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Multi-Modal Metaphor: A Cognitive Survey

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Abstract

Metaphor is understanding one thing in terms of another. Metaphors can be experienced in two types in relation to their modes: monomodal and multimodal metaphors. Taking for granted that conceptual metaphor is a matter of thought and action entails that other modes than verbal/linguistic one can express metaphor individually or jointly. Declaring that metaphors may be represented non-verbally and multimodally requires other procedures that allow us to propose a metaphorical identity-relationship between two phenomena pertaining to distinct categories. It would appear that discussing multimodal metaphor would need agreement on what counts as a mode or modality. This is no easy task, since what is labeled as a mode is a complex of different features. It is assumed, as a first approximation, that a mode is a sign system interpretable that can be decoded using specific perception process. Agreeing upon this would allow relating modes to the five senses one-by-one, resulting in the following list: (1) the pictorial or visual mode; (2) the aural or sonic mode; (3) the olfactory mode; (4) the gustatory mode; and (5) the tactile mode.

Generally, two kinds of operations are used in understanding language. First one is the linguistic operation that includes lexical access and syntactic analysis. The second kind is the pragmatic operation which is not less important than the linguistic one. Psycholinguistic experiments show that conventional idiomatic and metaphorical meanings are processed immediately. However, the quintessence of multimodal metaphor is not in language only, but in our mental conceptualization of one domain in terms of another. The general theory of metaphor can be represented by such cross-domain mappings. Everyday metaphor is represented by an enormous system of umpteen cross-domain mappings.

Keywords: metaphor, monomodal metaphor, multimodal metaphor, cognitive linguistics, source domain, target domain.

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1. Introduction

1. The Notion of Metaphor

Metaphor, for Lakeoff and Johnson (1980: 1) is "understanding and experiencing one kind of thing in terms of another'. Lakeoff (1992: 1) adds that the locus of metaphor is in one's conceptualization; in the way s/he conceptualizes one mental domain in terms of another, rather than in language. The general theory of metaphor is represented by such cross-mapping domains. In that tune, everyday abstract concepts like time, states, changes, causation and purpose, turn out to be metaphorical as well.

According to Gibbs (1999:202), metaphor is a mental mapping in which one structures his understanding on two domains of experience, one is the 'target' domain, in terms of more concrete one 'source', usually the two domains are not of the same type. Example (5) will highlight that:

\[ a. \text{ Our relationship has hit a dead-end-street.} \]

Mapping one abstract domain (the target) 'love' in terms of a more concrete one (the source) 'journey'. Here, love (the target) is being conceptualized (mapped) as a journey (the source) with the denotation that the relationship is that the lovers cannot keep going the way they’ve been going, that they must turn back, or abandon the relationship altogether (Lakoff, 1992: 4).

2. Cognitive Linguistics

Cognitive linguistics (CL henceforth) is a modern school of linguistics and cognitive science that originated in the early seventies and late eighties. It emphasizes the role of meaning, conceptual processes, and embodied experiences in the study of language and the mind, and how they intersect. Rather than a single articulated theoretical framework, CL is an enterprise or an approach to the study of language and the mind.

Like other linguists, cognitive linguists study language for its own sake. They try to describe and account for its systematicity, structure and the functions it performs and how these functions are recognized by the language system. The hypothesis that language reflects patterns of thought is one main cause that invites cognitive linguists to study language. Consequently, studying language from this perspective requires studying patterns of conceptualization. "Language offers a window into cognitive function, providing insights into the nature, structure and organization of thoughts and ideas." The most significant difference between cognitive linguistics and other approaches to language research is that language is thought to reflect certain basic characteristics and design features of the human mind (Evans & Green, 2006: 5).
Cognitive Linguists believe that the systematic structure inside the human conceptual system is reflected in the systematic structure found in language. They hold the hypothesis that particular types of linguistic expressions give evidence that linguistic patterns are a reflection of the conceptual system. Furthermore, the structure and organization of the mind can reflect, in part, the structure and organization of the world including, of course, sociocultural experiences. To take the below examples:

a. Christmas is fast approaching.
b. The number of shares we own has gone up.
c. Those two have a very close friendship.

These are instances of abstract conceptual domains of TIME (a), QUANTITY (b) and AFFECTION (c). A conceptual domain, as referred to here by Evans and Green, is a body of knowledge within the human conceptual system which includes and organizes linked ideas and experiences. The conceptual domain of TIME, for instance, might connect a number of temporal concepts, such as Christmas, which is a temporal event. It is noticed in each example above that the abstract concepts Christmas, number (of shares) and friendship are understood in terms of conceptual domains relating to concrete physical experience. For example, Christmas is conceptualized in terms of the domain of physical MOTION, Similarly, the notion of number of shares is conceptualized in terms of VERTICAL ELEVATION, Finally, friendship is conceptualized in terms of PHYSICAL PROXIMITY.

