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Conceptual metaphor theory

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Part I Theoretical approaches to metaphor and language



Conceptual metaphor theory

Zoltán Kövecses

1

Introduction and a definition

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 one of CMT in particular in Kövecses (2010a).

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 conceptual metaphor theory 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). This definition captures conceptual metaphors both as a process and as 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.

Overview of main concepts and development of CMT

In this section, I attempt to spell out the main features of CMT, as I see them. Other researchers might emphasize different properties of the theory. At the same time, I try to select those features on which there is some agreement among practitioners of CMT.

Metaphors are all-pervasive

In 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 non-deliberately used, forms of language. CMT researchers, especially in the early stages of work on conceptual metaphors, collected linguistic metaphors from a variety of different 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, Lakoff and Johnson proposed what came to be known as "conceptual metaphors". However, CMT does not claim that each and every metaphor we find in discourse belongs to a particular conceptual metaphor.

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.

Systematic mappings between two conceptual domains

The standard definition of conceptual metaphors we saw earlier 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*, as derived by the lexical method, that make the conceptual metaphor manifest in English:

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.

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

the cause of fire \rightarrow the cause of anger causing the fire \rightarrow causing the anger the thing on fire \rightarrow the angry person the fire \rightarrow the anger the intensity of fire \rightarrow the intensity of anger

With the help of these mappings, we can explain why the metaphorical expressions listed above 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.

This 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 the 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 domains, or spaces (see Chapter 2 on conceptual integration and metaphor).

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 metaphor above, 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 is 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, 1997b), who claims, in essence, that those parts of the source domain can be mapped that are based on "primary metaphors" (see below). Finally, Kövecses (2000a, 2002) 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 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 is entirely satisfactory.

From concrete domain to abstract domain

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 (which 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 analysed in the literature so far (such as LIFE IS A JOURNEY, ANGER IS FIRE, THEORIES ARE BUILDINGS). The assumption that most conceptual metaphors involve morephysical 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 and 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 or similar purpose or effect involved. The default direction of metaphorical conceptualization from more tangible to less tangible applies to the everyday and unmarked cases.

Metaphors occur primarily 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 above, 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 a variety of different 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 above, 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 Chapter 31 on metaphor processing.)

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 above), 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 where 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 none other than our own body odour. So if we did not think of our body odour 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 odour 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 above).

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 so forth. This does not mean that the metaphors found in these modes of expression are exactly the same as those found in everyday language and thought, but that a large number of them are (see, e.g. work by Forceville 2008; Cienki and Müller 2008).

Conceptual metaphors are grounded

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

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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 in a gambling game with a win-or-lose outcome; 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 a generic-level structure that can be given as follows: In both domains, there is an entity that comes into existence; it begins to grow, and 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 between a sensorimotor experience and an abstract subjective one.

Conceptual metaphors of this kind are called "primary metaphors" by Lakoff and Johnson (see, e.g. 1999), who borrowed the term from Joe Grady (1997a, b). Grady proposed a number of such metaphors in his dissertation (1997a), including SIMILARITY IS CLOSENESS and PERSISTENCE IS BEING ERECT, and reanalysed several of the conceptual metaphors in Lakoff and Johnson's early (1980) work 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, DIFFICUL-TIES ARE IMPEDIMENTS and others.

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.

The research on primary metaphors has intensified the study of metaphors in the brain. Lakoff (2008) 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 the source and target domains. 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.

Provenance of source domains

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. Taylor and MacLaury 1995; Yu 1998, 2002; Musolff 2004). 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).

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; Semino 2008; Goatly 2007; Gibbs and Cameron 2008; Kövecses 2010b). 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. Musolff 2004; Semino 2008). 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, 2015). 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 contextinduced ones. In other words, metaphors can derive from the body, cultural specificities and also the more general context.

An example of current research in CMT: interlocking metaphor hierarchies

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

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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 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.)

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 1) 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 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.)

