, in a sense, the mappings from the fire domain actually bring about or create a particular conception of anger relative to the view of fire we have just seen. This is what it means that a particular source domain is used to conceptualize a particular target domain. (I will come back to this issue later.)

In many cases, however, the two-domain account does not work and must be supplemented by a model of explanation that relies on four (or more) domains, or spaces (see Chapter 6 on conceptual integration and metaphor).

1.3 Mapping Further Knowledge

Given the metaphorically used set of elements in a domain, we can derive further knowledge about these elements, and can also map this additional knowledge onto the target. This additional kind of source-domain knowledge is often called "metaphorical inference," or "metaphorical entailment." For example, to stay with the aforementioned metaphor, in somewhat formal and old-fashioned English we can find sentences like "He took revenge and that *quenched* his anger." Quenching anger can be regarded as a metaphorical inference, given the ANGER IS FIRE metaphor. If anger is metaphorically viewed as fire, then we can make use of our further knowledge of anger-as-fire; namely, that the fire can be quenched. CMT provides an elegant explanation of such cases of extending conceptual metaphors.

At this point, an important question may arise: Can everything be mapped from one domain to another? Obviously, not. Given a particular conceptual metaphor, there are many things that cannot be mapped, or carried over, from the source to the target. For example, given that THEORIES ARE BUILDINGS, the number of rooms or whether the building has a cellar or an attic are not mapped. Several explanations have been offered to delimit the amount of knowledge that can be transferred from the source. One of them is the "invariance hypothesis" developed by Lakoff (1990). It suggests that everything from the source can be mapped onto the target that does not conflict with the image-schematic structure of the target. Another is proposed by Grady (1997a,b), who claims, in essence, that those parts of the source domain can be mapped that are based on "primary metaphors" (on "primary metaphors," see Grady (1997a,b)). Finally, Kövecses (2000a, 2002/2010) proposed that the source maps conceptual materials that belong to its main meaning focus or foci. It should be noted that the three suggestions differ with respect to which part of a conceptual metaphor they rely on in their predictions concerning what is mapped. The first one relies primarily on the target, the second on the connection between source and target, and the third on properties of the source. None of these are entirely satisfactory.

1.4 Mappings Go from Concrete to Abstract Domains

As we just saw, CMT makes a distinction between a "source domain" and a "target domain." The source domain is a concrete domain, while the target is an abstract one. In the example conceptual metaphor LIFE IS A JOURNEY, the domain of journey is much more concrete than the target domain of life (that is much more abstract); hence, JOURNEY is the source (domain). In general, CMT proposes that more physical domains typically serve as source domains for more abstract targets, as in the LIFE IS A JOURNEY metaphor.

This observation is based on the examination of hundreds of conceptual metaphors that have been discovered and analyzed in the literature so far (such as LIFE IS A JOURNEY, ANGER IS FIRE, and THEORIES ARE BUILDINGS). The assumption that most conceptual metaphors involve more physical domains as sources and more abstract domains as targets makes a lot of intuitive sense. For example, the notion of life is hard to pin down because of its complexity, that of anger is an internal feeling that remains largely hidden from us, that of theory is a sophisticated mental construct, and so on for other cases. In all of them, a less tangible and thus less easily accessible target concept is conceptualized as and from the perspective of a more tangible and thus a more easily accessible source concept.

In our effort to understand the world, it makes a lot more sense to move conceptually in this particular direction: that is, to conceptualize the cognitively less easily accessible domains in terms of the more easily accessible ones. Notice how odd and unintuitive it would be to attempt to conceptualize journeys metaphorically as life, fire as anger, or buildings as theories. We would not find this way of understanding journey, fire, or building helpful or revealing, simply because we know a lot more about them than about such concepts as life, anger, or theory. This is not to say that the reverse direction of conceptualization never occurs. It may occur, but when it does, there is always some special poetic, stylistic, aesthetic, and so on, purpose or effect involved. The default direction of metaphorical conceptualization from more tangible to less tangible applies to the everyday and unmarked cases. Furthermore, even concrete source domain concepts (such as FIRE) can be metaphorically understood. This latter issue will be taken up in the next chapter.

1.5 Metaphors in Thought

According to CMT, metaphor resides not only in language but also in thought. We use metaphors not only to speak about certain aspects of the world but also to think about them. As we saw earlier, CMT makes a distinction between linguistic metaphors, i.e., linguistic expressions used metaphorically, and conceptual metaphors, i.e., certain conceptual patterns we rely on in our daily living, to think about aspects of the world. For example, metaphors such as LIFE IS A JOURNEY can actually govern the way we think about life: we can set goals we want to reach, we do our best to reach those goals, we can make careful plans for the journey, we can prepare ourselves for facing obstacles along the way, we can draw up alternative plans in the form of choosing from multiple paths, we can prefer certain paths to others, and so on. When we entertain such and similar ideas, we actually think about life in terms of the LIFE IS A JOURNEY conceptual metaphor. And, consequently, we can use the language of journeys to also *talk* about life.

The idea that we think about a domain in terms of another can actually mean several different things. In one sense, as described previously, people may be guided by a particular conceptual metaphor in how they conceive of a domain, such as life. In another, given a conceptual metaphor, they may utilize some of the implications of a particular domain they rely on (such as JOURNEY) in a conceptual metaphor and apply those implications to the other domain (such as LIFE) in their reasoning about it (see below for an example). Finally, it can also mean that in the course of the online process of producing and understanding a linguistic metaphor, the metaphor activates both the source and the target concept. (This issue is discussed in the final two chapters of the book.)

1.6 Metaphor and the Construction of Reality

A major consequence of the idea that metaphors are conceptual in nature, i.e., that we conceive of certain things in metaphorical ways, is that, since our conceptual system governs how we act in the world, we often act metaphorically.

When we conceptualize an intangible or less tangible domain metaphorically as, and from the perspective of, a more tangible domain, we create a certain metaphorical reality. We imagine life one way when we think of it as a journey (see the aforementioned discussion), and in another way when we think of it as a theatre play, as reflected in Shakespeare's famous lines "All the world is a stage / and all men and women are merely players." The two source domains result in very different views on life, and in this sense they create very different realities.

Whenever a new source domain is applied to a particular target, we see the target domain differently than we saw it before. The limiting case of this situation is the one when a particular target domain does not exist at all, but by the application of one (or several) source domain(s), it actually gets created. Very often, the etymologies of words for abstract concepts reflect this early conceptualization. For example, COMPREHENSION ("understanding") is clearly an abstract concept. Given the UNDERSTANDING IS GRASPING conceptual metaphor (as in "I did not *grasp* what he said," "He is slow on the *uptake*"), it makes sense that the English word *comprehend* derives from the word that means "grasp" in Latin.

This kind of "reality construction" is very common in advertising, where, often, interesting or amusing cases of metaphorical reality get created. When advertisements for, say, deodorants promise "24-hour protection," they make us see a deodorant as our helper or ally in a fight or war against an enemy. The enemy is no other than our own body odor. So if we did not think of our body odor as our enemy before, i.e., as something we have to be protected against, the advertisements can easily make us view it as such. In this manner, the metaphors used in advertisements and elsewhere can create new realities for us. Such realities are of course metaphorically defined. But this does not make them unimportant for the way we live. If we think of our body odor as something we need to be protected against and as a result go and buy a deodorant to overcome the enemy, we are clearly thinking and acting according to a metaphorically defined reality. This is a further example of how the implications of a source domain for a particular target can be utilized (in a process I called metaphorical inference or entailment in the previous section).

1.7 Multimodality of Metaphors

Finally, if metaphor is part of the conceptual system, it follows that conceptual metaphors will also occur in any mode of expression of that system. Research indicates that the conceptual metaphors identified in language also occur in gestures, visual representations (such as cartoons), visual arts (such as painting), and others. This does not mean that the metaphors found in these modes of expression are exactly the same as found in everyday language and thought, but that a large number of them are (see, e.g., work by Cienki and Müller 2008; El Refaie 2019; Forceville 2008, 2016; Lakoff 1993).

1.8 The Grounding of Conceptual Metaphors

Why is a particular source domain paired with a particular target domain? The most traditional answer to this question is to say that there is a similarity, or resemblance, between two things or events. Several different types of similarity are recognized in the literature: objectively real similarity (as in the *roses* on one’s cheeks), perceived similarity, and similarity in generic-level structure. An example for perceived similarity would be a case where certain actions in life and their consequences are seen as gambles with a win or lose outcome in a gambling game; cf. LIFE IS A GAMBLING GAME. We can take as an example for the last type of similarity the conceptual metaphor HUMAN LIFE CYCLE IS THE LIFE CYCLE OF A PLANT. The two domains share generic-level structure that can be given as follows: In both domains, there is an entity that comes into existence, it begins to grow, reaches a point in its development when it is strongest, then it begins to decline, and finally it goes out of existence. Based on this shared structure, the plant domain can function as a source domain for the human domain. In other words, the similarity explains the pairing of this particular source with this particular target; that is, the metaphor is grounded in similarity – though of a very abstract kind.

In many other cases, however, this explanation does not work: The source cannot be viewed as similar in any way to the target. CMT offers another explanation or justification for the emergence of these metaphors as well. Let us take the conceptual metaphor in one of the metaphor systems we examined in the previous section: INTENSITY IS HEAT. This metaphor is a generic-level version of a number of conceptual metaphors like ANGER IS FIRE, ENTHUSIASM IS FIRE, CONFLICT IS FIRE, and so on. The specific concepts share an intensity dimension that is metaphorically conceptualized as heat. The concept of HEAT bears no resemblance to that of INTENSITY whatsoever. Heat is a physical property of things that we experience with our bodies, while intensity is a highly abstract subjective notion (on a par with purpose, difficulty, or as a matter of fact, similarity). What, then, allows the use of HEAT as a source domain for INTENSITY? CMT suggests that there is a correlation in experience between intensity and heat. Often, when we engage in activities at a high intensity (be it physical or emotional), our body develops body heat. In this sense, intensity is correlated with heat, and this provides the motivation for the use of HEAT as a source domain for INTENSITY as a target. The generic-level conceptual metaphor INTENSITY IS HEAT can then be regarded as grounded in a correlation in experience between a sensory-motor experience and an abstract subjective one.

1.9 Primary and Compound Metaphors

Conceptual metaphors of this kind are called "primary metaphors" by Lakoff and Johnson (see, e.g., 1999), who borrowed the term and idea from Joe Grady (1997a,b) and developed it further. Grady proposed a number of such metaphors in his dissertation (1997a), including SIMILARITY IS CLOSENESS, PERSISTENCE IS BEING ERECT, and reanalyzed several of the conceptual metaphors in Lakoff and Johnson's early work (1980) along the same lines (e.g., MORE IS UP, PURPOSES ARE DESTINATIONS). He suggested furthermore that several primary metaphors can be put together to form "compound metaphors." For example, the PURPOSEFUL LIFE IS A JOURNEY metaphor is based on the primary metaphors PURPOSES ARE DESTINATIONS, DIFFICULTIES ARE IMPEDIMENTS, and others.

1.10 Image Schemas and Metaphors

Many conceptual metaphors (both the similarity-based ones and the primary metaphors) are based on "image schemas." These are abstract, preconceptual structures that emerge from our recurrent experiences of the world (Johnson 1987; Lakoff 1987). Such skeletal preconceptual structures include CONTAINER, SOURCE-PATH-GOAL, FORCE, VERTICALITY, and several others. For example, the STATES ARE CONTAINERS primary metaphor derives from the CONTAINER image schema, the LIFE IS A JOURNEY metaphor from the SOURCE-PATH-GOAL schema, the EMOTIONS ARE FORCES metaphor from the FORCE schema, and so on.

1.11 Metaphor and Grammar

The main aim of CMT is to analyze and describe the conceptual nature of metaphor: how conceptual metaphors structure thought, how they enable inferences, how they can give us new perspectives on reality, how they can construct new ideas and concepts, how they are grounded in experience, and so on. However, metaphor scholars have increasingly realized in recent years that there is a close connection between language structure (i.e., grammar) and metaphorical conceptual structure. We are beginning to see that metaphor and grammar (Langacker 1987; Goldberg 1995) can cross-fertilize each other.

Let us just look at a single problem that can demonstrate this. Sullivan (2016) poses the question: Why is it that, given the sentences "The lawyer devised an argument,” “The lawyer devised a *house*,” “The *carpenter* devised an argument,” and “The lawyer *constructed/built* an argument,” only the last one (with the verb *construct* or *build*) is metaphorical? The first sentence describes literally what lawyers do. The other three, however, should all be instances of the THEORIES ARE BUILDINGS metaphor, since they contain words that have to do with the source domain of BUILDINGS: *house, carpenter*, and *construct/build.* After all, just like the building of the house corresponds to the creation of the argument and is thus metaphorical, the house should correspond to the argument and the carpenter should correspond to the person making the argument, but they don’t and thus they are not metaphorical. The answer to the question is that, given the transitive construction with an agent, verb, and patient, only the verb (*construct* or *build*) is metaphorical in the sentences because it is a dependent element of the construction, while the other two (the two nouns) are autonomous within a cognitive grammar framework. As Sullivan (2016: 145) notes, “Elements are dependent when their meanings are incomplete without one or more autonomous elements.” More generally, dependent elements in a construction evoke source domains (thus, are metaphors) and the autonomous elements in constructions evoke target domains (thus, are literal).

The study of the interaction between metaphor and (cognitive) grammar is a promising new avenue in CMT. For example, results such as the above make sense of corpus findings according to which “verbs are more frequently used metaphorically (that is, to evoke metaphoric source domains) than nouns” (Sullivan 2016: 143), as observed, for instance, by Cameron (2003) and Deignan (2005) in their corpus-based studies.

1.12 The Neural Theory of Metaphor

The research on primary metaphors has intensified the study of metaphors in the brain. Lakoff (1993) suggested a “neural theory of metaphor.” In it, individual neurons in the brain form neuronal groups, called “nodes.” There can be different types of neural circuits between the nodes. In the “mapping circuit” that characterizes metaphor, there are two groups of nodes corresponding to source and target domain. The circuitry between the two groups of nodes will correspond to the mappings, or correspondences. In primary metaphors, one group of nodes represents a sensorimotor experience in the brain, while the other represents an abstract, subjective experience. If the neural theory of metaphor is correct, it leads to an important conclusion concerning our functioning in the world: we do not only *understand* (or conceptualize or think) about target domains *in terms of* source domains, but we *experience* target domains *as* source domains. This is the foundational idea of accounts of metaphor processing based on perceptual simulations.

1.13 Universality and Variation

Since the human body and the brain are predominantly universal, the metaphorical structures that are based on them will also be predominantly universal. This explains why many conceptual metaphors, such as KNOWING IS SEEING, can be found in a large number of genetically unrelated languages. This does not mean, however, that *all* conceptual metaphors that are based on primary metaphors will be the same from language/culture to language/culture. It was recognized early on that the particular culture in which a metaphor develops is just as significant in shaping the form of the conceptual metaphors in different languages/cultures as the universal bodily experiences themselves (see, e.g., Kövecses 1995b; Musolff 2004; Taylor and MacLaury 1995; Taylor and Mbense 1998; Yu 1998, 2002;). Furthermore, several researchers pointed out that variation in metaphor can also be found within the same language/culture (for a survey of this research, see, e.g., Kövecses 2005).

1.14 Context and Metaphor

As the latest development in this trend, scholars have recognized that it is not only culture that functions as an important kind of context in shaping the metaphors that emerge. More and more researchers in this area take into account the tight connection between metaphorical aspects of our cognitive activities and the varied set of contextual factors that influence the emergence of metaphors (see, e.g., Cameron 2003; Gibbs and Cameron 2008; Goatly 2007; Kövecses 2010a,b; Semino 2008;). The overall result is a much richer account of metaphor. First, it has become possible to account for metaphors that may be completely everyday but at the same time do not fit any pre-established conceptual metaphors (see, e.g., the work by Musolff 2004; Semino 2008; and others). Second, by taking into account the role of context, we are now in a much better position to see a fuller picture of metaphorical creativity than before. Indeed, it can be suggested that contextual factors can actually create novel metaphors that can be referred to as "context-induced" ones (Kövecses 2010b, 2015a). Third, these context-induced metaphors are not limited to the kinds of basic correlations in experience that form the bases of primary metaphors. Thus, we seem to have a cline of metaphors, ranging from universal primary metaphors to non-universal context-induced ones. In other words, metaphors can derive from the body, cultural specificities, and also the more general context.

1.15 Metaphor Networks

The notion of "network" has been recently applied to conceptual metaphors and metaphor-related phenomena. Most famously, it was used by Fauconnier and Turner (e.g., Fauconnier and Turner 2002) in their discussion of conceptual integration, where they assume a "network model" that consists of four spaces (see Chapter 6 for details). Richard Trim (2007, 2011) uses the term "metaphor network" for the development of an individual metaphor, such as the lion as a symbol of courage in British heraldry, as well as for a network of metaphors that grows historically from a core concept, such as MOTHER OR FATHER – giving rise to such metaphors as *mother tongue* or *mother country* in English. He shows how such networks emerge in a number of European languages and cultures over the ages. Needless to say, both of these are extremely interesting and important applications of the idea of "network," but I have an application of the term in mind that is different from both.

As we have seen above, the source domains of conceptual metaphors constitute coherent organizations of experience, and the mappings from the source onto the target domains create equally systematically organized target domains. But the question is whether such systematic source to target mappings are isolated from each other. I suggest that they are likely to belong to larger, hierarchically organized systems of metaphors.

The principles for the organization of such metaphor systems can be of several distinct kinds. In one (a), the metaphors are organized in a straightforward hierarchy such that both the source and the target are specific cases of higher generic-level concepts. In another (b), different aspects of a given generic-level concept can be differentially conceptualized by means of conceptual metaphors. In still other cases (c), a single aspect of several different abstract concepts may organize a large number of subordinated specific-level conceptual metaphors into a hierarchy. In a fourth (d), the conceptual metaphors form a system because the target domains are part of an independently existing hierarchy of concepts. In a fifth (e), what connects the conceptual metaphors and makes them form a system is the fact that a particular specific level target concept is a special case of a number of different higher-level concepts that have their own characteristic conceptual metaphors. There are probably additional ways in which metaphor systems (or networks) are formed, but for the present purposes it is sufficient to take these five possibilities into account and briefly describe them.

Straightforward Hierarchies

In this case, both the source and the target are specific-level concepts of generic-level conceptual metaphors. This is the simplest and most straightforward type of hierarchy, and it involves a large number of cases. Let us take the well-known ANGER IS A HOT FLUID metaphor. This is an instance of the generic-level metaphor EMOTIONS ARE FORCES. Actually, the HOT FLUID source can be further specified, yielding, for example, the concept of STEW as a potential source domain. We can represent this as follows:

EMOTIONS ARE FORCES
  ANGER IS A HOT FLUID IN A CONTAINER (He was *boiling* with anger.)
    ANGER IS A STEW (He was *stewing*.)

We can find the same situation for love:

EMOTIONS ARE FORCES
  LOVE IS A NATURAL FORCE (I was *overcome* with love.)
    LOVE IS THE WIND (It was a *whirlwind* romance.)

As we will see throughout this book, despite, or rather, because of, its simplicity, this kind of network is crucially important for the extended theory of metaphor I am going to present in this work. I will come back to it in several later chapters.

Different Aspects of a Single Generic Concept

What is known as the Event Structure metaphor system presents a more complicated situation (see Lakoff 1993). Events in general (i.e., the generic-level concept of event) can be actions and occurrences, and they both involve states, causes and changes. Actions also include long-term activities, where progress is an issue. Actions are characterized by purposes, potential difficulty in execution, and manner of performance. These various aspects of events (EVENT I) are conceptualized in different ways:

Events: EVENTS ARE MOVEMENTS
Occurrences: OCCURRENCES ARE MOVEMENTS (What's *going on* here?)
Actions: ACTIONS ARE SELF-PROPELLED MOVEMENTS (What's going to be the next *step*?)
Cause: CAUSES ARE FORCES (You're *driving* me nuts.)
State: STATES ARE LOCATIONS / BOUNDED REGIONS (She's *in* love.)
Change: CHANGE IS MOTION (FROM ONE LOCATION TO ANOTHER) (I almost *went* crazy.)
Actions: ACTIONS ARE SELF-PROPELLED MOVEMENTS
Purpose: PURPOSES ARE DESTINATIONS (I want to *reach* my goals.)
Difficulty: DIFFICULTIES ARE IMPEDIMENTS (TO MOTION) (Let's *get around* this problem.)
Manner: MANNER IS PATH (OF MOTION) (We'll do it in another *way*.)
Activity: LONG-TERM PURPOSEFUL ACTIVITIES ARE JOURNEYS (We have a *long way to go* with this project.)
Progress: EXPECTED PROGRESS IS A TRAVEL SCHEDULE (I am way *behind* schedule.)

A further conceptual metaphor for PROGRESS is exemplified in the Activity component above: PROGRESS IS DISTANCE COVERED (TO A DESTINATION) (as in "have a *long way to go*").

As we can see, the highest-level metaphor here is related to the overarching category of events: EVENTS ARE MOVEMENTS. Events come in several forms, and they are characterized by several different aspects. The various forms and aspects of events are in turn metaphorically viewed in terms of the source domains of movement, location, and force. These can of course be further elaborated at still more specific levels of concepts.

A Single Aspect of Several Different Specific-Level Concepts

Several conceptual metaphors may belong together by virtue of the fact that they share a particular aspect that is conceptualized metaphorically by means of the same source domain. The target domains to which a single source domain is applied is the "scope of a source domain" (Kövecses 2000a, 2010a,b). Thus, the scope of a source can be narrow or wide. Consider the following conceptual metaphors:

ANGER IS FIRE (He was *smouldering* with anger.)
LOVE IS FIRE (The *fire* was gone from their relationship.)
DESIRE IS FIRE (It was his *burning* ambition to become a lawyer.)
IMAGINATION IS FIRE (The scene *set fire to* his imagination.)
ENTHUSIASM IS FIRE (He lost the *fire*.)
CONFLICT IS FIRE (The *fire* of war *burnt down* Europe several times in the course of its history.)
ENERGY IS FIRE (She's *burning the candle* at both ends.)

All of these target domains share the aspect of (degrees of) intensity through the application of a single source (HEAT OF FIRE). We can suggest that the FIRE source domain has the "main meaning focus" of intensity (Kövecses 2000a, 2002/2010). Thus, one way of metaphorically understanding intensity is in terms of the heat of fire. This yields the generic metaphor INTENSITY IS HEAT. Consequently, the specific metaphors above are instances of this generic-level metaphor. This is a further way in which conceptual metaphors may form a hierarchical system. As a matter of fact, primary metaphors (see above) can be seen as forming such systems in a natural way, since their target domains represent shared aspects (like intensity) of several different concepts.

Several Different Aspects of a Single Specific-Level Concept

A specific-level abstract concept may inherit conceptual metaphors from several different generic-level metaphor systems by virtue of the fact that its prototypical cognitive-cultural model consists of elements that belong to the different metaphor systems. We can exemplify this with the specific-level abstract concept of friendship (Kövecses 1995a). The model of friendship conceptually partakes of a number of different metaphor systems. Since according to the cognitive-cultural model of friendship,

> it is a state that two people attribute to each other,
> it involves communication between the friends,
> it implies mutual interaction with each other,
> it consists of the friends and their interactions as a complex system,
> it includes participants that feel certain emotions towards each other, and some others,

the conceptual metaphors that characterize friendship include the following:

State metaphor system:
STATES ARE OBJECTS
ATTRIBUTED STATES ARE POSSESSED OBJECTS (Lakoff 1993)

Communication metaphor system:
THE MIND IS A CONTAINER
LINGUISTIC EXPRESSIONS ARE CONTAINERS
MEANINGS ARE OBJECTS
COMMUNICATION IS SENDING (Reddy 1979)

Interaction metaphor system:
INTERACTIONS ARE ECONOMIC EXCHANGES (Kövecses 1995a)

Complex system metaphor system:
ABSTRACT COMPLEX SYSTEMS ARE COMPLEX PHYSICAL SYSTEMS (Kövecses 1995a, 2010a)

Emotion metaphor system:
EMOTION IS DISTANCE
EMOTION IS TEMPERATURE (Kövecses 1990, 2000b)

The conceptual metaphors for friendship emerge from these various metaphor systems. Specifically, we find metaphors such as the following in the descriptions of friendship:

State metaphor system:
FRIENDSHIP IS A POSSESSED OBJECT (*My* friendship with her did not last long.)

Communication metaphor system:
SHARING (COMMUNICATING) EXPERIENCES IS SHARING OBJECTS: (We *share* intimate things with each other.) (Kövecses 1995a, 2000b)

The metaphor arises because communication between friends often involves sharing ideas and feelings.

Interaction metaphor system:
INTERACTIONS IN FRIENDSHIP ARE ECONOMIC EXCHANGES (There is a lot of *give and take* in our friendship.) (Kövecses 1995a)

The interactions are conceptualized as "economic" exchanges because people often mention a *fifty-fifty basis* in their friendship interactions, which indicates not just a physical exchange of objects.

Complex system metaphor system:

FRIENDSHIP IS A COMPLEX PHYSICAL SYSTEM (BUILDING, MACHINE, PLANT) (We have *built* a strong friendship over the years.) (Kövecses 1995a, 2002/2010)

Emotion metaphor system:

AN EMOTIONAL RELATIONSHIP IS A DISTANCE (They have a *close* friendship.)

EMOTION IS TEMPERATURE (They have a *warm* friendship.) (Kövecses 1990, 2000b)

The last two conceptual metaphors have to do with the notion of intimacy that characterize several emotions, yielding the metaphors INTIMACY IS CLOSENESS and INTIMACY IS WARMTH (both of which are primary metaphors).

More generally, since aspects of friendship constitute a part of these metaphor systems, the hybrid concept of friendship will share with them the specific metaphors.

The Target Concepts Form a Hierarchical System of Concepts

The best example for this kind of metaphor system is what is called the Great Chain of Being (Lakoff and Turner 1989). This is a hierarchical system of concepts corresponding to objects and entities in the world, such as humans, animals, physical things, and so on. The extended version of this hierarchy consists of the following (Lakoff and Turner 1989; Kövecses 2002/2010):

God
Complex systems (universe, society, mind, theories, company, friendship, etc.)
Humans
Animals
Plants
Complex physical objects
Inanimate objects

The hierarchy becomes a metaphor system when things on a particular level are conceptualized as things on another level. Notice that this can happen in both directions. Lower-level concepts can function as source domains for higher-level ones as target (e.g., PEOPLE ARE ANIMALS) and higher-level ones can function as source domains for lower-level ones as target (e.g., ANIMALS ARE PEOPLE). Furthermore, the HUMAN, ANIMAL and PLANT categories are often graded internally – a conceptualization that can lead to racist language (e.g., an "*inferior* race").

In summary, conceptual metaphors are not isolated conceptual patterns in the mind but seem to cluster together to form a variety of interlocking hierarchical relationships with each other.

1.16 Critique of CMT

In the world of academia, CMT is in a curious position: despite its many undeniable achievements, its obvious usefulness in and popularity across several disciplines, each and every aspect of it has come under criticism in the past thirty years (see, e.g., Fusaroli and Morgagni 2009; Gibbs 2017a). Indeed, several scholars have expressed their skepticism regarding the very existence of conceptual metaphors (e.g., Cameron and Maslen, eds. 2010).

A further curious aspect of the situation is that a considerable body of the criticism is based on Lakoff and Johnson's (1980) work exclusively, which represents only the initial stage of CMT, ignoring much of the later work in CMT. Since this chapter has described, or at least briefly mentioned, some of that work subsequent to *Metaphors We Live By*, I will not take up the criticisms that relate to these features of CMT.

A charge that is sometimes levelled at CMT is that it works with the concept of domain (as in the idea that conceptual metaphors involve two domains) and that is itself not a well-defined concept and that it probably cannot be defined precisely at all. Indeed, CMT works with a number of different conceptions that rely on the idea of a coherent organization of human experience, such as domain, frame, image schema, and mental space. This situation presents a challenge to conceptual metaphor theory.

Another criticism maintains that CMT is based on circular reasoning. Here the claim is that scholars in CMT use linguistic metaphors to identify conceptual metaphors, on the one hand, and that at the same time they suggest that the linguistic metaphors exist because of the already present conceptual ones, on the other. One cannot justify the existence on conceptual metaphors on linguistic metaphors and at the same time explain the presence of linguistic metaphors on the basis of conceptual metaphors. However, this criticism ceased to be valid after several experiments that did not involve language or linguistic metaphors (beginning with Gibbs' work in the early 1990s) unambiguously confirmed the existence of conceptual metaphors. If conceptual metaphors have been proven to have psychological reality by psycholinguistic experiments, linguists should not deny their existence; they should work to see how they appear and function in language (and other modalities). (For summaries of these experiments, see Gibbs 1994, 2006; Gibbs and Colston 2012.)

But the most commonly and strongly expressed criticism concerns methodological issues; namely, how to identify metaphors in discourse, how the study of metaphor should be based on real data (rather than just lexical or intuitive data), and others (see, e.g., Deignan 2005; Pragglejaz Group 2007). As I indicated above, we should now take these developments as an integral part of CMT. However, the issue of the need to use real data for metaphor analysis reveals an apparently real weakness of CMT: it is that CMT researchers do not pay sufficient attention to the discourse and social-pragmatic functions of metaphor in real discourse. This sounds like a valid point. However, I do not think that CMT should be thought of as a view of metaphor whose only job is to collect metaphorical expressions, set up conceptual metaphors based on the expressions, lay out the mappings that constitute those conceptual metaphors, and see how the particular conceptual metaphors form larger systematic groups. A large further part of the mission of CMT is to describe the particular syntactic, discursive, social, pragmatic, rhetorical, aesthetic, etc., behavior and function of the metaphors in real data. And this is precisely something that is currently conducted by a great number of researchers (e.g., Low et al. 2010). But, to my mind, these researchers are not competing with more "traditional" CMT scholars; instead, they are working out an aspect of CMT that was "neglected" by CMT scholars. The addition is necessary and more than welcome. This kind of work is just as much part of CMT as other aspects of the theory. In other words, I find that the "neglect" was not really neglect. The lack of sufficient attention to the syntactic, pragmatic, etc., features of metaphors resulted from CMT scholars' effort to add a cognitive dimension to metaphor that was mostly lacking in previous work. This was, and still is, a major part of CMT scholars' mission, in collaboration with other metaphor researchers. Without pursuing that mission, we would not have been able to link the study of metaphor with the study of cognition in general.

1.17 The Present State of CMT

In my view, CMT is a complex and coherent theory of metaphor. As even the sketchy picture above reveals, CMT is a theory of metaphor that is capable of explaining a variety of issues concerning metaphor. In particular, it can explain:

- why we use language from one domain of experience systematically to talk about another domain of experience;
- why the polysemy of words in the lexicon follows the patterns it does;
- why the senses of words are extended in the concrete-to-abstract direction;
- why children acquire metaphors in the sequence they do;
- why the meanings of words emerge historically in the sequence they do;

- why many conceptual metaphors are near-universal or potentially universal;
- why many other conceptual metaphors are variable cross-culturally and intraculturally;
- why many conceptual metaphors are shared in different modes of expression (such as verbal and visual);
- why many metaphor-based folk and expert theories of a particular subject matter are often based on the same conceptual metaphors;
- why so many conceptual metaphors are shared between everyday language and literature (and other forms of non-everyday uses of language);
- why and how novel metaphors can, and do, constantly emerge; etc.

No other theory of metaphor is capable of explaining all of these issues (for a comprehensive picture, see, Gibbs, ed. 2008). This does not mean, however, that CMT has achieved a "state of perfection," and that is has no room to develop further.

1.18 Extending CMT

Even the sketchy survey above reveals a number of problems and weaknesses inherent in CMT. These include at least the following:

(a) It is reasonable to problematize even a basic assumption of CMT: the idea that there is such a thing as literal meaning. Is it indeed the case that we can and do base our understanding of figurative meaning on literal meaning? Even more radically: What is literal meaning? And, in the final analysis, how would the answers to these questions impact CMT as we know it today?

(b) If primary metaphors assume a single conceptual unit (a scene) with elements that are correlated (such as anger and body heat), wouldn't it be justifiable to think of the emergence of primary metaphors through a metonymic stage (in which, for example, anger and body heat are correlated within a tightly organized structure), and not as emerging directly as metaphors from two experiential "domains"?

(c) Indeed, what is the appropriate conceptual level at which we can, or should, identify conceptual metaphors? Is it that of domain, frame, scene, schema, space, or something else? Most of these have been mentioned in the preceding discussion, but there is no consensus, even within the same author, which one it is.

(d) And if we successfully clarify the issue of the appropriate conceptual level for conceptual metaphors, what would be the implications of this? Would there be any significant repercussions for CMT at all? For example, would it change the way we think about the methodology of studying metaphor?

(e) Several metaphor networks have been noted above. Are all of them equally significant? Does any one of them stand out as especially important for the *overall* description of the metaphorical conceptual system?

(f) How can the recently proposed view of deliberate metaphors be incorporated into a CMT framework? Or does it present a challenge to CMT?

(g) How can we account for the socio-pragmatic function of metaphorical linguistic expressions in naturally occurring discourse? What would a theory of conceptual metaphors look like that is capable of explaining the conceptual structure of metaphors, as well as the discourse functions of metaphorical expressions realizing them within a unified framework?

(h) Indeed, in connection with the previous question, should we think of metaphor as a cognitive process that is happening online or as a product that is somehow a part of a more or less stable conceptual system in long-term memory?

(i) Though it is true that theories of metaphor *comprehension* make extensive use of the notion of context, theories of metaphor *production* within CMT have almost completely ignored the notion. Is it possible to propose a theory of conceptual metaphors within the cognitive linguistic paradigm that would integrate the context of metaphor production into CMT?

(j) The major idea of CMT is embodiment on which primary metaphors are based. While clearly crucial, one can legitimately raise questions about the exclusivity of embodiment in CMT. Isn’t it conceivable that there are additional factors that play an important role in the creation of metaphors – both conceptual and linguistic?

(k) Concerning metaphorical creativity, CMT offers sophisticated accounts of the novel metaphors in both every day and literary discourse. However, these accounts of metaphorical creativity have their limitations: they can only explain creativity that is the result of putting together potentially universal primary metaphors in unique ways or as a result of a small number of conceptual devices (extending, elaboration, questioning, combining). However, in many cases we find novel metaphors (both conceptual and linguistic) that require us to take into consideration a variety of contextual factors, and not just universal body-based metaphors or universal cognitive processes.

(l) If we think with the help of conceptual metaphors, as we like to claim, it is reasonable to ask why we use mixed metaphors in the actual production of discourse. Wouldn’t it be easier and more efficient to use the same conceptual metaphor throughout a given discourse? As a matter of fact, metaphorically homogeneous discourse seems to be much rarer than metaphorically heterogeneous discourse (i.e., mixing metaphors in discourse). Why is this the case? Can we provide a coherent CMT account of mixed metaphor in discourse?

(m) Cognitive linguists (including the present author) like to think of metaphors as “conceptual metaphors,” ignoring the diversity of phenomena we call metaphor. What other kinds of metaphor are there, how can they be characterized, and what is their relationship to conceptual metaphors?

Undoubtedly, there are many more questions that could be raised concerning CMT. However, I find the questions in a. through m., among possibly others, inevitable to raise in order to produce an extended, more comprehensive, and hopefully improved, version of CMT. I address these issues in the following chapters of the book.

2 The Abstract Understood Figuratively, the Concrete Understood Literally, but the Concrete Understood Figuratively?

Most metaphor researchers accept, either explicitly or implicitly, a distinction between literal and figurative meaning in some form and base the distinction between concrete and abstract concepts on it. But the distinction between the figurative and the literal has also been problematized by a number of other scholars (see the discussion in Katz et al. 1998). The issue is relevant to conceptual metaphor theory in several ways and for several reasons – most importantly because CMT relies heavily on the abstract-concrete distinction. In this chapter I argue that our most concrete experiences can be conceptualized figuratively (see also Gibbs' most recent work presented at the RaAM 12 conference in Hongkong in 2018), and not only literally.[1] This does not, however, prevent such concrete concepts from being used as source domains for figurative conceptualization. We seem to have a huge body of figuratively conceptualized concrete experiences that we take over from previous generations in the form of concepts, use them as if they were exclusively literally construed experiences (concepts), and turn them into vehicles for the further conceptualization of more abstract entities. Much of what we take to be literal is only ontologically literal (i.e., constitutes basic concrete experience), but as regards its cognitive status it is figuratively constructed experience. We reuse this apparently concrete but figuratively understood conceptual material to comprehend and construct abstractions without being aware of their original figurative (metaphorical or metonymic) cognitive status.

The fact that even basic concrete experience is commonly construed figuratively, that is, by means of metaphor and metonymy, is not a new and original observation – Nietzsche, for example, suggested that "language is a graveyard of dead metaphors." The notion that even our basic concrete experiences are figuratively construed raises an important question for conceptual metaphor theory. CMT postulates (and empirically finds) that abstractions are routinely conceptualized as basic concrete experiences. But if this is the case and it is also true that language, including concepts that denote basic concrete experiences, is figuratively construed, why is it that we conceptualize the abstract in terms of the concrete? In other words, our fundamental distinction between the concrete and the abstract loses its significance if both of them turn out to be figuratively understood. Thus, we gain nothing by conceptualizing the abstract in terms of the concrete, so the CMT explanation for the (predominant) unidirectionality of metaphorical mappings from concrete to abstract (and not the other way around) loses is validity (since the concrete is also figuratively conceived).

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[1] The chapter reuses materials from previously published work in a revised form. In particular: Kövecses, Zoltán. 2017a. A radical view of the literal-figurative distinction. In A. Benedek and Á. Veszelszki, eds., *Virtual Reality – Real visuality. Virtual, Visual, Veridical.* 17–28. Frankfurt am Main: Peter Lang.

In classical accounts of literal meaning (such as Searle's, 1993), literal meaning is identified with meaning that denotes concrete things and that is conventionally used, including dead metaphors. This is a large and foundational set into which figurative meaning can always be "translated." The highest level generalization that supporters of both the classical theory of metaphor and conceptual metaphor theory make is that there is such a thing as literal meaning. Where they differ is in the role they attribute to it. Supporters of the classical view claim that literal meaning is the foundation of meaning in general and that figurative (metaphoric and metonymic) meaning depends on it. Adherents of conceptual metaphor theory suggest, by contrast, that literal meaning is not foundational in that sense.

But researchers in the CMT tradition greatly limit the extent of literal meaning, that is, the kinds of linguistic expressions that can be considered to have a literal meaning. They tend to delimit the extent of literal meaning in a variety of ways. In the chapter, I offer a radical view of the extent of the literal, which greatly reduces or even eliminates the literal – at least in a certain sense. (On this issue, see also Rakova 2003.)

2.1 Delimiting the Literal

Let us begin with dead metaphors. Despite their name, dead metaphors are not really metaphors according to the classical theory. They are expressions that acquired a new literal meaning. As we saw above, however, conceptual metaphor theory treats dead metaphors as metaphors, the justification being that dead metaphors are conceptually very much "alive" as examples of fully active *conceptual metaphors*. The conventionalized status of dead metaphors does not prevent them from being active in the conceptual system via the conceptual metaphors they belong to. (On a more refined distinction, see Müller 2008.)

Thus, in CMT the decision concerning what is literal is made on the basis of how an expression is processed. If it activates two conceptually linked domains, it is metaphorical; if it does not, it is literal. Lakoff (1993: 205) handles the distinction between literal and metaphorical in the following way: "those concepts that are not comprehended via conceptual metaphor might be called 'literal.'" But this still leaves us with cases that are hard to classify. For example, it is clear that "Time passed quickly" and "The time will come" are metaphorical due to the TIME IS MOTION conceptual metaphor. But what about *early* in sentences like "March comes earlier than April," a sentence used in one of Boroditsky's (2001) experiments? Is *early* literal or metaphorical? It is usually taken to be literal. But in the experiment Boroditsky found that speakers of English responded faster (saying TRUE/FALSE) when they received a horizontal prime, and speakers of Chinese were faster when they received a vertical prime. The results of this priming study indicate that a word we would take to be literal (since it is unrelated to motion) is comprehended metaphorically (since speakers are affected by a conceptual metaphor – horizontal versus vertical motion – in processing it). Thus, if the "comprehension via conceptual metaphor" criterion is correct, the word would have to be taken as metaphorical, not literal.

The criterion of "comprehension via conceptual metaphor" would give us a similar dilemma in a large number of cases, including that of the domain of time. As a matter of fact, the word *time* is open to the same question: is it literal or metaphorical? If the word *early* is understood metaphorically, and thus counts as metaphorical, then surely the word *time* is also understood metaphorically and has thus a metaphorical meaning. Or should we distinguish the name (the word) of a domain from the domain itself (the concept of TIME)? But can we separate word meaning from conceptualization in a cognitive linguistic framework? Isn't word meaning dependent of conceptualization (see Langacker 1987)?

We encounter the same problem in all the cases where there is an abstract target domain (ANGER, THEORY, TIME, DESIRE, etc.) involving many linguistic expressions that we would not hesitate to take to be literal (such as *anger, rage, ire, irritation, fury* for anger; *theory, idea, scheme, belief* for theory; *time, period, moment, minute, hour* for time; *desire, urge, longing, want, yearn* for desire; etc.). Can abstract concepts such as these be literal? That's how we feel about them intuitively. But this should not be the case if we apply the criterion of "comprehension via conceptual metaphor." Clearly, the concepts corresponding to them are all comprehended metaphorically via a number of different conceptual metaphors, such as ANGER IS FIRE, KNOWLEDGE IS VISION, TIME IS MOTION, DESIRE IS HUNGER, etc. My claim here would be that abstractions can only be conceptualized metaphorically, and consequently the linguistic items expressing these metaphorical conceptualizations can only be metaphorical.

However, we do not view them as such. The question is why. It seems to me that in such cases we apply a criterion different from "comprehension via conceptual metaphor" to establish what is literal. The criterion seems to be the following: If a word denoting an abstraction does not involve any overt morphological indicators or markers of more concrete source domains, the word is metaphorical in nature. The words above do not morphologically reflect any of the well-known conceptual metaphors (i.e., source domains) associated with the target domains in question (ANGER, KNOWLEDGE, TIME, DESIRE mentioned above). In this regard, they are very different from lexical expressions denoting abstractions, such as *burn* (with anger), *clear* (idea), *passage* (of time), and *hungry for* (love), which explicitly show the concrete source domains to which they belong.

At the same time, the assumed literal expressions belonging to abstract target domains such as the ones above can be regarded as complying with the Lakoffian criterion for metaphorical meaning: "comprehension via conceptual metaphor," as a result of which they would cease to be literal expressions. They would comply with it etymologically, that is to say, in a historical perspective. Etymologically, all of these words derive from figurative (metaphoric or metonymic) conceptualizations. For instance, the words *rage* and *fury* for anger go back to Latin where they had to do with madness and the words *theory* and *idea* in the knowledge domain have to do with vision and seeing in Ancient Greek (see, e.g., Sweetser 1990). Both of these cases show that the words that we take to be literal today are actually motivated by some of the same conceptual metaphors that motivate many of today's metaphorical expressions; namely, ANGER IS INSANITY and KNOWLEDGE IS VISION. In some other examples, the metaphor or the metonymy is not clear in the etymology, but the metaphoric or metonymic origin appears to be certain. According to etymological dictionaries (such as the Online Etymology Dictionary), *anger* originates from the Indo-European root meaning "tight, narrow, painfully constricted." This could probably be considered a case of metonymic conceptualization: THE CAUSE OF ANGER FOR ANGER, a generic-level metonymy for anger.

In other words, it seems that a large number of expressions (that belong to abstract domains) are taken to be literal, but in synchrony their corresponding concepts are metaphorically comprehended and from a historical perspective they have metaphorical or metonymic origins. Their perception as literal seems to be based on the fact that their morphology does not reveal to contemporary speakers any metaphoric origins.

The same argument can be taken further. In a historical perspective, many non-abstract concepts (i.e., concrete ones) have also emerged as a result of figurative processes. For example, in English the word *book* derives from the Proto-Germanic word **bokiz* meaning "beech" according to the Online Etymology Dictionary (www.etymonline.com). The explanation offered by the dictionary is that runic writing was inscribed on beechwood tablets. We may have a series of metonymies at work here. As another example, consider the word *storm*. The same dictionary suggests that it ultimately derives from the PIE root **(s)wer-* meaning "to turn, whirl." Again, this seems to be metonymic: THE EFFECT OF AN EVENT FOR THE EVENT. The concepts that arose by means of certain figurative processes, such as BOOK and STORM, later became source domains for more abstract concepts (e.g., ANGER IS A STORM). We are of course no longer aware that these concepts were produced by figurative means; we take them to be literal. But it is clear that the same kind of figurative conceptual processes were responsible for their emergence as the ones we use today.

2.2 So What Exactly Is Literal Meaning?

Most of this information is of course well-known. The reason I am discussing the issue here is to provide an answer to the question raised in the subtitle above. The answer seems to depend on (1) whether we allow a fuller application of the "comprehension via conceptual metaphor" criterion in synchrony (to cases like *anger* and *rage*) and (2) whether we allow a fuller application of the same criterion from synchrony to diachrony. It is a further issue whether it would be legitimate, and how legitimate it would be, to apply the principle more extensively. My view is that if we want to approach the issue from a coherent cognitive perspective, we can and should embrace the more extensive versions of the principle, that is, to extend it both to all the words and expressions that belong to a particular abstract target in synchrony and to concrete concepts in diachrony.

In my view, the extended application of the principle would be legitimate because, on the one hand, the linguistic expressions belonging to a particular abstract target are *all* comprehended metaphorically or metonymically (like *rage* and *fury* in ANGER), not just the prototypical item in the domain (i.e., *anger* for ANGER). And, on the other hand, the move would be legitimate because many of our categories for concrete objects and events had been comprehended figuratively in previous times. This latter step would also be justified because, by taking it, we would recognize our cognitive unity with others who lived before us. The fact that we comprehended figuratively many concrete objects and events that we take to be literal today is a very thin line that separates us from previous generations. Their figurative conceptualizations have become unmotivated to us since we do not know many things about the past, and thus we do not see the morphological cues that would reveal the figurative devices they have employed. But etymologies often tell us these stories.

What these stories indicate very clearly is that humans have always engaged in figurative ways of understanding the world – not only in the case of abstractions but also in comprehending the concrete, physical aspects of the world. The main difference between the two simply is that in the case of abstractions we have conceptually constructed previously nonexistent realms of reality, whereas in the case of concrete things already existing entities and events have been figuratively comprehended (such as rain as “God’s tears”). The emphasis of conceptual metaphor theory on the former case is understandable: It is the realm where conceptual metaphors work most fully, and they teach us important lessons about human cognition and the way we function in the world. As for the latter case (i.e., in the case of existing entities), we cannot even be certain that the same systematic mapping patterns we find in conceptual metaphors are applicable to the realm of the concrete. We do not know, but paying attention to this realm may turn out to be just as informative regarding the way we function cognitively.

The Radical Claim

Overall, then, taking the stand I sketched out here would lead to a considerable reduction of the extent of the literal. There would remain very little that would be understood in an entirely literal way. If we accept this position, we would actually reverse the assumption of the classical view of metaphor according to which it is the literal that is foundational for language and thought. Indeed, we would go even beyond the accepted view in conceptual metaphor theory according to which the literal is needed in order to be able to comprehend the world and to be able to create conceptual metaphors. In the radical alternative I suggest, the figurative would be foundational, and, in many cases, the literal would be regarded as figuratively comprehended aspects of the concrete realm, where we lost track of the figurative comprehension of the concrete. At the same time, it may be that this figurative comprehension of the concrete is not a passive one but a *conceptual construction* of existing things and events. The challenge would be to see in all cases whether this “conceptual construction” is or is not the same type of conceptual construction that we find in creating abstractions – the well-studied area of conceptual metaphor theory.

But all this is not to say that literal meaning does not exist. It does, and it plays an important role in conceptual metaphor theory as well. Without literal meaning, CMT in its present form would become incoherent. In the theory, abstract experiences are comprehended and created via concrete ones that are expressed by apparently literal language. If there is no literal language of some kind (corresponding to concrete experience), no metaphorical comprehension and creation could be seen as taking place.

What I have really argued for above is that the extent of the literal may be considerably smaller than we commonly assume. If we do not count as literal (1) dead metaphors, (2) abstract entities or events without explicit morphological indicators or markers for particular source domains, and (3) the large class of cases where a concrete entity or event is figuratively conceptualized historically, we are left with a rather limited set of cases. Actually, it is very difficult to assess the exact size of this *remaining* set (but see, e.g., work by Borghi et al. 2017; Altarriba et al. 2004). Based on research in a variety of disciplines, we can probably include in that set basic-level objects and events, a variety of spatial relations, basic emotions, body parts, and probably some others (see Lakoff 1993).