In this way, it can be stated that the language people use to talk about temporal events such as Christmas grants vivid evidence that human conceptual system structures abstract concepts in terms of other more concrete forms of experiences. This metaphorically understanding provides the abstract concepts with more amount of ready accessibility which in its turn helps understanding the outside world (Evans & Green, 2006: 15).

3. Understanding Metaphor

According to Lakoff and Johnson (1980: 2), "the essence of metaphor is understanding and experiencing one kind of thing in terms of another" and Lakoff and Turner (1989: ix) define metaphor as the primary tool for understanding our world and ourselves by an engagement with the powerful metaphor.

Gibbs (1994:247) pointed out that, CMT as it based on conceptual structure asserts that our understanding is intrinsically constrained by our conceptualization of experience. Actions, events, and objects are understood in
terms of "experiential gestalts" (i.e. structurally meaningful wholes within experience). Meaning arises at the level of experiential gestalts which provide our experience with coherence and structure. In metaphor understanding, one type of thing or experience is explained in terms of another type of thing or experience. He (Ibid: 251) added that the majorities of metaphorical expressions are explicit linguistic manifestations of preexisting mental mapping between conceptual domains, and may be thus grasped quickly during the early stages of processing. Generally, understanding metaphor is not a trouble maker or different from literal language comprehension, because metaphorical mapping is what structured our conceptual system.

Cognitive linguists are mainly concerned with how people understand their experiences. They argue that an essential data is provided by language which can lead to general principles of understanding. These general principles form complete systems of concepts rather than individual words or individual concepts. Such principles are generally found to be metaphoric in nature and involve understanding one kind of experience in terms of another kind of experience (Lakoff & Johnson, 1980: 116).

"Current directions is a gold mine". Such sentence may not be approved of or agreed upon by language speakers though there are possibilities of understanding it. How language speakers can arrive at understanding of a sentence like this? The intended meaning of words and sentences don't coincide in figurative and that of literal language. Because of this incongruity figurative language has traditionally been regarded as derivative from and more complicated than apparently simple literal language (Glucksberg, 1991:39).

Generally, two kinds of operations are used in understanding language. First one is the linguistic operation that includes lexical access and syntactic analysis. The second kind is the pragmatic operation which is not less important than the linguistic one. For example, somebody said the sentence "dogs are animals", a listener will need to go beyond the literal meaning in order to understand the speaker's intended meaning— the speaker knows addressee full well (Ibid).

People always process literal meaning of all utterances no matter whatever the context and whatever the speaker's intended meaning might be. If the literal meaning couldn't be processed or fails to make sense in context then and only then are figurative interpretation processed. This step by step process is assumed to account for all non-literal interpretations (Glucksberg, 2011: 7; Knowles & Moon, 2005:54). Hearing a sentence like:
If the Premier had any backbone he would stand up and say ‘I won’t s

The word 'backbone' immediately will be interpreted in its literal meaning as "spinal column". This interpretation, however, is inappropriate since not only 'the Premier' has a spinal column, but everybody does. Reaching this stage, the literal interpretation is ruled out and replacing it with metaphorical reading, 'courage and determination' that is convenient, considering the degree of correspondence between backbone and courage or determination. This process of trial and error occurs instantaneously and subconsciously, yet it would remain to be a two-stage process and accordingly, have to take longer time than the process of literal, simple interpretation.

However, psycholinguistic studies have demonstrated the opposite of was traditionally believed. Their studies have shown that the mental processing of metaphors and other non-literal usages don't in fact need longer time than that for literal ones, nor are they any more difficult or troublesome.

One scholar who is interested in and has conducted many psycholinguistic experiments in the topic of non-literal language is Raymond Gibbs. Jointly with other scholars, Gibbs has made experiments into the subject of metaphorical idiomatic processing: for instance, recording the reaction times of the informants hearing expressions like *let the cat out of the bag* and *spill the beans*. The findings showed that the standard interpretations were actually the idiomatic meanings, not the literal ones. However, informants took more time to process ant understand examples when used with its literal meaning than when used with its idiomatic interpretations.

A listener encountering a context like:

*they were getting dinner ready when Jack spilled the beans*

He would first suppose that *spilled the beans* indicate 'revealed a secret', but the context may reject that implying that the expression has used in its literal idiomatic usage and Jack had really dropped the beans. At this point, the listener needs to take a step back and re-interpret accordingly. That indicates, from a psycholinguistic perspective, that idioms are kept in the mental lexicon as a ready linguistic items go along with their meanings, rather than being interpreted word by word.