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 a variety of 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 are the "scope of a source domain" (Kövecses 2000a, 2010a). 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.¹) 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, 2010a). 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 below) 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 1995). The model of friendship conceptually partakes of a number of different metaphor systems. Since according to the cognitive-cultural model of friendship,

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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 other aspects,

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 1995)

Complex system metaphor system:

ABSTRACT COMPLEX SYSTEMS ARE COMPLEX PHYSICAL SYSTEMS (Kövecses 1995, 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 1995, 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 1995)

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 1995, 2010a)

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 characterizes 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 2010a):

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.

Debates and critiques of CMT

In the world of academia, CMT is in a curious situation: Despite its many undeniable achievements and its obvious usefulness in and popularity across several disciplines, each and every aspect of it has come under criticism in the past thirty years. Indeed, several scholars have expressed their skepticism regarding the very existence of conceptual metaphors (e.g. Cameron and Maslen 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. I will not discuss issues regarding the processing of conceptual metaphors either, since these are described in another chapter of the present volume (see Chapter 31).

A charge 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 it is itself not a well-defined concept and probably cannot be defined precisely at all. But, as a matter of fact, CMT works with a fairly clear definition of a domain that goes back to Fillmore's definition of a frame: A domain, or frame, is a coherent organization of human experience. This definition makes do in most cases.

Another criticism maintains that CMT is based on circular reasoning. Here the claim is that on the one hand scholars in CMT use linguistic metaphors to identify conceptual metaphors, and that on the other hand, at the same time they suggest that the linguistic metaphors exist because of the already present conceptual ones. One cannot base the existence of 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's 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 so forth (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 need to use real data for metaphor analysis reveals an apparently real weakness of CMT: 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. behaviour and function of the metaphors in real data. And this is precisely something that is currently being 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, the mission of CMT, in collaboration with other metaphor researchers. Without pursuing that mission, we would know much less about metaphor today.

The present state and future directions 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 a variety of different modes of expression (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. This does not mean, however, that CMT has achieved a "state of perfection", and that it has no room to develop further. I have pointed out several issues where CMT scholars need to do much more to explain the facts. One such issue is the discrepancy resulting from making use of different methodologies in establishing the frequency of metaphors in discourse. Another outstanding issue that was mentioned is which conceptual materials are carried over from one domain to another. These are just some of the difficult questions that await answers, but there are additional ones that need to be answered in the future.

On a more positive note, there are also several new research directions that promise an even better understanding of metaphor than what we have today. Lakoff and his colleagues' work on the neural theory of metaphor is one of them (see, e.g. Lakoff 2008). What complicates research on the neural aspects of metaphor, which is itself extremely complex, is that metaphor use is taking place in a variety of different contexts that are constantly monitored by the brain in the course of metaphorical conceptualization. These contextual factors can be regarded as actually priming the use of particular linguistic metaphors that may or may not belong to conventional primary or compound conceptual metaphors (see Kövecses 2015). The result is an extremely complex situation that challenges, and calls for the cooperation of, researchers from a variety of different disciplines, such as neuroscience, metaphor theory and pragmatics, just to mention a few. This is a research project that will surely take several years to complete.

Finally, we have seen that conceptual metaphors occur not in isolation but in a variety of different and interlocking hierarchical structures. This poses several challenges to researchers. First, how do such metaphorical hierarchies emerge in social cognition? And more specifically, how do they emerge and how are they represented in the brain? Second, how and on what basis do the users of metaphors select the appropriate level at which they formulate their metaphors in discourse? Third, how can "context-induced" metaphors be integrated into such hierarchical systems? Or, possibly, should we suppose a larger system that would accommodate both the body-based and the non-body-based metaphors? These are just some of the research issues for the future study of the hierarchical organization of metaphors.

Even more generally, it can be suggested that CMT will continue to play a key role in the development of cognitive linguistics as a general study of language (as well as several other disciplines outside linguistics), as we keep discovering its extensive presence at all levels of linguistic description and its important contribution to connecting the mind with the body, language with culture, the body with culture, and language with the brain.

Note

1 It might be worth mentioning in connection with this example that it has both a literal and a metaphorical interpretation. Clearly, it is the latter that is intended here.

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