But *can* we? Even here, we run into problems. In all of these groups, we find items that are comprehended/constructed figuratively. For example, the basic-level category of wolf in Hungarian is *farkas*, literally meaning "the one with a tail," or "that which has a tail." This is the result of comprehending wolves metonymically due to some taboos on naming this animal in the ancient belief system. The English preposition *in* corresponds to the suffix *–ban/ben* in Hungarian, and the Hungarian preposition goes back to the word *bél* ("bowels") in its etymology. In this case, the body serves as the source domain for spatial relations. The English basic emotion term *anger*, as we saw above, probably has a metonymic origin. *Surprise* (deriving from old French, and ultimately Latin, *surprendre*), another basic emotion term, is the product of a metaphorical process that can be characterized by the metaphor SURPRISING (SOMEONE) IS UNEXPECTED SEIZURE/ATTACK (see Kövecses 2015b). Finally, the French word for the face, *visage*, derives from the Latin *visus* "sight." This is probably also metonymic. What the examples show is that even concepts that we can take to be based on our most basic and direct experiences, such as the animals that surround us in nature, fundamental spatial relations, basic emotions, and the parts of the human body can all be conceptualized figuratively.

In other words, under a broad definition of what is figurative, very little of the literal remains. This could seriously undermine a major claim of conceptual metaphor theory; namely, that a sufficiently large part of language and thought is about concrete things and is thus literal, and that we use this language and thought to conceptualize abstractions. What we saw above was that our most concrete experiences can be conceptualized figuratively, and not literally. But this does not mean that they cannot be used as source domains for figurative conceptualization. Rather, we seem to have a huge body of figuratively conceptualized concrete experiences that we take over from previous generations, use them as if they were entirely literal experiences, and turn them into vehicles for the further conceptualization of more abstract things. Ultimately, much of what we take to be literal is only *ontologically literal* (i.e., constitutes basic concrete experience), but as regards its cognitive status it is also *figuratively construed/constructed experience*. We reuse this apparently literal conceptual material in a figurative way to comprehend and construct abstractions without being aware of their original metaphorical or metonymic cognitive status.

2.3 Smell as a Target Domain

We can see the same situation in the case of the concept of smell. Probably there is general consensus that the sense of smell is one of the most basic ways in which humans (and animals) gather information about reality. For this reason it serves as a perfect source domain, very much in line with what we would expect. For instance, the concept of suspicion is conventionally conceived of as smell, hence the conceptual metaphor SUSPICION IS SMELL (as in, "I can smell trouble"). Immorality and, more generally, badness is conceptualized as (bad) smell (as in, "I can smell a rat"), yielding BAD IS SMELLY. And the vague and loose concept of "general atmosphere of something" is understood in terms of smell (as in, "What he did smells of fraud"), giving us the conceptual metaphor THE GENERAL ATMOSPHERE (OF SOMETHING) IS SMELL.

Thus we assume that smell is an ideal source domain. Given this, we would *not* expect it to be understood metaphorically, that is, as a target domain. But it is conceptualized as such. How is this possible? The reason, I suggest, is that smell, like any other concept, is characterized by a number of conceptual dimensions, or to put it in the framework of Langacker (1987), it is part of a domain matrix. Thus the concept of smell is connected to the idea that it is something that exists, that it is something that can have various degrees of intensity, that it is something that the perceiver, or experiencer, cannot help perceiving, that is, that he or she has no control over whether or not s/he perceives it. In other words, we can identify at least the following three dimensions for the concept of smell: existence, intensity, and lack of control.

In a "domain matrix" view of the conceptual system, the three dimensions are high-level, generic concepts that characterize many concepts, concrete and abstract alike. They function as shared dimensions of concepts. Existence, intensity, and (lack of) control are concepts that form an integral part of many domains, including smell. An important property of these dimensional concepts is that they are all generic-level ones and abstract. Such generic-level abstract concepts account for the metaphoricity of even the most tangible concepts, such as smell. The question is what kinds of conceptual metaphors are formed by making use of them in relation to smell. (The remainder of this section uses materials from Kövecses 2017a.)

Existence

Let us begin with existence. Consider some examples for how the existence of smell is presented by a dictionary:

VERB + SMELL **be filled with, have** *The air was filled with a pervasive smell of chemicals. The cottage had a musty smell after being shut up over the winter.* | **give off** *The skunk gives off an unpleasant smell when attacked.* | **catch, detect** *As she walked into the house she detected the smell of gas.* (boldface in the original)

The examples indicate a variety of ways in which the existence of smell can be conceptualized. In the case of fill, the smell is viewed as a substance and the object or location with the smell is viewed as a container, and the existence of the smell as the substance being in the container. In the case of have, existence of the smell corresponds to the possession of an object that is smell itself. In the case of give off, causing smell to come into existence is the transfer of an object and the source of the smell is a surface. Finally, catch and detect are not dedicated to denoting the existence of smell, they simply assume its existence.

The examples and their construals of the existence of smell they reveal point to the following conceptual metaphors:

filled with:
SMELL IS A SUBSTANCE
THE OBJECT / LOCATION THAT HAS THE SMELL IS A CONTAINER
THE EXISTENCE OF SMELL IS FOR THE SUBSTANCE TO BE IN THE CONTAINER

have:
SMELL IS AN OBJECT
THE EXISTENCE OF SMELL IS THE POSSESSION OF AN OBJECT

give off:
SMELL IS AN OBJECT
CAUSING SMELL IS TRANSFERRING THE OBJECT
SOURCE OF SMELL IS A SURFACE

The three cases conceptualize the experience of smell as the existence of a state. The state is either a substance or an object. Existence is viewed as a substance being in a container, as possessing an object, and as transferring an object. The three specific cases of existence metaphors for smell are thus instances of three generic-level metaphors for existence:

EXISTENCE IS BEING IN A CONTAINER
EXISTENCE IS POSSESSION
(CAUSING) EXISTENCE IS TRANSFER

These conceptual metaphors apply to a large number of specific-level instances of existence, not just to the existence of smell.

Intensity

Another generic-level concept that is linked to smell is intensity. In the case of smell, intensity involves a scale of values from weak to strong. Collocation dictionaries give us a good idea of this notion in relation to smell:

- ADJ. **overpowering, pervasive, pungent, rich, sharp, strong** *There was an overpowering smell of burning tyres.* | **faint** | **distinct** | **distinctive, particular, unmistakable** | **funny, peculiar, strange, unusual** *What's that funny smell?* | **familiar** | **lingering** | **aromatic, delectable, delicious, fragrant, fresh, lovely, nice, savoury, sweet, wonderful** *the aromatic smells of a spring garden full of herbs* | **warm** | **appalling, awful, bad, evil, horrible, nasty, offensive, terrible, unpleasant, vile** | **acrid, nauseating, putrid, rank, sickly** *An acrid smell filled the air.* | **damp, dank, musty, rancid, sour, stale** *the sour smell of unwashed linen* | **earthy, fishy, masculine, metallic, musky, oily, smoky, spicy** | **cooking** *Cooking smells drifted up from the kitchen.* (boldface in the original)

Many of these adjectives deal with the different kinds of smell, but some of them denote the intensity aspect of smell. These latter adjectives (and the verb fill) appear to be based on several different conceptual metaphors – in some cases, on etymological grounds:

overpowering, strong, faint: INTENSITY OF SMELL IS STRENGTH OF EFFECT
sharp, pungent: INTENSITY OF SMELL IS SHARPNESS OF AN OBJECT
vaguely: INTENSITY OF SMELL IS DEGREE OF BRIGHTNESS OF LIGHT
pervasive, fill: INTENSITY OF SMELL IS QUANTITY OF A SUBSTANCE

These conceptual metaphors that relate to the intensity aspect of smell also have their generic-level variants:

overpowering, strong, faint: INTENSITY IS STRENGTH
sharp, pungent: INTENSITY IS SHARPNESS
vaguely: INTENSITY IS BRIGHTNESS
pervasive, fill: INTENSITY IS QUANTITY

Lack of Control

The issue of control is also relevant to smell and perception in general. A curious property of perceptual experience is that we do not have control over what we perceive. If our sense organs are normal and no external circumstance blocks the perception, we undergo the perception of any existing perceptual stimulus. This is also often rendered in metaphorical ways – one of the chief ways among them (according to dictionary information) is by means of the verb *hit* in the case of smell. Consider the example taken from a dictionary: *Then the pungent smell hit us - rotting fish and seaweed.*

We can analyze the metaphorical use of *hit* as follows:

SMELL IS A PHYSICAL FORCE
INTENSE SMELL IS A STRONG PHYSICAL FORCE
SENSING AN INTENSE SMELL IS COMING INTO CONTACT WITH A STRONG PHYSICAL FORCE

The three basic conceptual metaphors above can be combined into a complex one that describes the metaphorical conceptualization of the perceptual experience of strong smell:

> THE EXPERIENCER OF AN INTENSE SMELL IS A PERSON COMING INTO ABRUPT PHYSICAL CONTACT WITH A STRONG PHYSICAL FORCE

But most importantly, the main point is, as before, that the specific-level conceptual metaphors are licensed by corresponding generic-level ones:

> CAUSES ARE FORCES
> INTENSITY IS STRENGTH
> SENSING IS CONTACT

Again, these generic-level metaphors pervade the conceptual system and allow us to conceptualize various kinds of causes, intensity, and sensation, not just smell as a cause, not just the intensity of smell, and not just sensing smell. In other words, smell as an extremely basic and direct experience has aspects to it that lend themselves to metaphorical conceptualization.

2.4 Conclusions

On the basis of the evidence we saw in this chapter, it seems that figurativity (i.e., understanding concepts by means of metaphor or metonymy) does not really distinguish concrete concepts from abstract ones. Both types of concepts (concrete and abstract) are characterized by being understood metaphorically and metonymically. As a result, we face a dilemma in accounting for the unidirectionality of metaphorical mappings in conceptual metaphors. We cannot claim that the concrete is understood in a literal way and we make use of this in comprehending and creating abstractions.

Does this situation mean we have to discard CMT? In my view, it should not mean that. We can propose, given the evidence we saw, that concepts consist of two parts: an ontological part that specifies what kind of ontological materials make up a concept and a cognitive part that specifies the ways in which concepts are cognitively construed or constructed. I assume that this distinction is similar, but at least related, to a distinction made by Langacker (1987, 2008) between the content part and the construal part of concepts.

Now, given the distinction, we can suggest that in the case of literal meaning for concrete concepts, the ontological content predominates over the cognitive-construal part. In many instances, the construal part is limited to certain generic-level dimensions of concepts, as we saw in the case of smell. These dimensions that are shared across many concepts in the conceptual system are figuratively (metaphorically, metonymically) understood. By contrast, in the case of abstractions, the construal part predominates over the ontological part.

The cognitive-construal part of abstract concepts is essentially figurative (metaphoric, metonymic). Their actual ontological part (i.e., their ontological content) is small. In experientalist philosophy (see Lakoff and Johnson 1999), we call this small ontological essence or core "embodiment." Embodiment retains the tangible content ontology of abstract concepts. This is what cognitive linguists and scientists mean when they talk about abstract concepts as not being "transcendental" but embodied.

Thus, both concrete and abstract concepts have both embodied content ontology and figurative construal (i.e., figuratively constructed understanding) – but in different proportions. In conceptual metaphors, we have predominantly content-ontology-based concepts as source domains and predominantly figuratively-construed concepts as target domains. There are probably no pure ontology-content-based concepts and no pure figuratively-construed concepts. This view explains, in addition, why an "ideal" source domain, such as smell, can also function as a target domain. The reason is that we can profile the ontology part in some cases (and we get a concept as a source domain, such as smell as source), but in others we can profile the figuratively construed/ constructed part (and we get target domains, such as smell as target).

3 Direct or Indirect Emergence?

Primary metaphors form the foundation of conceptual metaphor theory.[1] They are foundational, in that they are seen as directly emerging from our most basic embodied experiences and, also, in that they constitute complex metaphors. I will ask: Do they really emerge directly or do they emerge through a metonymic stage? There is a debate between scholars who suggest that many metaphors are based on, or derive from, metonymies, versus those who do not see such connection between the two. "Resemblance metaphors" do not seem to have anything to do with metonymy. However, in the case of "correlation metaphors" (on these, see, e.g., Grady 1997a,b, 1999; Lakoff and Johnson 1980, 1999), several researchers argue that metaphors arise from, and are not independent of, metonymies.

What is the relationship between metaphor and metonymy in our conceptual system? This issue is perhaps as old as the study of metaphor and metonymy, but I do not wish to approach it from a historical perspective. The issue that I address here is whether metonymies, or, more precisely, metonymic thinking, play any role in the emergence of metaphors. My starting point will be the debate taking place in especially cognitive linguistic circles between scholars who suggest that many metaphors are based on, or derive from, metonymies, as opposed to those who do not see such connection between the two.

The issue is relatively uncontroversial in the case of what are called "resemblance metaphors" (see Grady 1999), which do not seem to have anything to do with metonymy (unless we take the partial structuring of a target domain by a source domain metonymic in character, where the inevitably partial structure of the source, B, is used to conceptualize an equally inevitable part of the target, A, resulting in the metonymies A PART OF B FOR THE WHOLE OF B and A PART OF A FOR THE WHOLE OF A, given the general metaphor format A IS B. For this view, see, especially, Barcelona 2000). However, in the case of another kind of metaphor, called "correlation metaphors" in the cognitive linguistic literature (see, e.g., Grady, 1997a,b, 1999; Kövecses, 2002/2010;

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[1] This chapter is a revised and enlarged version of Kövecses (2013).

Lakoff and Johnson 1980, 1999), metonymy appears to be more clearly and importantly connected with metaphor, as argued by several researchers, such as Barcelona (2000); Kövecses (2002/2010); Kövecses and Radden (1998); Lakoff and Kövecses (1987); Radden (2002); Radden and Kövecses (1999); Taylor (1989), and others (in, e.g., the volume edited by Dirven and Pörings 2002). In contrast, several recent influential researchers within the conceptual metaphor paradigm believe that correlation metaphors (best known as "primary metaphors") come into existence independently of, or without any recourse to, metonymy (most notably, Grady 1997a,b; Grady and Johnson 2002; Lakoff and Johnson 1999).

As will be clear from the chapter, I align myself with the former group and suggest that many metaphors (of the correlational kind) derive from metonymies, that is, they have a metonymic basis. What distinguishes my position from the view of the other proponents in the group that favors a metonymy-based emergence for many metaphors is that I attempt to establish the relationship between metaphor and metonymy by relying on several particular characteristics of the conceptual system, as we know it today.

My specific proposal in the chapter will be that correlation-based metaphors emerge from frame-like mental representations through a metonymic stage. I suggest this happens when one of the elements of a frame-like mental structure is generalized (schematized) to a concept that lies outside the initial frame in a different part of the conceptual system. The generalization process leads to sufficient conceptual distance between the initial and the new frame on which metaphors can be based.

3.1 A Brief Note on the Conceptual System

I take the conceptual system to be a structured organization of concepts and a set of cognitive operations that are used to make sense of the world. In the chapter, I make especial use of certain aspects and certain cognitive operations of the system. In particular, I assume that the conceptual system is hierarchically organized (see, e.g., Rosch 1978), consists of frame-based concepts (see, e.g., Barsalou 1999; Fillmore 1982; Lakoff 1987; Langacker 1987), is dynamic in its functioning (see, e.g., Barsalou 1999; Gibbs 2003; Gibbs and Cameron 2007; Langacker 1987), and is embodied in nature (see, e.g., Gibbs 2006; Johnson 1987; Lakoff 1987). In addition to focusing on the cognitive operations of metaphoric (see, e.g., Gibbs 1994; Kövecses 2002/2010; Lakoff and Johnson 1980, 1999) and metonymic conceptualization (see, e.g., Barcelona, Benczes, and Ruiz de Mendoza 2012), I will also rely on two further cognitive operations in this chapter – generalization, or schematization, and specialization, or elaboration, as these have come to be used in cognitive linguistics (see, especially, Langacker 1987, 2008).

There are two kinds of structure that characterize the conceptual system. Conceptual systems are organized “vertically,” which, essentially, provides for a thematic structure in the system (see, e.g., Rosch 1978) and also “horizontally,” which, essentially, defines individual concepts and consists of smaller domains, or frames, or idealized cognitive models (see, e.g., Barsalou 1999; Fillmore 1982; Lakoff 1987; Langacker 1987).

3.2 Metaphor or Metonymy?

There are many cases where it is difficult to distinguish metaphor from metonymy, given “standard” definitions of metaphor and metonymy (see, e.g., Goosens 1990). A common definition of metaphor in conceptual metaphor theory is that in metaphor we conceptualize one domain in terms of another (Lakoff and Johnson 1980). In metonymy, an element in a domain, or frame, provides mental access to another element within the same domain, or frame (Kövecses and Radden 1998; Radden and Kövecses 1999). The cases where metaphor and metonymy are difficult to distinguish are those where it is not clear whether we deal with one domain, or frame, or two (see also, Croft 1993). My suggestion is that in order to be able to resolve the dilemma, we have to take into account the larger structure of the conceptual system; namely, the structure consisting of both thematic hierarchies and frames, as well as the cognitive operations of generalization (schematization) and specialization (elaboration). Broadly speaking, two cases can be distinguished. In the first, there is an initial frame and an element of this frame is generalized to become the *source concept* of a conceptual metaphor. In the second, there is a frame and an element of this frame is generalized to become the *target concept* of a conceptual metaphor.

Case 1: A Frame Element Becomes the Source

In this case, a frame that becomes the metaphoric target domain involves an element that becomes the metaphoric source domain: This element is generalized to a concept outside the original frame. For an initial illustration of the difficulty concerning whether particular expressions are metaphoric or metonymic, consider as an example some emotion-related expressions:

He is in low spirits. (sadness)
She is feeling up. (happiness)
He is a hothead. (anger)

Are these metaphoric or metonymic expressions? We could argue both that they are metonymic and metaphoric. To be physically down is a part of our folk theory of sadness, to be upward-oriented is a part of our conception of happiness, and an increase in body heat is an important ingredient of our everyday idea of anger. And, of course, our folk theories of sadness, happiness, and anger each constitute single coherent domains, or frames, mentally representing the concepts, in which we have the elements of being physically downward-oriented, upward-oriented, or characterized by a higher than normal body temperature, respectively, for sadness, happiness, and anger. In other words, in all these cases we have a single domain, or frame, for the concepts of SADNESS, HAPPINESS, and ANGER, where an element of the frame is used for the whole frame; that is, we have to do with metonymies, given our definition above.

But we know that, for example, in the 1999 Lakoff and Johnson view as presented in their *Philosophy in the Flesh*, these are some of the prime examples of conceptual metaphors. Following Lakoff and Johnson, we would not hesitate to assign these linguistic expressions to the conceptual metaphors SAD IS DOWN, HAPPY IS UP, and ANGER IS HEAT, respectively. So what is the appropriate way of thinking about such cases? Should we claim that the expressions are based on the conceptual metonymies THE DOWNWARD ORIENTATION OF THE BODY FOR SADNESS, THE UPWARD ORIENTATION OF THE BODY FOR HAPPINESS, and AN INCREASE IN BODY TEMPERATURE FOR ANGER? Or should we suggest, instead, that they are based on the conceptual metaphors SAD IS DOWN, HAPPY IS UP, and ANGER IS HEAT?

Let me offer the following solution to the dilemma: We have certain behavioral responses associated with these emotions. For example, sadness includes drooping body posture, mouth turned down, etc. These are generalized into the concept of “downward bodily orientation.” Given the general EFFECT FOR CAUSE metonymy (on schematic metonymies, see Ruiz de Mendoza and Mairal 2007) and given that behavioral responses function as metonymies in emotion concepts (Kövecses 1986, 1990, 2000b, 2008; Lakoff and Kövecses 1987), we get the specific metonymy DOWNWARD BODILY ORIENTATION FOR SADNESS. All of this happens inside the SADNESS frame, since DOWNWARD BODILY ORIENTATION is one of the behavioral responses associated with sadness.

But downward bodily orientation can also lead to metaphoric conceptualization in two, possibly successive, ways. The first is that “downward bodily orientation” can be generalized to the concept of DOWN(WARD). This (i.e., DOWN) is a spatial concept that, in virtue of the process of generalization (or schematization) from behavioral responses characterized by a downward spatial orientation in sadness, is divorced and distinct from the actual behavioral responses associated with sadness inside the SADNESS frame. The generalized, or schematized, concept of DOWN(WARD) is in the SPACE thematic hierarchy, and not in the EMOTION one, where the more specific responses characterized by a downward orientation can be found. And since it is divorced and distinct from them (i.e., is outside the SADNESS frame), it can now be seen as a (source domain of a) metaphor for sadness: hence the conceptual metaphor SAD IS DOWN. SADNESS is in the EMOTION-dominated part (target) of the hierarchy, whereas DOWN(WARD) is in the (more concrete) SPACE-dominated part (source).

The conceptual metaphor SAD IS DOWN resulting from the generalization, or schematization, of various behavioral responses motivates, or, to use different cognitive linguistic terminology, licenses, or sanctions, a number of metaphorical linguistic expressions, such as "to feel *down*," "to be in *low* spirits", and the like. But, possibly based on this generalization, we can develop further metaphorical conceptualizations in the following way: The notion of DOWN can be elaborated by a large number of more specific instances of space that have nothing to do with sadness as conceived in the SADNESS frame, including places with a downward orientation, such as pits (resulting in "be in the *pits*"), dumps (resulting in "be down in the *dumps*"), and the like. This is the second way in which downward bodily orientation can lead to metaphoric conceptualization.

Thus, given the example above, we can suggest that metaphor appears to be based on and derive from metonymy (as suggested by Lakoff and Kövecses for anger and by several other authors, e.g., Barcelona 2000; Radden 2002). The details of this development in many cases, such as the SAD IS DOWN metaphor, involve the process of generalization, or schematization, from specific bodily responses characterized by a downward orientation (leading to a more general spatial concept, DOWN, in the case of SADNESS) and (then) the process of specialization, or elaboration (leading to elaborations of the same schematic spatial concept). Kövecses and Radden (1998) make a similar argument for the source domain of HEAT in relation to anger in the conceptual metaphor ANGER IS HEAT (Lakoff and Kövecses 1987).

Consider now another example – the relationship that obtains between closeness and intimacy. This is usually conceptualized, and viewed, as the metaphor INTIMACY IS CLOSENESS. But, similar to the previous cases, we can also conceptualize the relationship between the two concepts as metonymy. Since children and adults in general who are in an intimate relationship with each other tend to be physically close (and, as a result, be able to touch each other, feel the body temperature of the other, be able to smell the other, etc.), we can think of it as a metonymy: CLOSENESS FOR INTIMACY. However, the physical closeness that characterizes intimacy is specifically between two people – with the several specific consequences just mentioned. Thus the less generic version of the metonymy is PHYSICAL CLOSENESS BETWEEN TWO PEOPLE FOR INTIMACY. Similar to the generalization process we have seen for sadness above, the PHYSICAL CLOSENESS BETWEEN TWO PEOPLE is then generalized, or schematized, to the concept of CLOSENESS. The words "close," "distant," "remote," and others, describe closeness (or a lack of it) between any two physical objects, not just people. Since PHYSICAL CLOSENESS BETWEEN TWO PEOPLE is a conceptual element of a single coherent functional domain, the INTIMACY frame, we can think of the relationship between this element and intimacy as a metonymic one.

At the same time, the more general concept of CLOSENESS is part of a taxonomic, or thematic, hierarchy – the "vertical" domain of SPACE. When this more general concept is used in the mapping, we get the metaphor INTIMACY IS CLOSENESS. In addition, the generalized, or schematized, concept of CLOSENESS can undergo specialization (elaboration). When this happens, we get more specific linguistic expressions to talk about intimacy (or a lack of it), including "bond," "tie," "tight as a glove," and "remote." It is clear that "bond" and "tie" represent instances of closeness, in that they are manifestations of two objects being close. "Remote" is special because it primarily obtains between physical places – not physical objects. In other words, the relationship between CLOSENESS and INTIMACY can be analyzed in the same way as that between DOWN and SADNESS.

The above analysis leads to the conclusion that, in at least some cases, metaphors derive from metonymies through the application of the cognitive processes of generalization (schematization) and specialization (elaboration). The way this can happen is that there is a particular frame with a specific element inside the frame, and the element can be used to provide access to the whole frame, i.e., it can be used metonymically. This is the metonymic stage of the process. Further, the element inside the frame involves or is characterized by a particular frame-specific concept, which is, then, generalized, or schematized, into a concept that exists outside the frame (often in a different taxonomic hierarchy). When this happens, we have to do with metaphor, i.e., where the initial frame, or domain, is conceptualized in terms of another, conceptually distant frame, or domain (where conceptual "distance" derives from being in a different taxonomic hierarchy).

It could be asked how general this account actually is. Can it be that it only applies to emotion metaphors and metonymies? To see this, let us now take another metaphor that comes from outside the emotion domain. Consider now CONTROL IS SEEING (see Sweetser 1990), as exemplified by expressions like "*see* to something" ("I'll *see* to it . . ."), "*keep an eye* on something" ("I'll *keep an eye* on it for you."). It can be suggested that we have a frame (or scene) in which visual monitoring is one of the things we do when we guard or otherwise keep control over an entity. In the initial frame, there is a correlation between visual monitoring and guarding. Since the correlation occurs within the same frame (or scene), we can use one element of the frame (visual monitoring) to have access to the whole frame (guarding) – a situation that yields the metonymy VISUAL MONITORING FOR GUARDING (or other kinds of CONTROL).

Visual monitoring is a kind of seeing, just as guarding and other forms of keeping control are kinds of control. Given the initial frame in which they are correlated, when visual monitoring is generalized (schematized) as SEEING and when various forms of control, such as guarding, are generalized (schematized) as the notion of CONTROL in very different vertical hierarchies of the conceptual system (control vs. vision), we conceptualize CONTROL through SEEING. We can think of this relationship as a metaphor, rather than metonymy, because SEEING and CONTROL are in distant parts of the conceptual system (perception vs. social relation, or the like). But, in all probability, they are brought together in the metaphor in the first place because their more specific versions (visual monitoring and guarding) are both parts of the same (initial) frame, or functional domain (or scene). Without this co-occurrence in the same frame (yielding a metonymy), we would probably not have thought of conceptualizing the control domain as seeing, yielding a metaphor.

Given this analysis, the following general picture seems to emerge: One of the events or states within a single initial frame (the original frame that becomes the metaphorical target domain, such as INTIMACY or GUARDING/CONTROL) gives rise to a distinct frame that becomes the metaphorical source. We can represent this as follows:

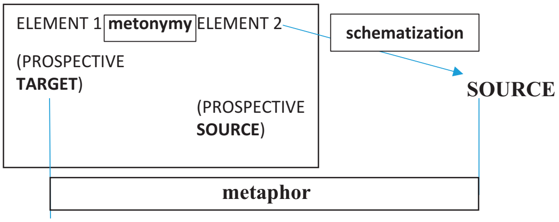

Figure 3.1 Schematization of the prospective source domain

In the examples, we have seen so far, there is a correlation between two events or states within the same frame, or scene (e.g., physical closeness between two people and being in an intimate relationship within the INTIMACY frame or visual monitoring and guarding within the GUARDING frame), such that one of the events or states (e.g., being in an intimate relationship or guarding someone or something) is accompanied by the other event or state (e.g., being physically close to another person and visually monitoring someone or something) that is generalized, or schematized (e.g., as closeness and seeing). In other words, in such cases the original frame that becomes the metaphorical *target gives rise to the source* in the metaphor.

Case 2: A Frame Element Becomes the Target

In this case, a frame that becomes the metaphoric source involves an element that becomes the metaphoric target: This element is generalized to a concept outside the original frame. Unlike Case 1, in another set of well-known metaphors, we find the opposite process: The original frame that becomes the metaphorical *source gives rise to the metaphorical target.* There is a correlation between two events or states within the same frame, or scene, such that one of the events or states gives rise to the event or state that becomes the target domain. In such cases, one of the events or states in the original frame, or scene, that becomes the *source domain* of the metaphor *gives rise to the target.* One such metaphor is KNOWING/ UNDERSTANDING IS SEEING.

When we see something, it enters our awareness, and we can examine it, identify its size, weight, color, etc., we can describe it; thus, we can find out about it, we can know it. Seeing something physical commonly makes knowledge about things possible and knowing something commonly requires seeing things. The relationship between seeing something physical and knowing it can be thought of as a correlation between two experiences (seeing and knowing) within the same frame-like structure, and we can think of one event (seeing) as enabling the other (knowing). When seeing something physical and knowing the thing are co-present and correlated in the same frame-like mental structure, we can regard their relationship as a metonymic one and use one for the other, where the metonymy would be SEEING SOMETHING PHYSICAL FOR KNOWING THE THING.

However, not all forms of knowledge involve physical things that can be known by seeing. Our knowledge regarding nonphysical things, such as ideas, theories, facts, feelings, memories, are of an entirely different sort. We do not know and understand them because we physically see them, but we can conceptualize how we know or understand nonphysical things on the basis of what happens when we see something physical and know it. This requires that we generalize the concept of knowledge as based on physical things to a concept of knowledge that is independent of our perceptual experience. Knowledge thus becomes a concept (representable by means of a frame-like mental structure) that exists independently of our perception-based experiences (such as seeing). This highly schematic concept can become the target domain, and we can conceptualize knowing something nonphysical as seeing something physical; hence the metaphor KNOWING IS SEEING. (A similar argument, following and reassessing Traugott and Dasher 2002, for the development of this metaphor can be found in Sullivan 2006.)

Just as in the previous cases (Case 1 above), the question arises whether the course of development outlined above for the KNOWING IS SEEING metaphor is a unique feature of this metaphor or it applies to other metaphors as well. As a further example, let us take the ACHIEVING A PURPOSE IS ARRIVING AT A

DESTINATION (better known as PURPOSES ARE DESTINATIONS) metaphor. We can suggest that here as well we have a frame-like mental structure, in which there are two correlated events: arriving at a destination and achieving a purpose. In those cases where our only goal is to get to a destination, arriving at the destination implies achieving our goal. Thus there is a fundamental and inherent correlation between destination and purpose that characterizes the "going to a destination" frame. But in other cases, we want to reach a destination because we have additional purposes to achieve at those destinations. These two types of situation indicate that, often, reaching a destination is necessary to achieve our goals (either getting to the destination or getting to the destination to do something else there). Thus, the relationship between the two events can be taken to be based on a conceptual metonymy, where an element of the frame can be used for the other element, yielding the metonymy ARRIVING AT A DESTINATION FOR ACHIEVING A GOAL.

This kind of direct goal achievement can be extended to cover still other cases, where we have goals that have nothing to do with going to a destination. There exists an extended and general meaning of the concept of purpose that is entirely independent of going to a destination. We may have goals that have nothing to do with going to destinations. Thus, the purpose is outside the "going to a physical destination" frame; it is distinct from it and is in a distant taxonomic hierarchy. This is a highly generic and schematic idea of purpose – the kind of purpose that can be conceptualized metaphorically by means of the "going to a physical destination" frame, or scene. This way, the "physical destination kind of purpose" leads to a highly schematic concept that becomes the target domain of the metaphor ACHIEVING A(NY KIND OF) PURPOSE IS ARRIVING AT A DESTINATION (or PURPOSES ARE DESTINATIONS, for short).

In other words, in the kinds of cases we have seen in Case 2, given a frame, an event or state (e.g., seeing) that becomes the source domain of a metaphor gives rise to an event or state (e.g., knowing) that becomes the target. This is the opposite of the previous cases discussed under Case 1, where, given a frame, an event or state that becomes the target domain gives rise to an event or state that becomes the metaphoric source. Case 2 can be given visual representation as follows:

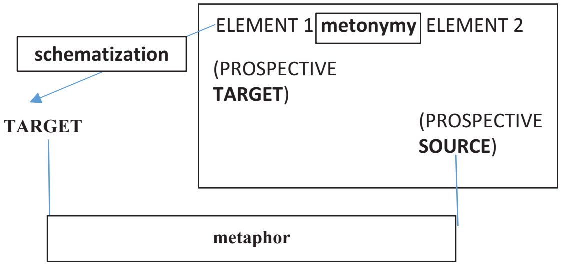

Figure 3.2 Schematization of the prospective target

However, in both cases, given two events or states in an initial frame, one event or state stands metonymically for the other event or state within the same frame, and, then, one of the events or states is generalized (schematized) in such a way that it becomes independent of the original frame. When the latter happens, we find the two initially co-occurring and correlated events or states within the same frame emerging in two distinct and conceptually distant frames in different parts of the conceptual system. We can now think of such cases as metaphoric connections between the frames.

3.3 Some Further Issues

In this section, I take up three issues that are relevant to the discussion of the metaphor-metonymy relationship. They are (1) the question of whether there are similar approaches to the problem, (2) the issue of the components of scenes, and (3) the nature of correlations.

Similar Approaches

The idea that an event or state can stand metonymically for another event or state within the same frame, or frame-like mental structure, and that one of the events or states can be generalized, or schematized, to a concept that exists independently of the original frame (thus leading to a metaphor) is compatible with several approaches that provide accounts of how metaphors and metaphorical meanings emerge.

One such approach is Grady and Johnson's (2002) work, where they note that some metaphorical usages are associated with scenes where the literal and metaphorical meanings of words (like the visual and cognitive senses of "see") are not initially distinguished by children; the two meanings of a word are conflated. Later on, however, the meanings are distinguished by children, that is, deconflated. The notions of conflation and deconflation are Grady and Johnson's way of accounting for the emergence of primary metaphors. A primary scene, such as that of "becoming aware by seeing," consists of two subscenes: in this case, the perceptual subscene of seeing something and the cognitive subscene of becoming aware of something. For example, in the process of the emergence of the metaphorical sense of "see," the child learns to differentiate the cognitive subscene and the perceptual one, which gives rise to the primary metaphor KNOWING/ UNDERSTANDING IS SEEING. In the account I am proposing, the stage of deconflation could be seen as being preceded by a metonymic stage, where one of the events or states stands metonymically for the other within the same primary scene. Furthermore, I would also suggest that deconflation can occur after the generalization, or schematization, of one of the events or states has taken place. This stage can be seen as opening the way to the emergence of metaphors – the stage where an event or state is generalized to a concept that exists independently of the scene, or frame-like mental structure, in a distinct and distant part of the conceptual system.

We can find some evidence for this account in some corpus-linguistic research. In her argument against a rigid distinction between literal and metaphorical meaning Deignan (2005: 66) presents a set of linguistic examples that seem to indicate the three stages of the sense development mentioned above in connection with the verb *see*, as it is used in the CONTROLLING IS SEEING conceptual metaphor. Consider the following examples of the use of the idiom *keep an eye on*:

(1) This means that while Julia is cooking she can still *keep an eye on* their two young children.
(2) [The job] entails collecting the rent and *keeping an eye* on some housing association flats.
(3) Often a scheme will need backing for several years. During this time the Field Director [will] *keep an eye on* its progress.

The idiom *keep an eye on* has to do with the conceptual metaphor CONTROLLING IS SEEING. Deignan argues that in the first example *keep an eye on* is metonymic, in the second it is ambiguous between a metaphoric and metonymic interpretation, and in the third it is metaphoric. Example (2) that is ambiguous between a metaphor and a metonymy corresponds to the deconflation stage and example (1) to the metonymic stage in my interpretation. It should be noted, however, that this corpus-linguistic evidence is only partial. It relates to the contemporary simultaneous existence of the metonymic, metonymic-metaphoric, or metaphoric uses of the expression. It does not tell us anything about the sequence in which this differentiation may have evolved through time.

Several other authors make a more or less similar argument concerning the metaphor-metonymy relationship, but they all use conceptual machinery that is different from the one I use here (see, e.g., Barcelona 2000; Taylor 1989; and several papers in Dirven and Pörings 2002). For example, a piece of work that seems fully compatible with the approach advocated here is Radden's (2002) paper. Radden argues that in a large number of cases metaphors derive from metonymies and that they emerge through a continuum involving literal meaning through metonymy to metaphor. He distinguishes four cases where metaphorical meaning, and more generally, metaphors, can derive from metonymy: (1) correlations in experience, (2) conversational implicature, (3) taxonomic structure of categories, and (4) cultural models. The obvious similarity between his approach and mine is that we both see many metaphors as deriving from metonymy. As a matter of fact, several of the examples discussed in his paper are the same as the ones discussed here. An important difference, though, between his proposal and mine is that while Radden identifies four different sources for the emergence of metaphors from metonymy, I offer a more unified view that crosscuts his four sources and that accounts for metonymy-based metaphors in terms of two events or states being correlated in experience, a situation that is represented conceptually by means of a frame-like mental structure. In other words, I view correlations between two events or states as involving or underlying three of his four proposed metonymic sources. (Radden also recognizes correlation as a metaphor-producing source in his first group of sources.)

The view of the metonymy-metaphor relationship as based on correlations between elements of a frame would bring the account I propose closer to Grady's notion of primary metaphor that is also based on the notion of correlation. However, Grady's view and mine are different on a number of points. Grady and Johnson (2002: 540) define primary metaphors as follows: "… primary metaphors are motivated by tight correlations between distinguishable dimensions of recurring, locally defined experience types. We refer to these dimensions, which unfold dynamically over very brief time spans, as subscenes."

And in the same paragraph they continue: "Note that because subscenes are co-occurring aspects of simple scenarios, our account might be taken to suggest that primary metaphors arise from metonymies; it is important to consider, however, that a metonymic relationship concerns conceptual and referential association, whereas our proposal refers to correlations at the level of experience, and to truly metaphoric patterns of conceptualisation which arise from these correlations."

Here Grady and Johnson explicitly deny the possibility that primary metaphors arise from metonymies – the claim I have made. They base their argument on the idea that while metonymy "concerns conceptual and referential association," primary metaphors concern correlations in experience. But in order to become linguistically coded, experiential correlations must be conceptualized, and once conceptualized, experiential correlations also become conceptual (associations). Grady and Johnson also argue that primary scenes and the subscenes that constitute them have a unique status among the conceptual tools (such as domains, frames, mental spaces, schemas) used to represent categories in the conceptual system. If valid, this argument could be used to suggest that since metonymies can be found in frames, and since primary scenes are different from frames (and other similar conceptual structures), primary metaphors cannot derive from metonymies (which are tied to frames). However, it is notoriously difficult to distinguish frames, mental spaces, domains, schemas, scenarios, scripts, and, importantly, scenes from each other in such a way that a distinction between primary metaphor and metonymy could be based on the distinction. All of these conceptual structures are mental representations of coherent aspects of human experience. As such, despite their various differences in abstractness and the kinds of aspects of the world they are taken to represent in the various disciplines (see, e.g., Andor 1985), they are all coherent mental representations of aspects of the world consisting of parts and being conceptualized as wholes. (This is why in several places in the chapter I have used the term "frame-like mental structure" that fits the general, overarching definition. In the next chapter, Chapter 4, I will take up this issue for a different purpose.) The correlations between events, states, actions, etc. (the subscenes) that make up primary scenes may be thought of as coherent organizations of human experience (i.e., frame-like conceptual structures) as well, with parts constituting wholes. Because of this, metonymies may be based on primary scenes as well, and, as proposed above, may in turn lead to metaphors (for an early formulation of this idea, see, e.g., Kövecses, 2002/2010; Kövecses and Radden 1998; Radden and Kövecses 1999).

In a more recent paper, Grady (2005) is careful to point out that many metonymies are also correlations between concepts (such as AUTHOR FOR WORK, PLACE FOR INSTITUTION, MEANS FOR ACTION), or to put it differently, some correlations lead not to metaphoric connections but to metonymic ones. Grady proposes that those correlations in experience lead to primary metaphors that meet three conditions: (1) the correlation is between a sensory and a nonsensory (mental) experience; (2) the two correlated experiences share highly schematic structure; and (3) the correlated experiences covary, that is, if there is a change in one, there is a similar change in the other.

In other words, on this view, a small group of correlations (characterized by the three properties) gives rise to metaphor, not to metonymy. As an alternative account, I would propose to consider this special correlation type as deriving from metonymy because, as I argued, the components of primary scenes function as parts (elements) within a single frame-like mental structure conceptualized as a whole, where a component part can provide access to either another component part or to a whole (and then, through generalization, paving the way for the emergence of full-blown cases of metaphor). As a matter of fact, the sensory-nonsensory condition that characterizes metaphors in the theory of primary metaphor may well be thought of an equally good condition for metonymy. Given a frame or (primary) scene, the conceptual element that represents something sensory in the frame or scene is typically selected to stand for something nonsensory. That is, the sensory-nonsensory distinction can be regarded as a further member of the series of factors (or conditions), such as "human over nonhuman," "visible over nonvisible," "specific over nonspecific," etc., that are commonly evoked to explain which element can provide access to another element in the most typical manifestations of metonymy (Kövecses and Radden 1998; Radden and Kövecses 1999).

Components of Scenes

I suggested above that scenes are like other frame-like mental structures that can lead to metonymy (and then metaphor). The question I would like to take up now is what the components are, or can be, that make up such frame-like structures. One way in which primary scenes are distinguished from other frame-like structures is that they consist of two subscenes of events, actions, or states, both involving at least one entity and one relation (e.g., x sees y and x knows y). These events, states, and the like (the subscenes), are then taken to be correlated and form the basis of primary metaphors. But can we distinguish primary scenes from other frame-like representations on this basis? Is it the case that frame-like mental structures that can give rise to metonymy consist of entities (representing individuals and relations) only and that they cannot include (pairs of) combinations of entities and relations (i.e., subscenes) of the kind we have seen, for example, for KNOWING IS SEEING? This is not the case. Recent metonymy researchers commonly work with notions like complex events and subdomains in their studies of metonymy, which often contain combinations of entities and relations (similar to "x sees y"). In other words, it appears that the proposed nature of subscenes does not distinguish primary scenes from other frame-like mental structures. It would perhaps be more expedient to think of frame-like representations as being composed of either individual entities and relations, combinations of entities and relations, complex events consisting of simple ones (such as cooking or speaking), or subdomains constituting larger domains. For the purposes of the study of metonymy, we could conceive all of them as *elements* of frame-like structures that can give rise to metonymies. The elements can be of any complexity and either one can be used for another element or the whole (given the conditions, including "sensory over nonsensory," mentioned in the previous subsection). However, it is clear that for metaphor to emerge from such frame-like structures we need two elements that have more complexity than simple entities, as Grady and Johnson correctly observe. But this complexity may derive not only from subscenes but also from any complex events or subdomains.

The Nature of Correlations

Another question we should consider in connection with the "metaphor-metonymy relationship" issue is what we mean by correlation. Proponents of the theory of primary metaphors appear to limit correlations to dimensions of experience that are "tight" and "which unfold dynamically over very brief time spans." There are, however, many other correlations in experience that are less tight and that occur over much longer time spans. Such less tight and less brief correlations in experience can also bring together elements (of any complexity) in frame-like mental structures and can, at least initially, produce metonymies within the frame, and, then, metaphors that are based on the metonymies. It might turn out that some of our concepts that form conceptual metaphors today may be (or may have been) based on correlations in experience that are less tight and that have worked through historical time (e.g., correlations between symbols and their referents, between models and what they are models of). The evolution of particular cultures and systems of categories can probably also produce metaphors that emerge over long time spans through a metonymic stage in the process. If this suggestion is valid, a number of conceptual metaphors that are now taken to be nonprimary and not based on correlations may turn out to be correlational ones, thus further blurring the distinction between primary and nonprimary metaphors.

3.4 Conclusions

In the chapter, I suggested that many metaphors arise from, and are not independent of, metonymies. It should be made clear that, contrary to some interpretations, the claim is not that correlation metaphors are not really metaphors but metonymies. For example, Dancygier and Sweetser (2014: 104) write in connection with my suggestion: “Kövecses (2013) explicitly argues that all conceptual metaphors are based in metonymy; however, correlation is not metonymy but the basis for metonymic uses of one thing to stand for something correlated with it.” This is not what I claim. First, I do not claim that *all* conceptual metaphors are based in metonymy. Obviously, resemblance metaphors are not metonymy-based. Second, my proposal was that correlation-based metaphors emerge from frame-like mental representations *through a metonymic stage* (not a metonymic linguistic expression), a “metonymy-producing relationship” (see Kövecses and Radden 1998; Radden and Kövecses 1999) between two elements of a frame (if you wish, “the basis for metonymic uses”). This is, I assume, a perfectly natural process. It is in line with how correlations in general produce a large number of metonymy types. Indeed, we can think of experience types as being constituted by several more basic correlated elements (parts). Given the elements of experience constituting experience types, there are a large number of metonymy-producing relations that underlie the metonymies (metonymic expressions) we use.

When do the elements that are metonymically related lead to metaphors? I proposed this happens when one of the elements of a frame-like mental structure is generalized (schematized) to a concept that lies outside the initial frame in a different part of the conceptual system. The generalization process leads to sufficient conceptual distance between the initial and the new frame on which metaphors can be based. In order for metaphors to emerge, in the typical cases, distant vertical taxonomies are involved. This explains the importance of taxonomic hierarchies and frames in our conceptualization of the "metaphor-metonymy relationship."

The generalization (schematization) process can apply to either the element in a frame that becomes the source or the target domain of a metaphor. When it applies to an element that becomes the source (Case 1), the other element will be the target of the metaphor (e.g., SADNESS IS DOWN). I described this situation as "target giving rise to the source." In the other case (Case 2), the generalization applies to an element that becomes the target, and the other element will be the source (e.g., KNOWING IS SEEING). I described the situation as "source giving rise to the target." Furthermore, when either the source or the target is generalized (schematized), we can get elaborations. For example, HEAT as the source of ANGER can be elaborated as "fire," "stew," "boiling water," "blood," "piss," "volcano," "lava," and so on. And when, say, DIFFICULTY as target is elaborated in the metaphor DIFFICULTY IS WEIGHT, we get "problems," "emotions," "responsibilities," and so on (and hence we get the metaphors PROBLEMS ARE WEIGHTS, EMOTIONS ARE WEIGHTS, and RESPONSIBILITIES ARE WEIGHTS). Needless to say, the source WEIGHT can also be elaborated (as, for instance, "burden" and "baggage") – in, often, culture-specific ways.

I believe the view outlined here provides a coherent overall account of why many metaphors can be interpreted as metonymies and why many metonymies can be taken to be metaphors. The reason seems to be that, in the case of correlational metaphors, between a nonfigurative and a metaphoric stage there is a metonymic one. Given a frame in which the correlations apply between two elements, there must be a logically prior metonymic relationship between the elements before one element is moved out of the initial frame to establish a new and independent frame, which will form either a metaphoric source or target. Only future research can decide whether this explanation can be extended to cases of conceptual metaphors not analyzed (only hinted at) in the present study.

4 Domains, Schemas, Frames, or Spaces?

In the previous chapter, I have talked about "frame-like" conceptual structures in connection with metaphor. This way of talking about the conceptual structures that are involved in conceptual metaphors is useful when we wish to highlight what is common to such structures (namely, that they are all coherent organizations of experience). However, if we are interested in the variation of the structures that conceptual metaphors can utilize and display, we need to be able to identify the way (or ways) in which these conceptual structures systematically differ from one another.

Metaphor researchers, including myself (see Chapter 3), working within the framework of cognitive linguistics use a number of different terms to refer to the conceptual structures that they assume to constitute conceptual metaphors. The most commonly employed term is that of domain (as in source and target domain), but several others are also in circulation, including image schemas (e.g., Lakoff 1990, 1993), frames (e.g., Kövecses 2006; Lakoff 1996), scenes (e.g., Grady 1997a,b), mental spaces (e.g., Fauconnier and Turner 2002), schemas (e.g., Lakoff and Turner 1989), and scenarios (e.g., Musolff 2006, 2016). There are more terms in use (such as model), but the list is sufficient to indicate some terminological confusion among the practitioners of conceptual metaphor theory. But more importantly, the terminological chaos is a reflection of a serious, deep-seated theoretical-conceptual dilemma; namely, the difficulty of identifying the appropriate conceptual unit, or structure, that participates in the formation of conceptual metaphors. The present chapter is an attempt to offer a way of handling this issue.[1]

One could suggest of course that these designations and the conceptual content corresponding to them are for all practical purposes equivalent, and that they can replace one another in versions of CMT. Or one could argue, as Grady (1997a) and Musolff (2006) do (for different reasons), that domains are not the appropriate conceptual structures where metaphorical conceptualization takes place. Would this mean that we can discard the notion of domain as a theoretical construct in CMT? Finally, one could select just a pair of these terms (such as image schema and domain or mental space and domain) and claim that these are sufficient to describe and explain conceptual metaphors. It seems then that there is a very real need to raise the issue of which conceptual structure or structures (or unit(s)) constitutes (or constitute) conceptual metaphors. Given this situation, my main goal in the chapter is to answer the following general question:

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[1] In the first half of the chapter, I reuse materials from Kövecses (2017b).