Psycholinguistic experiments show that conventional idiomatic and metaphorical meanings are processed immediately. Moreover, there is evidence that, when asking different individuals for the metaphorical content of any mental image,
they are not only able to define these images, but there is a prominent consistency between them (Knowles & Moon, 2005: 54-55).


It has, up to here, shown that conceptual metaphors have linguistic realizations. These are called "metaphorical linguistic manifestations". It has been stated in the section (The Conceptual Metaphor Theory) that, the basic difference between traditional and contemporary views of metaphor is that, traditionally metaphor is seen as merely a matter of language — a poetic or rhetorical device of language, while the contemporary cognitive linguists emphasize that metaphor as a matter of thought and action of conceptualization. On the basis of conceptual view, Grandy (2007:189) expressed being conceptual is the dimension that received a great emphasis within cognitive linguistics indicating that metaphor is not inherently a merely linguistic phenomenon. In fact, metaphor is conceived of by cognitive linguists as a pattern of thought cannot only be manifested verbally, also can be realized nonverbally, such as pictures and gestures.

There are many practical ways conventional metaphors can be made real. Metaphors can be realized in apparent imaginative products cartoons, literary works, dreams, visions, and myths. However, metaphors can manifest themselves less apparent in ways such as physical symptoms, social institutions, social practices, laws and even foreign policy and forms of discourse and of history(Lakoff, 1992: 38).

Here are some examples of cases where conceptual metaphors manifest themselves or are realized—mainly in nonlinguistic ways. The nonlinguistic metaphorical realizations presented below are taken from (Kovecse, 2010: 63-71), which are dependent on Lakoff (1993).

1. Moves and Acting

Films may be organized totally in terms of conceptual metaphors. LIFE IS A JOURNEY is one metaphor that is especially well depicted in many movies telling someone's life story. Individual images in a movie also may present one or several conceptual metaphors. For example, one scene in a movie like a girl and boy cascading down a waterfall can provide a realization of the conceptual metaphor FALLING IN LOVE IS PHYSICAL FALLING.

DIFFICULTIES ARE BURDENS is a fundamental conceptual metaphor for difficulty. When individuals walk in a way that indicates they are carrying a heavy weight on their shoulders, they are "acting out" this metaphor. Physical symptoms, in such cases, might be considered as " enactments" of conceptual
metaphors. Mastering how to act out certain conceptual metaphors is an important aspect of learning the profession of acting.

2. Cartoons, Drawings, Sculptures, and Buildings

Cartoons are another great way for the manifestations of nonlinguistic metaphorical realizations. In them, conceptual metaphors are often depicted in a “literal” way. The metaphor ANGER IS A HOT FLUID IN A CONTAINER is depicted by an angry man with smoke coming out of his ears. The same metaphor can be presented in a cartoon an angry man may literally explode or burst open.

Drawings are often simply made by children. They frequently draw pictures that visually manifest CMs. A pervade metaphor (more accurately, personification) create in this way by children is OBJECTS ARE PEOPLE. For example, a housed is personified by a picture drawn by a five-year-old boy. The house assumes to have many attributes attributed to human beings and in this way structured conceptually in terms of this metaphor.

Conceptual metaphors can be realized in sculptures as well. For example, metaphors like LOVE IS A BOND, LOVE IS A UNITY, AND LOVE IS CLOSENESS, can be enacted respectively as the sculpture of two persons that are bounded together or are inside one another or close to each other.

Architecture is another mean by mean of which CMs manifest itself. The pyramids of Egypt, for example, which were built to demonstrate the significance of the ruler buried in it can embody the metaphor SIGNIFICANT IS BIG.

3. Advertisements

Advertisements are important tools to attract customers buying things. A critical issue in the selling power of advertisements is determined by how well chosen the conceptual metaphor in the shape of words or pictures in the advertisements. A well-chosen metaphor may go a long way toward encouraging the sale of a product. Washing powders, for example, are frequently displayed as good friends; this is built on the metaphor ITEMS TO SELL ARE PEOPLE, which is a form of personification. The metaphor A WASHING POWDER IS A FRIEND provokes the same attitudes and sensations in people as they do when they are with their good friends.

