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). 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, 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

---


© in this web service Cambridge University Press & Assessment www.cambridge.org
outstanding issues in CMT – issues that we need to get clear about in order to make CMT an even more powerful theory of metaphor.

1.1 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
1.2 A More Technical Definition of Conceptual Metaphors

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
1.7 Multimodality of Metaphors

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
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.