What is (are) the appropriate conceptual structure/unit (or structures/units) involved in conceptual metaphors?

My suggestion will be that it is best to think of conceptual metaphors as simultaneously involving conceptual structures, or units, on several distinct levels of schematicity (see, e.g., Lakoff 1987; Langacker 1987; Rosch 1978). I distinguish four such levels: the level of image schemas, the level of domains, the level of frames, and the level of mental spaces (in addition to the linguistic level of the actual utterances in which the metaphors are instantiated). My claim is that the resulting overall picture of conceptual metaphors provides us with a new comprehensive framework for the study of metaphor in conceptual metaphor theory. I would like to refer to the emerging new framework as the "multilevel view of conceptual metaphor." To demonstrate my points, I will mainly use the source domain of BUILDING in this chapter (see, e.g., Grady 1997a,b; Kövecses 1995, 2000a,b, 2002/2010; Lakoff and Johnson 1980).

In what follows, first, I describe the theoretical background, where I justify the relatedness of the four levels mentioned above, independently of metaphor. Second, based on these findings, I apply the results to the study of conceptual metaphors in general. Third, I look at the well-studied source domain of BUILDING in some detail in order to show how the levels work together in this particular example. Fourth, I summarize the main points and describe the general picture of the multilevel view of metaphor. Fifth, I examine some of the consequences of the new view for a variety of issues related to metaphor. Finally, I offer some conclusions, together with indicating some potential benefits and future directions of research involved in the new model.

4.1 Image Schemas, Domains, Frames, and Spaces

Following Lakoff (1987), Langacker (1987), and Rosch (1978), I assume that much of our knowledge about the world comes in large systems of concepts organized into hierarchies at various levels (superordinate level, basic level, subordinate level). The systems of concepts so connected are related by schematicity, which is defined by Langacker (1987: 492) as follows: "Schematicity [is] Relative precision of specification along one or more parameters." If this is the case, we can see the "source domains" of conceptual metaphors as a large system of concepts related to each other at several levels, or layers, of precision of specification. The view entails that, given particular concepts, the various levels of schematicity form a continuous hierarchy; the various levels shade gradually into more or less schematic levels. In other words, the levels within such schematicity hierarchies do not have rigid boundaries but are graded as regards their schematicity.

I propose that the conceptual structures mentioned in the introduction (i.e., image schema, domain, frame) can be regarded as occupying different levels in such schematicity hierarchies. Specifically, given such hierarchies, we can distinguish fairly clearly four different levels of schematicity, each designated by the four terms: *image schema*, *domain*, *frame*, and *mental space*. The four levels go from the most schematic to the least schematic, as represented in the diagram below:

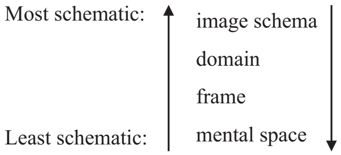

Figure 4.1 Schematicity hierarchy for four conceptual structures
(Dancygier and Sweetser 2014, propose a similar hierarchy)

The upward arrow in the diagram indicates increasing schematicity, whereas the downward arrow indicates increasing specificity. The schematicity-based hierarchy can also be represented as a series of inclusions, as in the diagram below:

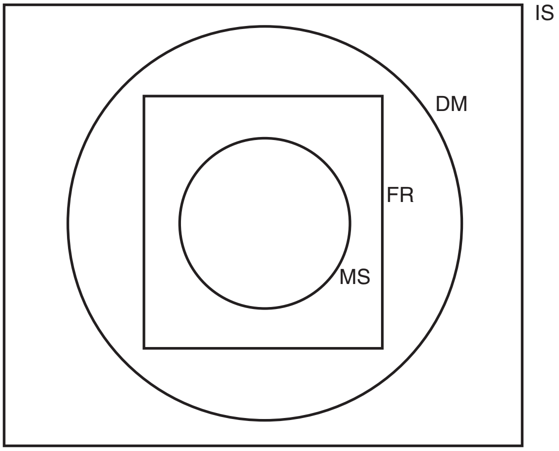

Figure 4.2 Schematicity as inclusion

In the diagram, IS stands for image schema, DM for domain matrix, FR for frame, and MS for mental space.

Image schemas are essential conceptual structures that imbue experience with meaning (cf. Johnson 1987; Lakoff 1987). Based on the literature on image schemas, Hampe (2005: 1–2) finds four features of image schemas especially characteristic. I present them here in a somewhat simplified form.

Image schemas are

- directly meaningful preconceptual structures;
- highly schematic gestalts;
- continuous analogue patterns;
- internally structured, consisting of only a few parts.

Because of their highly schematic nature, image schemas range over the entire conceptual system making a wide variety of concepts and experiences meaningful. For example, the concept of JOURNEY presupposes the more schematic structure of MOTION and, more specifically, SOURCE-PATH-GOAL MOTION (to distinguish it from other types of motion). Further, concepts may take several image schemas to support them conceptually. For example, the concept of BODY is based on the image schemas of CONTAINER, VERTICALITY, (STRUCTURED) OBJECT, and so on. Finally, concepts may also be characterized by the same image schemas. For instance, the concept of BUILDING (in the sense of an enclosed construction), similar to the BODY, presupposes the CONTAINER, VERTICALITY, and OBJECT schemas.

The notion of *domain* is defined by Langacker (1987: 488) as follows: "Domain [is] A coherent area of conceptualization relative to which semantic units may be characterized." Unlike image schemas, domains are not analogue, imagistic patterns of experience but propositional in nature in a highly schematic fashion. They are at a level immediately below image schemas. Image schemas make domains such as JOURNEY, BODY, and BUILDING (mentioned above as concepts) meaningful. The various image schemas apply to different aspects or dimensions of a domain in the sense of a domain matrix (Langacker 1987). A domain as a domain matrix (such as BUILDING) presupposes a variety of concepts that characterize different aspects of the domain. Domains have many more parts than image schemas, and are thus more information-rich. The definition of domains does not distinguish between domains and frames, or idealized cognitive models (Lakoff 1987), as noted by Langacker himself. The only way to distinguish the two is in terms of schematicity.

Frames (see, e.g., Fillmore 1982) are less schematic conceptual structures than domains. As noted above, the definition of domain by Langacker can serve as a definition of frame as well. (On the blurred boundaries between domains and frames, see also Cienki 2007.) The difference between a domain and a frame, in my view, can be captured by a difference in schematicity between the two: Frames elaborate particular aspects of a domain matrix; that is, particular higher-level concepts within a domain. Sullivan (2013) considers this relationship as inclusion. According to her, domains include or consist of frames. We can also think of the relationship between the two as different degrees of schematicity. It can be suggested that frames involve more conceptually specific information than domains. For example, the BODY domain can be seen as being elaborated by several distinct frames, such as PERCEPTION, INGESTION, and EXERCISING (see Sullivan 2013). These frames account for such metaphorical linguistic expressions as *I see what you mean* (PERCEPTION)*, digest an idea* (INGESTION)*,* and *a mental exercise* (EXERCISING) (Sullivan 2013). Together, they make up what is known as the generic-level metaphor THE MIND IS THE BODY (see Johnson 1987; Sweetser 1990). In general, the frames elaborating a domain consist of roles and relations between the roles and the roles can be filled by particular values.

When the roles are filled by particular values in actual discourse in specific communicative situations, we have to do with *mental spaces* (see Fauconnier 1994). I use mental spaces in the sense the term is defined by Fauconnier (2007: 351): "Mental spaces are very partial assemblies constructed as we think and talk, for purposes of local understanding and action. They contain elements and are structured by frames and cognitive models. Mental spaces are connected to long-term schematic knowledge, such as the frame for walking along a path, and to long-term specific knowledge, . . ." This is also what Langacker (2008) calls "current discourse space" (CDS). In Langacker's words: "The CDS is a mental space comprising everything presumed to be shared by the speaker and hearer as the basis for discourse at a given moment" (Langacker 2008: 59). Mental spaces borrow their structure from frames, but the generic structures from frames are further elaborated by specific information from context. In addition, mental spaces can be structured by one or several different frames. That is, they can be the realizations of a single frame or they can rely on a combination of roles and relations from several distinct frames. Mental spaces are, then, even more specific than frames, in that they do not operate with generic roles and relations in most cases but with specific instances of roles and relations. At the same time, they are also coherent organizations of experience, just like frames and domains, but they function at a very specific and conceptually rich level. Moreover, mental spaces are used in online processing for purposes of local understanding, as noted above, and also by Fauconnier and Turner (2002), but, as we just saw, they are structured by frames. Mental spaces are online representations of our understanding of experience in working memory, whereas frames and domains are conventionalized knowledge structures in long-term memory.

In brief, image schemas, domains, frames, and mental spaces are all used by conceptualizers/speakers for the purposes of lending organization and coherence to our experience. I take image schemas to be the most schematic and mental spaces the least schematic (i.e., the conceptually richest) cognitive structures that can have this organizing function. As we will see in the next section, they all can, and do, play a role in metaphorical conceptualization. (In addition to these four levels, there is of course the level of communication, Level 5, where speaker and hearer use some symbols (linguistic or otherwise) that make manifest, or elaborate, the content of particular mental spaces.) We can represent their relationship in a schematicity hierarchy (SH) as follows:

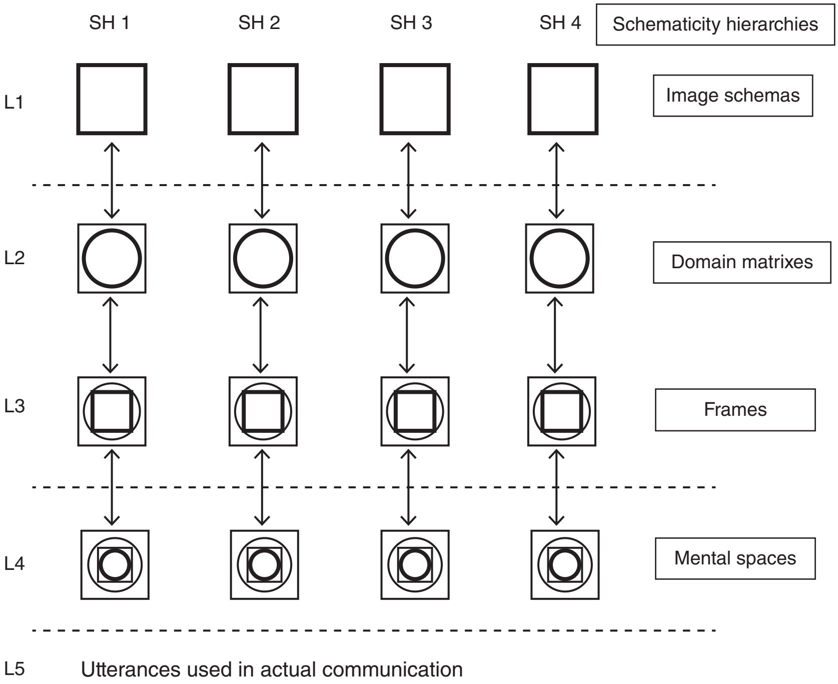
SH 1
SH 2
SH 3
SH 4
Schematicity hierarchies
L1
Image schemas
L2
Domain matrixes
L3
Frames
L4
Mental spaces
L5
Utterances used in actual communication

Figure 4.3 The schematicity hierarchy with three major distinctions between the levels

The diagram represents the four levels of conceptual structures in four different schematic hierarchies (SH), one of which could be, for instance, the SH for BUILDING. The dotted line that separates IMAGE SCHEMAS and DOMAINS/FRAMES is intended to indicate that image schemas are analogue structures, whereas domains and frames are not. The bold dotted line between DOMAINS/FRAMES and MENTAL SPACES indicates that domains and frames are in long-term memory, whereas mental spaces are used in online processing in working memory, as noted by Fauconnier above. The dotted line between L4 and L5 separates the conceptual from the linguistic.

4.2 Metaphor and Structured Conceptual Experience

We can now relativize this theoretical background to the treatment of metaphor. In order to get clear about the general issue of how schematicity plays a role in metaphorical conceptualization, below I examine the relationship between image schemas, domains, frames, and mental spaces in more detail in relation to metaphorical conceptualization.

Let us begin with *image schemas*. Conceptual metaphor theory has been instrumental in resolving one of the major issues in the theory of cognition: How can we account for the meaning of abstract concepts? After all, abstractions are what they are since we do not have direct physical, perceptual experience related to them. The proposal that CMT made is that abstractions (abstract concepts and reasoning) are made meaningful by virtue of conceptual metaphors connecting an abstract concept with a physical (i.e., perception-based) one (see, e.g., Barsalou 1999). In them, extremely general patterns of perceptual experience called image schemas give meaning to abstract concepts (see, e.g., Johnson 1987; Lakoff 1987, 1990). As a result, the conceptual system, including abstract concepts, becomes embodied, that is, perception-based through and through.

Conceptual metaphors in CMT are usually described as relationships between *domains*. However, as it has often been noticed, to think of conceptual metaphors as a set of mapping relations between two domains leads to a major problem: Source domains typically contain a lot more conceptual material than what is actually mapped onto the target domain. Several solutions to the problem have been suggested (e.g., Clausner and Croft 1997; Grady 1997a, b; Kövecses 2000a; Lakoff 1990) and, with the exception of Grady (who postulates primary scenes, as we saw in Chapter 3), they all rely on the notion of domain. The solutions either try to constrain the transfer of source domain materials by means of the schematic structure of the target (e.g., Lakoff 1990) or try to narrow the source domain itself that participates in the mapping (Kövecses 2000a, 2002/2010). Why did the problem of overestimation arise (in choosing domains)? In all probability, it did because researchers had a very broad notion of domain in mind – a notion defined, as we saw above, by Langacker (1987: 488) as "A coherent area of conceptualization relative to which semantic units may be characterized." If we think of all the concepts that are simultaneously presupposed by a given concept, that is, a domain matrix, it is clear that domains (in the sense of domain matrix) are highly inclusive knowledge structures. Not all concepts in, that is, not all aspects of, a domain matrix, are utilized in metaphorical conceptualization. The domain matrix for, say, BUILDING, as we will see in the next section, represents our *entire* knowledge structure associated with this concept. In general, out of the entire domain matrix, only select aspects of the domain matrix participate in the mappings between source and target concepts.

The aspects that do participate in the mappings can be, and usually are, given in the form of *frames* – at a lower level of schematicity. The frames elaborate the select aspects of domains. Thus, the source frames offer more specific information than domains, but they do not cover or exhaust all aspects of a source domain (matrix).

As regards metaphorical *mental spaces*, they are the least schematic conceptual structures of the four discussed here (i.e., image schemas, domains, frames, and mental spaces). They are highly specific structures occurring in online processing in particular communicative situations. As such, they are fully influenced by several different kinds of contextual information (Kövecses 2015a). Mental spaces participating in metaphor can be seen as elaborations of frames that elaborate select aspects of domains for metaphorical conceptualization. They contain the most specific information that derives from filling out generic roles with particular values, as well as from the specific context in which the spaces emerge.

While domains and frames belong to the level of cognitive organization and analysis of metaphor that Kövecses (2002/2010) calls the "supraindividual" level, mental spaces occupy a level that can be thought of as the "individual" level. In a previous publication (Kövecses 2002/2010), I distinguish the supraindividual, individual, and subindividual levels in the following way: "In conclusion, then, the cognitive linguistic view of metaphor that has been discussed in this book works on three levels: the supraindividual level corresponding to how a given language and culture reflects decontextualized metaphorical patterns, the individual level corresponding to the metaphorical cognitive system as used by individual speakers of a language, and the subindividual level corresponding to universal aspects of various kinds of embodiment." (Kövecses 2010: 321)

The supraindividual level corresponds to the level of domains and frames. In the CMT literature, descriptions of conceptual metaphors are typically given at the supraindividual level. Such descriptions lack the specificity and richness of metaphorical conceptualization that we find at the individual level – the level corresponding to the use of mental spaces in the present framework.

The idea that mental spaces can be thought of as the most specific conceptual structures participating in metaphorical conceptualization finds some support in more recent work. Musolff (2006) uses the term "scenario" in the same sense in which I use "mental space." (Actually, Musolff also roughly equates his use of scenario and scene with mental space.) In discussing a particular example, he writes:

> The source schema of these two examples, *MARRIAGE PARTNERS = PARENT*S *OF CHILD,* may be simple, but the characterization of the participants in terms of their roles, intentions, and states of minds, as well as the assessment of their actions in terms of chances of success, are in fact highly specified. The readers are not only provided with a general schematic frame to understand the order of events and a few causal links between them, but rather with a whole little scene, complete with the presumed "interests" and "biases" on the part of the participants and an evaluative interpretation. (Musolff 2006: 27)

In other words, Musolff also suggests that scenes and scenarios function below the level of domains and frames, where speaker and hearer metaphorically conceptualize their experiences in a fully contextualized fashion. The speaker and hearer take advantage of a large amount of knowledge available to them in the specific communicative situation. His observations are thus very much in line with the present approach that emphasizes the various degrees of schematicity in metaphorical conceptualization.

We can represent the emerging picture of metaphorical conceptualization in a schematic way in the diagram to follow:

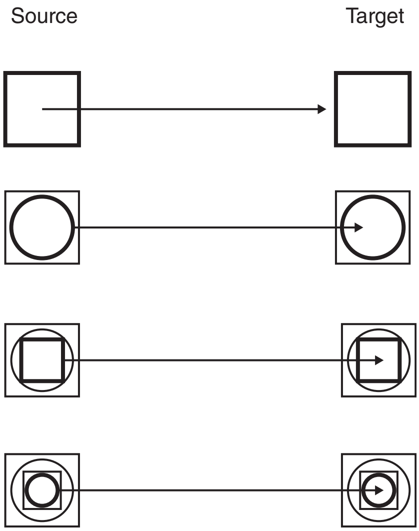

Figure 4.4 Same-level mapping

The diagram indicates that image schemas metaphorically structure the most schematic concepts and mental spaces (or scenarios) the least schematic ones.

4.3 The Example of BUILDING

Let us take the source domain of BUILDING as an example to demonstrate some of the points above and highlight some additional ones. The BUILDING source domain has been studied by a variety of authors (see, especially, Grady 1997a,b; Kövecses 1995a,b, 2000a, 2002/2010; Lakoff and Johnson 1980) from several different perspectives. In what follows, I will mostly rely on my own work.

BUILDING is an extensive domain with a large number of members (house, cathedral, garage, etc.). Instead of giving the concept of BUILDING a dictionary-like definition (such as, for instance: Building is a man-made structure typically with walls and a roof that enclose an internal space and that separate and protect it from an external space), in line with the argument in this chapter, we can describe it at various levels of schematicity in the following way:

As noted above in section 2, BUILDING is a concept that is based on, or characterized by, several image schemas, such as CONTAINER, VERTICALITY, PART-WHOLE, and OBJECT.

The BUILDING domain matrix is constituted by a large number of schematic concepts. Specifically, the building is a PHYSICAL OBJECT in SPACE; as a physical object it has SIZE; it has a LOCATION; it has both vertical and horizontal EXTENSION; it is a STRUCTURED OBJECT; it is a MAN-MADE structured object; it is made of PHYSICAL MATTER; it is an ENCLOSED SPACE that is partitioned into PARTS; it has a particular SHAPE and COLOR; it has some FUNCTION; and so on.

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

At the mental spaces, or scenario, level, we would have further specifications of any of the frames discussed above. For example, an elaboration of the BUILDING frame would be the mental space associated with a sentence like: "John built himself a strong house." The sentence would specify the specific individual who built the house and a structural property of the house. These are pieces of information that are not contained in the more schematic BUILDING frame.

Now let us look at the commonly cited metaphorical examples that can be found in the CMT literature in connection with the BUILDING source domain. I will mainly use here what I call the "lexical approach" to collecting metaphors that are characteristic of a particular domain such as BUILDING (see Kövecses 1986, 2015b). In essence, the lexical approach takes advantage of a variety of lexical materials (idioms, collocations, synonyms, etc., as these are available in dictionaries and other collections of lexical items) in finding metaphorical expressions. The method performs well as regards collecting conventionalized and decontextualized *types* of metaphorical expressions; it performs poorly as regards finding novel *types* and *tokens* of metaphors and quantifying the metaphorical data in relation to a domain. Since in the chapter I am concerned with the conventional types of metaphorical expressions (and not with quantifying metaphor occurrence in actual use), I employ the lexical method (see also the subsection on methodology discussed later in this chapter). Nevertheless, I will also rely on some corpus examples in the analysis to follow.

We can begin with Lakoff and Johnson's *Metaphors We Live By*, where we find this for the metaphor THEORIES ARE BUILDINGS (Lakoff and Johnson 1980: 46):

> THEORIES (and ARGUMENTS) ARE BUILDINGS
>
> Is that the *foundation* for your theory?
> The theory needs more *support.*
> The argument is *shaky.*
> We need some more facts or the argument will *fall apart.*
> We need to *construct* a *strong* argument for that.
> I haven't figured out yet what the *form* of the argument will be.
> Here are some more facts to *shore up* the theory.
> We need to *buttress* the theory with *solid* arguments.
> The theory will *stand or fall* on the *strength* of that argument.
> The argument *collapsed.*
> They *exploded* his latest theory.
> We will show that theory to be *without foundation.*
> So far we have *put together only the framework* of the theory.

For the related concept of ARGUMENT, we find the following examples:

> AN ARGUMENT IS A BUILDING
>
> We've got the *framework* for a *solid* argument.
> If you don't *support* your argument with *solid* facts, the whole thing will *collapse.*

He is trying to *buttress* his argument with a lot of irrelevant facts, but it is still so *shaky* that it will easily *fall apart* under criticism.
With the *groundwork* you've got, you can *construct* a pretty *strong* argument.

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

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

Given such examples as the above, I suggested that the THEORIES ARE BUILDINGS conceptual metaphor focuses on, or profiles, three aspects of the concept of THEORY (Kövecses 2002/2010): (1) the aspect of the construction of a theory (as exemplified by *build, construct, put together*); (2) abstract structure (as exemplified by *(without) foundation, groundwork, framework, build on, lay the foundations, collapse, demolish, shore up, buttress*); and (3) abstract stability or lastingness (as exemplified by *strong, solid, shaky, shore up, buttress, fall apart, in ruins, rock to its foundations, stand or fall*). (As can be seen, some of the linguistic examples can characterize several different aspects of a concept simultaneously.) In addition, I proposed that such "meaning foci" (that is, the habitually profiled aspects) of BUILDING as creation, abstract structure, and lastingness can be captured by means of mappings. Finally, I also suggested that the BUILDING source domain has a wide scope (see, Kövecses 2000a,b) and applies to "complex abstract systems" in general, not just to the concept of THEORY. Here are the three mappings corresponding to the three meaning foci:

building ➔ creation or construction of a complex abstract system
physical structure of the building ➔ abstract structure of a complex abstract system
physical strength (of the structure to stand) ➔ abstract stability/lastingness (of the complex abstract system)

Essentially, it is these meaning foci that, with the exception of the first, Grady's (1997a,b) primary metaphors also capture: LOGICAL ORGANIZATION IS PHYSICAL STRUCTURE (corresponding to 2) and PERSISTENCE IS REMAINING ERECT (corresponding to 3). In other words, if this analysis is correct, we can suggest that primary metaphors and the main meaning focus are, in part, related phenomena: When the mappings of a conceptual metaphor are based on primary metaphors such as the ones above, these will determine the main meaning focus of the complex metaphor (like THEORIES ARE BUILDINGS). (However, it should be noted that the notion of main meaning focus also applies to non-primary-metaphor-based, i.e., analogy-based, conceptual metaphors, such as COMPUTERS ARE PEOPLE or PEOPLE ARE COMPUTERS, where people in the former metaphor are associated with, e.g., emotionality, while computers in the latter with, e.g., a high level of memory capacity and mechanical calculations.)

In light of the analysis so far, it seems that the BUILDING source domain participates in the conceptualization of THEORIES (and, more generally, of COMPLEX ABSTRACT SYSTEMS) by means of two frames within it: the BUILDING (as process) frame associated with the CONSTRUCTION aspect and the (PHYSICAL) SUPPORT frame with the STRUCTURE aspect of the BUILDING domain. The BUILDING (as process) frame gives rise to the first mapping above, "building ➔ creation." The frame utilizes the conceptual elements of the builder, the action or activity of building, and the thing that gets built. Thus, the builder corresponds to the person who creates or constructs the theory, the building action to the creation or construction process that results in the theory, and the thing built to the theory itself. Interestingly, it does not conventionally utilize the materials that are used in the building activity – at least according to the examples given (but see below).

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

The emphasis on this latter aspect of BUILDINGS has a long cultural history. It is this relationship (SUPPORTED BY) and this property (STRENGTH) that are emphasized, for example, by one of the parables in the New Testament:

(1) [25] The rain came down, the streams rose, and the winds blew and beat against that house; yet it did not fall, because it had its foundation on the rock. [26] But everyone who hears these words of mine and does not put them into practice is like a foolish man who built his house on sand. [27] The rain came down, the streams rose, and the winds blew and beat against that house, and it fell with a great crash." (Matthew 7:25–27 New International Version (NIV))

This may be a culturally significant factor that may have created, or, simply, may reinforce, the conceptual use of these two specific frames within the BUILDING source domain. The other two frames mentioned above, PARTS OF THE BUILDING and FUNCTION OF THE BUILDING, do not appear to produce conventionalized metaphorical language on a par with BUILDING (as process) and (PHYSICAL) SUPPORT, as evidenced by the examples used in the literature and the dictionaries consulted.

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

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

The BUILDING Source Concept at the Individual Level

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

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

Lakoff and Johnson (1980/2003) also mention another example: "His theory has thousands of *little rooms* and *long, winding corridors*." They refer to it as a case in which the metaphor derives from an "unused part" of the source domain. We can now provide a fuller account of such cases within the framework I am developing here. It can be suggested that in cases like this frame elements from *other than* the routinely or conventionally used frames can participate in metaphorical mappings. The cognitive mechanism that seems to be involved can be characterized as follows. Again, Musolff (2001) provides several pertinent examples, which I reanalyze here (based on Kövecses 2005):

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

Musolff notes that, given the COMMON EUROPEAN HOUSE metaphor introduced in public discourse in the 1990s, i.e., the EUROPEAN UNION IS A BUILDING metaphor, all kinds of metaphorical expressions showed up in political discourse at the time that were different from the ones presented at the beginning of the section (i.e., were outside the profile, or meaning focus, of the source). In addition to the highly conventionalized linguistic metaphors, such as *lay the foundations, building, buttress, framework*, and so on, journalists and others used novel, unconventional metaphors, such as *roof, apartment, caretaker*, and *fire-escape*. In my own analysis of these new, unconventional examples (Kövecses 2005), I pointed out that given the main meaning foci of the BUILDING source domain, these unconventional metaphorical expressions should not have occurred. Nevertheless, I provided the description of a cognitive mechanism that might account for the comprehension of these unexpected items in real discourse (see Kövecses 2005). I argued, briefly, that once a source domain (e.g., BUILDING) is used to structure a target (e.g., in the present case, the EUROPEAN UNION) by means of conventional source elements (i.e., those in its foci), elements in the target so conceptualized may "select" elements of the source that fit that target element (but are not conventionally associated with it). Although there is no conventional correspondence, say, between the possibility of leaving the EU in the target and the fire-escape in the source, the target element may "select" the source element if it "fits" it. (The cognitive operation that produces such examples can also be regarded as a case of conceptual integration. See Fauconnier and Turner 2002 and Chapter 6.)

In light of the suggestions in this chapter, I would like to add a missing piece of the argument to that offered in 2005. As was noted above, at the supraindividual level the source concept of BUILDING utilizes the frames of BUILDING (as process) and (PHYSICAL) SUPPORT for establishing mappings between the BUILDING domain and the target domain of COMPLEX ABSTRACT SYSTEMS (including THEORIES and POLITICAL SYSTEMS, such as the EU). At the individual level, however, it appears to additionally involve both the PARTS OF THE BUILDING and the FUNCTION OF BUILDING frames. Roof, apartment, and fire-escape are component parts of buildings, while caretaker has to do with the function of buildings (namely, the function of providing living or working space for people, and that, given this function, a caretaker handles the daily maintenance and operation of the building on behalf of the people living or working there). Thus, while at the supraindividual level of metaphorical conceptualization certain specific frames within a source domain are profiled (and they are routinely or habitually used for a particular purpose), at the individual level we find additional frames that may be involved in performing the task. The supraindividual level seems to constrain the use of frames within a domain, whereas the individual level seems to broaden their use. The difference no doubt results from the lack, as opposed to the presence, of information-rich context (as described in Kövecses 2015a) and the more flexible use of frame elements (through frame completion).

To summarize the main points, the following diagram indicates how BUILDING as a source concept participates in metaphorical mappings in relation to the COMPLEX ABSTRACT SYSTEMS target (IS = image schema; DM = domain; FR = frame; MS = mental space):

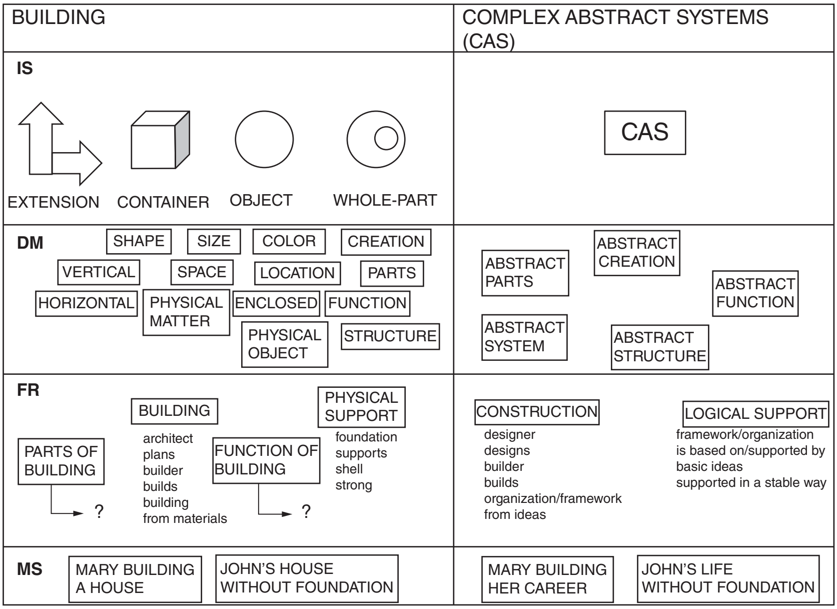
BUILDING
COMPLEX ABSTRACT SYSTEMS (CAS)
IS
EXTENSION
CONTAINER
OBJECT
WHOLE-PART
CAS
DM
SHAPE
SIZE
COLOR
CREATION
VERTICAL
SPACE
LOCATION
PARTS
HORIZONTAL
PHYSICAL MATTER
ENCLOSED
FUNCTION
PHYSICAL OBJECT
STRUCTURE
ABSTRACT PARTS
ABSTRACT CREATION
ABSTRACT FUNCTION
ABSTRACT SYSTEM
ABSTRACT STRUCTURE
FR
BUILDING
architect
plans
builder
builds
building
from materials
PHYSICAL SUPPORT
foundation
supports
shell
strong
PARTS OF BUILDING
?
FUNCTION OF BUILDING
?
CONSTRUCTION
designer
designs
builder
builds
organization/framework
from ideas
LOGICAL SUPPORT
framework/organization
is based on/supported by
basic ideas
supported in a stable way
MS
MARY BUILDING A HOUSE
JOHN'S HOUSE WITHOUT FOUNDATION
MARY BUILDING HER CAREER
JOHN'S LIFE WITHOUT FOUNDATION

Figure 4.5 The COMPLEX ABSTRACT SYSTEMS ARE BUILDINGS metaphor

The question marks below the PARTS OF BUILDING and FUNCTION OF BUILDING frames are intended to indicate that, except for some special circumstances, there are no conventionally (routinely) applicable mappings between these frames and the corresponding frames in the target (PARTS OF A SPECIFIC COMPLEX ABSTRACT SYSTEM and FUNCTION OF A SPECIFIC COMPLEX ABSTRACT SYSTEM, which latter frames are not shown in the diagram).

Some further explanation is required for the examples of mental spaces in the diagram. At the mental spaces level, a large number of mental spaces could be created that involve the various elements of the BUILDING (as process) frame or the (PHYSICAL) SUPPORT frame. For this reason, we can only offer here some potential examples of mental spaces for which a BUILDING-related frame provides the structure. First, consider two non-metaphorical statements related to BUILDING: "Mary is building her house" and "John's house has no foundation." Now take the corresponding metaphorical statements "Mary is *building* her career" and "John's life is *without a foundation*," as used, say, in a conversation. The first metaphorical sentence creates a mental space that is structured by the BUILDING (as process) frame. We can call this the MARY BUILDING A CAREER space. The second metaphorical sentence creates a different mental space: JOHN'S LIFE WITHOUT FOUNDATION. This is based on the (PHYSICAL) SUPPORT frame. The two examples illustrate how mental spaces can elaborate particular frames.

The diagram above shows both the schematicity hierarchy of the source and target concepts (from IS to MS) in a vertical arrangement and the mappings between the source and target concepts on the four levels in a horizontal arrangement. The concepts constituting the conceptual metaphors on the various levels range from most schematic to least schematic. Thus we get the following conceptual metaphors:

IS level:
COMPLEX ABSTRACT SYSTEMS ARE OBJECTS
COMPLEX ABSTRACT SYSTEMS ARE VERTICAL OBJECTS
COMPLEX ABSTRACT SYSTEMS ARE CONTAINER OBJECTS
COMPLEX ABSTRACT SYSTEMS ARE WHOLE OBJECTS WITH PARTS

DM level:
A (COMPLEX ABSTRACT) SYSTEM IS A PHYSICAL OBJECT (BUILDING)
THE CREATION OF THE SYSTEM IS THE PHYSICAL CREATION OF THE BUILDING
THE STRUCTURE OF THE SYSTEM IS THE PHYSICAL STRUCTURE OF THE BUILDING
THE PARTS OF THE SYSTEM ARE PARTS OF THE PHYSICAL OBJECT (BUILDING)

FR level:
THE CONSTRUCTION OF THE SYSTEM IS BUILDING (as process)
LOGICAL SUPPORT IS PHYSICAL SUPPORT

submetaphor:
THE STABILITY OF THE BUILDING IS THE STRENGTH OF PHYSICAL SUPPORT

MS level:
(in the form of particular examples:)
MARY BUILDING A CAREER IS MARY BUILDING A HOUSE
JOHN'S LIFE WITHOUT A FOUNDATION IS JOHN'S HOUSE WITHOUT A FOUNDATION

These mappings at the different levels license the use of metaphorical expressions at different levels of schematicity. For example, the word *inside*, as in "inside the system," relates to the image schematic level (the CONTAINER image schema), while the word *structure* (when used metaphorically) is based on a mapping at the domain level. Similarly, the word *builder* in the phrase "the chief *builder* of the organization" is related to the BUILDING (as process) frame. In other words, metaphorically used words, just like their corresponding conceptual metaphors, can be found at various levels of schematicity.

4.4 The Multilevel View: The General Picture

In light of the observations above, it seems reasonable to propose the following view of how the conceptual system may be organized and how this system participates in metaphorical conceptualization:

We can distinguish four levels of schematicity (vs. specificity). At the highest level of schematicity, we have *image schemas*, such as CONTAINER, VERTICALITY, FORCE, OBJECT, WHOLE-PART, and many others. These are extremely schematic structures that arise from our most basic embodied experiences. We use them when we encounter objects and events; they are our first guides in conceptualizing experience. Image schemas function as source concepts in extremely general conceptual metaphors like MORE IS UP, STATES ARE CONTAINERS, EMOTIONS ARE FORCES, EVENTS ARE OBJECTS, and COMPLEX ABSTRACT SYSTEMS ARE COMPLEX PHYSICAL OBJECTS.

Below this level of schematicity, there are *domains*. The various domains are conceptually supported by image schemas in the sense that the image schemas apply to the various aspects of domains that characterize them. These aspects are essentially the concepts that belong to the domain matrix associated with BUILDING. For instance, the domain of BUILDING has the aspects of SPATIAL OBJECT, MAN-MADE STRUCTURE, HORIZONTAL and VERTICAL EXTENSION, CONSTRUCTION, and so on. A domain represents a highly schematic experience with a set of aspects organized into a meaningful whole. Domains serve as source domains in such conceptual metaphors as THE MIND IS THE BODY, COMPLEX ABSTRACT SYSTEMS ARE BUILDINGS, EMOTIONS ARE NATURAL FORCES, TIME IS MOTION, and so on. These conceptual metaphors are characterized by more specific experiential content than the ones solely employing image schemas. In this sense, domains elaborate image schemas.

At the next level "down," we have *frames*. Frames further elaborate the various aspects of domains. For example, the BUILDING (as process) frame elaborates the CONSTRUCTION aspect of the BUILDING domain and the (PHYSICAL) SUPPORT frame elaborates the STRUCTURE aspect of the BUILDING domain. The various aspects of domains consist of several distinct elements, called "frame elements" in the terminology of frame semantics. In other words, frames consist of different sets of frame elements, that is, sets of entities and relations. Conceptual metaphors that are clearly based on frames include LOVE IS FIRE, KNOWING IS SEEING, UNDERSTANDING IS GRASPING, ANGER IS A HOT FLUID IN A CONTAINER, ACCEPTING IS SWALLOWING, MORALITY IS PHYSICAL STRENGTH, SURPRISING SOMEONE IS UNEXPECTEDLY IMPACTING SOMEONE, and many others.

I suggest that image schemas belong to what, in previous work, I called the "subindividual level" and domains and frames are all conceptual structures that can be found at the "supraindividual level." Together, these constitute the realm that informs the basic ontology of conceptual systems. These are the structures that we have in long-term memory and that provide the conceptual substrate of meaning in general and meaning in language in particular. All the image schemas, domains, and frames put together comprise the conceptual content of language and what we commonly refer to as encyclopedic knowledge. Importantly, this is the kind of knowledge that can be retrieved from decontextualized language (with the help of what I referred to as the lexical approach to the study of metaphor above; see, Kövecses, 2015b), and, hence, these conceptual structures are largely decontextualized themselves.

What's Going on at the Level of Mental Spaces?

By contrast, when we use language in real communicative situations, we put this huge amount of tacit knowledge to use in order to achieve particular goals (social, expressive, rhetorical, etc.). The job is performed online by individual speakers in specific contexts who manipulate and modify the conceptual structures in long-term memory according to their communicative needs and goals. The conceptualization process and the language that is used are, in this case, fully contextualized. It is at this level that we utilize *mental spaces*, or, equivalently, scenes or scenarios, as suggested by Musolff, that are *not* part of our routinely used cognitive and linguistic repertoire. They are fully specific (their elements are values, not roles), they foreground elements not foregrounded routinely, they bring in new elements from the same frame (or other higher-level structures), they make new inferences and evaluations possible in context, they blend source and target frames, and so on. We have seen a number of metaphorical examples for several of these cases above. In sum, this is a large-scale mobilization of our decontextualized, static, and routine conceptual structures in real-world metaphorical conceptualization in information-rich contexts by means of a variety of cognitive processes that individual speakers perform online.

At the same time, my general proposal is that whenever we use metaphors online at the mental spaces, or individual, level, we can only do this by relying on the level of frames, domains, or image schemas, that is, the supraindividual level. This means that the use of a particular linguistic metaphor in context is linked to the entire system of connections (to mental spaces, frames, domains, image schemas) in our knowledge about the world. I hypothesize that a metaphor that is used in a specific communicative situation as part of a mental space, or scene, will activate the frame structure to which it is linked, which will, in turn, activate the domain of which the frame is a part, and the activation will reach the image schema that conceptually supports the frame.

In general, this view is consonant with, and is in the same spirit as, a number of others in the cognitive linguistic study of metaphor, such as Lakoff's (1990) "invariance principle" and Ruiz de Mendoza's (1998) "extended invariance principle." Ruiz de Mendoza suggests that any kind of high-level structure is to be preserved by lower-level structures. A further constraint on metaphor production (the "correlation principle") by Ruiz de Mendoza and Galera (2014) states that a source domain should be selected in accordance with the implicational structure of the target. In addition, the source domains are not only coherent with their targets (or the other way around), but also with context in a broad sense. Elsewhere, I proposed that many metaphorical source domains are coherent with one or more contextual factors. This constraint was called the "pressure of coherence" with the context (see Kövecses 2005, 2015a). There seems to be abundant evidence for this kind of activation in the experiments conducted by Boroditsky, Casasanto, Gibbs, Colston, and other researchers (see, e.g., Boroditsky 2001; Casasanto 2009; Gibbs 2006; Gibbs and Colston 2012.) In their study of figurative language, Dancygier and Sweetser (2014) make a proposal that is close to the present one as regards the emphasis they place on different levels of schematicity in accounting for metaphoric language. David, Lakoff, and Stickle's (2016) notion of "cascades" is a formalized way to capture the same phenomena. What distinguishes the present approach from these is that (1) in addition to image schema, domain, and frame, I include the notion of mental spaces in the hierarchy and (2) I consider context to play an essential role in the emergence of the hierarchies. (I discuss the role of context in Chapter 5.)

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

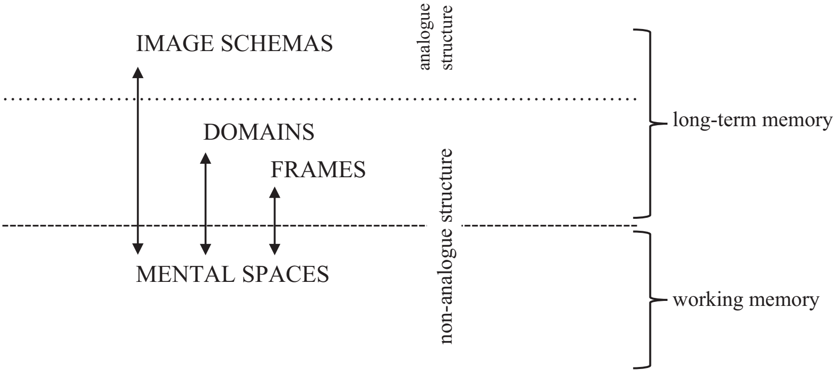

Figure 4.6 Activation and structuring between the levels

The upper horizontal line indicates the division between analogue and non-analogue conceptual structures. The lower, bold horizontal line indicates the division between conceptual structures in long-term memory and those used online in working memory. The vertical arrows indicate that higher schematic structures can structure mental spaces and that the mental spaces can activate higher-level schematic structures.

4.5 Some Consequences of the Multilevel View

In the present section, I wish to examine four *consequences* of the new, multilevel view of conceptual metaphors in relation to (1) a proposal by

George Lakoff, (2) a distinction emphasized by Gerard Steen, (3) the general issue of metaphorical idioms, and (4) a fundamental issue in the methodology of studying metaphor within a CMT framework. In particular, they are as follows:

- What are “deep” versus “shallow” or “superficial metaphors? What is their ontological status in the metaphorical conceptual system?
- Do “deliberate” metaphors exist independently of “nondeliberate” ones? How best can we characterize them in a multilevel view of metaphor?
- How does the multilevel view of metaphor apply to metaphorical idioms? Does it shed any new light on their nature?
- If visual metaphors are the products of our metaphorical conceptual systems, which I assume to be hierarchically structured, visual metaphors must also be hierarchically structures. Is this indeed the case?
- What is the “best” method to study metaphors out of the many available ones in the various disciplines that deal with metaphor?

In what follows, I address the four questions and attempt to examine them in light of the multilevel view of metaphor.

Deep versus Shallow Metaphors

In a 1995 paper, George Lakoff distinguishes two different kinds of metaphor: “deep” and “superficial.” He explains the basis for the distinction in the following way: “The metaphors I have discussed so far in the paper have been both conceptual in nature and deep, in the sense that they are used largely without being noticed, that they have enormous social consequences, and that they shape our very understanding of our everyday world. It is important to contrast such deep conceptual metaphors such as Morality is Strength and The Nation is a Family with superficial metaphors, which are only of marginal interest but which often lead analysts astray” (Lakoff 1995).

In other words, conceptual and deep metaphors are used without being noticed, they have enormous social consequences, and they shape our understanding of the world. Given this characterization, we can ask what the ontological status of deep and superficial metaphors is – especially in relation to the four-level hierarchy as described in other publications (Kövecses 2015a, 2017b). How do deep and superficial metaphors fit into the schematicity hierarchy defined by the conceptual structures of image schemas, domains, frames, and mental spaces, as shown above?

The particular example Lakoff uses to demonstrate superficial metaphors is that of the *safety net*. He illustrates the metaphor from a newspaper article: “Senator Phil Gramm told a college commencement audience that the social safety net erected by government by the New Deal and the Great Society had become a "hammock" that is robbing the country of freedom and virtue" (from Lakoff 1995).

Lakoff offers an interpretation of the metaphor along the lines of his book *Moral Politics* (1996). He states that "[t]he tightrope is straight and narrow – a moral path." This is based on the well-known conceptual metaphor: MORAL IS STRAIGHT. Given the metaphor, walking the tightrope corresponds to working and falling off to losing your job.

In addition to this interpretation, several other metaphors seem to be equally possible in understanding the passage. One of these would be the conceptualization of actions in general as motion. Another would take into account the balancing act of the tightrope walker. Furthermore, we can think of the movement of the tightrope walker as a life-related metaphor having journey as its source domain. Finally, we can interpret the situation depicted by the sentence as a combination of control and life-action metaphors, in which controlling life amounts to keeping a job. The set of conceptual metaphors according to this interpretation would thus be:

ACTION IS MOTION
CONTROL IS PHYSICAL BALANCE
LIFE IS TRAVEL
LEADING A LIFE IS JOURNEYING
KEEPING ONE'S JOB IS KEEPING ONE'S BALANCE WHILE WALKING ALONG A TIGHTROPE
LOSING ONE'S JOB IS LOSING ONE'S BALANCE WHILE WALKING ALONG A TIGHTROPE

The last two metaphors are the most specific ones, given the schematicity hierarchy mentioned above. They occupy the level of mental spaces. These highly specific metaphors go together with some everyday knowledge that is carried over from the source to the target:

The tightrope walker needs a safety net so as not to injure himself if he falls.
People need social support in case they lose their jobs.

The knowledge provides the basis for the social support of working people.

More importantly for the argument here, the conceptual metaphors identified above (i.e., CONTROL IS BALANCE, ACTION IS MOTION, etc.) can be found at four different levels: the levels of image schema, domain, frame, and mental space in the following way:

Image schema:
ACTION IS MOTION
CONTROL IS PHYSICAL BALANCE

Domain:
LIFE IS TRAVEL

Frame:
LEADING A LIFE IS JOURNEYING

Mental space:
KEEPING ONE'S JOB IS KEEPING ONE'S BALANCE WHILE WALKING ALONG A TIGHTROPE
LOSING ONE'S JOB IS LOSING ONE'S BALANCE WHILE WALKING ALONG A TIGHTROPE

The schematicity hierarchy works in the following way in this case: Actions in general are metaphorically understood as (self-propelled) motion (image schema level). Life is a kind of action and travel is a kind of motion (domain level). It is a major aspect of life that we live (lead) it, which is understood through journeying (the activity aspect of travel; see Framenet) (frame level). A part of leading a life is having (or not having) a job, which is understood as walking along a tightrope (mental spaces level). The MOTION and BALANCE source domains are conceptually integrated (blended) at the level of mental spaces in the image of "walking the tightrope" (on blending, see Fauconnier and Turner 2002). As can be seen, both the target and source domains are more specific elaborations of higher-level metaphors, as we go down the hierarchy.

This organization of the metaphors tells us about what the distinction between "deep" and "superficial" metaphors actually means. The deep metaphors would be the image schema-, domain-, and frame-level ones. The superficial metaphor would be the one at the level of mental spaces. In other words, we can reinterpret and reconceptualize Lakoff's distinction between deep and superficial metaphors in terms of the schematicity hierarchy shown above. The deep metaphors are the ontologically most schematic ones, while the superficial ones are the least schematic. His terms "deep" and "superficial" are metaphorical construals of the three "higher" (image schema, domain, frame) and the "lowest" (mental space) levels.