4. Symbols

Symbols in general, and cultural symbols in specific, can be founded on entrenched metaphors in a culture. Fire, for example, is a well-known symbol of life. This symbol is a representation of the metaphor LIFE IS FIRE which is also found in everyday linguistic expressions like to snuff out someone's life. Comprehending a symbol entail partly being able to recognize the conceptual
metaphors that the symbol can inspire or was meant to provoke. The statue of Liberty in New York City, for example, was built in the United States to evoke the idea that liberty (together with its "accompaniments" of knowledge and justice) was established. This is expressed in the statue by means of many metaphors, including metaphors for free action, history, and knowledge. Since ACTION IS SELF-PROPELLED MOVEMENT, free action will be UNINHIBITED SELF-PROPELLED MOVEMENT. These metaphors are realized from the designation of statue as it takes a step forward while shackles are shattered at her feet. Viewing historically, it is a change from an era of ignorance and oppression to an era of knowledge and freedom. This is based on the metaphor that HISTORICAL CHANGE IS MOVEMENT FROM A STATE OF IGNORANCE TO A STATE OF KNOWLEDGE. This metaphor is evoked by the virtue of the posture of the statue—stepping forward with a torch enlightening the world. Finally, the metaphor KNOWING IS SEEING is also symbolized by the statue. Bearing these metaphors in mind, the statue is regarded as a symbolism manifestation of the metaphorical source domain: UNINHIBITED MOVEMENT, MOVEMENT FROM DARK TO LIGHT, AND SEEING.

5. Myths

Myths is another way for CMs to manifest themselves when they function as a key element in a math. For example, in the math of the Oedipus, the metaphors LIFETIME IS A DAY and LIFE IS A JOURNEY play an important role in saving Oedipus’s life from the Sphinx.

6. Dream Interpretation

CMs constitute the expressions of dream interpretation. What makes the dream interpretations possible is the summation of everyday CMs. In Genesis, Pharaoh dreams: he is standing on the riverbank when seven fat cows come out of the river, followed by seven lean cows that eat the seven fat ones and still remain lean. Then Pharaoh has another dream: this time he sees seven "full and good" ears of corn growing and then seven withered ears growing after them. The withered ears devour the good ears. Pharaoh summons Joseph to interpret the two dreams. Joseph doesn't interpret the two dreams separately, but he interprets them as one dream. The seven fat cows and full ears are good years, and the seven lean cows and withered ears are famine years that follow the good years. The famine years "devour" what the good years produce. This interpretation turns out to be correct and makes sense because of an accumulation of CMs in people's conceptual systems—the familiarity with metaphors since Biblical times. The metaphor: TIMES ARE A MOVING ENTITIES is the first one here. The flow
of time is often metaphorically talked about in terms of a river; the cows are individual entities (years) coming out of the flow of time and moving past the observer; corns are also entities involved in the scene. The second metaphor is ACHIEVING A PURPOSE IS EATING, whereby being fat refers to success being lean refers to failure. This metaphor is used in conjunction with the most prevalent type of metonymies: A PART STANDS FOR THE WHOLE. Because cows and corns were the common meat and grain eaten, each individual cow symbolizes all the cows breed in a year and likewise, each ear of corn stands for all the corns grown in a year. The final metaphor here is RESOURCES ARE FOOD, in that using up resources is eating food. Thus, the entire dream's interpretation is made up of three conventional metaphors and one metonymy. The metaphoric and metonymic sources are combined to create the reality of the dream.

7. Politics and Foreign Policy

CMs, in general, underlie much of the thought and actions in politics. Political thought (and discourse) in the American politics, for example, is substantially structured by the metaphors: POLITICS IS WAR, POLITICS IS COMMERCE, SOCIETY IS A FAMILY, SOCIETY IS A PERSON, AND THE PRESIDENTIAL ELECTION IS A RACE. To consider one example, given the POLITICS IS WAR metaphor, American society can be viewed as composed of armies that correspond to political groups, the leaders of the armies correspond to political leaders, the weapons used by the army are the ideas and policies of the political groups, the objective of the war is some political goal, and so on. These conceptualizations are largely used by the media as well as politicians themselves. More important, they impose a specific order or pattern on political actions.

Because nations are conceived of as persons, then surrounding countries might be thought of as "neighbours," who can be friendly or hostile, strong or weak, healthy or sick. Strength corresponds here to military strength and health to economic wealth. According to this metaphor one country can be characterized as strong and another as weak. Because men are linked with strength and women with weakness, a militarily strong nation can be perceived as "rapping" a weak one when it attacks it. The Gulf War of 1990, is a good example, when Iraq attacked and occupied Kuwait. The attack was viewed as a "rape" against Kuwait. This view afforded moral justification for the United States to wage a war against Iraq. Iraq was regarded as a villain, Kuwait as a victim, and the United States as a savior who saved an innocent victim.
8. Morality

Generally, two CMs are realized in morality: (1) MORALITY IS STRENGTH AND (2) MORALITY IS NURTURANCE.