Deliberate versus Nondeliberate Metaphors

Actually, what Lakoff means by superficial metaphors, such as *safety net*, corresponds to or at least greatly overlaps with what Gerard Steen (2013) refers to as "deliberate" metaphors. Steen defines the latter as follows:

> Deliberate metaphor affords conscious metaphorical thought, but is not identical with it (Steen 2011b). Instead, deliberate metaphor can be defined as the instruction for addressees to adopt an 'alien' perspective on some target referent in order to formulate specific thoughts about that target from the standpoint of that alien perspective (Steen 2008, 2010, 2011a). This is typically achieved by some form of explicit and direct metaphor, such as simile. (Steen 2013, www.academia.edu/363751/Deliberate_metaphor_affords_conscious_metaphorical_thought)

He offers the following example for this kind of metaphor:

> Imagine your brain as a house filled with lights. Now imagine someone turning off the lights one by one. That's what Alzheimer's disease does. It turns off the lights so that the flow of ideas, emotions and memories from one room to the next slows and eventually ceases. And sadly – as anyone who has ever watched a parent, a sibling, a spouse succumb to the spreading darkness knows – there is no way to stop the lights from turning off, no way to switch them back on once they've grown dim. At least not yet. (Steen 2013)

Clearly, in this case, the metaphor is not confined to a single word. It is an extended description of how we should imagine Alzheimer's disease. As Steen points out, in comprehending the metaphor, our view of the disease changes; we adopt a new perspective on it. How can the multilevel view of metaphor outlined in this chapter enrich this understanding of deliberate metaphors?

First, let us note that the example is based on the notions of light and darkness – basic schematic perceptual experiences. We understand a number of related abstract concepts in terms of the image schema of LIGHT: RATIONALITY, KNOWLEDGE, INTELLIGENCE, TRUTH, MORALITY, and maybe some others. They all have to do with reason, yielding the metaphor REASON IS LIGHT. They all have a positive evaluation, as opposed to their antonyms, EMOTIONALITY, IGNORANCE, STUPIDITY, FALSITY, IMMORALITY, etc., which are all negatively valued. In other words, we are dealing here with the image schema metaphors of REASON IS LIGHT and LACK OF REASON IS DARK.

Second, the bodily experience of light turning into darkness and darkness turning into light is used to conceptualize the human mind. The metaphor that elaborates on the REASON IS LIGHT image-schema metaphor is that of MENTAL FUNCTIONING, or more simply, THINKING IS USING LIGHT. The THINKING IS USING LIGHT metaphor covers a variety of mental activities, such as imagining, speculating, observing, considering, etc., which are understood in terms of ways of using light: *vision, envision, visualize, observe*, and, etymologically, *specere* "to look," *considerare* "look at closely," etc. from Latin (see Sweetser 1990). The general domain within which this metaphor functions is that of the mind; hence the MIND AS BODY metaphor (see Johnson 1987), of which THINKING IS USING LIGHT is an example.

Third, a specific case of mental functioning, or thinking, is understanding. A well-known conceptual metaphor for understanding is: UNDERSTANDING IS SEEING (Lakoff and Johnson 1980). This is a frame-level metaphor, where the specific mental activity of understanding is conceptualized as the specific sensorimotor activity of seeing – a specific version of making use of light (with the help of the eyes).

Fourth, the example paragraph for deliberate metaphor spells out the specific details of the frame-level metaphor. Normal mental functioning corresponds to having the lights on in a house, whereas its lack corresponds to darkness in the house. In short, the metaphor at the mental-space level is: LACK OF NORMAL MENTAL FUNCTIONING/LACK OF UNDERSTANDING (i.e., HAVING ALZHEIMER'S DISEASE) IS NOT HAVING THE LIGHTS ON IN A HOUSE.

If this analysis is on the right track, we can suggest that deliberate metaphors come with a large nondeliberate part at the image-schematic, domain, and frame levels. The deliberate metaphor that is presented at the least schematic, most experience-rich level (the level of mental spaces) is accompanied by and actually assumes a set of systematic "higher-level" (in Lakoff's sense, "deeper") conceptual metaphors and image schemas.

Another example that comes from my own work (Kövecses 2015a) and points in the same direction can be offered. An article from USA TODAY is about cyclist Lance Armstrong's confessions concerning his doping, and tells us that his confessions up to that point had not been sufficient to redeem himself and clean up the sport of cycling. Several (crisis) experts who were interviewed thought that additional steps must be taken by Armstrong to achieve this. One specialist in crisis management said this in an interview: "To use an analogy from the Tour de France, he's still *in the mountain stage*, and will be for some time" (2013, USA TODAY, 6W Sports, Weekly International Edition, my italics, ZK).

What we have here is that the specialist has extensive knowledge about the topic of the discourse, which is Armstrong's doping scandal. That knowledge includes that as a cyclist Armstrong participated in several Tour de France events and that this race has several "mountain stages." I suggested that the topic of the discourse primed the speaker to choose a metaphor to express a particular idea; namely, that, in order to come completely clean, Armstrong has a long and difficult way to go. This idea was expressed by the metaphorical linguistic expression *in the mountain stage* – a deliberate metaphor. The metaphor is based on the mapping "impediment to motion ➔ difficulty of action (making full confession and being forgiven)" in the ACTION IS SELF-PROPELLED MOTION conceptual metaphor. But this is insufficient as an account for the meaning of the metaphor because there is still a wide conceptual gap between the meaning of the expression *in the mountain stage* and the ACTION IS SELF-PROPELLED MOTION conceptual metaphor. The gap can be bridged if we assume the proposed multilevel conceptual structures in which conceptual metaphors occur in a schematicity hierarchy, such as the following:

Image schema:

Activities in general are metaphorically conceptualized as entities moving. This yields the image-schema level metaphor:

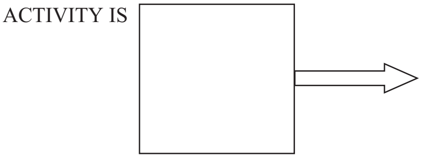

Figure 4.7 ACTIVITY IS MOVEMENT

This way of displaying the image-schema level metaphor is used to show the analogue nature of metaphors at this level. The figure in source domain position indicates an entity (square) moving (arrow).

Domain:

At the domain level we have the domains of COMMUNICATION, or COMMUNICATIVE ACTION, and SELF-PROPELLED (FORWARD) MOTION. They form the conceptual metaphor:

COMMUNICATIVE ACTION IS SELF-PROPELLED (FORWARD) MOTION

Frame:

There are two frames participating in the conceptual metaphor at the frame level: CONFESSION and RACE. The metaphor thus becomes:

CONFESSIONS ARE RACES

Mental space:

At the mental space level, the conceptual metaphor is specified as a bicycle race: CONFESSIONS ARE BICYCLE RACES. What gets focused on at this level is the LENGTH AND DIFFICULTY OF CONFESSING WRONGDOINGS. Correspondingly, in the source concept at this level we have LENGTH AND DIFFICULTY OF BEING IN THE MOUNTAIN STAGE OF THE TOUR DE FRANCE. This results in the conceptual metaphor:

THE LENGTH AND DIFFICULTY OF CONFESSING WRONGDOINGS IS THE LENGTH AND DIFFICULTY OF BEING IN THE MOUNTAIN STAGE OF THE TOUR DE FRANCE

The metaphor is thus fully motivated – both conceptually (i.e., via being a part of a schematicity hierarchy) and contextually (see Chapter 5). The two examples I have briefly looked at above indicate not only that deliberate metaphors have a large nondeliberate part at the image-schematic, domain, and frame levels. They also show that the deliberate metaphors *are actually based on* metaphors that are nondeliberate, and the deliberate and nondeliberate parts are inseparable, they work jointly within the same schematicity hierarchy of metaphorical concepts. Moreover, it follows that the metaphors that are termed deliberate *are really both* deliberate and nondeliberate at the same time.

One could argue, of course, that some deliberate metaphors are truly isolated on the mental-space level; that is, unlike the previous examples, they do not come with a large background conceptual package. Let us consider a potential example for this possibility. We can take an example used by Steen, sonnet 18 by Shakespeare:

> Shall I compare thee to a summer's day?
> Thou art more lovely and more temperate:
> Rough winds do shake the darling buds of May,
> And summer's lease hath all too short a date;
> Sometime too hot the eye of heaven shines,
> And often is his gold complexion dimmed;

One could say that in the sonnet there is a single, isolated deliberate metaphor: "Shall I compare thee to a summer's day?" and that there are no deep metaphors that would unconsciously guide the way we understand and appreciate this part of the poem. However, a closer look reveals that the various layers of metaphors that characterize the other examples can be found here as well.

Image schema:
INTENSITY IS HEAT / COLD

Domain:
EMOTION IS TEMPERATURE: INTENSITY OF EMOTION IS DEGREE OF HEAT / COLD

Frame:
LOVE IS FIRE: LOVE'S INTENSITY IS THE DEGREE OF HEAT OF FIRE

Mental space:
THE INTENSITY OF THE POET'S LOVE IS THE DEGREE OF A SUMMER DAY'S HEAT

The HEAT-COLD image schema is well-known in the cognitive linguistic literature in the conceptualization of emotions (see, e.g., Kövecses 2000b). It can be found in such conceptual metaphors as LOVE IS (HEAT OF) FIRE, ANGER IS (HEAT OF) FIRE, AFFECTION IS WARMTH, FRIENDLY IS WARM, UNFRIENDLY IS COLD, etc. In the sonnet, Shakespeare turns the HEAT OF FIRE metaphor into a very specific heat-related metaphor: the kind of heat we feel in a summer's day (but then he argues against it). Actually, the emergence of and the motivation for these metaphors is even more complicated if we consider how our bodily experiences of body heat as metonymy turn into heat of nature (as from fire and the sun) as metaphor. (On this, see Chapter 3 and Kövecses 2013.)

But the main point of the discussion above is that deliberate metaphors come with a large nondeliberate conceptual package: the conceptual metaphors that are presupposed by the most specific level of metaphorical conceptualization – at the level of mental spaces.

Metaphorical Idioms

As a third illustration of how we can put to use the multilevel view of metaphor, let us consider metaphorical idioms. It is well-known that particular idioms can be underlain by conceptual metaphors (e.g., *add fuel to the fire* – ANGER IS FIRE). However, to think of metaphorical idioms in this way would greatly oversimplify the picture. It seems that metaphorical idioms can be assigned to very specific metaphorical ideas at one level, but this level is just one layer of a complex hierarchy of schematicity. Moreover, the hierarchy can end in a number of image-schema metaphors that jointly characterize the idiom in question. Finally, for example, idioms, like idioms of money, can belong to very different hierarchies with very different image-schema, domain-, and frame-level metaphors (see Kövecses 2018, 2019).

Consider an example sentence taken from a dictionary: *Everybody borrowed money from Joe, the cash cow of the family.* Here the metaphorical expression is *cash cow*. Let us see what is involved in the metaphorical conceptualization of the expression and the sentence in the multilevel view of metaphor presented here.

At the most specific level, that of mental spaces, the person is identified as a cow and the person's money as milk. The money comes from the udder of the cow, so that borrowing money amounts to getting milk from the udder. The constitutive parts of the compound noun are *cash* and *cow* which are conceptually blended. Blending occurs at the mental spaces level. The dynamic mental operation of conceptual integration can only take place at this level in working memory. In sum, on this analysis, the expression *cash cow* assumes the following very specific conceptual metaphors (corresponding to a set mappings between the source and the target) at the level of mental spaces:

JOE IS A COW
THE MONEY IS MILK
THE SOURCE OF THE MONEY IS THE UDDER OF A COW
BORROWING MONEY FROM JOE IS GETTING MILK FROM THE UDDER OF A COW

At the frame level, the last constituent metaphor becomes less specific: Joe identified as a cash cow at the level of mental spaces is conceptualized as a source-container and the milk as an object/substance (liquid). In addition, in the prototypical borrowing-lending frame there is a borrower and a lender. The borrower requests the money and the lender gives the money to the borrower. Thus, we get:

BORROWING AND LENDING MONEY IS REQUESTING THE MOTION OF AN OBJECT/SUBSTANCE (LIQUID) FROM A SOURCE(-CONTAINER) AND THE SOURCE(-CONTAINER) CAUSING THE MOTION OF THE OBJECT/SUBSTANCE (LIQUID) TO THE REQUESTER

At the domain level, the borrowing-lending frame turns into, or is an instance of, the more schematic concept of change of possession, which is conceptualized as the motion of a liquid substance. The person who has the money is a container and the person who is the source of the money is a source-container. Thus, the metaphors (or mappings) are:

THE PERSON WHO HAS THE MONEY IS A CONTAINER
THE MONEY IS A LIQUID
THE PERSON WHO IS THE SOURCE OF THE MONEY IS A SOURCE-CONTAINER
CHANGE OF POSSESSION OF MONEY FROM PERSON A TO PERSON B IS MOTION (OF OBJECT/SUBSTANCE (LIQUID)) FROM A SOURCE-CONTAINER TO A GOAL-CONTAINER

At the most schematic level of image schemas, we have extremely general metaphorical conceptualizations as a result of the application of a number of image schemas to the constituent elements of the money domain, such as persons, resources, sources, occurrences, and changes. These are metaphorically structured by such image schemas as container, substance, movement, and motion, yielding the metaphors:

A PERSON IS A CONTAINER
RESOURCES ARE SUBSTANCES
THE SOURCE OF RESOURCES IS A CONTAINER
OCCURRENCES ARE MOVEMENTS
CHANGE IS MOTION

The point of the previous analysis of the expression *cash cow* is to show that we can notice a gradual shift in the schematicity of the conceptual metaphor that links the various levels. BORROWING MONEY FROM JOE IS GETTING MILK FROM THE UDDER OF A COW is more specific than BORROWING MONEY FROM SOMEONE IS GETTING LIQUID FROM SOURCE-CONTAINER, which is more specific than CHANGE OF POSSESSION IS MOTION OF SUBSTANCE OUT OF SOURCE-CONTAINER, which, in turn, is more specific than OCCURRENCES ARE MOVEMENTS and CHANGE IS MOTION. The last two metaphors are part of the system because we see the borrowing of money from Joe also as an occurrence and change (of state), and not only as elaborating on the borrowing-lending frame and the change of possession domain. It is also significant to point out that the bodily basis of the last two metaphors (i.e., the correlations between occurrences and movement, on the one hand, and between change and motion, on the other) makes the entire hierarchical system immediately meaningful and natural – all the way down to "getting the milk from the udder."

We can represent this metaphorical system below as follows. The conceptual metaphors in boldface are the ones that are related to each other in a schematicity hierarchy, and they serve as the "backbone" of this metaphor system.

IS:

A PERSON IS A CONTAINER
RESOURCES ARE SUBSTANCES
THE SOURCE OF RESOURCES IS A CONTAINER
OCCURRENCES ARE MOVEMENTS
CHANGE IS MOTION

DM:

A PERSON HAVING MONEY IS A MONEY-CONTAINER
MONEY IS A LIQUID
THE SOURCE OF MONEY IS A LIQUID-CONTAINER
CHANGE OF POSSESSION IS MOTION OF SUBSTANCE OUT OF SOURCE

FM:

THE PERSON WHO IS REQUESTED TO LEND MONEY IS A SOURCE-CONTAINER
THE MONEY IS A LIQUID-SUBSTANCE
BORROWING AND LENDING MONEY IS REQUESTING THE MOTION OF AN OBJECT/SUBSTANCE (LIQUID) FROM A SOURCE(-CONTAINER) AND THE SOURCE(-CONTAINER) CAUSING THE MOTION OF THE OBJECT/SUBSTANCE (LIQUID) TO THE REQUESTER

MS:

THE PERSON IS A COW
MONEY IS MILK
THE SOURCE OF MONEY IS THE UDDER OF A COW
BORROWING MONEY FROM JOE IS GETTING MILK FROM THE UDDER (AND THE COW GIVING IT)

The description above of the metaphorical idiom *cash cow* in the given frame (borrowing) shows the potential conceptual complexity of a single idiom. Other idioms of money (e.g., cashflow) would require a different schematicity hierarchy due to the fact that they would involve other frames (such as buying and selling). Still different hierarchies would be required by other money-related idioms, such as “money talks,” where different image schemas would apply (such as force). All these complexities could be fruitfully studied by making use of the multilevel view of conceptual metaphors as proposed in the book.

4.6 Visual Metaphors

In the section, I briefly examine how the multilevel view of metaphor applies to the study of a single visual metaphor – a painting by Mark Tansey, a contemporary American artist (see Figure 4.8).

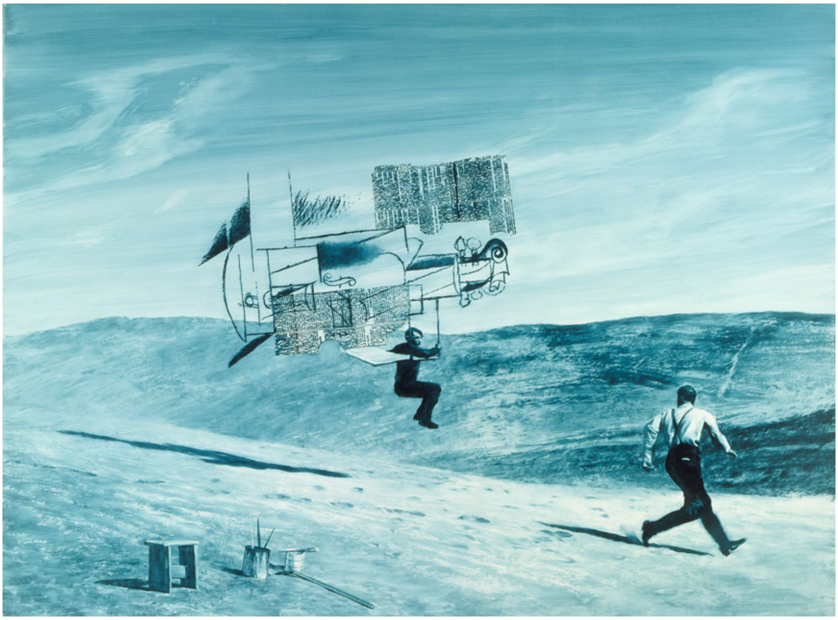

Figure 4.8 Mark Tansey: Picasso and Braque (1992).
(Tansey, Mark (b. 1949): Picasso and Braque, 1992. Los Angeles (CA), Los Angeles County Museum of Art (LACMA). Oil on canvas. 80 × 108″ (203.2 × 274.32 cm). Modern and Contemporary Art Council Fund (AC1992.154.1). © 2019. Digital Image Museum Associates/LACMA/Art Resource NY/Scala, Florence)

To begin, in the multilevel view we can work with conceptual structures (image schema, domain, frame, mental space) that occupy different levels of schematicity. By setting up such a schematicity hierarchy of conceptual structures, we can observe that a particular area of experience (such as cubism) is commonly characterized by conceptual metaphors that involve these conceptual structures on four levels of schematicity. I propose that two aspects of cubism lend themselves to analyses along these lines; namely, first, that cubism can be regarded as a complex abstract system and, second, as an abstract movement. I turn to the metaphor analyses of these two aspects of cubism below.

Complex Abstract System

In this subsection, I briefly look at cubism as a complex abstract system (see Kövecses 2010a, 2017b) on the image schema, domain, frame, and mental space levels.

The notion of cubism, and more generally, art, as represented in the painting by Tansey can be interpreted as a complex abstract system. Complex abstract systems are routinely conceptualized metaphorically as complex physical objects of various kinds. This yields the following highly schematic conceptual metaphor for the cubism hierarchy: A COMPLEX ABSTRACT SYSTEM IS A COMPLEX PHYSICAL OBJECT.

At the *image schema* level, this metaphor can be represented in an analogue fashion (i.e., here, visually) in the diagram below:

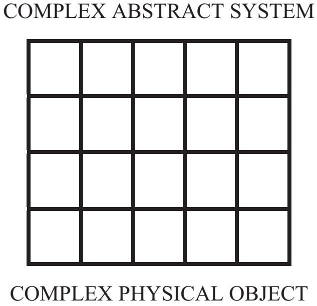

Figure 4.9 COMPLEX ABSTRACT SYSTEM IS COMPLEX PHYSICAL OBJECT

In the diagram, complex physical objects are represented schematically as a square. This is the source concept of the high-level conceptual metaphor. Complex physical objects are characterized by a variety of image schemas, such as CONTAINER, LINK, PART-WHOLE, VERTICAL-HORIZONTAL EXTENSION, (FORCE), (MOTION), and so on. These schemas account for the "complexity" of the physical object. (This complexity is represented by the grid-like square in the image schema above.)

At the *domain level*, according to the painting, cubism is metaphorically viewed as a vehicle, which gives us the conceptual metaphor: CUBISM IS A VEHICLE. The source domain of vehicle is conceptually connected to a number of concepts, such as the following:

> CREATION, SHAPE, SIZE, TYPE, STRUCTURE, CONSTITUENT MATERIALS, FUNCTION, OPERATION, FORCE, MOTION

Vehicles are created, they have shapes (but not a uniform shape), they have size and type, they are structured, they are made of some materials, they have function, they have particular modes of operation, they work with various degrees of force, and they can move. In short, the concept of vehicle comes with an extensive domain matrix in Langacker's (1987) sense.

At the *frame level*, we have cubist painting as target. The source concept here emerges as an airplane – a special case of the concept of vehicle. The aspects of the source as defined by the domain matrix attaching to the concept of vehicle become more specific here. For instance, airplanes are made in certain ways, they have a characteristic shape, they are typically large, their parts are assembled to form a unique structure, they are made of special materials, and they can fly. These features apply to cubist painting and, together, they result in the frame-level metaphor CUBIST PAINTING IS AN AIRPLANE.

What we know about these aspects individually and taken together greatly contributes to the metaphorical understanding of cubism and cubist painting. For example, our knowledge about the type, structure, and constituent materials of airplanes figures importantly in how we interpret the success of cubist painting. In other words, to do so, we will employ a submetaphor of the CUBIST PAINTING IS AN AIRPLANE metaphor, which is THE SUCCESS OF CUBIST PAINTING IS THE APPROPRIATE TYPE, STRUCTURE, AND MATERIALS OF THE AIRPLANE.

This takes us to the *level of mental spaces*. What we find here is how the potential frame-level knowledge is actually utilized in the painting. First, the type of the airplane: what we can see is that the frame-level airplane is a very light airplane. Second, the structure of the airplane: the airplane in the painting looks like an early one from the experimental stages of airplane building, and it looks like one which is quite “loosely” put together. Third, the materials: it is made of cubist paintings (“The Violin” by Picasso).

These features are conceptually blended in the painting. Together they portray an airplane that is hazardous for purposes of travel. The blend at the mental spaces level seems to be coherent with Picasso’s and Braque’s initial fears concerning their project. That is to say, at the level of mental spaces we are dealing with a very specific conceptual metaphor that can be put as follows:

> THE FRAGILITY AND UNCERTAIN FATE OF CUBISM AT THE TIME OF ITS EMERGENCE IS THE FRAGILITY AND UNCERTAINTY THAT COMES FROM THE LIGHTNESS AND CONSTITUENT MATERIALS OF THE AIRPLANE THAT IS ABOUT TO TAKE OFF.

The mental space level of the painting involves more. It also tries to answer the question of who the leading figure of cubist painting is. It does so by making use of the “operation” aspect of airplanes. We have the frame level knowledge that the controller of the plane is the pilot. This maps onto the leading figure of cubist painting, as represented in the Tansey painting: the pilot corresponds to the leading figure. Thus we get a further mental space level metaphor: THE LEADING FIGURE OF CUBISM IS THE PILOT OF THE PLANE (that is, Picasso). Finally at the mental space level, the flying of an airplane frame is also elaborated at this level: There is a second person (that is, Braque) on the ground who is actively involved in the operation of the plane (running along excitedly on the ground, thus possibly playing a less important role in the operation of the plane). This reaffirms the person of the leading figure: Picasso is the pilot and leading figure, while Braque is on the ground, figuring less importantly in the movement.

Abstract Movement

But cubism is not only a complex abstract system, it is also an abstract movement. Consider the following quote on the relevant sense of "movement" from a dictionary: "b: a series of organized activities working toward an objective; also: an organized effort to promote or attain an end - the civil rights movement - a movement to increase the minimum wage" (from Merriam-Webster Dictionary, www.merriam-webster.com/dictionary/movement).

At the *image schema level* the complex abstract system moves and moves toward a goal. This gives us two image schemas in light of which we interpret complex abstract systems, such as cubism, as moving: the MOVEMENT (ACTIVITY) and SOURCE-PATH-GOAL (OBJECTIVE/PURPOSE) schemas, which can be represented as follows:

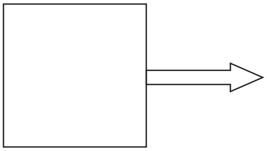

Figure 4.10 The MOVEMENT image schema

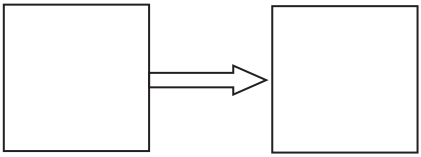

Figure 4.11 The SOURCE-PATH-GOAL image schema

The two image schemas provide two image schematic metaphors: CHANGE IS MOTION and ACTION IS SELF-PROPELLED MOTION.

More specifically, one level lower we find the following partial characterization of the *domain* of Cubism in Wikipedia: "**Cubism** is an early-20th-century art movement which brought European painting and sculpture historically forward toward 20th century Modern art. Cubism in its various forms inspired related movements in literature and architecture. Cubism has been considered to be among the most influential art movements of the 20th century.[1][2] The term is broadly used in association with a wide variety of art produced in Paris (Montmartre, Montparnasse and Puteaux) during the 1910s and throughout the 1920s" (from Wikipedia, https://en.wikipedia.org/wiki/Cubism).

Given the metaphor ACTION IS SELF-PROPELLED MOTION from the Event Structure metaphor (Lakoff 1993), we get an additional conceptual metaphor that applies to cubism in particular:

> PURPOSEFUL ARTISTIC ACTIVITIES BY A GROUP OF CUBIST ARTISTS IS ORGANIZED TRAVEL BY A GROUP OF TRAVELERS

At the *frame level*, the movement of cubist painting is an air journey, resulting in the conceptual metaphor CUBIST PAINTING IS AN AIR JOURNEY / A FLIGHT. Given this frame level metaphor, the mappings can be laid out as follows:

the air journey / flight ➔ the cubist painting movement
flying ➔ working / activities within the framework of cubism
the traveler in the air journey ➔ the painter in cubist painting
the destination of the air journey ➔ the goal of cubist painting
the beginning of the air journey ➔ the beginning of the cubist painting
the end of the air journey ➔ the end of the cubist painting

These are fairly conventional mappings that are involved in any application of the air journey source concept (more precisely, frame), not just cubism. However, at this point we can ask why this mode of travel was (unconsciously) chosen by the artist from among other modes of travel (such as car, train or sea journey).

There are several answers to this question at the *level of mental spaces*. One reason is that the success, viability – the functionality – of the movement was not clear at the time of its inception. Success and functionality is metaphorically viewed as upward oriented; hence the metaphor FUNCTIONAL IS UP, as indicated by the idiomatic phrases *up and running, get off the ground, take off*. Now, since ACTION IS MOTION, we can combine it with FUNCTIONAL IS UP to yield FUNCTIONAL/SUCCESSFUL ACTION IS UPWARD MOTION, as in the case of an air journey. Second, we can surmise that the choice is also facilitated because the initial part of the journey is crucial in air travel (see, e.g., the many metaphorical expressions concerned with the initial part of air travel: *get off the ground, take off, would not fly, launch*). There is clear focus on the initial phase of the movement in the painting; that is, the mapping that is emphasized is "the beginning of the air journey ➔ the beginning of the cubist movement." The early history of the cubist movement was fraught with difficulties. The other modes of travel would not have lent themselves to conceptually expressing this uncertainty and excitement. Third, there might also be some cultural motivation for this choice, as we'll see later.

The idea of cubism as an (abstract) movement manifests itself at the mental space level in several further specific ways. A new, unconventional mapping is introduced to the frame level metaphor. It is "the initiator / originator of the air journey ➔ the initiator / originator of cubist painting." In other words, there is some focus on the initiators or originators of cubism: namely, Picasso and Braque. This means that the originators are specified by name, whereas in the frame level metaphor we only have the role of an unspecified traveler. Actually, in the painting one of the originators (Picasso) is also the traveler. Thus, the roles of traveler and originator coincide in the painting (i.e., at the mental space level). Moreover, in the painting one of the originators (Braque) is depicted as remaining on the ground, thus receiving secondary status in the movement. Finally, the painting also evokes the Wright brothers, who had completed their first successful flight (in 1903) a few years before Cubism as a movement actually started. The two artists, Picasso and Braque, thought of themselves as the Wright brothers (Picasso often jokingly called Braque Wilbur – the first name of one of the Wright brothers). The parallel brings up for Picasso and Braque, and probably also for Tansey and the viewers of the painting, the initial excitement associated with the two enterprises. In other words, blending occurs at this level: the Wright brothers are conceptually fused with Picasso and Braque.

This reading arises from historical knowledge – in the terminology of the contextualist view of CMT, the conceptual-cognitive context. The recognition of this parallel may have also functioned as a motivation for the choice of air journey as a frame to conceptualize cubism by Mark Tansey.

Methodology

There are a number of different approaches to the study of metaphor within a general CMT framework. These different methods sometimes compete with one another and claim superior status in the field (on this, see Gibbs 2017b). Lakoff and Johnson's (1980, 1999) work was later seen as an "intuitive" approach to the study of metaphor. The label was used because Lakoff and Johnson and their followers were believed to rely on their own intuitions in identifying metaphors and grouping them into sets of examples to demonstrate the existence of conceptual metaphors. Corpus linguists argue that to find all or most of the conceptual metaphors in a language, one needs to take advantage of large corpora, such as the BNC (British National Corpus) or COCA (Corpus of Contemporary American English) (see, e.g., Charteris-Black 2004; Deignan 2005; Stefanowitsch 2006). They emphatically point out that our linguistic intuitions are not adequate for studying metaphors. More recently, Kövecses and his co-workers (Kövecses 2015b; Kövecses et al. 2019) proposed to revive the older intuitive method. Following Kövecses' (1986) initial suggestion, I call the revised method the "lexical approach" and show that the lexical method has advantages that the corpus-linguistic (more precisely, corpus-based) method cannot ignore. Other metaphor scholars place emphasis on the social-pragmatic uses of particular metaphorical expressions. They typically work with smaller databases than corpus linguists, and study the communicative functions of metaphors in authentic discourses (e.g., Cameron 2003; Musolff 2006; Semino 2008). Some scholars pay attention to how frames and metaphors are related and study various metaphorical constructions (see, e.g., Sullivan 2013). They often make use of the Framenet project that was developed by Charles Fillmore.

Psycholinguists and cognitive psychologists study metaphors as a conceptual phenomenon and the embodied nature of metaphorical conceptualization (see, e.g., Boroditsky 2001; Casasanto 2009; Gibbs 1994, 2006; Gibbs and Colston 2012). This work is largely experimental – in the form of either "in vitro" or "in vivo" experiments (see Kövecses 2005, on this distinction). Neuroscientists take advantage of the most recent brain imaging techniques and try to identify the neuronal activities that underlie the use of conceptual metaphors in the brain (e.g., Bambini et al. 2011; Coulson 2008; Gallese and Lakoff 2005 for an overview). Finally, groups of scientists are working to build computational models of how humans use conceptual metaphors for a variety of purposes (see, e.g., Feldman 2006; Narayanan 1999).

Thus, we have at least the following approaches dedicated to the study of conceptual metaphors:

Intuitive approach
Corpus linguistic approach
Lexical approach
Discourse analytic approach
Framenet type approach
Psycholinguistic experimentation
Neuroscientific experimentation
Computational modeling

There are no doubt other approaches, but even this set shows very clearly the variety of methods for the study of conceptual metaphor.

How can we pair off the different approaches with the different levels of metaphor described above? The following pairing of approaches with the levels is suggestive, rather than definitive. Most of the approaches can be used to study several different levels. I suggest that the particular approaches apply primarily to particular levels of metaphor, as shown in Figure 4.12.

IMAGE SCHEMAS – Psycholinguistics; Neuroscience

DOMAINS

– Intuitive approach; Lexical approach; Framenet

FRAMES

– Discourse analysis; Computational modeling

MENTAL SPACES – Corpus linguistics

– Psycholinguistics; Neuroscience

Figure 4.12 Levels of schematicity and methods of metaphor research

What lends significance to these pairings of levels and methods is threefold: First, there is no single approach that can be used to study all levels of metaphor. Second, several distinct approaches can be used to study the same level(s), but they can contribute complementary insights to it/them. Third, certain approaches may be better fitted to study a particular level than others.

To demonstrate the first point in the previous paragraph, I will briefly look at the "lexical method" and corpus linguistics. Researchers using the lexical method search for various lexical items or other types of information that are related to the general topic, or concept, under investigation (such as particular emotions indicated by particular lexemes: e.g., *anger*, *fear*, *surprise*). These include synonyms, antonyms, related words, various idioms and phrases, collocations, and, importantly, even the definitions of the lexemes (see Kövecses 2015b; Kövecses et al. 2019). The most likely sources for these types of information are dictionaries: monolingual and bilingual dictionaries, thesauri, collocation dictionaries, idiom dictionaries of various sorts, and, in general, any collections of words and phrases related to a concept. Very importantly, researchers prefer and tend to use dictionaries that offer example sentences and usage notes (about register, frequency, provenance, etc.) for the linguistic expressions (words, idioms, collocations, etc.) that they contain for the lexeme in question. Since it is not possible to find all of this information in a single dictionary, several different dictionaries of various kinds must be consulted before one can collect (possibly) all the lexical information that characterizes a lexeme under investigation.

The various lexical items that belong to a particular concept, or domain, are dominantly *types*, not tokens. The linguistic expressions that are identified by the dictionaries represent lexemes. In this method (that is based on mostly dictionary data), it is not possible to gage the actual frequency of the tokens, which is a drawback of the method. Furthermore, since the lexical method deals with types, that is, with linguistic expressions that have become lexicalized, the types provided by the dictionaries represent the most conventionalized linguistic expressions of a language related to a domain. The types that are identified are at the image schema, domain, or frame levels, that is, the level of *decontextualized language* (that Kövecses 2002/2010 calls the "subindividual" and "supraindividual" level, respectively), as opposed to the mental-spaces level, that of *contextualized linguistic* usage (of the types) by individual speakers who use tokens. (This level was referred to by Kövecses 2002/2010 as the "individual" level.)

We should note here that corpus linguistics, as another method, was proposed in the study of language, including metaphor research, to correct the deficiencies of work at the supraindividual level; specifically, to draw attention to contextualized linguistic usage in real discourse, i.e., the individual level (see, for example, Deignan 2005; Semino 2008; Stefanowitsch 2006) and to be able to do quantitative analyses of tokens. Both of these are legitimate proposals. But they work at a level that is different from the level where the lexical approach operates. The lexical approach works with types attaching to frames and domains, while various corpus methodologies work with tokens (as well as types) at the level of mental spaces.

The lexical approach can uncover the most conventionalized metaphorical linguistic expressions related to a target domain (i.e., the types) on the basis of which researchers can hypothesize the existence of systematic conceptual correspondences between two domains – the conceptual metaphors. The conceptual metaphors can be assumed to be shared by speakers of a language who have acquired the metaphorical expression types relating to a target. Experimental studies indicate that this is indeed the case (see, e.g., Gibbs 1994, 2006; Gibbs and Colston 2012). Thus the lexical approach can reveal a considerable portion of the shared metaphorical conceptual system in a linguistic community, though not the metaphorical conceptual systems that particular individual speakers possess.

By contrast, corpus linguists suggest that the lexical approach does not work for the individual level of metaphor analysis. This criticism is valid. But it should be kept in mind that the lexical approach was not designed to capture contextual variation in the use of metaphors and the individually variable metaphorical conceptual systems of individual speakers (on these issues, see Kövecses 2005, 2010, 2015b). There are several other more specific criticisms coming from corpus linguists (see, e.g., Kövecses 2011a, 2015b), but the discussion so far suffices to draw attention to the issue of relationship between the multilevel view of metaphor and the various methodologies that are employed in metaphor studies. Most important of these, in my view, is the following: The different levels of metaphor are associated with different goals and these goals go together with different methods. If we want to characterize how individual speakers use metaphors in context, we use corpus- and discourse-based approaches; if we are interested in making hypotheses concerning our (largely) shared metaphorical conceptual system, we can legitimately employ the lexical approach.

4.7 Conclusions

In the chapter I offered a four-level view of metaphor, which was demonstrated with the BUILDING source concept. The suggestion was that the four levels form a hierarchy in which conceptual metaphors occupy different levels of schematicity, the highest level being that of image schemas and the lowest that of mental spaces, with domains and frames in between. In the view proposed, each conceptual metaphor is characterized by all four levels.

The mappings between the source and target concepts occur on the same level: domains correspond to domains, frames to frames, and mental spaces to mental spaces. In the case of the level of image schemas, the image schemas structure highly schematic target concepts, such as COMPLEX ABSTRACT SYSTEMS, whose members are, for instance, the concepts of THEORY, MIND, NATION, COMPANY, LIFE, CAREER, ECONOMY, and many others. The mappings at the various levels license metaphorically used words at different levels (such as *inside* (image schema level), *structure* (domain level), and *builder* (frame level), as shown above.

The four levels are connected vertically, in that the lower levels are more specific versions of the higher, more schematic levels. Schematicity was characterized, following Langacker (1987), as "relative precision of specification" that applies to a concept.

Thus, conceptual metaphors occur at four levels of schematicity in an interlocking vertical hierarchy of image schemas, domains, frames, and mental spaces. In other words, conceptual metaphors cannot and should not be linked to a *single* conceptual structure, such as frames or domains. Conceptual metaphors are complexes of all four of these at the same time. I call this structuring the "multilevel view" of metaphor.

The schematicity hierarchy is characterized by two major divisions. One is the distinction between image schemas, on the one hand, and the other three levels, on the other. While image schemas are analogue conceptual structures, the other three are non-analogue ones (i.e., propositional) in nature. The other division that was proposed is between levels that, on the one hand, belong to long-term memory (image schemas, domains, frames), as opposed to the level of mental spaces, that function online in working memory. Mental spaces activate higher-level conceptual structures, while the latter structure mental spaces.

Insofar as the lexical approach to the study of metaphor can show, the BUILDING source concept highlights two aspects in relation to the target concept of COMPLEX ABSTRACT SYSTEMS: the aspects of CONSTRUCTION and LOGICAL SUPPORT, which are captured by the BUILDING (as process) and the (PHYSICAL) SUPPORT frames (including STRENGTH of support). We can call these aspects the “main meaning foci” of the BUILDING source domain – aspects of a concept that are conventionally or habitually profiled in metaphorical conceptualization. However, we also saw cases where aspects of BUILDING outside the main meaning foci were profiled (through the PARTS OF A BUILDING and FUNCTION OF A BUILDING frames). These non-routine projections require more complex mechanisms to account for their use (as we saw, e.g., in the *fire-exit* example).

The constructs that I call “main meaning foci” are the profiled aspects of culturally imbued complex conceptual metaphors. They seem to be closely linked to the primary metaphors that make up complex ones in the sense that the main meaning foci reveal which primary metaphors constitute a complex metaphor. It was noted, however, that the notion of the main meaning focus applies more broadly than primary metaphors, in that they extend beyond correlation metaphors.

I suggested that the metaphors used at the least schematic level, i.e., that of mental spaces (or scenarios), take on pragmatic functions and are used in ways that do not characterize metaphors at higher levels of schematicity. These differences can be explained with reference to the difference between the functioning of long-term memory as opposed to working memory. As the example of the *caretaker* indicates, *several* of the features that characterize the level of mental spaces can jointly apply to a metaphor used at this level.

Finally, the multilevel view of metaphor was shown to have several implications for conceptual metaphor theory. Of these, four were discussed in the chapter. First, concerning the issue of “deep” versus “superficial” metaphors and their ontological status, it can be suggested that “deep” versus “superficial” metaphors can now be given a more precise ontological status. Deep metaphors are those that are at the frame, domain or schema levels. Superficial ones are those that function at the level of mental spaces, that is, typically unconventional metaphors in discourse that can activate a number of conceptual metaphors at all of the “higher” levels. Second, regarding “deliberate” metaphors, I proposed that deliberate metaphors can be reconceptualized as manifesting entire schematicity hierarchies of concepts. That is, deliberate metaphors, as we saw, come with a large nondeliberate part. They evoke frame-, domain-, and schema-level metaphors. Given this, the metaphors that are taken to be deliberate are also nondeliberate in their conceptual background. In the view presented here, the two kinds of metaphors (deliberate and nondeliberate) are inseparable. Third, I showed by way of an example how schematicity hierarchies can apply to metaphorical idioms. The hierarchies can reveal not only new dimensions of conceptual complexity in the analysis of idioms but can also shed new light on how many idioms are organized around a large "core" of high-level metaphors. Fourth, as regards how the multilevel view of CMT applies to the analysis of visual metaphors, I examined a single painting by American artist Mark Tansey from the perspective of extended CMT. The multilevel view of metaphor proved especially helpful in accounting for the interpretation of the painting. Both the painter and the viewers approach the work at a variety of levels of schematicity. Much of the conceptual materials on the image schema, domain, and frame levels are most probably shared by the artist and the viewers. They are, to a large extent, conventional and stored in long-term memory. It is on the mental space level that the artist's creative imagination can be captured. In a way, it can be suggested that the painting is the expression of the conceptual product of the artist's relevant mental space in the course of producing the painting – without the metaphorical processes that led to the final (static) product (i.e., the painting). These are, however, recoverable from the product itself. Fifth and finally, I discussed the issue of methodological "rivalry" in relation to the question of what the "best" method is in the study of metaphors. Here, the suggestion was that different methodologies and approaches apply to different levels of metaphor and that they are all useful in doing their respective jobs. All in all, it seems that by applying the multilevel view of metaphor we can gain a great deal of coherence and uniformity in the description of seemingly diverse phenomena in the study of metaphor.

5 Conceptual or Contextual?

Conceptual metaphor theory has been primarily formulated as a cognitive theory – lacking a contextual component. Consider now how the theory would run into trouble if it is conceived as a mainly or exclusively cognitive phenomenon. Here is what it would look like: Conceptual metaphors are defined as sets of mappings between a concrete source domain and an abstract target domain. The mappings are conceptual correspondences between elements of the source and those of the target. Linguistic expressions make these correspondences manifest in language, and the meaning of the expressions is based on the particular mappings. By their nature, the systematic mappings form a part of the conceptual system. The central cases of these metaphors arise, according to the standard version of the theory, from correlations in experience between abstract (subjective) and sensorimotor concepts, that is, from embodied experience.

However, if we accept this view as the only or as our complete account of metaphor, it becomes very difficult to explain the comprehension and production of many metaphors – both conceptual and linguistic – in particular situations of discourse (see, e.g., Kövecses 2010b, 2015a). As we full well know, metaphor comprehension is highly context-sensitive, as experimentally demonstrated by decades of psycholinguistic and psychological research. (For overviews, see Gibbs 1994, 2006; Gibbs and Colston 2012.) The production aspect of metaphor use has received hardly any or, in any case, a lot less attention over the years in CMT. I have shown in some recent publications (see Kövecses 2010a,b, 2015a) that the use of many naturally occurring linguistic and conceptual metaphors is virtually impossible to explain without taking into account the role of context. In other words, CMT needs to embrace a contextual component – in addition to its other components, such as its conceptual structure, cognitive function and embeddedness, embodied character, and neural basis. While all of these are essential, they do not help us account for why and how speakers/conceptualizers produce particular linguistic and conceptual metaphors in specific discourse situations. In this chapter, based on my previous work, I identify and outline some of the most important elements that should be part of such a contextual component of CMT. In doing this, I also follow the Langackerian tradition in cognitive linguistics, where meaning (both literal and figurative) is always dependent on context (see Langacker 1987). More recently, Langacker formulates this foundational tenet in the following way: "The prior discourse is a major determinant (along with context, background knowledge, etc.) of what I call the **current discourse space** (CDS). The CDS is a mental space comprising everything presumed to be shared by the speaker and hearer as the basis for discourse at a given moment" (Langacker 2008: 59).

In a way, I consider it my task in this chapter to make explicit what is contained in this mental space when a speaker engages in metaphorical conceptualization in a specific discourse situation (see also Kövecses 2015a). In other words, my primary focus will be on the role of context in the *production* of metaphors.

A contextualist version of conceptual metaphor theory requires the characterization of at least three large issues that center around the following three questions: (1) What are the elements of (metaphorical) meaning making?; (2) What are the most common contextual factors that play a role in the use and creation of metaphors?; and (3) What is the cognitive mechanism through which contextual factors actually produce metaphors in natural discourse? In the remainder of the chapter, I draw heavily on my 2015 book *Where Metaphors Come From.*

5.1 Elements of Meaning Making

First of all, I am assuming that the prototype of meaning making (including metaphorical meaning making) is a situation in which speaker/conceptualizer 1 and hearer/conceptualizer 2 are co-present and share a great deal of information in and about the situation, including themselves. Obviously not all communicative situations are like this, but when they are not, it usually weakens the potential to understand each other.

In other words, meaning making in general depends on the notion of "relevant context," which means the information that the participants find especially relevant for a meaningful exchange. The question of the relevant context is usually formulated from the hearer/conceptualizer 2's perspective (see, e.g., Sperber and Wilson 1986/1995). However, from the production side of metaphors the question for the speaker/conceptulizer1 becomes: How can I make use of the present context to create the appropriate metaphor that a listener can understand and interpret correctly? But Sperber and Wilson also offer the notion of "mutual cognitive environment," which seems to be compatible with the idea of context as developed here. I will outline the most common components of such a cognitive environment (i.e., contextual factors) in a later section.

In a communicative situation, a speaker performs three actions by means of one (Sinha 2007): (1) representing a referential situation, (2) expressing his or her communicative intention, and (3), directing the listener's "intentional processes toward the referential situation" (Sinha 2007: 1282). Thus, a sphere of joint attention is created between the speaker and the hearer.

In discourse that employs metaphors, the use of metaphorical language functions as joint action, and joint action requires common ground between speaker and hearer. Using symbols is a form of "joint action" (Clark 1996), which assumes a large amount of shared knowledge between speaker and hearer called "common ground" by Clark (1996). For Clark (1996), the shared basis for the common ground can be of two kinds: "communal common ground" and "personal common ground." A "cultural community" is a group of people who share a great deal of information that others don't (Clark 1996: 101), the information being stored in frames. People share most of the distinctive frames that are based on conventional conceptual metaphors. There is also "personal common ground," which derives from shared perceptual experience and joint action. This can also be used as a metaphorical source domain in metaphorical communication. Such cases of metaphor use occur frequently, say, when journalists report on an event and they use metaphors that are based on some distinctive perceptual property of the event.

5.2 Types of Context and Kinds of Contextual Factors

In *Where Metaphors Come From*, using examples from naturally occurring discourse, I have presented a large amount of evidence to show that the use of metaphors in discourse is influenced by a variety of contextual factors. These contextual factors can be grouped into four large categories: situational context, discourse context, conceptual-cognitive context, and bodily context. Before I summarize and discuss the various context types and the contextual factors they subsume, I introduce two general constraints on metaphor use.

The use of metaphors in discourse is extremely variable. This is because context plays a crucial role in which metaphor is used in which situation. Each and every communicative situation is different, and this results in variation in metaphorical conceptualization. We can distinguish two large sets of factors that seem to play a role in metaphor variation: those that have to do with *differential experience* and those that have to do with *differential "cognitive styles."* The contextual factors presented below have to do with differential experience. They consist of some *contentful knowledge* (i.e., one that has conceptual content) that reflects (direct or indirect) experiences of the world. These are experiences that can trigger the use of particular metaphors. In order for conceptualizers to produce and comprehend metaphors, they need to have access (directly or indirectly) to the experiences that are made use of in the metaphors. These experiences provide the common ground that allows conceptualizers to produce and comprehend contextually induced, or generated, metaphors in discourse.

The factors under *cognitive styles*, by contrast, reflect particular *ways* in which experiences of the world need to be presented, given the prevalent cognitive conventions and preferences of a language community. Such issues as at which level of generality a metaphorical idea is presented (schematicity), how it should be framed (framing), to what degree it should be conventionalized (conventionalization), which aspect of the body it should involve (experiential focus), and others, are *presentational* in nature (for example, see Kövecses 2015a). In general, the former set of factors (i.e., differential experience) respond to the question of "what" can prompt or prime the use of certain metaphors, whereas the latter set to the question of "how" metaphorical conceptualization needs to be presented in a language community. The latter factors listed under differential cognitive style function as constraints on the speaker-conceptualizer only, who is to follow the linguistic and cognitive conventions of the language community. The hearer (conceptualizer 2/comprehender) is not constrained in this way.

Now let us turn to the various types of context and the more specific contextual factors that constitute them. (For a detailed discussion and a number of examples, see Kövecses 2015a).

Situational Context

The situational context comprises a variety of contextual factors. Most commonly this type of context can be thought of as including the physical environment, the social situation, and the cultural situation.