On the basis of the first metaphor, evil can affect an "upright" person, who can either "fall" (become bad) or stay "upright" (remain good). The evil is either an external or an internal force. The evil can be either an external or an internal force. The former may be a dangerous situation that causes fear while the latter can be, for example, any of the seven deadly sins. In both situations, a moral person would employ a counterforce in an attempt to suppress the force of evil, and would succeed in that. Accordingly, in this sense, moral "strength" is relied on the concept of physical strength in this view:

(1) BEING GOOD IS BEING UPRIGHT
   BEING BAD IS BEING LOW
   DOING EVIL IS FALLING
   EVIL IS A FORCE
   MORALITY IS STRENGTH

In the second metaphorical system, morality seems to be more of an “other-directed” issue than a “self-directed” issue:

(2) THE COMMUNITY IS A FAMILY
    MORAL AGENTS ARE NURTURING PARENTS
    PEOPLE NEEDING HELP ARE CHILDREN NEEDING NURTURANCE
    MORAL ACTION IS NURTURANCE

There is just one moral agent in the "strength" metaphor, whereas there are two agents in the "nurture" metaphor: people who need help and others who have a responsibility to help them. The two metaphors are not used equally by all people, but some put one forehead which by others put in the back. For some, morality is largely defined in terms of the MORALITY IS STRENGTH metaphor, whereas for others, morality is primarily defined in terms of the MORALITY IS NURTURANCE metaphor.

9. Social Institutions

Specific social institutions can also be based on CMs. One case is using "grades" in schools. In United States, A, B, C, D, and E or F are the letter grades used, but these are, in fact, disguised versions of numbers that go from 1 to a higher number, such as 5, or from 5 to 1. This is a typical practise used in many countries around the world. QUALITY IS QUANTITY seems to be the metaphor
that underpins the social institution of "grading." Depending on this metaphor, matters of quality — like knowledge, skills, understanding and sensitivity — are understood through units of quantity such as numbers.

10. Social Practices

Certain social practices can be induced by some metaphors. One of these is the SEEING IS TOUCHING METAPHOR. This metaphor is reflected when somebody at work says things like “He couldn’t take his eyes off of her.” The social practices of "avoiding eye contact" with someone we don't know and "undressing someone with one's eyes" are both inspired by the same metaphor. The prohibition against this is also drawn on SEEING IS TOUCHING. In both of these examples, a conceptual metaphor becomes "real" in common social practice.

11. Literature

Literature is possibly the most prominent example in which CMs can be realized. Literature often utilizes unconventional(ized) metaphorical expressions that are based on conventional conceptual metaphors. Consequently, literature's creativity is restricted by our everyday metaphorical conceptual structure.

The most remarkable examples of nonlinguistic embodiment of conceptual metaphors in literature are those in which a whole literary genre is drawn on a given metaphor. Biography is one of the subgenres of literature. In biographies, it is typical to conceptualize someone's life as a story. It is a nonlinguistic metaphor because the entire plot is projected as if it were a story. When presenting one's life as if it were a story, it takes on the structure of the metaphor LIFE IS A STORY. Moreover, this metaphor is widely used in fairytales and folktales to depict the lives of the people who take part in them.

12. Pictures

Pictorial metaphor is the non-verbal or non-linguistic metaphorical realization form which has received a lot of attention over the last few years. The early landscapes and later seascapes in a recent Turner exhibition (Turner in Britain) give good examples. The viewer's perspective in both is to keep their gaze fixed on the horizon. In later life, this is surely symbolic of looking towards death. In this way, the LIFE IS A JOURNEY metaphor is realized in a particular visual or non-verbal way.
Indeed, some advertisements bear little linguistic substance and rely nearly entirely on the image. An advertising for a Nokia mobile phone appeared in the Observer Magazine on (November 23, 2003). Although there is a lot of text in this piece, the visual aspect takes center stage. It is a full-page glossy photograph of a highly confident young businessman. He is foregrounded, with a determined look and seems to be walking ahead purposefully. A picture of the Nokia 6600 is displayed next to him. The verbal element (the 'sales pitch') is represented by 10 noun phrases placed in a circle on the man's breast pocket, surrounding the subheading Vision. The implication is that the phone, with all of its functions, can be easily carried in that pocket. All this in such a tiny space! A multifaceted tool for a multi-talented and upwardly mobile young businessman (Knowles & Moon, 2005).

On the contrary to what was thought that linguistic or verbal is the only means by which metaphor can be realized, metaphor can also manifest themselves non-linguistically or nonverbally: cartoons, movies, myths, dreams, symbols, drawing, ads, policy, literature and many others. Lakoff (1993: 41) pointed out that what makes all of these instances realizations of metaphor is that in every instance there is something real structured by conventional metaphors.

It can conclude from these examples that conceptual metaphor is rife in many aspects of our social, artistic, psychological, intellectual, and cultural life. Metaphor may be found not just in our spoken language but also in much of our nonlinguistic reality. This insight makes the cognitive linguistic perspective on metaphor particularly valuable to nonlinguists (Kövecses, 2010: 73).