The *physical environment* can shape metaphorical meaning making. It includes the flora, the fauna, the landscape, the temperature, the weather, perceptual properties of the situation, and so on. For example, it is a common observation that American English metaphors relating to the physical environment are characteristically different from those of other English-speaking countries (see, e.g., Kövecses 2000c). The small-scale, local environment, such as the visible events in or the perceptual properties of a situation, can also make its influence felt in shaping metaphors.

The *social situation* consists of social aspects of life that typically center around notions such as gender, class, politeness, work, education, social organizations, social structure, and others. All of these can play a role in metaphorical conceptualization. For example, Kolodny (1975, 1984) shows that American men and women developed very different metaphorical images for what they conceived of as the frontier in America in the period before the twentieth century. While the women commonly thought of the American frontier as a "garden to be cultivated," men conceptualized it as "virgin land to be taken." (For several additional examples on gender metaphors, see Kövecses 2005.) Gender can of course also be thought of as part of culture, not only a social issue. In general, the distinctions in this section serve heuristic purposes only.

The *cultural situation* involves both the global context (the shared knowledge represented in the conceptual system) and the local context (the specific knowledge in a given communicative situation). An example of how the global context can affect metaphorical conceptualization is the way different concepts can produce differential metaphors in different cultures and languages, such as the metaphors for anger: ANGER IS HEAT (OF FLUID OR SOLID) in a large number of languages such as English and Hungarian, whereas in Chinese the metaphor can also involve GAS as its source domain – as a result of the influence of Yin and Yang theory (see Yu 1998). The more immediate local context can play a similar role in the production of metaphors (see Kövecses 2010b).

Discourse Context

The discourse context involves the surrounding discourse, knowledge about the main elements of discourse, the previous discourses on the same topic, and the dominant forms of discourse related to a particular subject matter.

The *surrounding discourse* is simply the linguistic context – often referred to as "cotext." Viewed from the perspective of the discourse's producer (the speaker), elements of the preceding discourse (either by the speaker/conceptualizer 1 or the hearer/conceptualizer 2) can influence the (unconscious) choice of metaphors, as was shown in an example taken from The Times by Kövecses (2010b): "*which helped to tilt the balance – and Mr Hain – over the edge*." In this case, the contextually induced metaphor arises from the elliptical use of the verb *tilt* in the phrase *tilt Mr. Hain over the edge*. It is the presence of the word *tilt* in the immediate cotext that leads to the second use of the metaphor.

Conceptualizers often rely on their *knowledge concerning the main elements of a discourse*: the speaker, hearer, and the topic. For example, it occurs commonly that in many newspaper articles knowledge about the topic as a contextual factor leads to the creation of new metaphors (Kövecses 2010b, 2015a). An example of this involved David Beckham in an article in which the journalist remarked: "*Los Angeles Galaxy are sardines not sharks in the ocean of footy*" (Kövecses 2010b). Here the relevant knowledge includes that Beckham played for the Los Angeles Galaxy soccer team and that Los Angeles is located on the ocean with all kinds of fish in it.

The metaphors in one discourse can also derive from *previous discourses on the same topic*. This can take a variety of forms ranging from elaborating, extending, questioning, negating, reflecting on, ridiculing, to otherwise taking advantage of a metaphor previously introduced. For example, an MP in the British Parliament responded to the then Prime Minister Tony Blair who said he does not have a reverse gear (i.e., he can only go forward) with the following statement: "*but when you're on the edge of a cliff it is good to have a reverse gear*" (example taken from Semino 2008). This was a humorous twist induced by the prior discourse on the PROGRESS IS MOTION FORWARD conceptual metaphor.

Certain forms of discourse can acquire dominant status in a community. When a dominant form of discourse related to a subject matter emerges, the metaphor used in or based on this discourse can become widespread both temporally (historically) and spatially (cross-culturally). For example, the discourse of Christianity commonly gives rise to the use of metaphors in the Christian world.

Conceptual-Cognitive Context

This type of context includes the metaphorical conceptual system, ideology, knowledge about past events, and interests and concerns.

Concepts can stand in a metaphorical relationship with one another (e.g., LIFE IS A JOURNEY, ARGUMENT IS WAR) in long-term memory. Given such metaphorical relationships between concepts (such as between, say, ARGUMENT and WAR), their presence or absence in the *metaphorical conceptual system* may lead to the production and comprehension of particular metaphors. (If the metaphorical connection does not exist in the user's conceptual system, he/she would not be able to come to use a metaphor.) A metaphorical conceptual system can function as context in this sense. Given an intended metaphorical meaning (say, "supporting an argument"), we can search the conventional metaphorical conceptual system for the best choice of metaphor. This happens in cases where a conventionalized metaphorical meaning ("supporting an argument") is expressed via a conventional linguistic metaphor (such as *defend*), with a matching target element activating the relevant mapping, or conceptual correspondence, in an existing conceptual metaphor (e.g., the meaning "supporting an argument" by means of the word *defend* in the ARGUMENT IS WAR conceptual metaphor as based on the mapping "defending one's physical position in war corresponding to "supporting one's position in an argument"). The conventional metaphorical conceptual system is especially utilized this way when there are no other overriding contextual factors in the discourse situation that might influence the (unconscious) choice of a metaphor.

Ideology can also be a formative factor in how metaphors are used in discourse. One's ideological stance concerning major social and political issues may govern the choice of metaphors (as work by, for instance, Goatly

2007, shows). A good example of how ideology might influence the choice of metaphors is George Lakoff's (1996) study of American politics, where conservatives tend to use THE NATION IS A STRICT FATHER FAMILY metaphor, while liberals prefer THE NATION IS A NURTURANT PARENT FAMILY version of the generic metaphor THE NATION IS A FAMILY. For another example, we can mention the Marxist version of the SOCIETY IS A BUILDING metaphor with talk about "superstructure," and so on, or the Marxist idea of "class struggle." Goatly (2007) is an important exploration into the metaphor-based ideology of capitalism.

Being aware of past events and states (i.e., items in short-term and long-term memory) shared by the conceptualizers may also lead to the emergence of specific metaphors in discourse. A special case of this involves a situation in which the speaker assumes that the hearer has a particular mental state. Such memories of events can belong to the life of a community or an individual. It has been often observed that the memory of historical events can lead to the production (and comprehension) of some metaphors (see, e.g., Deignan 2003, Kövecses 2005). Different historical contexts can create differential preferences for particular LIFE metaphors among Hungarians and Americans (see Kövecses 2005). The particular events in a specific communicative situation preceding an act of metaphorical conceptualization may also produce similar effects.

People are commonly prompted to use particular metaphors (more precisely, metaphorical source domains) relative to their *interests and concerns* about the world (see Kövecses 2005). Entire groups and individuals can be said to have certain characteristic interests or concerns that may affect the way they make meaning metaphorically. Since Americans are commonly regarded as dynamically oriented, rather than passive, in their attitude to life, and, relatedly, are sports-loving in general, it is not surprising that they use a large number of sports metaphors. Similarly, if a person has some kind of professional interest, that person is likely to draw metaphors from his or her sphere of interest (see Kövecses 2005). In other words, the kinds of activities we engage in routinely affect the metaphors (the source domains) we use (see Gelfand and McCusker 2001).

Bodily Context

A particular state of the body can produce particular metaphorical conceptualizations in specific cases, such as a poet's or writer's illness. Elsewhere, I showed how Dickinson's choice of metaphors may have been influenced by her optical illness (see Kövecses 2010b). Such cases illustrate, more broadly, that people's bodily specificities influence which metaphors they tend to use. There is experimental evidence (Casasanto 2009) that left-handers prefer to use the MORAL IS LEFT, as opposed to the MORAL IS RIGHT conceptual metaphor. Such metaphors contrast with the metaphors that evolve on the basis of the general properties of the human body (i.e., the correlation-based primary metaphors – see Chapter 1).

Given this kind of evidence and the many metaphorical examples that are based on local and temporary specificities of the human body (i.e., not on universal embodiment), one might take the body as a further form of the context. In this view, the body – especially those aspects of it that are activated in the ongoing communicative situation – can influence the choice of metaphors in natural discourse (see Kövecses 2015a). The body is not only responsible for the production of hundreds of conceptual metaphors through the many correlations between subjective and sensory-motor experience (cf. Grady, 1997a,b; Lakoff and Johnson 1999), but it can also prime the use of particular metaphors in more immediate, local contexts (as further experimental evidence by, e.g, Boroditsky, 2001; Boroditsky and Ramscar, 2002; Gibbs 2006; Gibbs and Colston 2012 indicates). In other words, the body can lead to the production of metaphors in discourse in the same way as the other contextual factors previously mentioned can. Given this, we can think of it as an additional context type.

5.3 Local and Global Context

Within the varied set of contextual factors that were briefly introduced above, two general types of context can be distinguished: local and global (see Figure 5.1). The *local context* involves the specific knowledge conceptualizers have about some aspect of the immediate communicative situation. Thus, the local context implies specific knowledge that attaches to the conceptualizers in a specific communicative situation. It corresponds, at least roughly, to Clark's personal common ground. By contrast, the *global context* consists of the conceptualizers' general knowledge concerning their community's environment (physical, social, cultural). It involves knowledge shared by an entire community of conceptualizers. Thus, it is close to Clark's communal common ground. The distinction local and global context is mostly of theoretical nature. In many actual communicative situations, there is no sharp dividing line between the two types of context.

5.4 Operationalizing Contextual Influence on Metaphor Production

In the present section, I attempt to briefly discuss the main conceptual ingredients that appear to be prerequisite for the production of a particular metaphorical expression in a discourse situation. I propose that there are four cognitive processes involved in this (without claiming that they are used in a conscious way): (1) Out of the many construal, or cognitive, operations the speaker must

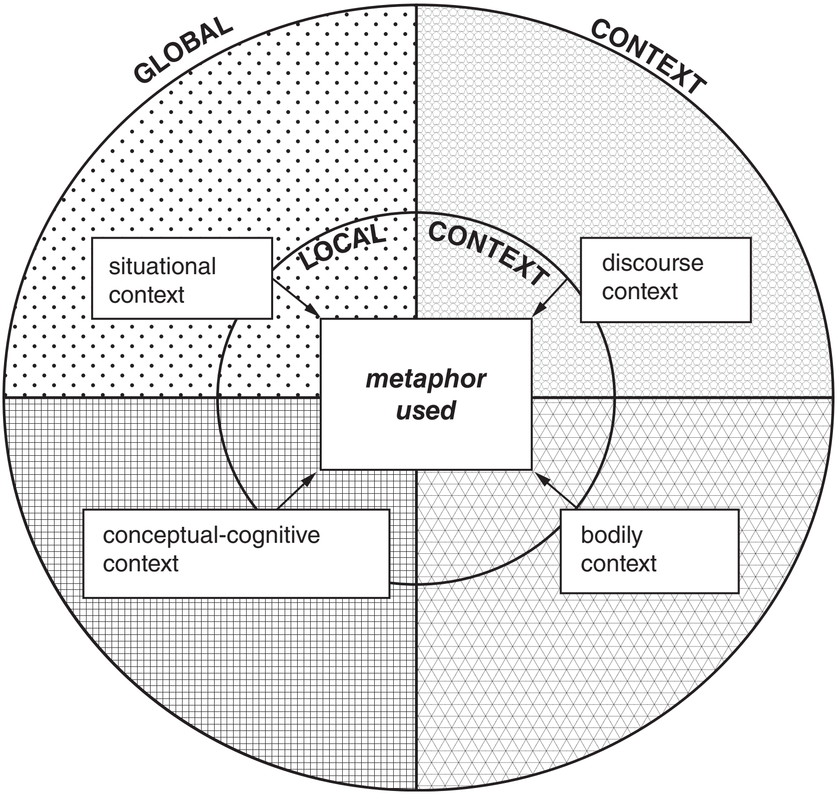
GLOBAL
CONTEXT
LOCAL
CONTEXT
situational context
discourse context
metaphor used
conceptual-cognitive context
bodily context

Figure 5.1 Summary of context types
(from Kövecses 2015a)

decide on metaphor as a meaning-making device – as opposed to some other device. (2) Given the various context types, the speaker is exposed to a wide array of information or experiential knowledge that "compete" for the speaker's attention. (3) One or several of the contextual factors will emerge as the strongest and prime(s) the speaker to use the matching metaphorical expression. (4) The expression will have the meaning that is appropriate for the communicative intention of the speaker and it results from the conceptualizer's ability to build a legitimate "conceptual pathway." I label the required cognitive processes as follows:

Deciding on cognitive operations
Being exposed to various forms of local vs. global context
Being primed by contextual factor(s)
Building a conceptual pathway

Deciding on Cognitive Operations

In any given context, the speaker unconsciously chooses a particular cognitive, or construal, operation (potentially supported by others) out of the many that are available to him/her. These include schematization, figure-ground alignment, scalar adjustment, dynamic and static attention, viewpoint selection, subjective or objective construal, metaphoric or metonymic conceptualization, conceptual integration, and others (based on Langacker 2008; see also Kövecses 2006). Often, several of these constitute alternative choices for the construal of a situation. The alternative operations commonly include abstraction, schematization, attention, perspective (subjectivity-objectivity), metonymy, metaphor, and conceptual integration. In the case under consideration, the speaker (unconsciously) decides on using metaphoric conceptualization.

Being Exposed to Various Forms of (Local or Global) Context

The diagram below summarizes the various context types, as discussed so far:

The conceptualizers are exposed to a large amount of shared information in a communicative situation. As explained above, the global context involves knowledge that members of a language community share. The local context consists of knowledge that individuals have in and about a particular ongoing communicative situation. The shared meaning making system provides a (more or less) uniformly present context for all members of a language community, while the latter involves specific local aspects of one's understanding of a specific communicative situation. The various context types and contextual factors can be seen as "competing" for the attention of the conceptualizers – factors on which metaphors may be built.

Priming

It can be argued that (the knowledge and awareness of) our experiences in the local and global contexts can prompt the use of particular metaphors – either conventional or novel ones. The various contextual factors can *prime* the use of a metaphor in discourse. Priming is a well-studied cognitive process used extensively in psychological and psycholinguistic experiments with a sizeable literature (see, e.g., Boroditsky and Ramscar 2002; Casasanto 2009; Gibbs and Colston 2012; and several other studies). Importantly, priming is based on the simulation of some experience in the situational, discourse, bodily, and conceptual-cognitive context. It is shared experience (the dynamically evolving common ground in a situation) that enables the production and comprehension of metaphors in discourse.

Let us take an example for this from work by Semino (2008), as described by Kövecses (2015a). Semino studied the metaphors used by various participants at the 2005 G8 summit meeting in Scotland on the basis of an article about the summit. The summit was accompanied by a major rock concert called Live 8. Some participants assessed what the G8 summit had achieved positively, while some had doubts concerning its results. Semino looked at one such negative assessment she found in an article about the summit. She comments in the following way:

> In contrast, a representative of an anti-poverty group is quoted as negatively assessing the G8 summit in comparison with the Live 8 concert via a metaphor to do with sound:
>
> 1.1 Dr Kumi Naidoo, from the anti-poverty lobby group G-Cap, said after "the roar" produced by Live 8, the G8 had uttered "a whisper."
>
> The reference to "roar" could be a nonmetaphorical description of the sound made by the crowd at the concert. However, the use of "whisper" in relation to the summit is clearly a (negative) metaphorical description of the outcome of the discussions in terms of a sound characterized by lack of loudness. Hence, the contrast in loudness between the sounds indicated by "roar" and "whisper" is used metaphorically to establish a contrast between the strength of feeling and commitment expressed by the concert audiences and the lack of resolve and effectiveness shown by the G8 leaders. (Semino 2008: 3–4)

In my view, the metaphor *whisper* here emerges largely from the physical (-social) context in which it is produced. Dr. Kumi Naidoo creates the metaphor *whisper* against a background in which there is a very loud concert and a comparatively quiet summit meeting. We can think of the loudness and the relative quiet of the occasion as perceptual features of the two events. Thus, the original conceptualizer, Dr. Kumi Naidoo, chooses a perceptual property of the physical context from all the experiential content that is available to him.

Conceptual Pathways

Out of the many potentially metaphor-producing experiences represented by the various contextual factors above, a particular metaphorical meaning can be conveyed if a specific target-domain meaning is expressible by a context-induced source-domain meaning. This can be achieved if a particular *conceptual pathway* (made up of several conceptual metaphors and metonymies) can be built between the two meanings (Kövecses 2015a). This way a particular piece and kind of information (or experiential content) and, with it, a particular context-induced metaphor is chosen out of the huge number of available options in the situation.

A conceptual pathway is often a schematicity hierarchy, as discussed in Chapter 4. The *safety net*, the *in the mountain stage*, and other examples show

how a contextual meaning can be created and made sense of by a particular schematicity hierarchy. I will discuss this aspect of the proposed view in more detail in the following chapters.

In conclusion, we can suggest that in actual communicative situations speakers/conceptualizers derive their metaphors from four types of experience: the situational, discourse, conceptual-cognitive, and bodily contexts. This goes against the traditional belief that most of our linguistic metaphors are simply conventionalized linguistic expressions that have a certain meaning, and we use the metaphors when we wish to express those meanings in a given context. It also goes against a commonly held view in cognitive linguistics that the metaphors we use are simply based on conceptual metaphors in our heads. Instead, the four context types and the contextual factors belonging to them prime conceptualizers to (unconsciously) choose their metaphors in discourse. More specifically, the priming effect can take place only if the conceptualizers (both speaker and hearer) can build the appropriate conceptual pathway between the intended target-domain meaning and the particular experiential content that is primed.

5.5 Contextual Influence and Levels of Schematicity

The last remaining question I wish to deal with here is this: At which level of schematicity does the context make its influence felt on the (unconscious) choice of conceptual metaphors as outlined in Chapter 4? If we think of conceptual metaphors as multilevel structures, this question becomes inevitable.

The source domains are not only coherent with their targets (or the other way around), but also with context in a broad sense. Elsewhere, I proposed that many metaphorical source domains are coherent with one or more contextual factors. This constraint was called the "pressure of coherence" with the context (see Kövecses 2005, 2015a). There seems to be abundant evidence for this kind of activation in the experiments conducted by Boroditsky, Casasanto, Gibbs, Colston and other researchers (see, e.g., Boroditsky 2001; Casasanto 2009; Gibbs 2006; Gibbs and Colston 2012). But, again, the question remains which one of the levels is affected – no matter how obvious the answer might be.

Since conceptualizers are aware of and share contextual factors of various kinds and types in the course of *online* communication, the level of schematicity involved is that of mental spaces, which are present in the course the functioning of working memory in a specific communicative situation. This is so even if the mental spaces that are created activate various frames, domains, and image schemas. With the creation of each new mental space, the context changes dynamically, and it affects how a situation is conceptualized metaphorically in and through that mental space.

At the same time, of course, the repeated, long-term effect of a contextual factor can lead to the (re)construction of a frame or domain that bears the impact of that frame or domain (Figure 5.2). In other words, in a sense, frames and domains are also context-dependent (not only mental spaces), but their shaping by context occurs over an extended period of time (both in terms of content and structure), unlike the online priming of mental spaces, which is instantaneous.

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

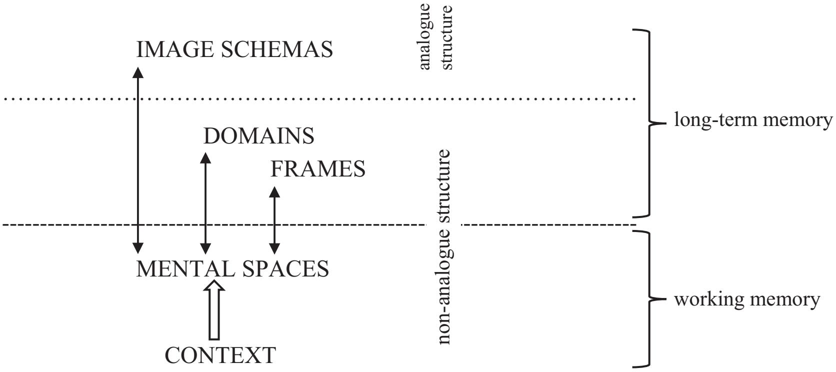

Figure 5.2 The influence of context on schematicity hierarchies

The upward arrow indicates that it is at the level of mental spaces that contextual influence on metaphorical conceptualization occurs.

5.6 A Note on Metaphorical Creativity: The Role of Schematicity and Context

How does this view of the joint workings of levels of schematicity, on the one hand, and context, on the other, affect the way we think about metaphorical creativity? An important aspect of metaphorical creativity is elaboration. We can think of elaboration in two ways. One is where a concept, like JOURNEY, is realized *lexically* in two ways (see, e.g., Lakoff and Turner 1989). But there is another way of thinking about elaboration. In it, *conceptual metaphors* may be related to one another at different levels of schematicity. An example is provided by the American poet Karl Sandburg. Consider the first stanza of the poem called *Skyscraper*:

BY day the skyscraper looms in the smoke and sun and
has a soul.
Prairie and valley, streets of the city, pour people into
it and they mingle among its twenty floors and are
poured out again back to the streets, prairies and
valleys.
It is the men and women, boys and girls so poured in and
out all day that give the building a soul of dreams
and thoughts and memories.
(Dumped in the sea or fixed in a desert, who would care
for the building or speak its name or ask a policeman
the way to it?)

The metaphoric-metonymic use of the skyscraper is clearly prompted by the situational (more precisely, physical-cultural) context. The poem was written in 1916 in Chicago, and it was at the turn of the twentieth century that skyscrapers began to be built on a large scale in major American cities, including Chicago.

Here the image of the skyscraper is based on the metaphor SOCIETY IS A BUILDING and this conceptual metaphor is part of a schematicity hierarchy. At the level of image schemas, we conceptualize complex abstract systems (such as societies) as complex physical objects. At the domain level, societies are conceptualized as buildings and the creation of a society as the physical creation of a building. The latter is the main focus of the metaphor in the poem. At the frame level, the idea of creation is elaborated as construction, which results in the conceptualization of the construction of a society as the construction (i.e., building) of a building (with tools and ingredients). Finally, at the mental spaces level, the building of a new American society is conceptualized as building a skyscraper (with hammers and crowbars and spikes and girders).

Thus, we get a set of conceptual metaphors in a schematicity hierarchy of conceptual metaphors:

Level of Image schema:
COMPLEX ABSTRACT SYSTEMS ARE COMPLEX PHYSICAL OBJECTS

Level of Domain:
SOCIETY IS A BUILDING; THE CREATION OF A SOCIETY IS THE PHYSICAL CREATION OF A BUILDING

Level of Frame:
THE CONSTRUCTION OF A SOCIETY IS THE BUILDING OF A BUILDING (WITH TOOLS AND INGREDIENTS)

Level of Mental spaces:
BUILDING A NEW AMERICAN SOCIETY IS BUILDING A SKYSCRAPER (WITH HAMMERS AND CROWBARS AND SPIKES AND GIRDERS)

The two highest levels, those of image schemas and domains, may be universal (or at least widespread) in cultures when it comes to the metaphorical conceptualization of societies. But the frame level, and especially the lowest mental spaces level are fairly culture- and even individual-specific. Sandburg captures the idea of building a new American society through the idea of building a skyscraper. At this level of conceptual metaphor, other poets may diverge widely (though using the same conceptual metaphors at the higher levels), depending on a large number of contextual factors (such as the physical environment). In other words, we can conclude on the basis of this example that *elaborations* of high-level conceptual metaphors may contribute to metaphor variation in poetry as well. Metaphors that may be universal or widespread at higher levels of schematicity may turn into something that is specific to particular poetic traditions or to individual poets.

The example demonstrates very clearly the usefulness of both the notion of schematicity hierarchy and that of contextual influence in the production of novel conceptual metaphors.

5.7 Context and Visual Metaphor

In this section, I propose to discuss the following issue in the study of visual metaphors (see, e.g., Cienki and Müller 2008; Forceville 1996, 2008; Forceville and Urios-Aparisi 2009). It concerns the issue of what should be (or can be) considered a visual metaphor in relation to the interplay between context and visual metaphor.

By visual metaphors I mean "pictorial metaphors" in the sense of Forceville (2016), who offers the term on the basis of his study of static pictures and objects. Following in his footsteps, El Refaie defines pictorial metaphors as follows: "... I will use the term 'pictorial metaphor' to refer to images of concrete, recognizable objects, scenes, and people that are used to stand for something else" (El Refaie 2019: 16). (El Refaie additionally includes spatial and stylistic metaphors in the category of visual metaphor.)

We can begin by observing that visual metaphors come in a large variety of forms (see, e.g., Forceville 2016). In dealing with some problematic issues in the theory of visual metaphors, Forceville usefully outlines several ways in which visual metaphors may be distinguished: First, he classifies visual metaphors according to how they are formed (contextual metaphors, hybrid metaphors, simile, verbo-pictorial metaphors, and integrated metaphors). Second, he distinguishes visual metaphors according to whether the source is inside or outside the story in which it is presented (diegetic vs. non-diegetic metaphors). Third, visual metaphors vary according to genre; they can be advertisements, cartoons, comic books, operas, theatre plays, films, gestures, traffic signs, drawings, pictures, paintings, illustrations, statues, and many others. This variety of visual metaphors is based on a genre-based classification of visual experience, in that the forms of visual metaphors belong to different genres as conventionally distinguished. In them, we find conceptual metaphors that have been discovered mostly on the basis of *linguistic* metaphors but also ones that are specific to particular genres (see, e.g., El Refaie 2019). Fourth, the classification of visual metaphors may also be based on their degree of conventionality. They can be creative or structural (i.e., nonconventional or conventional). Fifth, visual metaphors can be classified according to whether they employ a single modality or several ones (monomodal vs. multimodal metaphors).

There are, however, other ways of classifying visual metaphors. Another potential basis for the classification can be the degree of the sign-like nature of the visual experience that constitutes the visual metaphors. My contention is that visual metaphors can be composed not only of signs (i.e., sign-like visual experiences), such as in advertisements, cartoons, and sculptures, but also of visual experiences that we would not normally consider sign-like, such as when we see a building or look at a scene in nature.

The suggestion builds on the idea that non-sign-like visual experiences constituting visual metaphors utilize the same processing mechanisms as the sign-like ones. The interpretation and creation of both kinds of metaphorical visual experience relies on framing, mapping, recognizing correlations between experiences, finding resemblance between experiences, creating new experiences represented by new frames, getting primed by experience, resorting to already existing metaphors in long-term memory, and several others. In other words, conceptual metaphors realized visually are not to be found *outside* the human organism; they are found internally as human beings process experiences, either sign-like or non-sign-like, by means of these conceptual mechanisms.

5.8 Two Kinds of Visual Metaphor

In the section, I discuss two kinds of visual metaphors: visual metaphors that are correlation-based and those that are resemblance-based. (On the distinction between correlation and resemblance metaphors, see Grady 1999.) My objective is to show that non-sign-like visual experiences can also give rise to visual metaphors in the sense that such experiences can become source domains of visual metaphors in the same way as sign-like experiences can.

Correlation-Based Visual Metaphors in the Real World

Let us begin with a conceptual metaphor that has a large number of visual manifestations: CONTROL IS UP (Lakoff and Johnson 1980). The metaphor manifests itself in several linguistic expressions, including “be on top of the situation,” “be the underdog,” “have control over someone,” and “climb to the top” (Figure 5.3). This is a primary metaphor (see Grady 1997a,b) that is commonly exemplified visually by, among other things, the winner’s rostrum:

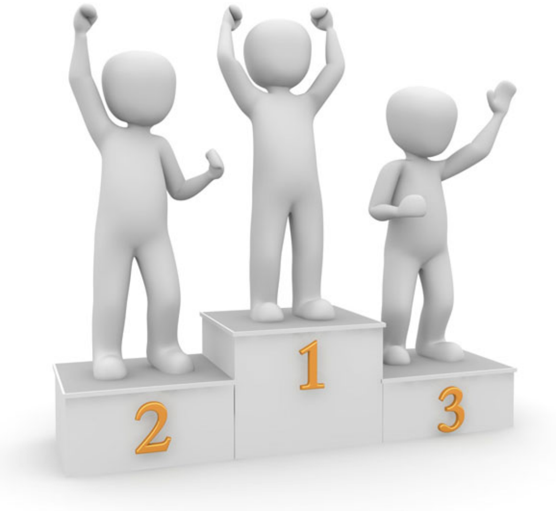

Figure 5.3 Winner’s podium
(https://pixabay.com)

Here, the winner of a competition occupies the highest position at the award ceremony because he or she has social control over the other competitors. That is, the person with the most power or control is placed highest. Social power or control is reflected in higher physical position.

There are many other social situations where we can see the conceptual metaphor at work. For example, the king sits or stands higher than his subordinates, the speaker of the house sits higher than the representatives, teachers often stand on a podium in classrooms, and so on. In general, elevated platforms of various sorts, besides their practical functions, serve the purpose of indicating how some people have more power than others.

In many other cases it may not be immediately obvious that the metaphor CONTROL IS UP is present and it metaphorically constitutes certain aspects of reality (Figure 5.4). By way of an example, imagine that you are a foreign tourist in a city and you encounter the following visual image:

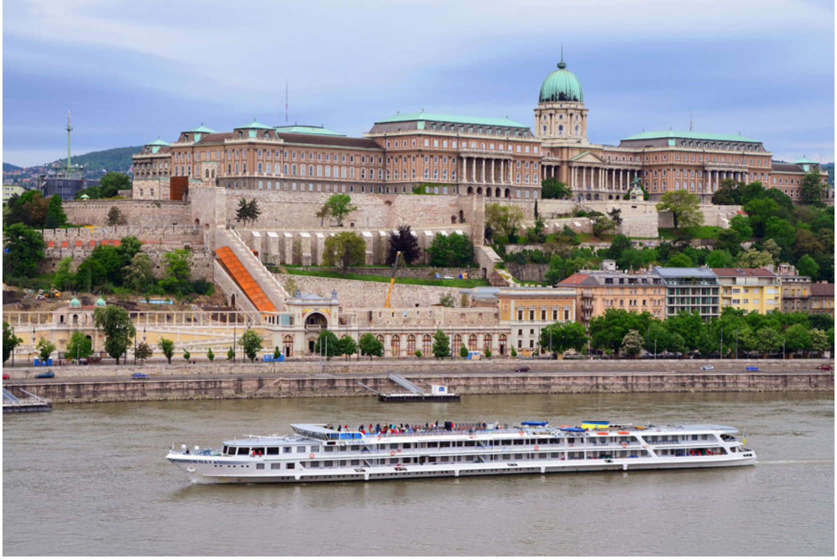

Figure 5.4 Buda Castle
(https://pixabay.com)

The image is about Budapest and it shows the Buda Castle, the former Royal Palace, on top of the castle hill on the Buda side of the river Danube, which separates the older part of the city, Buda, from the newer part, Pest.

The image we can see above is the photograph of a “real” visual image that a foreign tourist (or, as a matter of fact, any other person) can see in Budapest. Is the real image (perceived by a tourist) and/or the photograph of the image (shown above) in any sense metaphorical? And, importantly, how can we find out?

It should be noticed that the image does not portray people who could be said to be in some obvious power-based relationship with one another. We can only see buildings, a hill, the river, boats, etc. And yet, interestingly, foreign visitors to Budapest can interpret what they see via the CONTROL IS UP metaphor.

In a small and informal research project, I investigated the metaphors that foreign tourists who visit Budapest use to interpret their experiences (see Kövecses in press). I did a simple Google search to find descriptions of people’s experiences and impressions of Budapest. I only gathered descriptive statements that contained metaphorical expressions. This way, a database of about 130 pages long was compiled. After eliminating duplicates and the repeated uses of the same metaphor, I ended up with an 83-page-long list of metaphorical statements in their natural discourse environment about Budapest. Most of the statements came from individual tourists who have visited the city in recent years. They left their notes about Budapest in English, but English is not necessarily their native language. I did not try to separate the comments by native speakers of English from those by nonnative speakers. It seems to me, though, that most of them are native speakers. It is important to mention that a certain percentage of such statements came from tourist propaganda (e.g., from travel agencies), and are thus not spontaneous expressions of people's opinion about the city. I did not try to filter out this kind of material from my database either. In general, then, it can be said that I did not perform a formal corpus-linguistic data collection and analysis. One of the major sights for visitors to Budapest is the Buda Castle. In their comments on their experiences, the foreign visitors often use descriptions such as the ones below:

- Buda Castle is certainly a tourist favorite with it's [sic] mighty position, elevated high above the city.
- Buda is high up on the hill and has a lot of upper class neighborhoods, while Pest is where the younger crowd tends to live and has a lot more to do. (see picture below)

It appears that when tourists perceive these views, they think about them in terms of power; they seem to perceive some controlling force attaching to them. In other words, they tend to interpret the sight through some well-known primary metaphors, such as POWER IS UP and CONTROL IS UP. In the first case, the "elevated position" of the castle viewed in correlation to the power that comes from (and in former times, it actually came from) a building in that physical position. In the second case, again, the "neighborhoods high up on the hill" are correlated with the notion of social control ("upper class neighborhoods"), which seems to be based on the CONTROL IS UP metaphor.

How is this metaphorical connection possibly made by looking at this view? I suggest that it is likely to be made via metonymic thinking. A conventional metonymy that obtains between a place and the people who live or work in that place is THE PLACE FOR THE PEOPLE LIVING/WORKING THERE, or, for short, PLACE FOR THE PEOPLE IN THAT PLACE. The castle is not just a building but also the place where there are powerful people. As a result, the building can metonymically stand for the people with power. In addition, the city as a geographical location metonymically stands for the people who live there. This means that the metonymy THE PLACE FOR THE PEOPLE IN THAT PLACE can apply twice: once to the castle and once to the city. The castle will now metonymically stand for powerful people and the city for ordinary people. Thus, a perceived situation where there were originally no people (in a relationship of power) will be seen as a power relationship between people. The double application of the PLACE FOR THE PEOPLE IN THAT PLACE

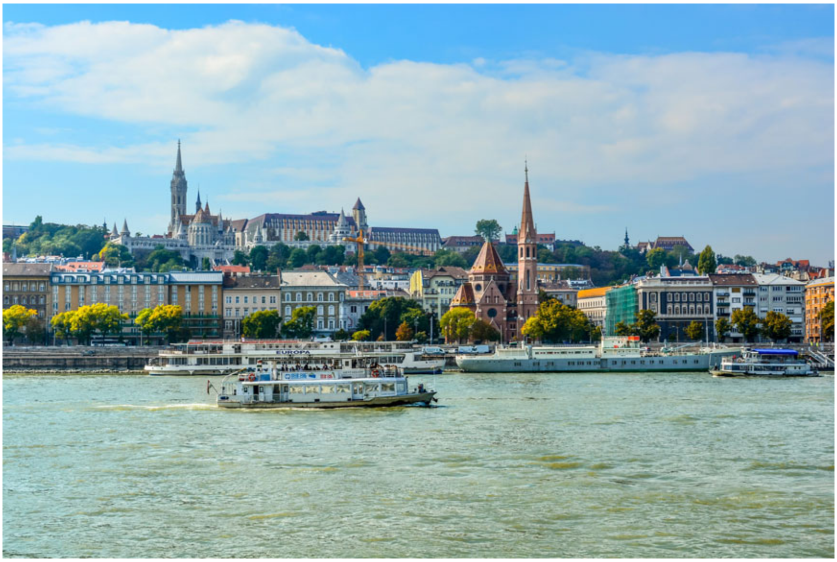

Figure 5.5 View of the Danube at Budapest
(https://pixabay.com)

metonymy will be input to the POWER/CONTROL IS UP metaphor. This results in visitors interpreting the situation in terms of power and control – and not just in terms of a geographic location.

In a similar way, the sight of the Danube is also couched in metaphorical conceptualization (see Figure 5.5). The Danube, in other words, is not simply a perceived entity that moves and divides the city into two parts (Buda and Pest). The comments visitors make suggest that people "see" a lot more than just a big body of moving water. According to one commentator:

- The river is *glorious.* It is a sight that inspires poets to writing and philosophers to contemplation. The water was coursing with momentum, the sun was reflecting its rays from the surface, and boats roared through the waters with grace and power. On the side you see a rocky cliff standing firmly by a mounted castle. I was mesmerized.

What makes a river *glorious* (italics in the original)? What is it that inspires poets and philosophers, as well as tourists? I believe the answer has to do with the metaphors that the Danube evokes in the people standing by it and watching it. The expression "rocky cliff standing firmly by a mounted castle" evokes, again, the metaphor POWER/CONTROL IS UP, where the castle represents power and control. But in addition, the sight of the river by itself can activate in its viewers such metaphors as POWERFUL ACTION IS FORCEFUL MOTION (coursing with momentum, boats roared through the waters, with grace and power). This metaphor derives from the primary metaphor ACTION IS MOTION. Moreover, the entire scene also involves the GOOD IS LIGHT or BRIGHT metaphor, as shown by the sun's rays reflecting from the surface of the river.

Resemblance-Based Visual Metaphors in the Real World

In the previous examples, aspects of the real world are interpreted metaphorically and metonymically. The examples are situations in the real world where the physical and social are correlated, like the winner (social) standing on the top of the podium (physical). But there are other situations where we find some kind of *resemblance* between the physical and the abstract at a very high level of generality. In such cases, an aspect of the real, physical world can evoke an abstract idea that shares some skeletal structure with it. When visual metaphors emerge from such skeletal structures, we are not dealing with primary metaphors. The metaphors evoked will be resemblance-based.

Context, including the physical situation, can provide conceptualizers with visual images that can constitute the source domains of visual metaphors. The metaphors can be generated by a conceptualizer being able to find some very skeletal resemblance between the structure of the visual image and the structure of some abstract (non-visual) idea. The abstract idea that shares the skeletal structure with that of the visual image will become the target domain.

Probably all of us had the experience when a scene in the real world led us to the recognition of a particular abstract idea because we felt that the scene and the idea are somehow similar. This can also happen in poetry. My favorite example for this happening is Matthew Arnold's poem, *Dover Beach* (see Kövecses 2010b, 2015a). In the poem, Arnold is describing a scene in which he is present (or as if he was present), together with another person:

> The sea is calm to-night.
> The tide is full, the moon lies fair
> Upon the straits,- on the French coast, the light
> Gleams and is gone; the cliffs of England stand,
> Glimmering and vast, out in the tranquil bay.
> Come to the window, sweet is the night-air!
> (www.artofeurope.com/arnold/arn1.htm)

This is a more or less literal description of what he can see around him from the window of a seaside house (Figure 5.6). But when the tide goes out he (they) may see something like this:

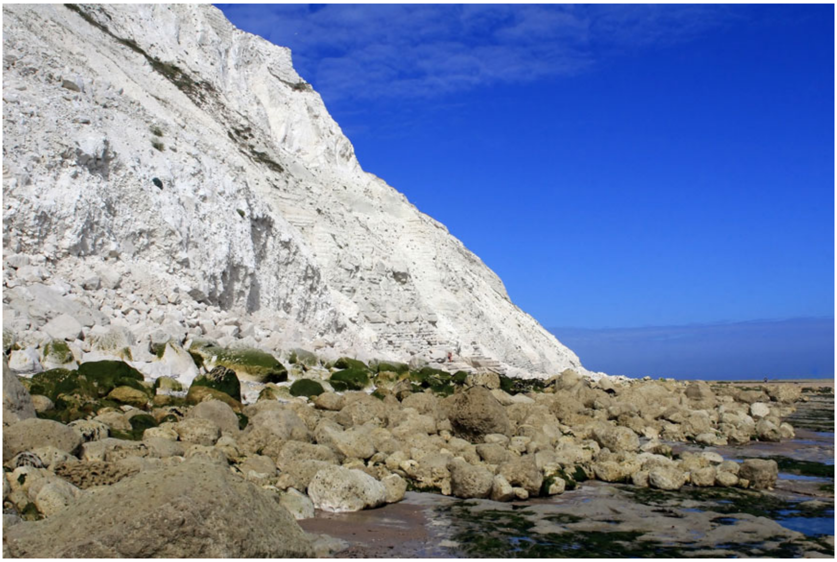

Figure 5.6 Dover Beach
(https://pixabay.com)

The visual scene consists of low tide at Dover Beach with the sea withdrawing, which gives him the following idea:

The sea of Faith
Was once, too, at the full, and round earth's shore
Lay like the folds of a bright girdle furled.
But now I only hear
Its melancholy, long, withdrawing roar,
Retreating, to the breath
Of the night-wind, down the vast edges drear
And naked shingles of the world.

(www.artofeurope.com/arnold/arn1.htm)

The stanza may be interpreted in the following way: The sea that covers the shore gives protection to the earth, but when it withdraws at low tide, it leaves the earth exposed. The same can happen to faith. Its importance for people may diminish, but when it does, it leaves people unprotected. In other words, the sea corresponds to faith, the earth corresponds to the people, and the covering of the earth by the sea corresponds to the protection of the people by faith. Thus, the visual image of the low tide can trigger thoughts in the poet, which is based on some skeletal structure shared by the withdrawing of the tide and the diminishing of faith.

However, this recognition of shared schematic structure can also occur in reverse order. It may well be that the poet had these ideas in mind about

Christian faith, and *then* he found the appropriate visual image to express it. As a matter of fact, in all probability the two can also co-occur simultaneously. But this is not the crucial point. What is important is that creative, unconventional resemblance metaphors can emerge as a result of visual images of the real world and can combine with abstract ideas.

In this section, I noted that, in addition to visual aspects of many metaphorical source domains (as in, e.g., BUILDING that is found in the metaphor THEORIES ARE BUILDINGS), there are visual images (e.g., the sight of Buda Castle or Dover Beach at low tide) in the online physical context of metaphorical conceptualization that can serve as source domains of novel metaphors. I suggested that we can think of such cases as the visual images priming the selection of metaphorical source domains.

In Chapter 4 and the present one, I examined a variety of visual experiences that appear to evoke visual metaphors. This is a range of experience types that extends from sign-like visual experiences (like a painting) to non-sign-like visual experiences (like a visual image of an artifact or nature or a city scene). Visual metaphors are evoked by paintings through winner's podiums all the way to cityscapes and scenes in nature. The last two (non-sign-like) cases, cityscapes and natural scenes, are not commonly subjected to serious examination from a CMT perspective. However, they provide us with a new challenge in the study of visual metaphors, in that they greatly extend the range of visual experiences that might give rise to visual metaphors.

At the same time, remarkably, the comprehension or interpretation of all of these visual experiences, including sign-like and non-sign-like ones alike, makes use of the same metaphorical processing mechanisms. The visual metaphors that are evoked by visual experiences can be based either on correlations or resemblance. This latter bifurcation applies equally to non-sign-like visual experiences, such as cityscapes and scenes of nature.

5.9 Conclusions

In the chapter, I argued for a broad conception of context in metaphorical conceptualization – one that covers our cognitive interaction with various elements and properties of the *situation* of discourse, the *discourse* itself, the *conceptual-cognitive background*, and the *body* of the speaker and hearer. These dimensions of our interaction with the world were labeled the situational context, discourse context, conceptual-cognitive context, and the bodily context. All of these context types and the specific contextual factors that make them up can influence the creation of metaphors in discourse.

This view of metaphor is, I feel, preferable to other views within cognitive linguistics because it extends the study of metaphor beyond those that are body-based in the usual sense in conceptual metaphor theory (i.e., universal correlations between sensorimotor experience and abstract ideas), while at the same time acknowledging the centrality of body-based metaphors. The metaphors based on the situational, the discourse, the conceptual-cognitive context, together with the bodily one (involving unique features of individual bodies) may far outnumber universal correlation-based metaphors.

The four context types and the contextual factors belonging to them prime conceptualizers to (unconsciously) choose their metaphors in discourse. More specifically, the priming effect can take place only if the conceptualizers (both speaker and hearer) can build the appropriate conceptual pathway between the intended target-domain meaning and the particular experiential content that serves to prime the conceptualizer. There can be multiple context types and contextual factors that can have a priming effect.

Furthermore, the approach reveals that a comprehensive theory of metaphor cannot simply stop with providing an explanation of what makes certain metaphors universal. It also needs to take into account what makes other metaphors so variable across cultures, within cultures, and even across individuals.

What makes this last point possible is the extension of conceptual metaphor theory along contextualist lines. In particular, first, conceptual metaphors and their linguistic expressions do not *only* arise from bodily experience. Many conceptual metaphors and their linguistic manifestations can emerge from various context types and contextual factors; that is, they are all context-induced metaphors, and not necessarily based on some previously existing universal bodily experience. Second, as regards theories of context, if the suggestions made above are valid, we can have a broader view of context than is traditionally the case. Most theories of context conceive of context as the linguistic or the situational environment for the use of a given metaphor. With the addition of the conceptual-cognitive and bodily context, we can get an extended view of context. Third, regarding cognition in general, the contextualist view of metaphor takes us beyond the idea that embodiment provides the only grounding for human cognition. The view proposed here seems to indicate that cognition is grounded in multiple ways, including our situational, linguistic, bodily, and cognitive-conceptual experiences and knowledge. The contextual factors represent the totality of our experiences as we interact with the world. This can provide us with a new framework in the study of metaphorical meaning in cognition and culture.

Finally, the visual experience of the physical environment is a crucial aspect of the physical context, as we saw in the case of the cityscape and Dover Beach examples. In the case of non-sign-like visual experiences, the visual experience of the physical environment primes conceptualizers to evoke the appropriate conceptual metaphors in the interpretation process.

6 Offline or Online?

One of the major criticisms of conceptual metaphor theory has been that it is not capable of accounting for meaning in actual occurrences of metaphorical language in real discourse (see, e.g., Cameron 2003; Deignan 2005; Goatly 1997; Semino 2008; Steen 2007, and many others). This kind of criticism makes perfect sense if we consider the multilevel view I am outlining in this book. In the "standard" view of CMT, researchers work on the levels of image schema, domain, and frame. These are conceptual structures that are decontextualized patterns in long-term memory that can account for metaphorical meaning in the most general ways. On the one hand, image schemas can explain why certain metaphors can be meaningful through embodiment and, on the other, the conceptual metaphors on these levels (image schema, domain, and frame levels) can account for metaphorical meaning through the mappings that constitute the conceptual metaphors and the inferences that can be made on the basis of such mappings. However, both of these conceptual mechanisms (providing meaningfulness and accounting for decontextualized meanings) are fairly general ones that cannot capture the contextually variable richness of metaphorical meaning in naturally occurring discourse.

What makes it possible to get at this richer and more specific aspect of metaphorical meaning, but at the same time preserve these general aspects of meaning, is to think of metaphor as a multilevel phenomenon that occurs also at the level of mental spaces. As I have noted in previous chapters, online metaphorical activity necessarily makes use of the conceptual structure of mental spaces. This is the level where we produce and comprehend metaphors in natural discourse. Specifically, it is at this level that speakers

- use metaphors online (i.e., produce and comprehend metaphors)
- use them in a fully contextualized way
- use them with specific socio-pragmatic functions
- add emotional value to them
- create novel metaphors
- use metaphors deliberately
- create metaphors as a result of contextual priming

- use individual metaphors
- add lexical elaborations to frames
- perform conceptual integration
- mix metaphors in the same discourse
- and possibly several others.

In this chapter, my main goal is to survey some of the most important online processes and functions of metaphorical language as related to mental spaces and point out the connections of this language to conceptual metaphors at the higher levels.

6.1 Various Uses and Functions of Metaphors at the Level of Mental Spaces

I will briefly discuss and exemplify some of the uses mentioned above in the present section. Most of the examples that I use in the section to demonstrate my points will be taken from the concept of anger, an experiential domain that is well studied by cognitive linguists, and so sufficiently familiar to many readers. Later on in the chapter, I will look at two of the uses above in more detail – those of mixing metaphors and conceptual integration.

Metaphors in Natural Discourse Occur at the Mental Spaces Level

In online communication, speakers mobilize the static image schemas, domains, and frames at the mental spaces level. Consider the following example from Google:

> "Everything that I wanted to say I couldn't think how to say in French. I was **bursting with anger**, mostly at myself for my lack of French vocabulary." (my bolding, ZK) http://vagendamagazine.com/2014/10/harassment-on-the-streets-of-paris-why-is-it-worse-than-in-the-uk/

In the example, the metaphorical expression "*burst* with anger" assumes the metaphorical conceptualization of the speaker's anger as the high degree of physical pressure inside the person-container (speaker). We can put this in the conventionally used metaphor format: THE HIGH INTENSITY OF THE SPEAKER'S ANGER IS THE HIGH DEGREE OF THE PHYSICAL PRESSURE INSIDE THE SPEAKER-CONTAINER. This is a very specific conceptual metaphor at the mental space level, in that it fills the role of the angry person with a particular value (the speaker) and it is built on a specific aspect of anger; namely, its high intensity. This specific metaphor is based on THE ANGRY PERSON IS A PRESSURIZED CONTAINER metaphor and one of its mappings: THE INTENSITY OF A PERSON'S ANGER IS THE DEGREE OF PRESSURE INSIDE A PERSON. This, in turn, is an elaboration of the more schematic metaphor EMOTIONS ARE FORCES; in particular, on its mapping EMOTIONAL INTENSITY IS DEGREE OF PRESSURE. The image-schematic metaphor that subsumes these metaphors is INTENSITY IS STRENGTH (OF EFFECT).