5. Monomodal and Multimodal Metaphor

Taking for granted that CM is a matter of thought and action entails that other modes than verbal/linguistic one can express metaphor individually or jointly.

Declaring that metaphors may be represented non-verbally and multimodally requires other procedures that allow us to propose a metaphorical identity-relationship between two phenomena pertaining to distinct categories. However, before addressing this critical issue, the term multimodality must be defined. It would appear that discussing multimodal metaphor would need agreement on what counts as a mode or modality(Forceville, 2016: 245). This is no easy task, since what is labeled as a mode is a complex of different features. It is assumed, as a first approximation, that a mode is a sign system interpretable that can be decoded using specific perception process. Agreeing
upon this would allow relating modes to the five senses one-by-one, resulting in the following list: (1) the pictorial or visual mode; (2) the aural or sonic mode; (3) the olfactory mode; (4) the gustatory mode; and (5) the tactile mode. However, this is too crude a categorization. For example, the sonic mode in this description includes spoken language, music, and nonverbal sound. Likewise, both written language and gestures would be classified as part of the visual, because neither can one hear, smell, taste, or touch either written language or gestures (though a blind person may feel Braille language and, through touch, perceive some gestures, such as those of a statue). In order to fairly classify these distinctions (between images and gestures, between spoken and written language, between spoken language, sounds, and music), other elements must be considered, such as the manner of production (e.g., written versus Braille letters in relief on paper; signs made with body parts versus signs guided by natural language syntax and vocabulary rules). There are other difficulties that need to be addressed. For example, what is music and what "mere" sound may differ from one culture or time to the next. Likewise, determining objectively where music crosses the line into sound effect is not possible. And is "typeface" to be classified as a component of writing, visuals, or both? (Forceville, 2006: 383). Forceville (2009:26) pointed out like that, Oral and written texts depend on extremely distinct understanding conditions. Illiterate, blind, and deaf people are able simply to understand one, but not the other; a medium such as radio highly depends on spoken language – and sound, and music – but doesn't make use of pictures. Equally, in Western society, speech, music, and other sorts of sound are distinguished. The conditions in which we listen to them, as well as the purposes for which we listen to them, are dramatically different. It is often expected that human being are entertained and pleased by music, informed by speech whereas non-verbal sounds achieve other purposes; For example, a sense of potential threat or irritation.

In brief, it is neither possible as this point to provide a satisfactory definition of "mode" or to construct an entire list of modes. This isn't a hindrance for theorizing that there are various modes, at least, the following: (1) pictorial signs; (2) written signs; (3) spoken signs; (4) gestures; (5) sounds; (6) music (7) smells; (8) tastes; (9) touch.

It is now possible to give a tentative definition to monomodal metaphors as "metaphors whose target and source are exclusively or predominantly rendered in one mode". By contrasting to monomodal metaphors, multimodal metaphors "are metaphors whose target and source are each represented exclusively or predominantly in different modes". The qualification "exclusively" or "predominantly" is essential since non-linguistic metaphors typically have
target and/or source cued in more than one mode simultaneously. To shed more light, consider the following fictive example: imagine someone wants to cue the metaphor CAT IS ELEPHANT pictorially in a film. This could be done by portraying the cat with a trunk-like snout and large flapping ears; by displaying a canopy on the back of the cat as in the case of a typical Indian elephant rider is seated; by bringing the cat and the elephant juxtaposing to each other in same prominent pose; or by having the cat behave (e.g., move) in an elephant-like manner. These images are examples of monomodal metaphors of the pictorial type, constituting hybrid, contextual, simile, and integrated subtypes respectively. These subtypes not only work separately, but they can be combined. Assume the producer wants to use the same metaphor in multimodally. The cat, for example, can be showed as making a trumpeting sound or letting another cat shout "elephant" to the first one. Two modes are used in these cases to invoke the SD (sound and language respectively) which are different from the target (visual). The metaphor, in this way, would be really multimodal. The producer, like the case of the visual mode alone, would not have to select between either of these modes: she could represent the cat with a trunk-like snout and big ears and have it trumpet, and another cat shouting "elephant!". In this scenario, the source is cued in three modes at the same time, with just one of them (the visual) expressing the same mode as the target. In such cases it is proposed to be labeled as "multimodal metaphors" (Forceville, 2006: 385-386).

With the exception of their covers, most adult books are representations of the verbal form of monomodality. Young children's books, which are rarely devoid of illustrations, are multimodal, comprising both written text and pictures modes. A radio interview composed completely of spoken language is monomodal, whereas a song-with-lyrics played on the radio is multimodal. Mode is not something autonomous, but related to other factors. Medium — the material carrier of the message is one factor that's, as the above mentioned examples show, affective and relevant to mode. By definition, radio cannot utilize visuals, but television and film can (and typically do); television cannot (yet) use smell or touch and films as well(Forceville, 2009:27).

In monomodal metaphors, the similarity between target and source is cued by resemblance between them; this resemblance can take numerous forms, while in multimodal metaphors the similarity between target and source is cued by co-referentiality. At least in theory, that is, monomodal metaphors can be manifested as written-verbal, spoken-verbal, visual, musical, sonic, and gestural subtypes, multimodal metaphors, on the other hand, can draw on any permutation of two or more of these modalities. When it is taken into account that it is need to
distinguish between whether the target or the source cued by a mode; and treated olfaction, taste, and touch as modal, then the possibilities for assuming monomodal and multimodal metaphors of various types become intimidatingly large. However, hypothetically the only possible subtypes are the ones: (1) visuals in combination with (written or spoken) language, music and sound; (2) spoken language in combination with gestures; (3) and the combination of language and music. (C. Forceville, 2016: 245)

Even if identifying the target and source alone might be a monomodal process, understanding the complete meaning of a metaphor requires mapping suitable (clusters of) features from source to target. These can be triggered in a variety of modes. Even if identifying the target and source remains the criterion for determining monomodal and multimodal metaphors, recruiting the "right" characteristics may require recruiting information cued in more than one mode. The general distinction between monomodal and multimodal metaphor is clearly nuanced by such complexities (and by extension between monomodal and multimodal discourse) (Forceville, 2016: 255).

6. Source Domain and Target Domain (SD/TD)

Metaphor, from the viewpoint of cognitive linguistics, is defined as "understanding one conceptual domain in terms of another conceptual domain". Such understanding can be exemplified when people talk and think about (mapping): life in terms of journeys, about arguments in terms of war, about love in terms of journeys, about theories in terms of buildings, about ideas in terms of food, and lots more (Kövecses, 2010: 4, Stockwell, 2005: 106, Szawerna, 2017: 72).

As the domains are the two hemispheres that are unified by mapping, it is needed here to provide something about what is domain. Domain is, as stated by Langacker (1987: 488) "a coherent area of conceptualization relative to which semantic units may be characterized." Kövecses (2010: 4) also dealt with conceptual domain, and provide a definition: "is any coherent organization of experience. Thus, for example, we have coherently organized knowledge about journeys that we rely on in understanding life. Those conceptual domains have special names, which didn't stay consistent from ancient times till the emergence of modern theories.

Traditionally, the two concepts which compose metaphor have been referred to in literature by many terms. Only the two prominent will be mentioned. The first element is tenor (the familiar element) and the second is vehicle (the new element
which is described in terms of the old familiar element). Stylistically, new elements often occur first, as in ‘Juliet (vehicle) is the sun (tenor)’. The shared properties between the two elements here (warmth, beauty, life-affirming) constitute the ground of the metaphor. These elements in cognitive linguistics are referred to as source and target respectively: the expression denotes the conceptual metaphor JULIET (target) IS THE SUN (source) (Stockwell, 2005: 106; Saeed, 2016: 370; Knowles & Moon, 2005: 26)

According to Kövecses (2010: 4) source domain is the conceptual domain from which we draw metaphorical expressions in order to understand another conceptual domain whereas the target domain is one that is understood by means of the source domain. Thus, LIFE, ARGUMENTS, LOVE, THEORY, IDEAS, and others are target domains, while JOURNEYS, WAR, BUILDINGS, FOOD, and others are source domains. The target domain is the one we're trying to figure out with the help of the source domain.

Conceptual domains are quite complicated knowledge systems that connect to consistent features of experience. The conceptual domain journey, for example, is supposed to have representations for things like the traveller, mode of transport, route, destination, and difficulties faced along the way. A CM is used to create correspondences called "cross-domain mapping" between an SD and a TD by matching representations from one conceptual domain to their reciprocal representations in another (Evans, 2007: 61-62).

In a uniquely useful way, Kövecses (2010: 4) have made a survey to examine what are the most common source and target domains that are metaphorically used by people in everyday life, and below are what he has listed as the outcome of his survey:

Source Domain (SD)
Thirteen types or species are the most frequently used SDs in everyday language. They are as follows each with a couple of examples;

1. HUMAN BODY
The heart of the problem.
*to shoulder* a responsibility.

2. HEALTH AND ILLNESS
a healthy society.
a *sick* mind.

3. ANIMALS
He is a *sly* fox.
She is a *snake*. 
4. PLANTS
He cultivated his friendship with her.
The fruit of her labor.