Thus, we get the following schematicity hierarchy:

Image schema level:
INTENSITY IS STRENGTH (OF EFFECT)

Domain level:
EMOTIONS ARE FORCEFUL INTERACTIONS: EMOTIONAL INTENSITY IS DEGREE OF PRESSURE

Frame level:
THE ANGRY PERSON IS A PRESSURIZED CONTAINER: THE INTENSITY OF A PERSON'S ANGER IS THE DEGREE OF PHYSICAL PRESSURE INSIDE A PERSON-CONTAINER

Mental spaces level:
THE HIGH INTENSITY OF THE SPEAKER'S ANGER IS THE HIGH DEGREE OF PHYSICAL PRESSURE INSIDE THE SPEAKER-CONTAINER

This example is simply meant to indicate that the metaphor *burst* is produced and comprehended in real discourse at the level of mental spaces, and the mental space that is most immediately used to produce and comprehend it is linked systematically to conceptual metaphors at higher levels that jointly serve the process of the production and comprehension of the metaphorical expression.

There Is Contextual Priming at This Level

We can suggest that in the previous example contextual priming is effected by the conceptual-cognitive context, an aspect of which is the metaphorical conceptual system, where the expression "burst with anger" can be found attached to a conventional conceptual metaphor. But, as was noted in Chapter 5, the priming effect can come from other context types as well, such as the discourse context, the situational context, and the bodily context. Let us look at an example for the first type, where a novel metaphor (*hot stove*) is introduced as a result of the contextual influence of discourse:

> Ryuuji couldn't help but shout at Taiga to ease his anger. Even though *he was almost freezing*, his anger was like a *hot stove* inside him. Looking at Taiga, Ryuuji breathed out large clouds of white mist as he rubbed his numb hands against his cheeks, slowly easing some blood into his hands. (my italics, ZK, www.baka-tsuki.org/project/index.php?title=Toradora!:Volume10_Chapter1)

In the passage a person is described as very angry but also freezing. We can ask how the *hot stove* metaphor is (unconsciously) chosen in the discourse to metaphorically render the person's anger. It can probably be assumed that mention of the same person's freezing has a role to play in this. Freezing is the opposite of body heat that is associated with anger and that gives rise to heat-related anger metaphors. The image of a hot stove is evoked as a result of the mental-space level interaction of the BEING COLD frame and the BODY HEAT frame, in that a hot stove can be used to prevent someone from being cold. A hot stove is a device that can be a part of the BEING COLD frame but also of the BODY HEAT frame that serves as the basis for the ANGER IS HEAT conceptual metaphor. In addition, a stove is a container just like the angry person's body is a container. In sum, at the level of mental spaces an aspect of the discourse (literally freezing) can prime the speaker to introduce a non-conventional metaphorical expression that also matches an established conceptual metaphor (ANGER IS HEAT).

Blending Occurs at This Level

Fauconnier and Turner have repeatedly claimed (see, e.g., Fauconnier and Turner 2002, 2008) that blending is a dynamic online process that makes use of mental spaces. One of their examples to demonstrate this is "He was so mad, smoke was coming out of his ears"(Fauconnier and Turner 2002; Turner and Fauconnier 2000). This metaphorical expression can be found in texts of all kinds, including the one below:

> He looked as if smoke was coming out of his ears, a vein about to pop, and his handsome face red from anger. (www.wattpad.com/336753058-the-luna%27s-alpha-meet-the-pmsing-alpha-and/page/2)

Before the metaphorical expression became conventionalized in various forms (such as *smoke / steam / fumes coming out*), it must have emerged as a blend in some naturally occurring discourse, such as the above, when a speaker merged the image of an angry person's head with the image of a fire with smoke or a container with steam in it. Actually, it is also possible that the "original" blend was a cartoon or drawing, and it gave rise to the linguistic metaphor. But even if this was the case, the person who drew the blend must have created the blend by making use of mental spaces online as part of a dynamic process. (I will come back to the discussion of this example and conceptual integration in general later in the chapter.)

Pragmatic-Narrative Functions Are Given to Metaphors at This Level

At the image schema, domain, and frame levels, the linguistic metaphors express a particular aspect of the conceptual content of the source domain.

The meaning of these metaphorical expressions is based the topology of the source domain and its mapping onto the target; their meaning is the expression of this conceptual content (such as the cause of the fire-heat being mapped onto the cause of one's anger). But at the mental spaces level (i.e., where the metaphorical linguistic expressions are used in actual discourse) a lot more can happen as regards meaning, as indicated by the following example:

> "1 Jimmy: Uh: I was (.) boiling at this stage and 2 I was real angry with Connie ( ). And 3 uh went up to bed 'n (.) I lay on the bed." (Edwards 1999: 274)

Edwards makes the point that this particular use of "boiling" establishes accountability and provides justification for one's (the speaker's) actions. The passage is part of an interview in a counseling session, in which Jimmy talks about how his wife's "provocations" during an evening in a pub led him to leave her in the pub (with the man she was "messing" with) and to go home. The use of "boiling" shows that the intensity of his anger matches the intensity of the "provocations," thus making his wife accountable for his anger. At the same time, it also shows that the intensity of his anger provides justification for leaving the pub, go home, and, later, even assault his wife. "Boiling anger" presents him as being passive in relation to events in the sense that he appears to believe that such a high intensity of anger justifiably leads to those actions on his part. Clearly, the use of "boiling" here goes far beyond the expression of some metaphorical content. It fulfills extremely important narrative-discursive functions that constitute another and indispensable part of the expression's meaning in a particular context.

Elaboration for Rhetorical Purposes

Metaphors at higher levels can be elaborated at the level of mental spaces. The elaborations allow speakers to improvise and be creative. For this reason the process of elaboration is commonly employed in poetry. A well-known example in CMT is Adrienne Rich's poem "Phenomenology of Anger" (see Gibbs 1994):

> "white acetylene / ripples from my body / effortlessly released / perfectly trained / on the true enemy // raking his body down to the thread / of existence."

The poem is based on the ANGER IS A HOT FLUID metaphor. The poet elaborates the (hot) fluid as acetylene that can ripple from the body. Acetylene is a dangerous substance that can cause serious injury to the person who is targeted with it. The poet elaborates on an aspect of the conventional metaphorical source frame in an unpredictable and creative way. The process results in novel metaphors that serve the rhetorical purpose of the author.

Combined Uses at the Level of Mental Spaces

The five examples of the uses of metaphors at the level of mental spaces only serve demonstrative purposes. As we saw, there are several additional uses of metaphors at this level. But there is one general observation that I would like to underscore at this point. It is that, although so far I have tried to keep the various uses of metaphors in real discourse distinct, in reality they commonly occur together in particular cases of usage. Consider the following example mentioned earlier in the book (see Chapter 4), taken from Musolff (2001):

> "What does he [Chancellor Kohl] need this house for, after so many years as Chancellor? – Well, it's obvious, he wants to become the caretaker." (Die Zeit, May 16, 1997)

Here, the WANT mental space is structured by two frames: by the BECOME frame (unrelated to the discussion here) and the FUNCTION OF THE BUILDING frame, where there is a caretaker as a possible frame element. When the second speaker employs the term, (s)he is using it in the course of processing the discourse online up to that point. Also, by using the word *caretaker*, (s)he is creating a novel or unconventional metaphor in a specific context. Moreover, on at least one interpretation, the second speaker expresses some disapproval regarding the role of a caretaker. The point I am making through this example is that metaphorical linguistic expressions that make mental spaces manifest (that is, at the least schematic level of conceptual structures) in real discourse are used in ways that do not apply to metaphorical linguistic expressions that make manifest higher level structures. This is because the latter expressions are stored in long-term memory conventionally denoting some conceptual content, and they are *not used* in working memory where all of the various uses and functions of metaphors in context can occur over and above the expression of some conceptual content.

In the rest of the chapter, I would like to offer two, more detailed case studies of online metaphorical activity. One concerns the phenomenon of mixing metaphors in natural discourse and the other deals with an assessment of conceptual integration theory vis-à-vis conceptual metaphor theory.

6.2 Mixing Metaphors

How does conceptual metaphor theory handle mixed metaphors? Several metaphor scholars argue that mixed metaphor is a phenomenon that CMT cannot handle. Their argument is that, given the claims of CMT, mixed metaphors should not occur at all (Shen and Balaban 1999). This is because once a conceptual metaphor is activated in discourse by means of a linguistic metaphor, that conceptual metaphor should lead to and support the use of further linguistic examples of the *same* conceptual metaphor. However, in real discourse, the argument goes, most metaphors are mixed, which indicates that conceptual metaphors are not activated and thus do not lead to further consistent linguistic metaphors of the same conceptual metaphor. In this section, I will argue that the idea of the production of consistent and homogeneous linguistic examples does not necessarily follow from conceptual metaphor theory and that, in fact, the opposite is the case: given CMT, we should expect the use of mixed metaphors in natural discourse. (This section is based on my chapter in Gibbs, 2016.)

Kimmel's Approach to Mixed Metaphors

Most of the metaphors used in natural discourse are of the mixed type. As I pointed out in the present chapter and Chapter 4, this is happening at the mental spaces level. When examining the metaphors found in natural discourse, we find that the metaphors in each other's (near-)vicinity in discourse derive from very different source domains. But we also find that this does not really present any difficulty for us to understand the metaphors used. A version of the CMT view is provided by Kimmel (2010) to explain this curious fact about mixed metaphors. Kimmel argues that mixed metaphors are easily understood in discourse largely due to various properties of discourse.

> Let us now return to the specific question of why mixed metaphors are cognitively successful. In my view, many mixed metaphors are processed unproblematically because the grammatical structure of the passage exercises little pressure to integrate them conceptually, and simply lets us interpret them as referring to different ontological levels. I claim that what influences metaphor cluster processing most directly are the relations of the clause units in which they occur. We can answer major parts of the mixed metaphor riddle by paying attention to how adjacent metaphors are distributed over clauses and what degree of grammatical integration these clauses show. Three major possibilities can be distinguished. In some cases metaphors co-specify each other within a single clause; sometimes they occur in rather tightly connected clauses, and sometimes they only belong to a larger rhetoric structure spanning more loosely connected clauses. (Kimmel 2010: 110)

Kimmel demonstrates these points with the example below:

> Tony Blair's criticism of EU regulations [. . .] would be laughable if it were not so **two-faced** (A). While **preaching the pro-business gospel** (B), he has done nothing **to stop the tide of EU rules** (C) **and red tape** (D) **from choking Britain** (E). (words in boldface in the original)

Kimmel suggests that the issue and problem of mixing metaphors, that is, conceptually integrating them, only comes up when the different metaphors occur within a single clause, as in the case of "**to stop the tide of EU rules** (C) **and red tape** (D) **from choking Britain** (E)." Whereas in the case of the relationship between (A) and (BCDE) and (B) and (CDE) there is no pressure to resolve the incompatibility in imagery because of the grammatical structure of the discourse, in the case of (CDE), which is a relationship between a single clause, there is a pressure to resolve imagistic incompatibility between "tide," "red tape," and "choking Britain." Given such examples, Kimmel draws the conclusion: "Only the close syntactic integration of two metaphors within a clause can enforce or foster a close integration of their semantic content *qua* imagery. Where mixed metaphors occur across clauses no ontological clashes will be felt to begin with and secondary mechanisms to keep the clash at bay are dispensable. If this is correct, making sense of mixed metaphors is a natural byproduct of default clause processing" (Kimmel 2010: 110).

This provides a potential explanation of why most mixed metaphors are not taken to be cases of incompatible images and are, thus, not problematic for metaphor interpretation.

However, convincing as far as it goes, Kimmel's account does not explain a number of issues relating to mixed metaphors. These include:

(1) Why are imagistically incompatible metaphors selected at a particular point in discourse?
(2) Why are mixed metaphors so common?
(3) Why do we have cases of metaphorically entirely homogeneous discourse?
(4) Why do we often have widely divergent source domains inserted into the discourse?
(5) How do we comprehend mixed metaphors?

Let us briefly discuss each of the questions above.

Why Are Imagistically Incongruent Metaphors Selected at a Particular Point in Discourse?

Given a target domain, or frame, that was introduced into the discourse, certain elements of the domain need to be employed and linguistically expressed. These elements are the meanings that a speaker wants to express in the course of producing the discourse. When expressing a target domain meaning, the speaker needs to employ an element that either comes from the target domain directly or from a source domain that is systematically linked to that target by means of a set of mappings. In the former case, the speaker speaks literally (i.e., directly), in the latter, he speaks metaphorically (i.e., indirectly).

The target domain meanings form a part of aspects of the target domain, such as progress, functioning, control, stability of structure, and so on. There are, in many cases, conventional source domains whose main function is to metaphorically express such aspects of target domain concepts. In other words, they are source concepts that profile these aspects of the target domain. For instance, the source domain of JOURNEY typically profiles the notion of "progress," that of MACHINE profiles "functioning," that of WAR and FIGHTING profile "control," that of BUILDING profiles "stability of structure," that of the HUMAN BODY profiles "(hierarchical) structure" and "appropriate condition (of some structure)," and so on. In some of my publications I refer to these as the "meaning foci" of a source domain (see, e.g., Kövecses 2000a, 2002/2010, 2005, Chapters 1 and 4). Given these meaning foci, we get generic metaphors like PROGRESS IS (FORWARD) MOTION IN A JOURNEY, FUNCTIONING IS THE WORKING OF A MACHINE, CONTROL IS WAR/FIGHTING, STABILITY OF STRUCTURE IS THE STRENGTH OF A BUILDING, and several others. These are metaphors that apply to a large number of targets; that is, they have a wide scope (Kövecses 2000a, 2002/2010).

If this is the case, we should not expect discourses about a particular target domain topic to be expressed by large sets of *homogeneous* metaphorical expressions (i.e., expressions that belong to the same source domain). In contrast, given a particular target domain and its various aspects, we should expect metaphorical linguistic expressions to occur in the discourse that capture and are based on the typical source domains that are conventionally employed to express and capture those aspects.

To use Kimmel's example, the writer of the passage above needs to talk about "unnecessary paperwork, which is disliked by most people" at a certain point of the discourse. He could use the phrase in quotation marks or some other phrase (like "irritatingly redundant bureaucracy"), but, instead, he chooses a metaphorical expression, *red tape*, which renders this meaning appropriately in a conventionalized manner. (Actually, it is debatable whether *red tape* is a metaphor. It could be argued it is a metonymy.) As a matter of fact, the application of this phrase is just as natural as that of *tide* in the same clause in the sense of "a huge amount of something." In other words, no matter how incompatible the images evoked by *tide* and *red tape* are, they are selected because they can render (indirectly) the elements required by the different aspects of the target domain at a certain point in the discourse.

Why Are Mixed Metaphors so Common?

Kimmel (2010) also observes that in the newspaper coverage of the 2004/2005 European Union referenda most of the metaphors were of the mixed type (76 percent). Mixed metaphors are common even within the same clause (see Kimmel 2010) because the target domains, or frames, we are developing in the course of producing and understanding (metaphorical) discourse have many different aspects to them, and these aspects normally require different source domains, or frames, for their conceptualization, as was noted above.

Assume, for example, that the topic of discussion is the family. The notion (domain or frame) of FAMILY comes with a large number of different aspects (constituted by conceptual elements), including parents, children, the raising of children, the cost of raising children, the family as a cohesive group of people, and a host of others. Below is a sentence I found about discussing some of these aspects, as cited by David Brooks in the *International Herald Tribune* (November 17–18, 2012): "The surest **way** people **bind** themselves is through the family." (my bolding, ZK) What does *way* have to do with *bind*? The word *way* belongs to the MOTION frame, while *bind* to the PHYSICAL JOINING frame (inside the frame A GROUP OF PHYSICALLY CONNECTED ENTITIES). These are incongruent images (i.e., metaphorical source domains) that create mixed metaphors.

To account for why these and many other incongruent images are so common, I propose, in line with the argument in the previous subsection, that *all* target domain concepts that constitute the topic (i.e., subject matter) of discourse consist of a number of different aspects, and that each of these aspects can be conceptualized metaphorically by means of different source domains – domains that may yield incongruent images when juxtaposed. To take the example above, as the discussion of the FAMILY domain is unfolding, various aspects of it are mentioned; for example, the issue of what kind of social unity is provided by the family and the issue of how a certain state can be achieved ("The surest **way** people **bind** themselves is through the family."). As regards the second metaphor of the sentence (*bind*), it is based on the conceptual metaphor COHESIVE SOCIAL GROUPS ARE GROUPS OF PHYSICALLY CONNECTED ENTITIES. Given this metaphor, one of its mappings "the physical joining of entities ➔ the formation of social groups" accounts for the use of *bind*. Social groups constitute more or less stable states of interconnected entities. The issue of *how* more stable states are achieved is another aspect of the family/social group domain. And since the issue of how certain states are achieved in general is metaphorically conceptualized as MANNER (OF ACTION) IS PATH (OF MOTION), which is a submetaphor of (DELIBERATE) CHANGE OF STATE IS (FORCED) MOTION, we can account for the use of the word *way* in the sentence above. The resulting images are fairly incongruent when juxtaposed (*way* – PATH / MOTION VS. *bind* – THE PHYSICAL JOINING OF ENTITIES / A GROUP OF PHYSICALLY CONNECTED ENTITIES), but their incongruence is natural since we use different source domains to conceptualize different aspects of the target domain, as predicted by the notion of meaning focus. As pointed out by Kimmel (2010), this is very common in natural discourse; it seems to be the dominant pattern – the rule, rather than the exception.

Why Do We Have Cases of Metaphorically Entirely Homogeneous Discourse?

If the account of metaphor in discourse as presented above is valid, it is highly unlikely that we find metaphorically entirely homogeneous discourses. If it is the case that different target domains have different aspects and the different aspects are conceptualized by means of different source domains, discourse about a particular target domain will be characterized by a number of different conceptual metaphors, as we have seen above. However, it is clear that there are such cases of metaphorically homogenous discourse, though their occurrence is not very common. Let us consider one example of such a text:

> Performance targets are identical to the puissance at the Horse of the Year Show. You know the one – the high-jump competition, where the poor, dumb horse is brought into the ring, asked to clear a massive red wall, and as a reward for its heroic effort is promptly brought back and asked to do it all over again, only higher.
>
> I've never felt anything but admiration for those puissance horses which, not so dumb at all, swiftly realize that the game is a bogey. Why on earth should they bother straining heart, sinew and bone to leap higher than their own heads, only to be required to jump even higher? And then possibly higher still.
>
> Hard work and willingness, ponders the clever horse as he chomps in the stable that night, clearly bring only punishment. And so next time he's asked to canter up to the big red wall, he plants his front feet in the ground and shakes his head. And says, what do you take me for – an idiot? (Melanie Reid, *The Times*, Monday, February 4, 2008)

In this case, the same conceptual metaphor, LIFE IS A HORSE SHOW, lends coherence to a single discourse. The novel conceptual metaphor that structures the text is characterized by a number of mappings: puissance horses are compared to people, riders to managers, the red walls as obstacles to the targets people have to achieve, having to jump over the obstacles to being subject to assessment, clearing the obstacles to achieving the targets, raising the obstacles to giving more difficult targets, the horse show to life, and so on and so forth. This elaborate metaphorical analogy provides a great deal of structure for the text.

However, it may be even more important than the coherent organization of the discourse that the author wishes to make a point emphatically and vividly by the use of the homogeneous metaphor. This expressive function of the discourse can often provide an explanation for the use of a single coherent metaphorical image in discourse.

In addition to its organizational and expressive functions, metaphorically homogeneous discourses can also be used for didactic purposes. Parables are commonly used this way. Consider the parable of the sower in Matthew 13 (Biblegateway, www.biblegateway.com/passage/?search=Matthew+13&version=NIV):

> [1] That same day Jesus went out of the house and sat by the lake. [2] Such large crowds gathered around him that he got into a boat and sat in it, while all the people stood on the shore. [3] Then he told them many things in parables, saying: "A farmer went out to sow his seed. [4] As he was scattering the seed, some fell along the path, and the birds came and ate it up. [5] Some fell on rocky places, where it did not have much soil. It sprang up quickly, because the soil was shallow. [6] But when the sun came up, the plants were scorched, and they withered because they had no root. [7] Other seed fell among thorns, which grew up and choked the plants. [8] Still other seed fell on good soil, where it produced a crop – a hundred, sixty or thirty times what was sown. [9] Whoever has ears, let them hear."

Here Jesus teaches people about the kingdom of God. In doing so, he uses the conceptual metaphor GOD'S WORDS ARE SEEDS. By using a consistent image, he feels he can convey his message more clearly to people.

Characteristic of the discourses structured by the LIFE IS A HORSE SHOW and GOD'S WORDS ARE SEEDS metaphors is their conceptual homogeneity. This is provided for by consistently applying images (elements: ideas, meanings) from the same source to structure the various aspects of the target. In such cases, as a result of the consistent structuring (based on a single source image), no or very few mixed metaphors are found in discourse. What discourses such as the above show is that certain discourse functions (vividly making a point, teaching people) may provide fairly strong motivation for the use of a single consistent metaphorical image (unlike the typical case of metaphorically varied imagery, where the discourse has less marked rhetorical or pragmatic functions).

Why Are Often Widely Divergent Source Domains Inserted Into Discourse?

While in the case of metaphorically homogeneous discourse we experience a certain degree of surprise as a result of the unexpectedly homogeneous character of the discourse, the opposite can also occur: In certain other kinds of discourse, we can be surprised by some of the widely divergent metaphors that are used in connection with a target domain. This element of surprise comes, I suggest, from the fact that, first, instead of the expected (conventionalized) metaphors associated with a target (see the "family" example above) and, second, deliberately homogeneous metaphors chosen for a target (see "puissance" example above), entirely divergent metaphors are used for the target domain. The question is where such unexpectedly divergent metaphors come from. (It should be noticed that here the question word "why" means something different than in the previous subsection titles; instead of the meanings "what causes the use of mixed metaphors?" and "for what purpose do we use mixed metaphors?," here it means "what allows us to use mixed metaphors?")

I argued in some recent publications (Kövecses 2005, 2010b, 2015a, and Chapter 5) that the choice of metaphors in particular discourses is often influenced by the local and global context. As we saw, the local context involves, among other things, the immediate cultural, social, physical, linguistic, etc., contexts of the discourse. Let us take an example that I first analyzed in previous publications (Kövecses 2010a,b). In it, Bill Whalen, a professor of political science in Stanford and an advisor to Arnold Schwarzenegger in his campaign to become governor of California, says the following about Schwarzenegger:

> "Arnold Schwarzenegger is not the second Jesse Ventura or the second Ronald Reagan, but the first Arnold Schwarzenegger," said Bill Whalen, a Hoover Institution scholar who worked with Schwarzenegger on his successful ballot initiative last year and supports the actor's campaign for governor.
>
> "He's a unique commodity – unless there happens to be a whole sea of immigrant body builders who are coming here to run for office. This is 'Rise of the Machine,' not 'Attack of the Clones.'" (*San Francisco Chronicle*, A16, August 17, 2003)

Focusing on the second paragraph, we may note that the target domain that is discussed by Whalen is Schwarzenegger's uniqueness as an individual. The statement "He's a *unique commodity*" clearly indicates this. The linguistic metaphor *unique commodity* is based on the PEOPLE ARE COMMODITIES conceptual metaphor. Next, we find the highly conventional metaphorical expression "a whole *sea* of immigrant body builders," where *sea* indicates any large quantity, in this case body builders. This is an instance of the conventional conceptual metaphor A LARGE NUMBER OF PEOPLE IS A LARGE MASS OF SUBSTANCE. Equally conventional is the linguistic metaphor "*run* for office," an instance of the PRESIDENTIAL ELECTION IS A RACE conceptual metaphor. The COMMODITY and LARGE MASS OF SUBSTANCE metaphors emphasize Schwarzenegger's unique character.

Against the background of this "sea" of highly conventional metaphorical expressions and conceptual metaphors, two nonliteral phrases at the end of the paragraph, "This is '*Rise of the Machine*,' not '*Attack of the Clones,*'" stand out as unconventional and novel. In all probability, Whalen produces them, and we understand them, because Schwarzenegger played in the first of these movies, and we share this knowledge with the conceptualizer (Whalen) about the topic of the discourse (Schwarzenegger). Moreover, these are movies that everyone knew about in California and the United States in 2003; that is, they were part and parcel of the immediate cultural context at the time.

The movie title *Rise of the Machine* is a widely divergent metaphor, in that it does not come from the available set of conventional conceptual metaphors to capture an aspect of the target domain. It derives from and is sanctioned by the immediate context of the discourse in which the metaphor is created. Such metaphors often provide images that may not fit the conventionally available source domains of a given target; nevertheless, they are easily understood through the supportive role of context. Through the notion of contextual priming that was discussed in Chapter 5 we can account for the use of widely divergent metaphors used in some instances of natural discourse.

How Do We Comprehend Mixed Metaphors?

The issue of mixed metaphors is largely an issue in metaphor processing. We can think of metaphor comprehension in two ways: We can suggest that metaphorical expressions in discourse (at the mental space level) activate higher-level conceptual structures (frames, domains or image schemas) representing *source domains* that are linked to target domains. This is the more or less accepted view among those who embrace conceptual metaphor theory (As we saw in Chapter 4 and throughout, the three higher source domain structures are linked in a schematicity hierarchy.)

Another view of the comprehension of metaphorical expressions in discourse maintains that there is no activation of source domains in most cases. Instead, the metaphorical expressions used in discourse are associated with a conventionalized metaphorical sense in the target domain, and it is this target meaning that gets activated in the course of processing metaphorical discourse.

The two views have different implications for the study of mixed metaphors. On the CMT view, whenever we come across mixed metaphors, we have to somehow resolve the incompatibility in imagery between two source domains that get juxtaposed. On the non-CMT view, such incompatibilities do not arise because linguistic metaphors are processed directly – namely, in terms of their target domain meanings. It follows that if we have no difficulties understanding discourse involving mixed metaphors, it is because either we eliminate the incompatibilities in the course of processing (for the CMT view) or because we apply "shallow processing" (Gibbs 1999a,b), that is, we comprehend target meanings directly (for the non-CMT view).

Given the two ways of metaphor comprehension briefly sketched above, it is the non-CMT view that appears to be the more adequate way to account for the processing of mixed metaphors: If people can process the majority of mixed metaphors effortlessly, this is because they do not run into any incompatibilities as a result of shallow processing, where they comprehend the metaphors of discourse in a direct manner.

Can we nonetheless save the CMT view of metaphor comprehension for, or in the case of, mixed metaphors? I think this is possible. My suggestion would be that the various source domains (syntactically close to each other) that are associated with various aspects of target domains get activated to varying degrees in the course of metaphor comprehension. In the case of comprehending mixed metaphors (the majority of metaphor examples in natural discourse), the various (near-)adjacent source domains are activated to a low degree. This way, the low level of activation for a given source does not interfere with the low level of activation of another source. Consequently, if the activation level of adjacent sources is low, it does not produce incompatibilities or conceptual clashes between the sources. This assumes a threshold above which source activation can produce interference or incompatibility between two (near-)adjacent source domains. The observation that there is no such felt incompatibility between the sources indicates that the level of activation stays below the threshold level in most cases of mixed metaphors in natural discourse. At the same time, for this model of comprehension to work, the low level of source activation should be sufficient to activate source-to-target mappings on which target meanings are based. It is this mechanism that can function as the substitute for the "direct target meaning" of the shallow processing view.

In other words, in this account I rely on and assume the validity of two propositions. One is that in the case of metaphor the various source domains and the metaphorical linguistic expressions that make them manifest are characterized by differing degrees of conventionality. Second, the various degrees of conventionalization for the source domains and source expressions are correlated with differing degrees of neural activation. Lower levels of conventionality and, hence, activation do not produce consciously recognized incompatibility between source domains and their metaphorical expressions, while higher levels do. In my view, this is what we find in most cases of the use of mixed metaphors, as discussed above. This is a commonsense assumption that I offer merely as a hypothesis for how we comprehend mixed metaphors in discourse. The hypothesis would of course have to be tested empirically.

Consider now a case where the level of activation, in my judgment at least, does go beyond the threshold. Take the following examples of mixed metaphors from one of the many websites devoted to the topic (http://therussler.tripod.com/dtps/mixed_metaphors.html):

> If they do that, they might as well take the open door policy and throw it right out the window!

The example is about policy making. This involves the kinds of policy one pursues and whether the policies used are successful or appropriate or not. The phrase *open door policy* is based on the source domain of CONTAINER (A GOVERNMENT IS A CONTAINER) and SEEING (KNOWING IS SEEING). The phrase *throw it out of the window* implies the source domain of DISCARDED OBJECTS (in the metaphor UNNECESSARY IDEAS ARE DISCARDED OBJECTS. How do we know that the activation level goes beyond the threshold? We know it because although we understand the target domain meaning of the sentence easily, the sentence also produces a humorous effect. As is well-known, humor often involves some incongruence between two images (such as source and target or, in the case of mixed metaphors, two adjacent source domains). The humorous effect can only be produced by a very high level of activation for the sources as well (and not just the target). Without the high level of activation of the two sources, we would easily gloss over the obvious incompatibilities. In cases like this, the humorous effect produced by many mixed metaphors can help us determine the level of activation of the two adjacent source domains.

Some opponents of (parts of) conceptual metaphor theory (e.g., Shen and Balaban 1999) hold that it is only the widespread application of metaphorically homogeneous discourse that could prove source domain activation in the use of conceptual metaphors. Since, however, such metaphorically homogeneous discourses are rare, they suggest that one of the major claims of CMT (i.e., simultaneous activation of source and target) is called into question.

Why are metaphorically homogeneous discourses so rare? In all probability, this is because, in line with the proposal offered above (in the first two subsections of this section), most metaphorical source domains profile a particular aspect (or aspects) of that source domain. But if they do occur, this indicates that a single source domain is used to characterize an entire target (or a large part of it). In this case, we find the full (or rather, nearly full) activation of that source for the target in question (cf. the HORSE SHOW example). In terms of the activation model I am suggesting, this would mean that the activation level of the source is above the threshold and remains high throughout the relevant parts of the discourse. This can be achieved under two conditions.

One is that the source domain is conceptually complex enough to be mapped onto a *several different* aspects of the target. For instance, the conceptual complexity of the HORSE SHOW source domain seems to be sufficient to present several rather different aspects of LIFE that could also be rendered by means of several different source domains with the appropriate meaning focus.

The other condition is that for some communicative or stylistic reason it is advantageous for the speaker/conceptualizer to conceptualize (and talk about) the target via the same source domain. Making a point vividly and forcefully, as in the case of the horse-show example, and accomplishing a didactic purpose, as we saw in the case of Jesus' parable of the SOWER, may be one such reason. This second condition is clearly needed: Most cases of metaphorically homogeneous discourse have an added communicative or stylistic component (such as convincing, persuasion, irony, humor, esthetic effect) in a way that is not present in discourses that fit the dominant pattern of metaphorically non-homogeneous discourse.

Mixed Metaphors in Conceptual Metaphor Theory

In the section, I argued that CMT can handle mixed metaphors in a natural way. Its naturalness arises from the fact that many common target domains have a number of different aspects to them that can be, and often are, conceptualized in terms of a variety of potentially very different source domains that we use at the mental space level in naturally occurring discourse. The use of these different source domains leads naturally to the use of mixed metaphors. In a way, most communicatively and stylistically neutral cases of discourse can only be metaphorically non-homogeneous discourses that consist of a variety of source images, that is, mixed metaphors.

We do not have any difficulty processing such discourses. My suggestion here was that this is possible because, in most cases, source domains are activated at a low-level. This low level of activation for a particular domain does not interfere with the activation of an adjacent source domain in the discourse. However, the low level of activation should be sufficient enough to activate source-to-target mappings that can result in the required meanings needed to understand and produce discourse. All of these mental activities are happening in working memory – the site for mental spaces.

Clearly, this model of comprehending mixed metaphors is just a hypothesis. The model involving varying degrees of activation of source domains seems to provide a reasonable framework for the comprehension of mixed metaphors and at the same time to be compatible with conceptual metaphor theory at large and with its present extension.

6.3 Conceptual Metaphor and Conceptual Integration

What is the relationship between conceptual metaphor and conceptual integration? A clear answer to this question is given from the perspective of conceptual integration theorists in the following passage: "Contemporary accounts of metaphor and analogy have focused on structure-mapping from a source (or base) onto a target. Such mappings can exploit existing common schematic structure between domains, or project new structure from the source onto the target. The work on conceptual blending has shown that in addition to such mappings, there are dynamic integration processes which build up new "blended" mental spaces. Such spaces develop emergent structure which is elaborated in the on-line construction of meaning and serves as an important locus of cognitive activity" (Turner and Fauconnier 2000: 133).

On this view, the idea of metaphor as structure mapping from source to target in CMT should be supplemented by blended mental spaces that are the result of dynamic, online integration processes as described by conceptual integration theory (CIT). The two-domain model of CMT (as described by

Kövecses 2002/2010; Lakoff 1993; Lakoff and Johnson 1980, 1999) should give way to the "network model" that comprises several input spaces, a generic space, and the blended space.

More recently, Fauconnier and Turner (2008: 53) took this argument one step further as we can see in the passage below: "What we have come to call "conceptual metaphors," like TIME IS MONEY or TIME IS SPACE, turn out to be mental constructions involving many spaces and many mappings in elaborate integration networks constructed by means of overarching general principles. These integration networks are far richer than the bundles of pairwise bindings considered in recent theories of metaphor."

In other words, the suggestion is that what are known as the typical examples of conceptual metaphors are not simply "pairwise bindings" but are the products of "elaborate integration networks." All conceptual metaphors are in fact blends.

Most generally and significantly, CIT researchers claim that metaphors, together with analogy, framing, metonymy, etc., are surface cognitive phenomena that "are consequences of the same basic human ability for double-scope blending" (Fauconnier and Turner 2008: 54). In other words, metaphors are relatively surface products of the deep, underlying process of conceptual integration.

I agree with many of these suggestions mentioned above. For example, I agree that in many cases CMT should move beyond structure-mapping and inference transfer. I also accept the criticism that in many cases mappings occur not only in a source-to-target direction. And most obviously, I also think that blended spaces are clearly needed to account for a variety of examples that CMT alone could not account for.

Nonetheless, in this section, I offer a somewhat different view on the relationship between CMT and CIT than what we saw above. I group what I have to say about the relationship around three topics. In particular, the first of these concerns the role and importance of structure mapping both in CMT and CIT. The second has to do with the claim that blending is somehow a more basic, deeper cognitive operation than metaphor. The third is the issue whether blending is indeed a more complex cognitive phenomenon than metaphor. My answer to each of these questions will be a "partly yes, partly no" response.

Conceptual Metaphors and Generic Space

When CIT deals with cases where there is a source domain (input space 1) and a target domain (input space 2) in "standard" CMT, it operates with the notion of similarity. The similarity is spelled out in the generic space. The generic space consists of information that the source and the target share. For example, the sentence "This surgeon is a butcher" assumes the conceptual presence of

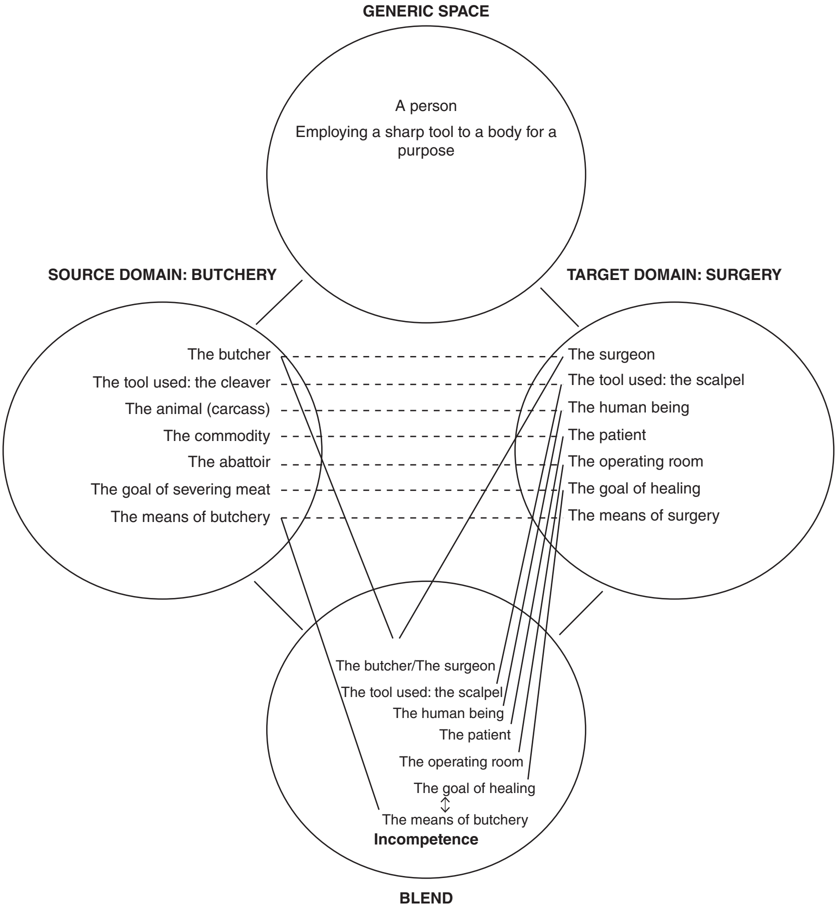
GENERIC SPACE
A person
Employing a sharp tool to a body for a purpose
SOURCE DOMAIN: BUTCHERY
TARGET DOMAIN: SURGERY
The butcher
The tool used: the cleaver
The animal (carcass)
The commodity
The abattoir
The goal of severing meat
The means of butchery
The surgeon
The tool used: the scalpel
The human being
The patient
The operating room
The goal of healing
The means of surgery
The butcher/The surgeon
The tool used: the scalpel
The human being
The patient
The operating room
The goal of healing
The means of butchery
Incompetence
BLEND

Figure 6.1 Generic space and similarity in "This surgeon is a butcher."

some underlying similarities given in the generic space: In both inputs, there is a person who employs a sharp tool to a body for some purpose. This is represented in Figure 6.1 above, where the entire CIT network is given, but for now we only focus on the notion of the schematic knowledge shared by the input spaces.

In other words, CIT spells out the similarities between source and target at a schematic level. The similarities form the basis for bringing together the two domains in the network. According to CIT scholars, this allows conceptualizers/speakers to set up correspondences, or mappings, between elements of the domains. That is, given the generic space above, we can map the butcher onto surgeon, the cleaver onto the scalpel, etc.

A major consequence of this situation, however, is that since it is the generic space that makes it possible for the inputs to appear in the network, it seems to follow that CIT can only apply to *resemblance metaphors*. (For a classification of metaphors in the CMT approach, see Grady 1999.) This is because the other major type of metaphors identified by CMT, *correlation metaphors*, are *not* based on any similarity – they are based on correlations in experience. It is unclear how CIT can accommodate correlation-based metaphors as described in CMT. If it cannot, it appears to weaken the claim made by CIT scholars that all conceptual metaphors can be analyzed as blends. Actually, this issue was also noticed by Grady (2005), who proposed that correlation metaphors should be regarded as input spaces in integration networks. This would mean that correlation-based metaphors would not be consequences of double-scope blending but would serve as their essential ingredients.

Abstract Concepts in the Network

As we saw, blending assumes at least two input spaces (which can be related as source and target), a generic space (identifying the similarities), and the blend. If we insist on the initial and simultaneous presence of all four of these in the network, and especially the second input (the target) in cases of metaphorical conceptualization, we encounter a difficulty in accounting for the *initial emergence* of abstract concepts. How do abstract concepts emerge in the CIT framework? If the second input, corresponding to the abstract target domain, is already there in the network, we are assuming its presence from the very beginning – instead of explaining its emergence. Notice that the problem cannot be avoided by suggesting that the abstract input derives from a prior network, since that network must also contain a second input that is already abstract. But how did it come into being to begin with?

As a matter of fact, this is also a problem for CMT. CMT with its two-domain model (A IS B) suggests that the source is typically a physical concept and the target an abstract one. We can ask the same question as above: But how did the abstract one initially emerge? The A IS B formula is misleading because it assumes that the A, the abstract concept, is already there. After it emerges, we can legitimately propose that new aspects of the abstract target are created by means of new source domains. But how do they arise to begin with? The challenge then, both for CIT and CMT, is to offer an account of how abstract target concepts emerge from scratch.

Let us consider the possibilities that are commonly offered for the creation of conceptual metaphors with an A IS B structure, where A is abstract and B is concrete. One of the possibilities is *resemblance*. In resemblance metaphors, the metaphor is based on some similarity between A and B. The similarities can be of various kinds (see, e.g., Kövecses, 2002/2010; Lakoff and Johnson, 1980). Strictly speaking, resemblance is not a truly viable option to explain the problem, since the two concepts must already exist before any similarity is perceived between them (see above).

Correlation in experience, however, is more promising. In primary metaphors such as PURPOSES ARE DESTINATIONS, the destination can be generalized into a purpose concept: the desire to get to a physical location can lead to the emergence of the notion of purpose that is not limited to getting to a location but applies generally (on this process, see Kövecses 2013 and Chapter 3.)

Another, and less recognized, way for abstract concepts to emerge is through *schematization*. In several publications (see Kövecses 2011c, 2015c), I argue that metaphors such as HEAVEN IS AN IDEAL PHYSICAL PLACE, CAUSATION IS PROGENERATION, and PROVIDENCE IS NURTURANCE are based on the source domain schematized into the target. This is happening via a metonymic process. The specific rich imagery of the source is bleached out to yield such abstract (target) domains as HEAVEN, CAUSATION, and PROVIDENCE.

When Do Metaphoric Blends Arise?

According to CIT, all conceptual metaphors are blends. Let us examine this issue by first looking at an example. Take the EMOTION IS AN OPPONENT metaphor, as exemplified by sentences such as "He was *struggling* with his emotions" and "She was *overpowered* by emotion." There are two frames here: the OPPONENT frame and the EMOTION frame. In the OPPONENT frame, we have two participants, opponent 1 and opponent 2, who are struggling with each other. They both want to defeat each other. One opponent wins, the other loses. In the EMOTION frame, we have the self and the emotion, and the self is trying to control his/her emotion. Either the self or the emotion will control the other. Thus we have the mappings:

opponent 1 ➔ self
opponent 2 ➔ emotion
struggle ➔ attempt at control
winning ➔ gaining control
losing ➔ losing control

These elements in the two frames are compatible with each other, and so the elements in the OPPONENT frame map straightforwardly onto the elements in the EMOTION frame.

In a CIT approach, it could be suggested that the two input spaces form part of a "double-scope" network, in which the matching elements in the two spaces, or frames, would be conceptually integrated in the blended space as follows:

opponent 1 / self
opponent 2 / emotion
struggle / attempt at control
etc.

However, I do not think that this would yield a substantially different result from the suggestion made by CMT. These are cases where two frames have the same schematic structural relations between the elements, and so the elements in the frames are compatible with each other in a straightforward manner. In the CIT account, the mappings from source-to-target are simply renamed as blended counterparts in the blend. It is not clear whether the idea of "maps onto" and "are blended/integrated/fused" mean something very different in such cases. It can thus be suggested that the two accounts are simply terminological variants.

True cases of blending arise when, over and above the compatibilities, there is some incompatibility between the two frames. Consider the well-known example offered by Turner and Fauconnier (2000) and briefly commented on above in the chapter, *God, he was so mad smoke was coming out of his ears.*

The sentence is based on the ANGER IS HEAT conceptual metaphor (in its two versions: HOT FLUID IN A CONTAINER or FIRE). There are several mappings between the angry person and heat (either boiling pot or fire) that obtain between the compatible elements in the two domains:

the container ➔ the angry person's body
the heat ➔ the anger
the degree of the heat (of fluid) ➔ the intensity (of anger)
the cause of the heat ➔ the cause of anger
etc.

These elements in both frames constitute a structured whole. The two structures are compatible with each other, just like in the EMOTION IS AN OPPONENT metaphor we saw above. However, in the "smoke was coming out of his ears" example, there is a major incompatibility. Here, incompatible elements in the source and target are brought together to form a conceptual unit that is not part of either the source or the target: The element that indicates a high degree of heat (the smoke or fume or steam) is conceptually integrated with an element of the target – the angry person's body (more specifically, the head). The result is a smoking, fuming, or steaming head (of the angry person). The sentence creates a new frame (a blended space) in which smoke/steam is coming out of the person's ears. The new frame results from merging two otherwise incompatible elements from the source and target frames.

But there are even more complicated cases that we can account for by making use of the idea of blending as arising from some incompatibility between the elements of the source and target. Take the SURGERY IS BUTCHERY metaphorical blend discussed previously. We noted above that much of the conceptualization involved in this example is very much like a straightforward set of metaphorical mappings: certain elements of the source correspond to certain elements of the target. Here, we have a systematically organized frame with elements, BUTCHERY, mapping onto the elements of another systematically organized frame, SURGERY.

As Figure 6.1 above shows, on the blending view, in addition to the two input spaces of BUTCHERY and SURGERY that are connected by a set of mappings, or correspondences, as above (except for the last correspondence), we have a generic space in which there is a person who employs a sharp tool to a body for a purpose. There is also a blended space. This space inherits from the source input the butcher and the means of butchery and from the target input the surgeon, the patient, some tool, the operating room, and the goal of healing. Thus, in the blend there is a surgeon in the role of a butcher who uses a tool and the means of butchery for the purpose of healing a patient. But, of course, the surgeon who uses the means of butchery cannot do a good job in trying to heal a human patient. The blend set up this way leads to the interpretation of the surgeon as being ineffective, nonprofessional, sloppy, careless, etc., and, ultimately, incompetent.

Kövecses (2011b) uses the idea of "meaning focus" to analyze the example "This surgeon is a butcher." By employing the notion of meaning focus (see Kövecses 2000a, 2002/2010), we could eliminate the problem associated with "standard" conceptual metaphor theory: the problem that, on that analysis, there is no account of *why* the feature of sloppiness or carelessness (or incompetence) is mapped onto the surgeon. The view based on the meaning focus of the source domain would maintain that the feature is mapped onto the target because it is one of the meaning foci associated with butchers, as indicated by the various senses of the word as defined by Merriam-Webster:

1 a: a person who slaughters animals or dresses their flesh b: a dealer in meat
2: one that kills ruthlessly or brutally
3: one that bungles or botches
4: a vendor especially on trains or in theaters

Sense 3 clearly indicates that butchers are regarded as inherently incompetent. Given this conventionalized sense of the word and given that source domains map their main meaning focus (whose selection from several potential foci may depend on the context) on the target, we can understand why the metaphorical statement means what it does.

In addition, to account for the meaning of the sentence, we also need some metonymies. There is a metonymic relationship between the CATEGORY as a whole and the PROPERTY as a part, yielding the metonymy CATEGORY FOR

ITS PROPERTY (see Kövecses and Radden 1998). That is, the word *butcher* is used in the sentence to metonymically indicate incompetence.

Let us return to the issue of the butcher being "careless, sloppy, imprecise," that is, incompetent. Butchers are not inherently incompetent, but sometimes we take them to be such. Why? The reason may be that the actions performed by the butcher appear to be sloppy in contrast to the surgeon. We compare the butcher's actions with the "precise" and "refined" actions of the surgeon (cf. the phrase "with *surgical* precision"). In other words, we interpret how the butcher works in reference to the surgeon's work, that is, with the SURGERY frame in the background. Therefore, we extend the primary meaning of the word *butcher* ("who slaughters animals and dresses their flesh") to "incompetent." This newly derived meaning will then be projected to and will characterize the particular surgeon as well. We can think of the projection as a case of conceptual integration. The projection goes to a new space, the blended space, where the "careless, sloppy work" of the butcher replaces the "precise and refined work" of the surgeon. In this way, the blend contains mostly information that the SURGERY frame contains, with the major difference that the particular surgeon will here be regarded as doing "careless and sloppy work" and, hence, "being incompetent." The surgeon in the blend assumes the contextually defined new meaning focus of the butcher. We can diagram this as in Figure 6.2 below on the next page.

The above solution to the question of how the meaning of the sentence arises is different from the CIT solution proposed by Grady et al. (1999). In CIT, the essential elements of the blend were the means of butchery and the goal of surgery, as well as the conflict between the two, leading to the property of "incompetence." In the present suggestion, the property of "incompetence" is projected into the blend from the input space of BUTCHERY. The property of "incompetence" emerges in the concept of BUTCHERY in light of and against the background of the concept of SURGERY, and then it is projected into the blend, in which the property will now characterize the surgeon. That is, critical conceptual material in the blend will derive from the source. Thus, if the contextually defined meaning focus of the source domain of butcher is that he does careless, sloppy work (relative to the surgeon), it will carry over this property to the target (and to the blend, as above).

Let us now turn to a case where the incompatibility is between two *stories*, as in parables. In some parables, when a new didactic point is made by the speaker, the two stories involved in the parable are incompatible, and despite the several systematic correspondences between the source and the target, the source story does not match the target story in certain respects. This may cause surprise or difficulty in interpretation (see the section on "mixing metaphors" above). The Parable of the Workers in the Vineyard in the New Testament of the Bible is a good example of such a situation:

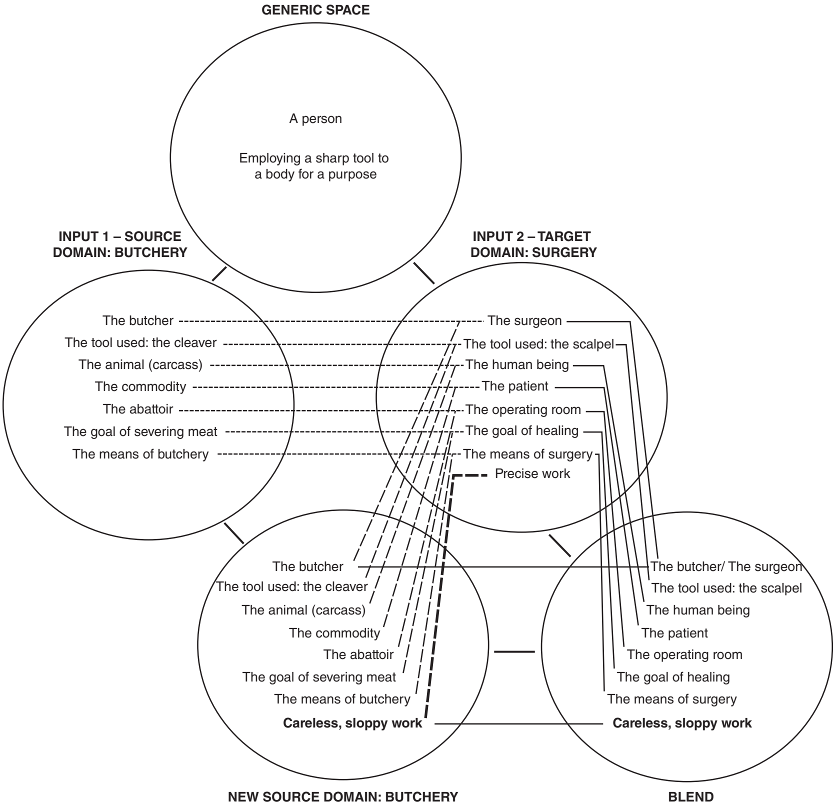
GENERIC SPACE
A person
Employing a sharp tool to a body for a purpose
INPUT 1 – SOURCE DOMAIN: BUTCHERY
The butcher
The tool used: the cleaver
The animal (carcass)
The commodity
The abattoir
The goal of severing meat
The means of butchery
INPUT 2 – TARGET DOMAIN: SURGERY
The surgeon
The tool used: the scalpel
The human being
The patient
The operating room
The goal of healing
The means of surgery
Precise work
The butcher
The tool used: the cleaver
The animal (carcass)
The commodity
The abattoir
The goal of severing meat
The means of butchery
Careless, sloppy work
NEW SOURCE DOMAIN: BUTCHERY
The butcher/ The surgeon
The tool used: the scalpel
The human being
The patient
The operating room
The goal of healing
The means of surgery
Careless, sloppy work
BLEND

Figure 6.2 The new SURGEON AS BUTCHER blend in the "meaning focus" view

20 "For the kingdom of heaven is like a landowner who went out early in the morning to hire workers for his vineyard. [2] He agreed to pay them a denarius[a] for the day and sent them into his vineyard.

[3] "About nine in the morning he went out and saw others standing in the marketplace doing nothing. [4] He told them, 'You also go and work in my vineyard, and I will pay you whatever is right.' [5] So they went.

"He went out again about noon and about three in the afternoon and did the same thing. [6] About five in the afternoon he went out and found still others standing around. He asked them, 'Why have you been standing here all day long doing nothing?'

[7] "'Because no one has hired us,' they answered.

"He said to them, 'You also go and work in my vineyard.'

[8] "When evening came, the owner of the vineyard said to his foreman, 'Call the workers and pay them their wages, beginning with the last ones hired and going on to the first.'

> [9] ”The workers who were hired about five in the afternoon came and each received a denarius. [10] So when those came who were hired first, they expected to receive more. But each one of them also received a denarius. [11] When they received it, they began to grumble against the landowner. [12] ’These who were hired last worked only one hour,’ they said, ‘and you have made them equal to us who have borne the burden of the work and the heat of the day.’
>
> [13] ”But he answered one of them, ‘I am not being unfair to you, friend. Didn’t you agree to work for a denarius? [14] Take your pay and go. I want to give the one who was hired last the same as I gave you. [15] Don’t I have the right to do what I want with my own money? Or are you envious because I am generous?’
>
> [16] ”So the last will be first, and the first will be last.” (Matthew 20:1–16, New International Version)

Most people, both in Jesus’ time and today, are surprised, and even find it unfair, that Jesus gives the same pay to those who worked the whole day and those who worked only one hour. This can happen because Jesus changes the source domain story according to the target story. The target story is about the kingdom of heaven, where all people are invited (just like the workers by the landowner) and receive the same “pay.” However, the pay is not financial reward but forgiveness and mercy that all people who ask for it will get in equal amount. In other words, the kingdom of heaven is only partially similar to our world, and Jesus adjusts the source story according to how things work in the kingdom of heaven, the target story.

I suggest that the cognitive process that produces such an interpretation is conceptual integration (see, e.g., Turner 1996). In blending, two partially similar, thus essentially compatible, domains are *merged*, rather than the source simply structuring the target. In my view, this merging is possible and arises when there is some incompatibility between the (otherwise similar) source and target. The incompatible element in the target (i.e., the element that does not match an element in the corresponding source) will figure importantly in the intended interpretation of the parable. In more specific terms this means that the speaker will use elements of the source that are not coherent with the rest of the source but that fit the target. Technically, this is achieved by the speaker projecting the target-compatible (but source-incompatible) elements into a blended conceptual space, where the target-compatible elements (everyone gets the same “amount” of forgiveness and mercy) are fused with the source-incompatible ones (everyone gets the same wage, regardless of how many hours they work). Thus, in the blend all workers get the same amount of forgiveness and mercy, no matter how long they have worked for it (i.e., when they requested it).

In sum, blending is needed when incompatible elements between two otherwise partially compatible domains are used in meaning construction.

Metaphors and Blends in Context

That the creation of metaphors is heavily influenced by contextual factors is by now a well-established fact (for recent statements on this issue, see Kövecses 2010b, 2015a, and Chapter 5). The interesting question is whether the process of conceptual integration undergoes the same kind of contextual influence as metaphor does. It is an interesting question because conceptual integration is claimed to be a more "basic," "elaborate," and "deeper" "underlying" cognitive operation than conceptual metaphor (see Fauconnier and Turner 2002, 2008). Is this indeed the case? More specifically, is it or is it not the case that the "deeper" process of blending is subject to the same contextual influences as the "superficial" phenomenon of metaphor? This is an issue I raise in my 2015 book *Where Metaphors Come From*, and I borrow materials from that discussion here.

We can ask why particular networks (generic space, several input spaces, and a blended space) are formed and expressed the way they are. Why do they have the input spaces and the particular figurative linguistic expressions they do? Below, I discuss some examples of blending and suggest that contextual factors often play a role in the selection of input spaces and the linguistic expressions that realize them.

First, let us take an example analyzed by Coulson and Oakley (2000): "Tennessee Tramples Kentucky," which is a newspaper headline. Coulson and Oakley correctly point out that the blended space created by this sentence is interpretable because of the metonymic relationship between elements in the blend and elements in the inputs. The specific metonymy would be A STATE FOR A UNIVERSITY IN THAT STATE and FOR THE FOOTBALL TEAM OF THAT UNIVERSITY. In addition, we also have the conceptual metaphor SPORT IS COMBAT as part of the network (as source and target spaces). However, this does not explain the use of the word *trample* in the sentence out of the many potentially available words (e.g., *defeat, beat, overpower*) that could also be employed. But the influence of the immediate linguistic context does seem to provide some justification or motivation for the use of the word. *Tennessee* alliterates with *trample*. This is an extremely superficial contextual influence involving phonological form, but it appears to be sufficient to motivate the choice of the word *trample* out of a number of potential words in this metaphorical blend.

Second, similar to the *trample* example above, Aitchison (1987) mentions several newspaper headlines for one football team defeating another: "Cowboys Corral Buffalos," "Clemson Cooks Rice," "Air Force Torpedoes the Navy," and "Cougars Drown Beavers." The issue here is why in one case the verb used for defeat is *trample*, in another it is *corral*, in a third it is *cook*, in a fourth it is *drown*, and so forth. The answer again has to do with context. On the CIT analysis, for example in the case of "Cowboys Corral Buffalos," in the blend we would have a university team blended with an opponent and cowboys, another university team, blended with the other opponent and buffalos, and, finally, the action of defeating with corralling. But, again, why is *corral* used out of many other options? The reason seems to be that it is the *semantic content*, or meaning, of the immediate linguistic context (and not its phonological shape, unlike the previous example above) that facilitates the choice of a metaphorical expression: in the Wild West frame, cowboys are in the business of corralling animals. The same kind of explanation applies to the other cases.

Third, Coulson and Oakley (2003) examine still another headline: "Coke Flows Past Forecasts: Soft Drink Company Posts Gains" from *USA Today*. They suggest that the literal predication of the drink Coca Cola (namely, that it flows) and the metaphoric predication of *flow* for the Coca Cola Corporation's profit are blended in the blended space. In this case, we seem to have double motivation for the use of flow in the network. One is of course the immediate linguistic context with the word *coke*, which has the property that it flows. The other is the general topic of the discourse, Coca Cola, which is a liquid. Thus, here, there is both the immediate linguistic context and the general topic, or subject matter, of the discourse (a liquid) that is at work in motivating the particular blend that is created.

Fourth, let us take one of the best known examples of blending: "If Clinton Were the Titanic, the Iceberg Would Sink" (Turner and Fauconnier 2000). This is a complex example whose analysis by Turner and Fauconnier shows the full power of CIT. What their analysis does not show in an explicit and systematic way, however, is *why* we have the particular input spaces that we do in the network of spaces. To explain this, we need a model of meaning making that takes seriously and includes a theory of contextual influence on the construction of meaning – both for metaphor and blending (see Kövecses 2015a). Actually, Turner and Fauconnier do mention that this particular blend could not have arisen in 1992 without the Titanic catastrophe to begin with and without the wide popularity of the movie inside the Washington Beltway during the Clinton presidency. However, this somewhat anecdotal comment does not substitute for a full theory of contextual influence on meaning construction. Therefore, I would add to the comment made by Turner and Fauconnier that people often produce metaphorical blends by relying on "context models" (on this, see Van Dijk 2009) that help them activate aspects of context (i.e., contextual factors), which results in introducing an input space (typically a source concept) into the network (see Kövecses 2015a).

In summary, over and above providing deep conceptual analyses of blends and conceptual metaphors, we also need to be able to account for why particular input spaces, source domains, and linguistic expressions are used in a network or conceptual metaphor. The brief study of the four examples illustrates that in many cases this is possible, and that such considerations add a new and systematic dimension to our analysis. The cognitive process of blending may be, in some sense, more basic and deeper than metaphor, but this does not make its products, the blends, immune to contextual influence. Blends seem to be just as much prone as metaphors to the various contextual effects in the creation of input spaces and the linguistic expressions based on them.

Blends in the Multilevel View of CMT

Researchers in CIT emphasize that blending is a dynamic, online process. It takes place in real discourse in specific communicative situations. It works with mental spaces that speakers create online. The speakers project elements from the various spaces in the network into the blended space and also from the blend into the various input spaces. All of this can happen due to the plasticity of the human conceptual system and the dynamic nature of thought.

In the multilevel view of metaphor, as proposed here, the suggestion is, essentially, that metaphor as a conceptual phenomenon can be identified at four different levels of schematicity; in particular, at the level of IMAGE SCHEMAS, DOMAINS, FRAMES, as well as MENTAL SPACES. The first three give us the basic patterns of conceptual systems, as they are derived from our experiences in the world. They are in long-term memory and they provide the essential content elements of meaning. The IMAGE SCHEMAS, DOMAINS, and FRAMES together form the conceptual content of conceptual systems, and, importantly, they are decontextualized conceptual structures.

However, when speakers engage in real discourse in specific communicative settings, they mobilize, exploit, and manipulate this large amount of tacit knowledge. This is the conceptual stuff with which they can work (i.e., this is what they have at their disposal). They exploit and manipulate this material given their specific goals and constraints in the situation at hand. Speakers perform this complex cognitive task with the help of MENTAL SPACES.

Most relevantly, of course, for the present chapter, speakers sometimes feel that they can best achieve their communicative goals if they use particular metaphorical blends in the course of online communication. This explains why (both) blends (and metaphors) are subject to contextual influence, as we saw in the previous section. The contextual influence happens, quite naturally, at the level of MENTAL SPACES that are structured in part by the higher level conceptual units.

Some Issues

There appears to be some rivalry between CMT and CIT. Many scholars believe that they have to choose one or the other as their research tool because one is somehow better than the other. I believe that the conclusions that we can draw from the preceding analyses defuse this kind of tension: there is absolutely no reason to think that CMT is better or that CIT is better. They very much depend on and complement each other. One without the other would be much weaker. This conclusion is shared by Grady et al. (1999: 120), who state: "... we propose that because they tackle different aspects of metaphorical conceptualization, the two frameworks are largely complementary. The conventional conceptual pairings and one-way mappings studied within CMT are inputs to and constraints on the kind of dynamic conceptual networks posited within BT [Blending Theory]."

However, the reasons for the complementary relationship between CMT and CIT I discuss in this section are somewhat different from theirs, in that I place the emphasis on different aspects of the relationship within a larger, multilevel and contextual view of metaphorical conceptualization.

Compatibility Let us begin with the issue of the role and importance of structure mapping in CMT and CIT. Although CIT theorists urge CMT researchers to move beyond simply studying pairwise correspondences between two domains, it is clear that structure mapping of the kind CMT is interested in is just as important for CIT as it is for CMT. We saw above in a number of examples that shared structure is essential not just for metaphorical mapping (from B to A) but also for all the other kinds of mapping and projections in CIT that characterize metaphorical blends. The mental spaces in double-scope networks allow for mappings not just from the source domain to the target but also mappings from both (or more) of the input spaces into the blended space and even from the blend into the input spaces. All of these mappings (or projections), which are additional to the standard metaphorical mappings (i.e., from source to target), assume compatible input spaces in the sense that the additional mappings or projections are the result of incompatibilities that themselves derive from systematic compatibilities (as captured by systematic source-to-target mappings). This means that we cannot focus on the incompatibilities without at the same time focusing on what is compatible between two domains. In order to see the incompatibilities, we also have to see the compatibilities. We cannot figure out what the incompatible elements in blends are without identifying what the compatibilities are on which they are built. Thinking of the relationship this way, we can suggest that CMT, on the whole, is the study of compatibilities, whereas CIT is the study of the incompatibilities that result from those compatibilities (as found in the source-to-target mappings). Metaphorical blends are only imaginable if they assume compatible source and target domains. Incompatibilities in themselves cannot constitute metaphorical blends. (Centaurs are blends, but they are not metaphorical ones).

Basicness We can now turn to the second issue: whether blending is indeed a more basic, deeper, hence more general, cognitive mechanism than conceptual metaphor. This issue is a matter of perspective. We can approach it from the level of mental spaces, on the one hand, or from the level of image schemas, domains, and frames, on the other. Accepting all the claims of CIT and approaching it from the perspective of mental spaces, it can be suggested that the level of mental spaces and the network models within it are indeed underlying many different conceptual structures (metaphor, analogy, metonymy, frames, etc.) that can thus be regarded as surface cognitive phenomena. But we can look at the issue differently. We can suggest that it is the large body of such conceptual structures as IMAGE SCHEMAS, DOMAINS, and FRAMES that constitutes the backbone of the conceptual system. And this backbone is based on a schematic hierarchy of coherently structured human experience – that is, the large body of compatibilities (between these structures) that the network model assumes (and of course changes, alters, and modifies in the course of its workings). As it was noted in the previous subsection, the incompatibilities and clashes that are resolved in the blends are all made possible by the compatibilities (the schematic vertical similarities between image schemas, domains, and frames). Ultimately, the question is: What is more basic – seeing the schematic similarities or creating the dissimilarities? Compatibility or incompatibility? Order or chaos? Philosophers could probably argue for both. I take it that it is the similarity- and analogy-based conceptual structures that are fundamental to human cognition. But what makes us truly human is that we can create the incompatibilities based on them – and thus can easily understand them. On this I agree with CIT.

There is also some evidence to support the suggestion that, in a sense, conceptual metaphor is more basic than conceptual integration: It is that conceptual metaphors have been shown to be compatible with computational modeling of neuronal connections, specifically “mapping circuits” that link two groups of nodes (source and target) to each other (Gallese and Lakoff 2005; for compatible evidence, see also Bambini et al. 2011). The elements in one group of nodes are connected to elements in the other group of nodes (this is what we call “mappings”) in a systematic and predictable way. There is no clear neurocomputational evidence supporting blending. It remains unclear what routines and neural circuits might predict which element in one space should be mapped onto which element in another space in the network model. The whole point of blending is to allow the mappings to go in unpredictable and creative ways. The processes of blending take place online, dynamically, and in a creative fashion, and they are governed by a variety of contextual factors, including but not limited to the contextual factors mentioned above in the chapter.

Complexity The third issue I'd like to comment on is that of cognitive complexity in CMT and CIT. To quote Fauconnier and Turner (2008: 53) again: "What we have come to call 'conceptual metaphors,' like TIME IS MONEY or TIME IS SPACE, turn out to be mental constructions involving many spaces and many mappings in elaborate integration networks constructed by means of overarching general principles. These integration networks are far richer than the bundles of pairwise bindings considered in recent theories of metaphor."

It would be hard not to agree with this view in CIT. The analysis of specific metaphorical blends in the CIT literature brought to light an enormous amount of cognitive complexity in the course of metaphorical meaning construction. Compared to this, the usual CMT analyses are simple, and sometimes even appear simplistic. But the question is: Can we compare and contrast the complexity of metaphor with the complexity of blends? I do not think we can. The reason is that the cognitive complexity that characterizes metaphors is an entirely different sort from that of blends.

The "pairwise bindings," the mappings, or correspondences between two structured conceptual organizations, are intended to capture the structure of conceptual metaphors at the levels of IMAGE SCHEMAS, DOMAINS, and FRAMES. Conceptual metaphors laid out in this format (i.e., as sets of mappings) display the systematic and coherent compatibilities between two IMAGE SCHEMAS, between two DOMAINS, or between two FRAMES. These linked conceptual structures are in long-term memory, and are decontextualized and conventionalized. They are based on our bodily-cultural (or cultural-bodily) experiences. And, last but not least, they are arranged in vertical hierarchies based on schematicity. This is a huge system of concepts that needs to be activated to function online. We are also probably predisposed to use this system in neutral contexts. (This is what I called *metaphorical concepts* in the "conceptual-cognitive context" in Kövecses 2015a and Chapter 5.) Now, at the level of mental spaces, that is, in the course of online metaphorical conceptualization in actual communicative situations, the network model takes over. At this fully contextualized level, we are submerged, and sometimes even, revel, in all the cognitive complexities that CIT is discussing, including, importantly, the large-scale exploitation and mobilization of the huge and dormant metaphorical system.

But the two main levels (the "aggregate" level of IMAGE SCHEMAS, DOMAINS, and FRAMES, on the one hand, and MENTAL SPACES, on the other) should be distinguished for theoretical purposes, since they serve and perform very different cognitive tasks. For this reason, we cannot expect the large dormant system to perform all the complex cognitive tasks that the other fully specific and fully contextualized system can. I would guess that the simplicity of the large system is by design: to make sure that we are capable of keeping it in long-term memory for the purposes of mobilizing it for the intricate application of the double-scope networks in working memory.

In conclusion, rivalry is unjustified and unnecessary. We are doing different but complementary things within a unified and many-layered system of metaphorical conceptualization. What CIT researchers do at the level of mental spaces would not be possible without the findings of the new, extended CMT, and the work in CMT done at the level of image schemas, domains, and frames would be incomplete without the contributions of CIT.

6.4 Conclusions

The phenomenon of conceptual metaphor is simultaneously offline and online. In the course of using conceptual metaphors, offline conceptual structures in long-term memory (image schemas, domains, and frames) are put to cognitive work online in mental spaces in working memory.

This view enables us to take into account a variety of metaphor-related mental activities that speakers engage in at this level. These include getting primed to use particular metaphors by context, giving metaphorical expressions specific socio-pragmatic functions, creating novel metaphors, using metaphors deliberately, and several others.

Two quintessential online metaphorical phenomena were discussed in some detail in the chapter: mixing metaphors and conceptual integration. I argued that both assume and are heavily influenced by "higher" level image-schema, domain, and frame metaphors. The analysis of mixing metaphors and conceptual integration indicated that, although much of the mental activity is happening at the level of mental spaces in both cases, it would not be possible to account for their use without taking into account the corresponding offline conceptual structures. In the extended view of CMT, the offline and online metaphorical structures are all needed for a (more or less) complete understanding of how conceptual metaphors work in natural discourse.

7 The Shape of the Extended View of CMT

In this next to last chapter, I attempt to identify the main ingredients of the extended view of CMT, characterize the most important distinctions it involves, outline the broad shape of the new view, and draw out its implications for a general understanding of metaphor. In the last chapter, I revisit the five questions that inform the content and structure of the extended view, as presented in this book.

7.1 Two Major Issues for CMT

To better understand and resolve some of the issues that beset CMT, let us return to two of the examples (*in the mountain stage* and *whisper*) that have been discussed in the book and approach them by asking two questions:

Why are these particular metaphors (unconsciously) chosen by the speaker in the given context?
How can the speaker create (and the hearer comprehend) the particular meaning expressed by the metaphors?

Why Are These Metaphors (Unconsciously) Chosen by the Speaker in a Given Context?

We can begin with the metaphorical expression *in the mountain stage* in relation to the "Armstrong doping scandal" case. Why was this particular metaphor used by the crisis management expert? As was suggested in Chapter 4, the specialist had extensive knowledge about the topic of the discourse, which was Armstrong's doping scandal. That knowledge included that Armstrong participated in several Tour de France events and that this race has several "mountain stages." In other words, the *topic of the discourse primed* the speaker to choose a metaphor to express a particular idea; namely, that, in order to come completely clean, Armstrong had a long and difficult way to go.

As regards *whisper*, it was suggested in Chapter 5 that the metaphor emerged from the physical(-perceptual) context in which it was produced. Dr. Kumi Naidoo created the metaphor *whisper* against a background in which there was a very loud rock concert and a comparatively quiet summit meeting. The loudness and the relative quiet of the respective events were perceptual features of the events. In this case, the original conceptualizer (Dr. Naidoo) was *prompted to use a perceptual property* of the physical context from the large body of experiential content that was available to him.

How Can the Speaker Create (and the Hearer Comprehend) the Particular Meaning Expressed by the Metaphors?

Next, let us ask how the meanings of the metaphorical expressions were created (and comprehended) by the speaker (and hearer). In the case of *in the mountain stage*, the idea of a “long and difficult way to go” (i.e., in Armstrong’s confessions) was expressed by the “mountain stage” metaphor. Because of the wide conceptual gap between this meaning and the ACTION IS MOTION metaphor, the following schematicity hierarchy was proposed in Chapter 4 to bridge the gap:

Image schema level:
ACTIVITY IS MOTION

Domain level:
COMMUNICATION IS SELF-PROPELLED (FORWARD) MOTION

Frame level:
CONFESSIONS ARE RACES

Mental-space level:
CONFESSIONS ARE BICYCLE RACES: THE LENGTH AND DIFFICULTY OF CONFESSING WRONGDOINGS IS THE LENGTH AND DIFFICULTY OF BEING IN THE MOUNTAIN STAGE OF THE TOUR DE FRANCE

In other words, a schematicity hierarchy is established that serves as a conceptual pathway from the meaning expressed at the mental-space level all the way to the image-schema level.

Let us now consider the case of *whisper*. Here as well, there seems to be a great conceptual distance between the meaning “the lack of resolve and effectiveness” (i.e., determination) and the meaning of *whisper*. In my book *Where metaphors come from* (2015a: 58), I suggested we bridge the conceptual gap by a set of conceptual metonymies and a conceptual metaphor:

Metaphor:
INTENSITY IS STRENGTH OF EFFECT

Metonymies:
EMOTIONAL RESPONSES FOR THE EMOTIONS
EMOTION FOR DETERMINATION TO ACT
ANGRY BEHAVIOR FOR ANGER/ARGUMENT
EMOTION FOR DETERMINATION TO ACT

Clearly, this is not a metaphorical schematicity hierarchy as discussed in this book; we just have a single conceptual metaphor. What we have instead is a pathway that is very different from the conceptual pathways I have proposed in previous chapters. We can call it a non-systematic and spontaneous, or ad hoc, conceptual pathway. If correct, this observation shows that not all metaphorical conceptual pathways are constituted by schematicity hierarchies of the kind we have seen so far in the book.

But now I propose to reconsider this solution and entertain the possibility that there is indeed a systematic schematicity hierarchy connecting the meaning "lack of resolve" and the image-schema metaphor INTENSITY IS STRENGTH OF EFFECT. The new proposal is based on the idea that *whisper* assumes a domain-level conceptual metaphor involving the generic-level concepts of POLITICAL ACTION and LINGUISTIC ACTION. Political actions are typically talked about and conceptualized as linguistic actions, such as "political *speeches*," "*negotiations* between two countries," "the opening *talk* of the demonstration," "the politicians continuing their *conversation*," "the two countries not *talking* again," "the *haggling over* territories," "a politician *bargaining for* something," and many others. Such examples are not simply about being engaged in talk of some kind (i.e., linguistic action), they are about *doing, or conducting, politics itself* (i.e., political action). If this is the case, we are dealing with the domain-level conceptual metaphor: POLITICAL ACTION IS LINGUISTIC ACTION, which would have as one of its mappings (the relevant one): THE INTENSITY OF POLITICAL ACTION IS THE STRENGTH OF EFFECT OF THE LINGUISTIC ACTION. A more specific frame-level metaphor would be DOING POLITICS IS SPEAKING. Within this frame, one mapping involves "determination, or resolve, to make changes." This further specifies the domain-level metaphor to: THE INTENSITY OF POLITICAL DETERMINATION TO MAKE CHANGES IS THE DEGREE OF THE VOLUME OF SPEAKING, or simply, POLITICAL DETERMINATION IS LOUDNESS OF SPEAKING. This last frame-level conceptual metaphor is further elaborated at the mental space level, with the intensity set to "low," both for the target and the source. In other words, we can see these conceptual metaphors as constituting a schematicity hierarchy as follows:

Image schema level:
INTENSITY IS STRENGTH OF EFFECT

Domain level:
POLITICAL ACTION IS LINGUISTIC ACTION: THE INTENSITY OF POLITICAL ACTION IS THE STRENGTH OF EFFECT OF THE LINGUISTIC ACTION

Frame level:
DOING POLITICS IS SPEAKING (TO/WITH OTHERS): THE INTENSITY OF POLITICAL DETERMINATION TO MAKE CHANGES IS THE DEGREE OF THE VOLUME OF SPEAKING

Mental space level:
THE LOW LEVEL OF POLITICAL DETERMINATION TO MAKE CHANGES IS THE LOW LEVEL IN THE VOLUME OF SPEAKING

The potential theoretical significance of how we decide on the analysis of *whisper* is whether we have only one type of conceptual pathway or two for conceptual metaphors. The second option in the analysis of *whisper* above would support the existence of only one type of conceptual pathway, that of a schematicity hierarchy.

However, if we accept the first option for the analysis of *whisper* above, it might be the case that two types of conceptual pathways can be distinguished:

schematicity hierarchies (e.g., for *in the mountain stage,* option two above)
spontaneous mixed pathways (e.g., for *whisper*, option one above)

The two conceptual pathways could be regarded as producing two types of metaphors:

systematic metaphors (based on schematicity hierarchies)
non-systematic (isolated) metaphors (based on spontaneous mixed pathways)

In other words, the suggestion is that examples of metaphors that lend themselves to be characterized by schematicity hierarchies form large systems of conceptual metaphors and metaphorical expressions on multiple overarching levels (mental space, frame, etc.), whereas examples of metaphors that do not evoke schematicity hierarchies are isolated metaphorical linguistic expressions. The latter possibility does not mean, however, that isolated metaphors, such as *whisper*, are created (and comprehended) without an appropriate conceptual pathway. They do require a conceptual pathway, but the pathway will be of a spontaneous, or ad hoc, and, possibly, mixed type.

In addition to these two types of conceptual pathways, there is a third one, in which two domains share a single image schema. This is not an image schema *metaphor* with two distinct frames (as in the cases above), but simply a single image schema that characterizes metaphorical analogies (or, more generally, resemblance metaphors). The image schemas that are shared can be conventional, entrenched ones (CONTAINER, MOTION, LINK, etc.) or unconventional, novel ones.

To take an example for the latter, consider a case of metaphorical conceptualization I analyzed in previous work (Kövecses 2015a: 104–105). Frank Jump is a New York City-based photographer who has AIDS and, as an artist, he photographs old New York City mural advertisements. In a meeting with his mentor, he talks with him about his art. This is how Jump reports on his conversation:

> In the beginning, I didn't make the connection between the subject matter and my own sero-positivity. I was asked to be part of the Day Without Art exhibition a few years ago and didn't think I was worthy – other artists' work was much more HIV-specific. … But my mentor said, "Don't you see the connection? You're documenting something that was never intended to live this long. You never intended to live this long." [italics in the original]

The mentor calls Jump's attention to the metaphorical relationship between his illness and his art. We can state this in the following metaphorical analogy: SURVIVING AIDS DESPITE PREDICTIONS TO THE CONTRARY IS FOR THE OLD MURAL ADVERTISEMENTS TO SURVIVE THEIR EXPECTED "LIFE SPAN." The two domains share an image schema; namely, that there is an entity that exists longer than expected. The image schema is novel and unconventional.

If this is on the right track, we can have three (not two) conceptual pathways for the creation and comprehension of conceptual metaphors including metaphorical analogies:

schematicity hierarchy pathways
ad hoc pathways
shared image schema pathways

The third kind of pathway could serve as the basis for conceptual metaphors that are usually regarded as metaphorical analogies. CMT research typically foregrounds the types of metaphors that are based on schematicity hierarchies, but there appears to be a large number of other cases that require ad hoc and shared image schema pathways. In addition, in the section on the kinds of metaphors in this chapter, I propose yet another conceptual pathway – that of feature resemblance. Future research can quantify the precise proportion of the different types.

7.2 Embodied Metaphor versus Discourse Metaphor

In a recent paper, Gibbs (2017c) distinguishes between "embodied" versus "discourse metaphors." Similarly, he distinguishes the theories used to account for them: the embodied metaphor view used in cognitive linguistics and the discourse views advocated mostly by more socially oriented metaphor researchers. There are several theories of metaphor that attempt to account for metaphor use in discourse, such as *in the mountain stage* and *whisper*. Gibbs (2017c) discusses four of these in his paper: Zinken et al.'s (2008) view of discourse metaphors, Quinn's (1991) view that metaphors are simply reflections of literal cultural models, Cameron's (2008, 2010) discourse dynamics approach to metaphor, and Steen's (2008, 2011) theory of deliberate metaphor. What these different views share is that they downplay the role or even reject the existence of conceptual metaphors of the kind mostly discussed in the CMT literature (like LIFE IS A JOURNEY and the primary metaphors that give them their embodied character) and, at the same time, they emphasize the role of context in the creation and use of metaphors.

In his paper, Gibbs criticizes the four theories of discourse metaphor and offers a synthesis of the discourse and embodied metaphor views in an integrated model of "metaphor performance": the dynamic systems view of metaphor (see, e.g., Gibbs and Cameron 2007; Gibbs 2017c). I believe that the dynamic systems view bears many similarities to the contextual and multilevel view of metaphor that I am developing here. Both views share the goal of characterizing metaphor performance (just like the discourse metaphor views), but they do so by taking advantage of (rather than rejecting) embodied conceptual metaphors – though to different degrees. In the remainder of the section I briefly outline how my proposed account could achieve this. To demonstrate, I use, in addition to the metaphors *in the mountain stage* and *whisper*, the metaphor *capsize*, as it was used in a piece of natural discourse in a 2007 newspaper article I analyzed in previous work (Kövecses 2015a).

Following hurricane Katrina that devastated New Orleans in 2005, a journalist did an interview with Fats Domino, a now elderly American rock musician living near New Orleans. The journalist writes:

> The 2005 hurricane **capsized** Domino's life, though he's loath to confess any inconvenience or misery outside of missing his social circle ... (USA TODAY, 2007, September 21, Section 6B) (taken from Kövecses 2015a: 103).

The interview was largely about how Domino's life was affected by the hurricane. Its very negative effect is expressed by the unconventional linguistic metaphor *capsize*, which is an instance of the applicable conceptual metaphor: LIFE IS A (SEA) JOURNEY. At the time of the interview, there were still many noticeable signs of the devastation, as the newspaper article about domino indicates. The journalist continues the quote above as follows: "... in the Lower Ninth Ward, still destroyed and deserted despite some signs of renewal."

I suggest that this salient perceptual property of the physical situation plays a major role (but likely not the only role, as suggested to me by Michele Feist in personal communication, March 15, 2019) in the metaphorical conceptualization of Domino's life: the still visible sight of the devastation caused by the hurricane (situational context), the memory of the overturned boats (conceptual-cognitive context), the topic of the conversation with Domino (discourse context), and the universal experience of falling down and not being able to function (bodily context) prime the conceptualizer (the journalist) to use the verb *capsize*, which assumes (and evokes) the primary metaphors of ACTION IS SELF-PROPELLED MOTION and PERSISTING or FUNCTIONALITY IS REMAINING ERECT.

Simultaneously, since the topic of the interview is Domino's life, the LIFE and TRAVEL domains are evoked, resulting in the conceptual metaphor LIFE IS TRAVEL. An aspect of this metaphor is the correspondence between leading one's life and journeying, that is, the metaphor LIVING A LIFE IS JOURNEYING. (As noticed by Framenet, journeying is the activity aspect of travel, which is a more inclusive category than journey.) And since the journalist's immediate idea at this point in the discourse concerns how Domino's life has suddenly changed for the worse, a very specific metaphor is evoked – that of A SUDDEN, UNEXPECTED TURN OF EVENTS FOR THE WORSE IN DOMINO'S LIFE IS THE CAPSIZING OF DOMINO'S BOAT IN THE COURSE OF HIS SEA JOURNEY, as expressed by the verb *capsize.*

In other words, primed by the context, a **schematicity hierarchy** is constructed online, which can be represented as follows:

> **Image schema:**
> ACTION IS SELF-PROPELLED MOTION + PERSISTING / FUNCTIONALITY IS REMAINING ERECT
>
> **Domain:**
> LIFE IS TRAVEL
>
> **Frame:**
> LIVING A LIFE IS JOURNEYING
>
> **Mental space:**
> A SUDDEN, UNEXPECTED TURN OF EVENTS FOR THE WORSE IN DOMINO'S LIFE IS THE CAPSIZING OF DOMINO'S BOAT IN THE COURSE OF HIS SEA JOURNEY

The conceptual metaphor at the mental-space level is detailed, rich, and specific. It is essentially an explication of the metaphorical meaning of *capsize* in the discourse in which it occurs. This meaning is, using traditional semantic terminology, both denotative and connotative. (I will explain the relevance of this distinction below.)

In sum, the metaphorical conceptualization that is expressed in the phrase "*capsized* Domino's life" results from the priming effect of one or several contextual factors that trigger the setting-up of a schematicity hierarchy online in the situation of discourse. This way, the proposed extended CMT successfully combines the major features of the embodied and discourse metaphor views: embodiment as based on experiential correlations and context, respectively. But of course this is only applicable to those metaphors that are embodied in the sense of standard CMT view (only they can have a schematicity hierarchy associated with them). What about those metaphors that are viewed by several researchers as "discourse" metaphors but that are based on resemblance, rather than correlation? I will come back to this issue in another section below.

7.3 Kinds of Metaphorical Meaning

Given the metaphorical expressions we have considered so far, it seems appropriate to distinguish three types of metaphorical meaning: meaningfulness, decontextualized meaning, and contextualized meaning. The distinctions are based on the schematicity hierarchy and my earlier distinction between the subindividual, supraindividual, and individual levels of metaphor (see Kövecses 2002/2010).

Meaningfulness is based on the image schema level, where image-schema metaphors provide naturalness and bodily motivation for particular cases of metaphorical conceptualization. This is achieved by means of highly schematic metaphors – often, primary metaphors, although, as Grady (1997a) notes, not all image-schema metaphors are primary metaphors (but many are, e.g., STATES ARE CONTAINERS, MORE IS UP, ACTION IS MOTION) and not all primary metaphors are image-schema metaphor (e.g., PURPOSES ARE DESTINATIONS). Several primary metaphors are at the level of domains or frames (such as UNDERSTANDING IS SEEING, PURPOSES ARE DESTINATIONS). Image schemas constitute the level of meaning that in previous work I called the "subindividual level" (Kövecses 2002/2010). But the main point here is that image-schema metaphors make particular metaphor hierarchies embodied, and hence lend them a feel of naturalness. In other words, they make them meaningful.

Decontextualized meaning is based on the domain and frame levels. Here, meanings are based on more specific conceptual metaphors (than the image-schematic ones) and the mappings that constitute them. The elements of two domains or frames are in a conventional relationship. These are the mappings, or correspondences, that define the conventionalized meanings of metaphorical expressions (e.g., "heat ➔ intense anger" defines "intense anger" as the meaning of *burning with anger*). Very often, such conventionalized meanings are lexicalized for the source domain term (e.g., *burn*). Decontextualized meaning is, therefore, located at the "supraindividual level" and it is shared, to a large extent, across individuals in a speech community (Kövecses 2002/2010). Decontextualized meaning corresponds to what I called denotational meaning above.

Contextualized, or rather, *contextual, meaning* can be found on the "individual level" (Kövecses 2002/2010). This is the level that corresponds to the level of mental spaces in metaphorical schematicity hierarchies. At this level, the decontextualized structures and the decontextualized meanings that rest on them become fully individuated, specific, detailed, and rich in conceptual content. This can happen in large part due to narrowing down full-blown domain and frame-level structures to one or a few of their aspects and expanding on these aspects in several ways. This is what we saw above in the example of *capsize*. Capsizing is just a small part of the SEA JOURNEY frame. Its contextual meaning is "changing for the worse." But it (capsizing) has its own conceptual potential to expand by means of drawing out its implications, such as one's life being normal before it happens, the change being sudden and unexpected, uncertainty about the future following the change, the change for the worse evoking empathy and compassion, and others. In a way, it can be suggested that a particular contextual meaning is introduced in order to enable a variety of social, pragmatic, emotive, rhetorical, etc., functions and effects. In traditional terminology, this is called connotative meaning. Contextual meaning would, then, correspond to connotative meaning, mentioned above.

It is this type of meaning construction that is the true "element" of conceptual integration; it is here that conceptual integration can break up conventional conceptual structures, reassemble them in new ways, and can construct novel meanings. And the same applies to deliberate metaphors that are based on conceptual metaphors and come with a schematicity hierarchy. However, this is not to claim, of course, that either blending or deliberate metaphors can only rely on conceptual metaphors (those based on correlations in experience). But in the case of conceptual metaphors based on correlations in experience, the three kinds of meaning are jointly present in every use of a metaphorical expression.

7.4 Kinds of Metaphors

Several researchers have pointed out that the kind of metaphors most commonly studied by CMT scholars (i.e., conceptual metaphors based on experiential correlations) are not the only kind of metaphor (see, e.g., Evans 2013; Grady 1999). For example, Grady suggested that there are essentially two kinds of metaphor: those that are based on correlations in experience (conceptual metaphors "proper") and those that are based on some kind of resemblance (resemblance metaphors). Evans (2013) distinguishes conceptual metaphors from what he calls "discourse metaphors." The latter include image metaphors (e.g., Andre Breton's poetic metaphor "My wife whose … waist is an *hourglass"* in Lakoff and Turner 1989), metaphors with a predicate nominative form (e.g., "My job is a *jail"*), and examples like a *credit card tart.* This classification partially overlaps with Gibbs' category of discourse metaphor; namely, both include what Zinken (2007) calls discourse metaphor. Evans uses the example *credit card tart* for Zinken's narrower conception of discourse metaphor. This last metaphor is a recent development in British English (Evans 2013). *Tart* here means a "person whose fidelity is unreliable in any sphere," including banking habits, which developed from an earlier sense of the word, namely, "prostitute." Common to discourse metaphors is that they are based on some kind of resemblance. Also, they characteristically start out as novel metaphors, which either drop out of use or remain in the language in the form of lexicalized units. If the latter, they often acquire more general meanings, such as the cases of *tart*, in line with Bowdle and Genter's Career of Metaphor Hypothesis (Bowdle and Gentner 2005).

The groupings of metaphors by Grady and Evans basically boil down to a two-way distinction: conceptual metaphors, which are based on correlations in experience, and discourse metaphors, which are based on some kind of resemblance. The question now is what the multilevel and contextual view of metaphor can contribute to the classification of metaphors. In order to see this, let us examine the case of the metaphor *whisper* again.

In essence, the extended view of CMT confirms the two-way classification if we accept the second, new analysis of *whisper* above as valid (in which it is based on a schematicity hierarchy). But if we accept the 2015 account (as given above) as valid (in which the meaning of *whisper* is based on an ad hoc conceptual pathway), then we have a somewhat different classification on our hands. Let us take a look at the latter view.

We could say that, unlike discourse metaphors, *whisper* is not based on resemblance. It is difficult to see a shared feature or structure between *whisper* and "lack of resolve, or determination." But, we could continue to argue that, unlike (instantiations of) conceptual metaphors proper, *whisper* is not based on a correlation in experience either. Although we have the INTENSITY IS STRENGTH OF EFFECT metaphor in the conceptual pathway of *whisper*, there do not appear to exist any corresponding and matching domain- and frame-level conceptual metaphors that would accommodate *whisper* in its metaphorical sense as one of their linguistic examples. If this observation is valid, there is no schematicity hierarchy that conceptualizers could (unconsciously) build either in order to create or make sense of the word in the discourse in which it occurred.

But, then, if there is no schematicity hierarchy and there is no resemblance on which the meaning could be based, how can people produce and comprehend it as naturally as they do? My response was that they can build a spontaneous mixed conceptual pathway to figure out what the word means in context. In the case of *whisper*, the pathway includes a generic, image-schema level metaphor and a number of metonymies that lead to the intended contextual meaning. If correct, the implication of this analysis would be that there is a third kind of metaphor, in addition to correlation- versus resemblance-based ones: a kind that is created and comprehended by means of an ad hoc conceptual pathway, such as we have seen for *whisper*.

On this analysis of *whisper*, a spontaneous (mixed) conceptual pathway is created that results in a contextual meaning. We could characterize the general case (for metaphors like *whisper*) as follows:

mental-space level metaphor
↑
AD HOC CONCEPTUAL PATHWAY (including metonymies)
Image schema metaphor
↑
CORRELATION IN EXPERIENCE

In other words, we have an isolated correlation metaphor (INTENSITY IS STRENGTH OF EFFECT) *without* corresponding and matching domain- and frame-level metaphors. This indicates that the mere existence of a correlation does not guarantee the emergence of a schematicity hierarchy.

But if the new analysis for *whisper* (see above) is accepted as valid, we would then have the following general picture for conceptual metaphors (of the correlation kind). In this case, an entire schematicity hierarchy is utilized:

mental-space level metaphor
↑
frame-level metaphor
domain-level metaphor
image-schema-level metaphor
↑
CORRELATION IN EXPERIENCE

Here, there are multiple mappings at the schema, domain, and frame levels, such that ELEMENT A in a source frame, domain, and schema maps onto ELEMENT A in the target frame, domain, and schema, ELEMENT B in the source frame, domain, and schema onto ELEMENT B in the target frame, domain, and schema, and so on for ELEMENTS C, D, E, etc. on all three levels. The fourth level, that of mental space, is dedicated to a single mapping, where the metaphorical contextual meaning is conveyed.

And in the case of one class of resemblance metaphors, there is a single mapping from the source entity to the target entity, which exploits a single feature:

mental-space level metaphor
↑
ENTITY 1: FEATURE A – ENTITY 2: FEATURE A
↑
FEATURE RESEMBLANCE

An example for this case could be: “John is a *pig*,” where an assumed feature of pigs (being dirty, messy) is attributed to John (by way of a metonymic process: THE WHOLE ENTITY FOR A FEATURE THAT CHARACTERIZES THAT ENTITY). This is essentially a situation that operates with an (assumed) analogy (resemblance) between features of two different entities. (Moreover, the assumed analogy between the two entities is based on the prior personification of pigs, that is, on the metaphor PIGS (ANIMALS) ARE PEOPLE.) "Feature resemblance" can be seen as a further type of conceptual pathway besides schematicity hierarchy pathways, ad hoc pathways, and shared image schema pathways. This type of pathway produces non-systematic (isolated) linguistic metaphors, such as *pig* in the example above.

But analogies are usually seen as multiple mappings between two frames or domains. Consider the expression *gut the building*, as used in the following example:

> Kirk E. Kreuzwieser, vice president of Strollo Architects, says much of the interior of the 96-year-old Wells Building needs to be gutted. He and Gregg Strollo, company president, believe the $4 million-plus rehabilitation project could be completed in less than nine months after financial issues are resolved. (www.vindy.com/photos/2013/jun/17/68965/)

This is a domain- or frame-level metaphorical analogy that is constituted by multiple mappings (Figure 7.1). The mappings are:

the person who disembowels a dead animal ➔ the person who removes the interior of a building
the animal body ➔ the building
the bowels ➔ the interior
the action of disemboweling ➔ the action of removing the interior

The mappings are based on a structural analogy between two frames or domains, which means that the propositionally-explicated mappings between the two frames or domains (here, animal and building) share an image-schematic structure, an image schema, something like this:

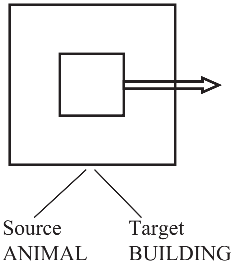

Figure 7.1 Shared image schema

Thus, structural analogy (or resemblance) means that the source and the target share some image schema (here, internal container (or object) moved out of external container). Of the four mappings above, the last one appears at the mental-space level. This kind of metaphor could be represented as follows:

mental-space level metaphor
↑
frame-level metaphor
or
domain-level metaphor
↑
ELEMENT A – ELEMENT A
ELEMENT B – ELEMENT B
ELEMENT C – ELEMENT C
etc.
↑
STRUCTURAL RESEMBLANCE (shared image schema)

In this case, unlike correlation metaphors, there is a shared image schema (not an image-schema *metaphor*) and there is only a single set of mappings between the elements – either on the frame or domain level (instead of the three sets of mappings at the image schema, domain, and frame levels). At the mental-space level, the mapping will be limited to one, which conveys the intended contextual meaning. This is the general representation for cases like *gut the building* and also for cases like the Frank Jump example discussed above in the chapter.

If we employ a broader definition of conceptual metaphors as any case of multiple mappings from a source to a target (and not just those that are correlation-based), many metaphors that are resemblance-based (those that map entire structures, and not just a single feature) would also qualify as conceptual metaphors (such as the metaphor above or, say, the AN ATOM IS THE SOLAR SYSTEM metaphor). These are usually called metaphorical analogies. But, when they talk about conceptual metaphors, cognitive linguists typically mean correlation-based metaphors, and, as we saw throughout, these come with schematicity hierarchies with four levels (as discussed above).

A Note on "Cultural Metaphor"

The distinction between correlation and resemblance metaphors has an important consequence; namely, that the distinction can help us avoid debates concerning the degree of the universality versus culture-specificity of conceptual metaphors. It has been noticed by several scholars even within the CMT framework (e.g., Gibbs 1999a,b; Kövecses 2005) that, especially in the first two decades of CMT research, much more emphasis was placed on the universal aspects of conceptual metaphors than on their culture-specific aspects. Most recently, Musolff (2016) also observes that in CMT "… primary," i.e., experience-based and neuro-physiologically manifested metaphor-constitutive "image-schemas" are seen as "embodied conceptual universals" (Gallese and Lakoff 2005; Lakoff 1993, 2008, Lakoff and Johnson 1980, 1999). Musolff opposes this strand of research to work on metaphor from a cultural linguistic perspective (see, Sharifian 2011, 2015, 2017a,b), where metaphors arise from cultural conceptualizations. To demonstrate, Musolff cites his own research on whether or not people in different languages/cultures conceive of the notion of "body politic" (the idea that members of a nation conceptualize their nation as the human body) in the same way, that is, in a universal manner. His results indicate that it is not the case; people from different nationalities view the role of the human body in the conceptualization of "nation" in systematically different ways. He found that the participants of the study interpret the nation-as-body metaphor in several distinct ways (i.e., nonuniversally), including the most basic distinction between the nation as an anatomy-/function-based entity (mostly for Westerners) and geography-based entity (mostly for Chinese participants). Musolff suggests that these (and the other) interpretations can be attributed to different culture-specific traditions (like those found in the West and China). In other words, he shows that there is no automatic, universal response in the interpretation of a conceptual metaphor that is expected to trigger automatic and universal responses.

What does this issue have to do with the correlation versus resemblance metaphor distinction? I believe that when leading representatives of CMT (such as Lakoff and Johnson) talk about conceptual metaphors, they primarily mean correlation-based metaphors – conceptual metaphors that come with a schematicity hierarchy, as described in this book. Such conceptual metaphors (because of their image-schematic basis in correlations in experience) tend to be universal. By contrast, I do not think that the nation-as-body conceptual metaphor is a correlation metaphor; it is a resemblance-based one. The human body is not correlated in any way with the concept of nation, but it can bear some generic similarities to it. Respondents may compare the nation to the hierarchical functional organization of the human body (e.g., when the head is seen as dominating the arms, legs) or to the arrangement of the body organs (in which, e.g., the mouth and nose correspond to particular geographic locations of the nation). In other words, keeping the correlation metaphors distinct from the resemblance ones, we do not have to claim that *both* of these metaphor types produce universality (only the correlation ones do) or that the correlation metaphors cannot produce nonuniversality (though it is mainly the resemblance metaphors that do).

I say "mainly" because of course to some extent the schematicity hierarchies can also produce nonuniversality, as I have shown in several places in this book. The degree of nonuniversality increases as we move down the hierarchy (from image schema metaphors to mental space metaphors) and it decreases as we move up the hierarchy of levels. To put it differently, the degree of universality is highest at the level of image schemas and lowest at the level of mental spaces. The reason for this is that mental space level metaphorical conceptualization is deeply embedded in context and is exposed to contextual influence. This is the true level of "cultural conceptualization." Such contextual influence equally affects correlation metaphors (schematicity hierarchies) and resemblance metaphors (with shared image schemas).

7.5 The Shape of the Contextual and Multilevel View of CMT

The vision of CMT I am describing here builds on a number of distinctions concerning meaning, conceptual structure, memory, ontological level, and context. In this section, I would like to briefly review these, and then suggest a general outline of how they are related to one another.

I have already treated the notion of *meaning* above in the chapter. All I need to say at this point is that my proposal was that in metaphorical meaning making three different types of meaning can be distinguished: meaningfulness, decontextualized meaning, and contextual meaning. They all participate in the use of conceptual metaphors proper.

As regards the *conceptual structures* (see Chapter 4 and this chapter) that make up conceptual metaphors (image schema, domain, frame, mental space), they are all constitutive parts: a conceptual metaphor consists of image-schema, domain, frame, and mental space metaphors. They form an interlocking hierarchy that is based on decreasing (or increasing) degrees of schematicity – with the endpoints of image schema and mental space metaphors. Image-schema level metaphors (including primary metaphors) define the generic-level meaningfulness of a conceptual metaphor. Domain- and frame-level metaphors (with their mappings) are responsible for the decontextualized meanings that are associated with them and are based on them. Mental space metaphors allow for and capture the contextual meanings in a piece of ongoing discourse.

The issue of *memory* is relevant and important because the different metaphors are located in different types of memory: long-term and working memory. Long-term memory stores image-schema-, domain-, and frame-level metaphors. Working memory is the site where mental-space-level metaphors occur. Moreover, image-schema metaphors are stored in long-term memory in the form of analogous structures, as opposed to the other three metaphors (domain, frame, mental space) that have a propositional format. Finally, it is only working memory that can give rise to conscious and deliberate metaphors (á la Steen).

In previous work (Kövecses 2002/2010 and Chapter 4), I distinguished various *ontological levels* where conceptual metaphors can exist: the subindividual, supraindividual, and individual levels. The subindividual level is the ontological level where meaningfulness resides in long-term memory in the form of image schema metaphors. At the supraindividual level, we find

Table 7.1 *Summary of key ideas of the extended CMT view*

Kind of Meaning	Kind of Conceptual Structure	Kind of Memory	Ontological Level
Meaningfulness	Image-schema metaphor	Long-term memory (Analog structure)	Subindividual level
Decontextualized meaning	Domain metaphor Frame metaphor	Long-term memory (Propositional structure)	Supraindividual level
Contextual meaning	Mental-space metaphor	Working memory (Propositional structure)	Individual level

Table 7.2 *Four context types and their contextual factors*

Situational Context	Discourse Context	Bodily Context	Conceptual-Cognitive Context
Physical environment	Surrounding discourse (co-text)	Correlations in experience	Metaphorical conceptual system
Cultural situation	Previous discourse	Bodily conditions	Ideology
Social situation	Knowledge about speaker, topic, hearer	Body specificities	Concerns and interests
	Dominant forms of discourse		History

domain- and frame-level metaphors in long-term memory with their decontextualized meanings. At the individual level, mental-space metaphors are used to generate contextual meanings in working memory.

We can summarize these key aspects of the extended view as discussed so far, together with their interrelations, in the table above (Table 7.1)

In addition to the above cognitive characteristics of conceptual metaphors, there is another major aspect of the view I am proposing; it is the notion of context. The extended CMT I envision does not only have a rich cognitive part, as specified above, but it also has a rich contextual component (see Kövecses 2015a and Chapter 5). Admittedly somewhat radically, I distinguish four types of context: the situational, discourse, bodily, and conceptual-cognitive context. Each one of these comes with a number of empirically established contextual factors. (For a detailed description, see Kövecses 2015a.) Table 7.2 shows the major contextual factors I have found in real discourse that constitute the four context types.

The main suggestion concerning these context types and contextual factors was that any one of them can prompt a speaker to use a particular linguistic metaphor that matches a contextual factor; that is, the idea was that they all have a potential priming effect. A main issue I discussed in this book was how the cognitive aspects and the contextual aspects of metaphors can be put together in a coherent framework. This issue requires the formulation of a hypothesis to explain how the speaker comes up with a metaphor to begin with and how the hearer can understand this metaphor. At the beginning of the present chapter, I looked at some examples of how these metaphor processes can be accomplished within my extended CMT framework. No matter how oversimplified and naïve it may be, I now attempt to turn the previous observations about the cognitive and contextual aspects of conceptual metaphors into a process view, that is, into a dynamic model of mental processes in the course of the construction of metaphorical meaning.

7.6 A Very Tentative and Informal Process Model

Imagine a discourse situation in which there is a speaker and a hearer. Since they are engaged in discourse, there is a discourse situation, with a speaker, a hearer, and a topic, in which they may share a considerable body of information about all of these elements. (DISCOURSE CONTEXT) The speaker and hearer have a great deal of physical, social, and cultural information in and about the situation of discourse, much of which they share. (SITUATIONAL CONTEXT) They have bodies, and they assume that their bodies function in the same way, bringing some of their bodily experiences into correlation with other concepts. But they also have knowledge about their own and the other's bodily conditions and bodily specificities. (BODILY CONTEXT) And finally, to a large extent, they share a metaphorical system, they may subscribe to some ideology in the culture, they may have certain interests and concerns in life, and they may share some group or personal history. (CONCEPTUAL-COGNITIVE CONTEXT)

At a point in discourse, the speaker's communicative intention appears to be best expressible by metaphor. The speaker (unconsciously) forms a contextual meaning that is supported by an appropriate image-schematic metaphor. The contextual factors mentioned above are all active in the speaker's working memory. One of the factors primes the speaker to build a conceptual pathway from the contextual meaning as expressed by a conceptual metaphor at the mental-space level that is supported by the image-schema metaphor. The pathway is completed through the specification of the image-schema metaphor at the frame- and domain-levels.

Up to this point, only the content part of the contextual meaning is created. However, in many cases this content part is created in order to achieve some simultaneous pragmatic effect. The pragmatic effect and the conceptual content emerge jointly – one in the service of the other. Humor, emotion, narrative function, rhetorical effect, etc., can be just as prominent parts of metaphorical

THE EMERGING CONTENT PART OF THE METAPHOR IS SUPPLEMENTED BY A PRAGMATIC FUNCTION OR EFFECT
↑
THE APPROPRIATE METAPHORICAL VEHICLE FOR THE CONTEXTUAL MEANING EMERGES ON THE BASIS OF THE SCHEMATICITY HIERARCHY
↑
A SCHEMATICITY HIERARCHY IS ESTABLISHED AS A RESULT OF THE INFLUENCE OF CONTEXTUAL FACTORS
↑
AN IMAGE SCHEMATIC METAPHOR IS IDENTIFED THAT SUPPORTS THE CONTEXTUAL MEANING
↑
THE NEED FOR THE EXPRESSION OF A PARTICULAR METAPHORICAL CONTEXTUAL MEANING EMERGES
↑
A LARGE BODY OF CONTEXTUAL FACTORS IS ACTIVE IN WORKING MEMORY
↑
PRESENCE OF DISCOURSE CONTEXT - SITUATIONAL CONTEXT - BODILY CONTEXT - CONCEPTUAL-COGNITIVE CONTEXT

Figure 7.2 A process model for conceptual metaphors

contextual meaning as the conceptual content that "carries" this function or effect. In other words, our informal account of the metaphor process would look something like Figure 7.2 in a sketchy format.

I admit that this "model" for the production of metaphors is my "personal" folk theory (if there is such a thing). All I wanted to point out with it is what, I think, the main ingredients of metaphorical meaning construction are in the case of conceptual metaphors and how these ingredients can be put together in some, hopefully viable, logical arrangement. The upward arrows do not really display temporal sequence; they indicate some logical order that can be assumed in the process. The model is not intended to be a "replica" of the online process that is really the case. I do not want to (and cannot) take on the job of psycholinguists and experimental cognitive psychologists (not to mention neuroscientists). However, I hope that my naïve theory can provide these researchers with some useful ideas in their own work on metaphor production and comprehension.

7.7 Conclusions

In the chapter, I have outlined the main components of, and their interrelations in, an extended CMT. The new view builds especially on the multilevel nature and the contextual embeddedness of conceptual metaphors.

As regards their multilevel nature, conceptual metaphors involve a variety of components. These were identified as certain kinds of metaphorical meaning (meaningfulness, decontextualized meaning, and contextual meaning), certain kinds of conceptual structures (image schema, domain, frame, and mental space), certain kinds of memory (long-term and working memory), and certain kinds of ontological status (supraindividual, individual, and subindividual).

As regards contextualization, the extended view involves four types of context and the contextual factors they subsume: Situational context: physical, social, and cultural; Discourse context: surrounding discourse, previous discourse, knowledge about main elements of discourse, and dominant forms of discourse; Bodily context: correlations in experience, bodily conditions, and body specificities; Conceptual-cognitive context: metaphorical conceptual system, ideology, concerns and interests, and history.

In the new view, we can distinguish three types of conceptual pathways: schematicity hierarchy pathways, ad hoc pathways, and shared image schema pathways. The application of these different pathways results in different kinds of conceptual metaphors: systematic metaphors (based on schematicity hierarchy pathways), non-systematic (isolated) metaphors (based on ad hoc pathways), and systematic resemblance (analogy) metaphors (based on shared image schema pathways).

Finally, a tentative and informal metaphor processing model was proposed – a model that is intended to map what is going on in the head of the producer of a metaphorical expression in a piece of discourse.

8 By Way of Conclusion: Responses to the Five Questions

I structured the content of this book according to five major issues that were presented as five questions in the titles of five chapters. These were:

(1) The abstract understood figuratively, the concrete understood literally, but the concrete understood figuratively?
(2) Direct or indirect emergence?
(3) Domains, schemas, frames, or spaces?
(4) Conceptual or contextual?
(5) Offline or online?

These are deliberately provocative titles that express extreme and simplifying alternative views as regards CMT. In this final chapter, I would like to briefly discuss them one by one. It will become clear, and I hope the relevant chapters make this evident, that I do not subscribe to any such alternative views by themselves. Reality is much more complex than what any of the alternatives by themselves would represent.

8.1 The Abstract Understood Figuratively, the Concrete Understood Literally, but the Concrete Understood Figuratively?

Let us begin with the most general issue – that of literality versus figurativity. CMT builds on the idea that abstract concepts are conceptualized as concrete, physical ones (but not the other way around). This is because the latter (concrete concepts) can be understood in a literal way: through direct, physical experience, while the abstract ones cannot. But we saw in Chapter 2 that the extent of literally understood concrete concepts must be very small; many of them are also understood metaphorically and metonymically for various reasons. However, this does not prevent us from using these figuratively understood concrete concepts as source domains of conceptual metaphors, that is, to conceptualize abstract concepts. Many abstract target domains are conceptualized as figuratively understood *concrete* source domains – either etymologically in diachrony or in synchrony. This leads to a dilemma within the theory. If many source domains are in part figurative, then it is not the case that abstractions are only conceptualized by means of literally understood source concepts.

My suggestion to handle this apparent dilemma for the theory was that many source domains have ontological content that is based on tangible experience but they are also partially figuratively understood. Many concepts can be said to have both ontological content and figurative construal as aspects of their meaning. In the case of many concrete concepts the ontological content dominates over the figurative construal aspect. In the case of abstract concepts the reverse is the case: figurative construal dominates over ontological content (Figure 8.1). This can be diagrammed as follows:

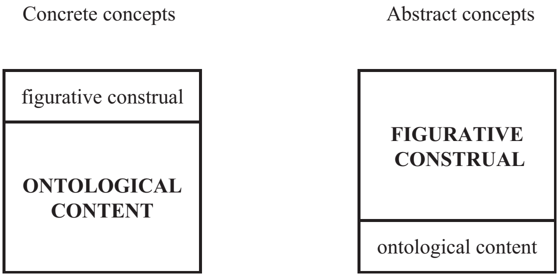

Figure 8.1 Figurative construal and ontological content in concrete and abstract concepts

Abstract concepts have very little ontological content, but a great deal of figurative construal (i.e., they are for the most part figuratively understood). But they do have *some* ontological content. This is what we call the bodily basis, the embodiment of abstract concepts (such as the body heat of anger).

It is interesting to note in this regard that several researchers consider emotion concepts as somewhat different from other abstract concepts (see, e.g., Altarriba et al. 2004; Borghi et al. 2017). They suggest that emotion concepts are more embodied than other abstract concepts. I believe, however, that this claim is too strong and needs to be qualified. It seems to me that it is only prototypical emotion concepts (such as anger, fear, sadness, joy) that are more embodied (that is, have a great deal of bodily basis). Nonprototypical ones often lack embodiment completely – at least if we limit embodiment to external signals of emotion states. (But as Anna Borghi remarked in personal communication, e-mail message, February 26, 2019, we should consider not only exteroceptive signals of embodiment but also interoceptive ones, which would further refine the picture. This is a complex issue that I cannot go into here.) On the "cruder" view of emotion embodiment, hope, friendship, respect, contempt, and several others do not appear to be characterized by embodiment. Instead, they are entirely figuratively construed. The conceptual metaphors used for this purpose come from outside the typical metaphors that characterize prototypical emotion concepts (see Kövecses 2000b).

Thus, in general, it appears that abstract concepts are somewhat like concrete ones, in that they are embodied. But are concrete concepts somewhat like abstract ones? Given that concrete concepts can be figuratively understood, many of them are like abstract ones, in that they are in part figuratively understood. In conceptual metaphors we can rely on such (partially) figuratively understood concrete concepts as source domains because it is their physical ontological content that is dominant and foregrounded. This way, they can serve a cognitively useful function in the metaphorical process.

8.2 Direct or Indirect Emergence?

As we saw above in the previous chapter, metaphor is a diverse category – with several different kinds. Ever since the inception of CMT, the kind of metaphor that enjoys the highest prestige and is most actively studied within the field is what we call today correlation metaphors. (They were not called that in 1980.) The reason for this is, I think, that correlation metaphors help us explain how many abstract concepts emerge in an entirely natural and automatic way.

A key role in the explanation is played by Grady's notion of primary metaphor. Primary metaphors are the cornerstone of the standard view of metaphor within a CMT framework. With its help it has become possible to account for how large organizing and potentially universal metaphors like LIFE IS A JOURNEY emerge and are routinely and automatically learned. We absolutely need no instruction of any sort to learn and use them. No instruction is necessary because the primary metaphors that constitute this complex metaphor, such as PURPOSES ARE DESTINATIONS, DIFFICULTIES ARE OBSTACLES, etc., are acquired as a matter of course, as we live our everyday realities. For example, in many of our life experiences purposes are closely associated with destinations and this correlation gives rise to the respective primary metaphor.

But the question I raised in Chapter 3 was whether in the case of primary metaphors these metaphors emerge directly from experience or not. Or to put the same question differently, in the case of correlation metaphors is the process of metaphorization itself a primary (and thus basic, foundational) process or not? I argued it is not. I suggested that it must be preceded by a metonymic stage that prepares the ground for the metaphorization process. I showed that this can happen in essentially two ways. (1) In an initial "frame-like" structure with element 1 (E1) and element 2 (E2), E1 and E2 are correlated in experience, and thus E2 can stand metonymically for E1. For instance, body heat stands metonymically for anger. Then, element 2 is generalized (or schematized) and becomes the source concept for the initial concept, which becomes the target concept. That is to say, body heat is generalized to heat outside the emotion domain, thus allowing the primary metaphor ANGER IS HEAT to emerge. (2) In an initial "frame-like" structure with element 1 (E1) and element 2 (E2), E1 and E2 are correlated in experience, and thus E2 can stand metonymically for E1. Then, E2 is generalized and becomes the target concept for the initial concept, which becomes the source. For instance, in the initial "going to a destination" frame going to a destination involves the purpose of arriving at that destination (thus, the two are correlated), which gives us the metonymy ARRIVING AT A DESTINATION FOR ACHIEVING A GOAL. But not all goals are related to arriving at destinations. Destination-related goals are generalized to purposes in general. This yields the PURPOSES ARE DESTINATIONS primary metaphor.

It is not my intention with this analysis to suggest that primary metaphors are in any way unimportant. On the contrary, they do play the extremely important role in human cognition in general and metaphorical conceptualization in particular that was given to them in the theory of embodied cognition. My suggestion simply is that the metaphorization process that leads to primary metaphors is preceded by a metonymization process, a metonymic stage. In this sense, primary metaphors do not emerge directly. The metaphorization process that leads to primary metaphors is not primary; it builds on the prior process of metonymization.

In addition to its role in primary metaphors, metonymy also plays a part in the formation of abstract concepts in general. But while in primary metaphors metonymy assumes two closely correlated concepts, in the formation of abstract concepts it can perform its role within a single concept, where the original concept involves its own schematized copy. For example, the primary meaning of the verb *gut* ("to take the interior organs of a dead animal out of it"), analyzed in a previous section of this chapter, involves as its schematized conceptual copy "to remove something out of something." This schematization works by metonymy, which, in this case, would be SPECIFIC MEANING FOR ITS CORRESPONDING GENERIC MEANING or, more generally, SPECIFIC FOR GENERIC. Thus, in the primary physical sense we have a human agent taking out the internal organs of a dead animal body and in the abstract sense we have an agent removing something out of something. The generic meaning does not specify what is taken out, how it is taken out, and what it is taken out of. This bleached version of the primary sense of *gut* is a schematized copy of that sense, such that the specific meaning stands metonymically for the generic one. As a result, an abstract sense of *gut* is created that is applicable to several different domains such as economy or law (as indicated, e.g., by Merriam-Webster).

It seems then that the metonymization process is crucial not only in creating primary metaphors but also in the emergence of abstract concepts in general. In previous work (Kövecses 2015a: 22–24), I noted "metaphorical schematization" works by conceptual metonymies, and the process gives us a number of abstract concepts based on metonymy, including such concepts as HEAVEN, PROVIDENCE, and CAUSATION / CREATION.

8.3 Domains, Schemas, Frames, or Spaces?

Conceptual metaphors and the conceptual structures that they involve are discussed under many different names. Lakoff and Johnson preferred to use *domain* (as in one domain understood in terms of another domain), but they also talked about *experiential gestalts* in their early work. Lakoff (1996) mostly refers to conceptual metaphors as a relationship between two *frames*. Lakoff and Kövecses (1987) use the term *cognitive model*, and many cultural anthropologists called the same thing *cultural model* (Holland and Quinn 1987). The term *schema* also became popular in the wake of Lakoff and Turner's (1989) work, together of course with *image schema* that originated in Johnson (1987) book. More recent discourse-oriented work (e.g., Musolff 2006) found the term *scenario*, or *scene*, as more appropriate in describing metaphor-related phenomena in discourse. And researchers in conceptual integrations theory adopted such designations to the conceptual structures involved in metaphor as *space*, *mental space* or, even simply, *input (space*). And the list could no doubt be continued.

Did all of these authors mistakenly use the designations they adopted? Not at all, they all used them correctly. What unifies all the terms that became available was a simple but powerful idea: we experience aspects of the world in terms of coherent mental organizations of our experience. Domain, frame, schema, model, scenario, space, and so on, all capture the gestalt character of how we experience the world. Conceptual metaphor as a way of experiencing the world can involve any one of these constructs.

It was recognized early on that conceptual metaphors can be stated at various levels of generality (on this, see, e.g., Clausner and Croft 1997). For example, Lakoff and Johnson (1980) observed that the TIME IS MONEY metaphor can also be given as TIME IS A RESOURCE, and this way more general metaphorical expressions, such as *use* time or *give* time, can be accommodated within the same metaphor. The RESOURCE metaphor is more general or schematic than the MONEY metaphor. The question is whether concepts like RESOURCE and MONEY constitute domains or frames, or one is a domain and the other is a frame.

What was initially less clear in connection with such gestalt-like conceptual structures used in metaphor was that the various conceptual structures (designated by the mnemonics A IS B, such as LOVE IS A JOURNEY) tend to occupy different levels on a scale of specificity-schematicity. In his 1993 paper Lakoff distinguished a number of conceptual metaphors in a hierarchy of three tiers:

The Event Structure metaphor
LIFE IS A JOURNEY
LOVE IS A JOURNEY

He states that they are different in their degree of schematicity: that life events are special cases of events in general, and the events in a love relationship are subcases of life events. Lower level metaphors inherit higher level metaphorical structures.

Dancygier and Sweetser (2014: 43–49) adds to this that at the level of the Event Structure metaphor we are dealing with image schema frames (as they refer to more complex image schemas) that can be elaborated by frames at lower levels. For instance, the JOURNEY frame is a rich subframe of the image-schematic frame DIRECTED MOTION ON A PATH (composed of the basic image schemas of MOTION, PATH, LOCATION). The frame of JOURNEY can then be used to structure various domains, including life, relationships, careers, projects, etc. – almost any long-term activity. What this means is not only that the particular conceptual metaphors themselves can form schematicity hierarchies, but also that the conceptual structures that constitute these conceptual metaphors form such hierarchies, as I have demonstrated throughout:

Image schema structures (most schematic)
Domain structures (less schematic)
Frame structures (less schematic)

We can call all of them frames or domains (in that they all represent coherent organizations of experience), but when we see these conceptual structures (and the corresponding metaphors) as being relatively more or less schematic, the structures on top will always be image schemas, with domains below them, and with frames below domains.

I noted in Chapter 4 that my view of schematicity hierarchies differs from the standard view in two ways. The first is that in my conception the least schematic conceptual structure in a hierarchy is not a frame but a mental space.

Mental spaces elaborate on frames, making them as specific as required by the given discourse situation. In other words, I suggest a four-level hierarchy (in addition to the level of linguistic expression):

Image schema structures (most schematic)
Domain structures (less schematic)
Frame structures (less schematic)
Mental space structures (least schematic)
(Linguistic expression)

Mental spaces usually foreground a single metaphorical mapping between two frames, but this mapping, which expresses the contextual meaning at a given point in discourse, evokes the entire hierarchy "above" it. This way, it can be shown that the functioning of schematicity hierarchies is not limited to conceptual structures in long-term memory, but is closely linked to how these structures are mobilized in working memory.

The second way my treatment of schematicity hierarchies is different from the standard view is that I see each and every hierarchy as functioning within a rich context. Various aspects of the contexts (i.e., the contextual factors) can have an influence on which conceptual metaphor (and the hierarchy that goes with it) is utilized to conceptualize the situation. The same factors can also be crucial in the (unconscious) choice of the linguistic metaphors that can best express the conceptual metaphor in the situation of discourse.

8.4 Conceptual or Contextual?

A major discovery of CMT was that metaphors are not simply individual linguistic expressions but systems of concepts in the form of mappings between conceptual gestalts, such as domains, frames, schemas, and so on. CMT thus made a natural connection between metaphor in language and metaphor in thought (the metaphorical conceptual system). It maintains that many metaphors in language only exist because we have conceptual metaphors.

Actually, the notion of schematicity hierarchy further extends the view of metaphor as a device in the way we think, and not as a rhetorical means in language. The many conceptual metaphors we have are not independent from each other, but form larger hierarchical systems that make metaphorical thought extremely easy and efficient without conscious awareness. The schematity hierarchies that we have seen in the book and the ones described in work by Lakoff, Sweetser, Dancygier, and others show the robustness of the phenomenon and the power it has on and in how we conceptualize the world around us.

This large conceptual scaffolding of conceptual metaphors is formed, informed, enriched, and shaped by our experiences. It is the totality of our experiences that, to my mind, constitutes context (see Kövecses 2015a and Chapter 5). In an effort to capture the idea that the totality of our experiences can play a role in shaping the metaphorical system, I think of context as composed of four types: situational, discourse, conceptual-cognitive, and bodily. The four types each include a variety of more specific contextual factors that can affect the formation and functioning of the large metaphorical system with its many schematicity hierarchies. As cognitive linguists and scientists have shown (e.g., Lakoff and Johnson 1999; Gibbs 2006), universal aspects of the human body play an especially significant role in how this system is formed and how it functions. In addition to the part played by primary metaphors, other image schema metaphors and the metonymies that enable the formation of primary metaphors are crucial in this regard.

But the body is not only universal – it is also, often, nonuniversal; it can have its own specificities and, sometimes, very unique conditions. As a result, the body can also produce metaphors that are specific to groups of people or even individuals. For this reason, I find it legitimate to regard the body as a kind of context that can shape the metaphor system both in universal and nonuniversal ways.

What I call the conceptual-cognitive context includes the cultural factor of "interests and concerns." These apply to both groups and individuals. For example, if in a society people are very interested in sports, the domain of sport will be commonly used in schematicity hierarchies where competition and control are an issue.

In an even more obvious way than the previous two, the situational and discourse contexts exert an influence on how we conceptualize the world metaphorically. We have seen a number of examples for these in this chapter and in Chapter 5.

In general, we can suggest that contextual influence is strongest and most immediate at the mental spaces level in particular local discourse situations. In the case of frame and domain level metaphors, contextual influence is not direct and immediate. These metaphors appear to be stable in given speech communities and change over longer periods of time as a result of changes in context. (On this, see, e.g., Trim's work on the evolution of several conceptual metaphors in European languages and cultures (Trim 2007, 2011).) At the image schema level, the metaphors tend to be universal and they emerge unnoticeably in the course of ontogeny and phylogeny.

It seems, then, that context is an unavoidable aspect of metaphorical meaning making. The conceptual and the contextual aspects of metaphor are inextricably bound together; one cannot exist without the other. Conceptual metaphor theory cannot simply be just conceptual. It is just as much contextual. The question in the section title simply does not make too much sense.

8.5 Offline or Online?

Conceptual metaphor theory started out as, and remained for a long time, an essentially offline theory of metaphor. What this means is that conceptual metaphors were regarded as static connections (mappings) between two domains (such as LIFE IS A JOURNEY) in long-term memory. Metaphors were described predominantly as products of the operation of the conceptual system, rather than the processes that generate the products. In the course of studying conceptual metaphors, hundreds and perhaps even thousands of such product-like mental structures were identified and described in detail. With the advent of the theory of primary metaphors, this situation did not change much in its character. Despite the fact that primary metaphor theory added new depth and dimension to our knowledge of conceptual metaphors, it followed and reinforced the tradition of thinking about metaphor; namely, that conceptual metaphors, primary metaphors chief among them, are stable and entrenched products of the conceptual system that arise from human bodily experience. In a way, the theory of schematicity hierarchies and cascades (see, e.g., David, Lakoff, and Stickles 2016) does the same: it continues to describe offline metaphorical structures at the level of image schemas, domains, and frames in long-term memory. Of course, the new structures are more complex (e.g., they can be found on several levels), they integrate aspects of metaphor not seen as working together before, and they offer elegant explanations of how certain metaphor-related phenomena work (e.g., how lower level metaphors inherit information from higher levels).

Critical reaction was bound to happen, and it did. Proponents of conceptual integration theory suggested that CMT lacks a component that could capture the dynamic processes that occur in the course of the actual use of metaphors. To remedy this, they offered the network model (see Chapter 6). Such processes include projections that go not just from source to target but also from target to source, from source and target to blend, and from blend to source and target. These processes cannot take place between frames and domains in long-term memory; they must take place in mental spaces. Mental spaces and the networks of which they form a part are built online at the time of the communicative events that include a metaphorical blend. Similarly, discourse-oriented work on metaphor showed that in real discourse "metaphoring" is not happening at the level of frames or domains; these researchers offered the notions of scenario, scene, and mental space as the level where metaphors are actually used (see, e.g., Musolff 2006). Still others, like those concerned with the pragmatic and rhetorical uses of metaphor, complained that CMT has no way of handling the pragmatic-rhetorical functions of metaphor in natural discourse (see, e.g., Goatly 1997; Semino 2008; Steen 2008, 2011). It gradually became clear that something important was missing from CMT as a general theory of metaphor.

The question was: How can we maintain all the achievements of CMT and at the same time accommodate these criticisms? As I attempted to show in the previous chapter (Chapter 6), my personal solution to this dilemma is to extend the schematicity hierarchy to include the level of mental spaces (or scenarios). Instead of the usual three-way distinction between image schema metaphors, domain metaphors, and frame metaphors, I suggest a four-way distinction that includes mental space level metaphors. The new schematicity hierarchy goes from the most schematic to the least schematic (or most specific) level: to that of mental spaces. Mental space level metaphors assume all the higher level ones in a hierarchy. This way, we can turn CMT into a theory *that can combine the idea of an offline schematicity hierarchy and its online functioning in a unified view of metaphor* as both a product and a process.

As a final demonstration of how this might work, consider the example of *capsize* again. As mentioned above, a journalist is interviewing Fats Domino about his life in the wake of Hurricane Katrina. In the course of interpreting what happened to Domino, the journalist gets to a point where he wants to say that Domino's life took an abrupt and bad turn. At the time of the interview all the visible signs of the consequences of the hurricane are still present, such as the overturned boats. He writes: "The 2005 hurricane capsized Domino's life,..." The perceptual property of what he saw then and remembers now (overturned boats) functions as a contextual factor that activates the image schema metaphors ACTION IS SELF-PROPELLED MOTION, PURPOSES ARE DESTINATIONS, and FUNCTIONALITY IS STAYING ERECT. The lack of functionality (of the boat) amounts to (the boat becoming) an obstacle to continue motion: that is, to the further image schema (primary) metaphor: DIFFICULTIES ARE OBSTACLES. Since the topic of the conversation is life, these image schema level metaphors activate the domain level metaphor LIFE IS TRAVEL. This matches the primary metaphors and elaborates on them (Figure 8.2). The LIFE IS TRAVEL metaphor evokes the more specific metaphor LIVING A LIFE IS JOURNEYING at the frame level. Now the journalist is in a position to take the JOURNEYING frame and to express the contextual meaning of "abrupt negative change in Domino's life" through the highly specific mental space level metaphor: AN ABRUPT NEGATIVE CHANGE IN DOMINO'S LIFE IS THE CAPSIZING OF DOMINO'S BOAT DURING HIS SEA JOURNEY.

This can be represented diagrammatically as follows:

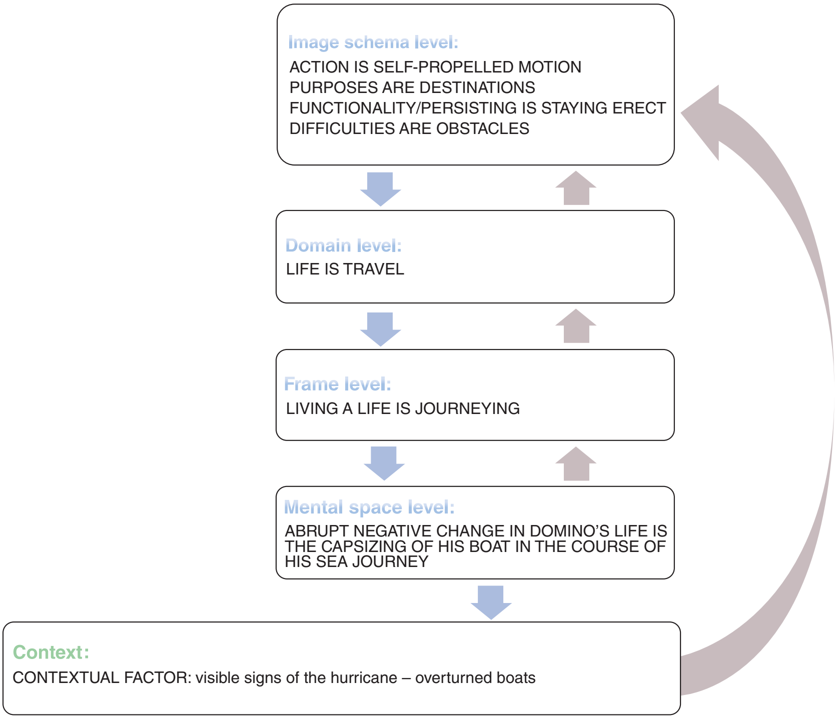
Image schema level:
ACTION IS SELF-PROPELLED MOTION
PURPOSES ARE DESTINATIONS
FUNCTIONALITY/PERSISTING IS STAYING ERECT
DIFFICULTIES ARE OBSTACLES
Domain level:
LIFE IS TRAVEL
Frame level:
LIVING A LIFE IS JOURNEYING
Mental space level:
ABRUPT NEGATIVE CHANGE IN DOMINO'S LIFE IS THE CAPSIZING OF HIS BOAT IN THE COURSE OF HIS SEA JOURNEY
Context:
CONTEXTUAL FACTOR: visible signs of the hurricane – overturned boats

Figure 8.2 Meaning construction for "The 2005 hurricane *capsized* Domino's life,. . ."

The diagram is somewhat misleading, in that it makes it appear as though the contextual meaning determines or influences which contextual factor is selected that evokes the image schema metaphors. However, the contextual meaning does not have to *preexist* the contextual factor that is selected. It can actually *follow* the emergence of a salient contextual factor. In other words, it seems that in certain circumstances it is the emergence of a salient contextual factor that can determine or influence what the speaker will want to express metaphorically. An example for this might be a metaphor used by Matthew Arnold in his poem Dover Beach (for a detailed analysis, see Kövecses 2015a). In the poem, Arnold looks on as the sea ebbs and flows, exposing "the naked shingles of the earth." Since in the same stanza he writes about "the Sea of Faith," we can be reasonably certain that the idea that he is conveying is how the Christian faith is disappearing in nineteenth-century England, thus leaving the world vulnerable ("naked"). It may well be that the particular context with the exposed earth gave him the very idea to express what he did, in which case we could suggest that it was the physical context (i.e., what he saw) that evoked the metaphorical idea, rather than the other way around. Probably, we all remember situations where the context gave us a metaphorical idea, rather than the idea leading us to some context through which we expressed the preexisting idea metaphorically.

8.6 Final Words

The extended view assumes much of "standard" CMT, as characterized in Chapter 1. But the question arises how the extended CMT is related to other theories of metaphor. In most cases, there are both shared parts and there are incompatibilities.

As regards conceptual integration theory (an extension of CMT itself), the present extended view regards metaphorical blending (i.e., the construction of metaphor blends) as a process that is happening at the level of mental spaces in working memory but, at the same time, as a process in the course of which all the higher level metaphorical structures in long-term memory are utilized. Metaphorical blending is, in other words, a part of the functioning of a larger system that is characterized by both compatibilities and incompatibilities between domains and frames. Blends occur where there are incompatibilities.

Something similar can be said about the relationship between the extended view and deliberate metaphor theory. Deliberate metaphors that are based on correlation metaphors assume entire schematicity hierarchies. (However, when they are based on resemblance, this is clearly not the case.) The former type of deliberate metaphors are embodied and their comprehension activates the relevant hierarchy. Unlike the claims by deliberate metaphor theorists, conventionalization of metaphorical meaning does *not* equal a lack of activation, as numerous studies indicate.

The extended view shares with structure-mapping theories the idea that metaphors are sets of systematic mappings between two domains or frames (Gentner 1983). But while structure-mapping theories primarily study resemblance metaphors (metaphorical analogies) that do not involve schematicity hierarchies, the extended view studies correlation metaphors that do.

The extended view of CMT has even something in common with what relevance theory has to say about metaphor, in that the inferential processes employed in relevance theory in metaphorical meaning construction build on the notion of mutual cognitive environment. This notion comes close to that of context, as used here. In both views, the production and comprehension of metaphor is heavily context-bound. Where the two views differ is that relevance theoretical accounts do not accept the existence of conceptual metaphors (let alone the existence of schematicity hierarchies).

But the view of metaphor that is most compatible with the extended view is that of the dynamic systems view of metaphor, as proposed by Gibbs in various publications (e.g., Gibbs 2013, 2017c; Gibbs and Cameron 2007). Dynamic system models make use of a wealth of information as the system of adaptive behavior moves forward. The system takes in information about the body (both present and historical), about the conceptualizers who participate in the communicative situation, the discourse itself, the goals of the participants, the objects and events present in the situation, and the broader environment. The dynamic systems view and the extended CMT share the assumption that the totality of this information and all of our experiences can contribute to metaphor production and comprehension. To capture this totality, the extended CMT invokes four types of context: situational, discourse, conceptual-cognitive, and bodily. It also assumes, probably with the dynamic systems model, that any of this information and experience can prime the use of metaphors as discourse progresses. Given the diversity of factors they rely on, both views can be expected to do well in accounting for metaphorical creativity and context-sensitivity.

Gibbs (2013: 72–73) regards metaphoric activity "as a dynamic, self-organized process" and considers metaphor "as an emergent product of multiple constraints operating along different time-scales… ." Let us return to the example of *capsize*, as Gibbs (2017c: 331–332) uses this metaphor from the article about Fats Domino to demonstrate the kinds of forces, or constraints, that all contribute to the emergence of this metaphor. He provides the following list:

- *Evolutionary forces* to maintain survival and enhance cooperation to enhance individual and group welfare. Primary metaphors (e.g., PERSISTING IS REMAINING ERECT) emerge from both evolutionary and experiential forces.
- *Culturally specific ideas about different topics*, such as how best to deal with difficult life challenges.
- *Historical forces* related to the author's past experiences as a writer for the specific forum in which the Fats Domino profile was published.
- *Social forces* that enable speakers to negotiate specific meaning in particular contexts.
- *Linguistic factors* related to conventions about particular word and grammatical uses including, in this case, employing nautical terms to refer to human experiences.
- *Immediately salient contextual information* such as the presence of the aftereffects of Hurricane Katrina.
- *Immediate communicative motivations* to state something that is vivid, memorable, contextually relevant, and succinct regarding a rather complex abstract idea related to difficulties in one's life.

- *Previously stated words* that primed the author's use of certain boating and water terms that were related to earlier talk about the physical damage to buildings caused by Hurricane Katrina.
- *Bodily experiences* related to enduring concepts that are relevant for speaking about temporary setbacks in life, such as the idea of BEING UNABLE TO PERSIST IS NOT BEING ABLE TO REMAIN ERECT or UPRIGHT.
- *Brain and neural activity* including that which emerges as brain systems become coupled during particular interaction between speakers and listeners or writers and readers.

Let us go over this list of forces and see how the extended CMT would handle them.

In the extended CMT, evolutionary forces play a role as the shapers of primary metaphors, and thus are part of the *bodily context*. The primary metaphors themselves, like PERSISTING IS REMAINING ERECT, are part of the *conceptual-cognitive context.*

The force that Gibbs calls "culturally specific ideas about different topics" could probably be accommodated in the system I have proposed as part of the *cultural context* – if "culturally specific ideas" mean the knowledge and experience that members of a speech community share relative to such topics.

The historical forces (in the sense of "the author's past experiences as a writer for the specific forum in which the Fats Domino profile was published") could probably be accommodated as the *personal history* of the author within the conceptual-cognitive context.

The social forces "that enable speakers to negotiate specific meaning in particular contexts" would seem to fit into what I call the *social context* within the more inclusive context type of situational context.

The linguistic factor of conventionally using nautical terms to talk about life and human experiences in general essentially boils down to how conceptual metaphors are given linguistic expression in discourse. Here the conceptual metaphor would be LIFE IS A SEA JOURNEY. This would again be part of the *conceptual-cognitive context,* and the expressions would form part of the mental lexicon that attaches to the conceptual system.

Immediately salient contextual information corresponds to the *situational context* (more specifically, the physical environment) in the extended CMT framework. All the perceivable aftereffects of the hurricane are potential contextual factors in the use of the metaphor.

Immediate communicative motivation (in the sense of communicative goals) is *not* something that is part of any of the four context types, which deal with actual contentful experiences. (I will say more about this issue below.)

The force of previously stated terms related to the damage caused by the hurricane comes close to what I called "previous discourse on the same topic" –

an aspect of the *discourse context*. This can include all the boating and water related words that were used in the press previously.

The force of bodily experiences related to the idea of BEING UNABLE TO PERSIST IS NOT BEING ABLE TO REMAIN UPRIGHT could clearly be accounted for in the extended CMT framework – both as part of the *bodily context* (as an experiential correlation) and as part of the *conceptual-cognitive context* (as a variant of a primary metaphor).

Finally, the brain and neural activity can be accommodated within extended CMT as regards the neural correlates of experiential correlations (*bodily context*), but not as regards the neural couplings between speakers and listeners.

We can now make some further general observations concerning the similarities and differences between the two approaches. As can be seen in light of the comparison above, certain forces, or constraints, from the dynamic systems view are not matched or cannot easily be accommodated by the extended CMT view. This makes the dynamic systems view broader in its scope. It is interesting to see what causes this imbalance between the two frameworks. The major goal of the extended view of CMT so far was to capture how "contentful experience" in various types of context can prime the use of metaphors in particular discourse situations (see Kövecses 2015a). To this end, four different "context types" were assumed, including the situational, discourse, bodily, and conceptual cognitive context. These are all constituted by various "contextual factors" that correspond to some *contentful experience*. The contentful experience can be bodily but also situation-, discourse-, and (cognitive) representation-based. This last one is what I term "conceptual-cognitive context" and it simply means that the contentful experience is already stored (as in the case of conventional conceptual metaphors).

If we look at the forces of the dynamic systems view in relation to *capsize*, we can see that all four context types are present on Gibbs' list. But his list includes more, such as "the immediate communicative motivation," that have no obvious parallel on my list of kinds of contentful experience. The reason, I believe, is that the missing items can be both behavior-organizing systems *and* contentful experiences in the sense in which I am using the term. If we take "the immediate communicative motivation" as an example, we can see that communicative motivation is an organizing principle of human (communicative) behavior, rather than a piece of contentful experience, such as the capsizing of a boat (situational context), what was said about the hurricane earlier (discourse context), or being unable to get up when seriously sick (bodily context), or finding the primary metaphor PERSISTING IS REMAINING ERECT in the metaphorical conceptual system (conceptual-cognitive context).

Additional organizing principles of (metaphor-related) behavior include the purposive (telic) component of behavior, the emotion and attitude system, and so on. For example, it can be observed that when we are angry, we tend to use different metaphors than when we are happy or sad. The behavior-organizing systems are often *constraints* on content(ful experience), but they are *not* content itself. They organize and are *about* content. This is why I did not include them on my list of contextual factors in my book *Where metaphors come from* (Kövecses 2015a). However, I added there:

> I did not say much in this book about such important factors as the *emotional state* of the speaker/hearer, the *attitude* of the speaker/hearer to a particular topic, or the *purpose* of the use of metaphor, including the purpose of being playful, funny or serious. My primary concern was with what contentful experiences (summarized as the contextual factors in this chapter) can prime and thus lead to particular metaphors *with a particular conceptual content* (on priming, see later section), and not with the factors that constrain or delimit their presentation in some way, as is the case with emotions, attitudes, and purposes. (Kövecses 2015a: 188)

In other words, I make a distinction between constraints, on the one hand, and factors with a priming effect, on the other. In a way, of course, factors with a priming effect (i.e., some experiential content) can also be viewed as forces, or constraints, of a special kind. Gibbs' forces, or constraints, are largely inclusive of both. In this respect, the dynamic system view provides a more complete picture of metaphor performance because, in addition to the factors with a priming effect, it draws attention to the social embeddedness of the use of metaphors in terms of the social dynamics (between participants of discourse and their environment) that is enacted every time we use metaphors (see, also, Landau 2017 in this connection).

This does not mean, however, that emotions, moods, motivations, purposes, and so on cannot be used as experiential content. When they are, they can be priming sources of metaphors (and not behavior-organizing systems). Take the following situation: Suppose my computer dies unexpectedly several times, only to work well in between the changes. Suppose, furthermore, I have a very moody partner whose mood often changes in unpredictable ways. So when my computer dies on me again next time, I can say: "My computer is as moody as you are." Here, mood is used as experiential content that can prime its use as metaphor. It is the contentful experience of the resemblance between my computer's behavior and my partner's behavior that functions as a prime for my use of this particular metaphor in the situation.

Overall, it seems to me that the dynamic systems view of metaphor can be considered, at least in my terms, a predominantly mental-space level theory. It attempts to capture the phenomenon of metaphor as an online process in working memory. In this sense, we can suggest that it is a "mental-space-heavy" theory that does not attribute a great deal of importance to more stable conceptual structures that might reside in long-term memory, such as frames and domains. By contrast, the extended CMT I propose sees all these conceptual structures as functioning together, integrating what goes on at the mental space level with more or less permanent or stable conceptual structures. This integration occurs by means of higher-level structures shaping mental spaces, on the one hand, and mental-space level structures activating higher-level structures, on the other. Moreover, since the mental spaces are embedded in information-rich context, the various contextual factors also influence what goes into the emerging mental spaces. Notice that I am not suggesting than the extended CMT is "better" than the dynamic systems view. Actually, since my argument assumes the existence of long-term conceptual structures, if it turns out that there are no such conceptual structures in the mind, then clearly the dynamic systems view is to be preferred.

In addition to the question of how the extended CMT view is related to other theories of metaphor, there are many other pending ones. First, if the extended CMT and dynamic systems views are compatible, how could they be turned into a single unified theory? How can their respective advantages be best utilized and how can their respective disadvantages be eliminated? Second, how could either one, or the unified version, be turned into a processing model of metaphor use? Third, how is it possible to devise experiments that work with the totality of our experiences that the two views attempt to make use of within their frameworks? Fourth, to continue with the same issue, how can this bewildering complexity and diversity of information, experience, timescale, processing, and interaction be turned into a neural theory of metaphor? Can any computational model take all this into account, including the challenge that comes from the contextual component? And, finally, how can we study all this happening in human subjects?

At least to my mind, these are big questions and challenges for the future. For the time being, however, we should probably aim lower. Let us, first of all, see if in addition to the linguistic evidence for the schematicity hierarchy we can find supporting evidence from other modalities. Then, let us see further specific examples of contextual influence on how linguistic and nonlinguistic metaphors and the corresponding hierarchies are put to use in actual cases of metaphorical meaning making. Following that, we can begin to think about the role and importance of context-induced hierarchies more generally in social cognition. Given some ideas about that, we can begin to build more accurate models for what is going on in the physical and social world, in discourse, in the body, in the conceptual system, and in the brain, when we *interact metaphorically* with each other. The "interactional turn" in the study of metaphor is right before us in its full (?) complexity.

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