5. BUILDINGS AND CONSTRUCTION
a towering genius.
He’s in ruins financially.

6. MACHINES AND TOOLS
The machine of democracy.
Conceptual tools.

7. GAMES AND SPORT
to toy with the idea.
He’s a heavyweight politician.

8. MONEY AND ECONOMIC TRANSACTIONS
Spend your time wisely.
She invested a lot in the relationship.

9. COOKING AND FOOD
What’s your recipe for success?
He cooked up a story that nobody believed.

10. HEAT AND COLD
in the heat of passion.
a cold reception.

11. LIGHT AND DARKNESS
She was in a haze of confusion.
a dark mood.

12. FORCES
She swept me off my feet.
You’re driving me nuts.

13. MOVEMENT AND DIRECTION
She solved the problem step by step.
Inflation is soaring.

Target Domain (TD)
The most widespread target domains can be mentioned below each with a couple of examples:

1. EMOTION
   He was _bursting_ with joy.
   He _unleashed_ his anger.

2. DESIRE
   She is _hungry for_ knowledge.
   He’s _burning to go_.

3. MORALITY
   He’s a _shady_ character.
   That was a _lowly_ thing to do.

4. THOUGHT
   She’s _grinding out_ new ideas.
   I _see_ your point.

5. SOCIETY/NATION
   the founding _fathers_ of the country.
   the _ills_ of society.

6. POLITICS
   There was a great deal of _haggling_ over the issue.
   The fight _erupted_ over abortion.

7. ECONOMIC
   Germany _built a strong_ economy.
   They _pruned_ the budget.

8. HUMAN RELATIONS
   Their friendship is _in full flower_.
   They _built a strong_ marriage.

9. COMMUNICATION
   You are _putting_ too many ideas _into_ a single sentence.
   That’s a _dense_ paragraph.

10. TIME
    Time _flies_.
    Time _goes by fast_.

11. LIFE and DEATH
    The baby will _arrive_.
    His father _passed away_.

12. RELIGION
Our perception of God and our relationship with God are important parts of religion. Note that replacing the word God with a personal pronoun already necessitates metaphorical understanding: should we refer to God as it, him, or she? Other parts of religious experience include the conceptualization of concepts like eternity, life after and before death, and so on, which are all importantly metaphorical because we have no direct experience with them.

13. EVENTS AND ACTIONS
She has reached her goals in life. The goal sent the crowd into a frenzy.
Despite the numerous sources of data, the mentioned lists for the most frequent source and target domains may only be tentative, so there is a need for more exact and reliable methods of locating the most common source and target domains.
On the basis of the findings of this survey, it has been demonstrated doubtlessly that CMs are unidirectional; they move from tangible to abstract domains—the most frequent SDs tend to be more tangible, on the other side, the most frequent TDs are abstract concepts. In this manner, conceptual metaphors can help people understand topics that are intangible and so difficult to grasp by conceptualizing them in terms of tangible ones (Kövecses, 2010: 27-29). Likewise, (Evans & Green, 2006: 298) put it as "target concepts tended to be more abstract, lacking physical characteristics and therefore more difficult to understand and talk about in their own terms. In contrast, source domains tended to be more concrete and therefore more readily grasable".

7. Metaphorical Mapping

The quintessence of metaphor is not in language, but in our mental conceptualization of one domain in terms of another. The general theory of metaphor can be represented by such cross-domain mappings. In this manner, we metaphorically conceptualize abstract concepts like journey, money, building, and others. Everyday metaphor is represented by an enormous system of umpteen cross-domain mappings (Lakoff, 1992: 1)
Because of these empirical consequences of everyday use of CM, the word "metaphor" has begun in the contemporary conceptual theory to mean cross-mappings (Ibid: 2)
The notion of metaphorical mapping can be expressed by a conventional contracted formula: CONCEPTUAL DOMAIN A IS CONCEPTUAL DOMAIN
B which stands for conceptual metaphor. A conceptual metaphor is made up of two conceptual domains, whereby one domain is understood in terms of another (Kövecses, 2010: 4). Originally, the term "mapping" is adopted from mathematics and indicates metaphorical correspondences between tightly related ideas that are organized in a systematic way (Grandy, 2007: 190).

He (Ibid: 73) pointed out that, Metaphor, in CMT, is seen to reside in a pattern of mental association, established in embodied human experiences, by which a conceptualizer perceives a metaphorical target in terms of metaphorical source, so as to figure out the properties of the target which are to a certain extend unclear for the conceptualizer to comprehends by their selves. At that stage, when viewed in this manner, a conceptual metaphor might be encoded linguistically in the form of verbal metaphors, which are first perceived as novel linguistic terms that, by frequent use, gain the status of conventional units of language.

Stockwell (2005: 106-107) implied that what was traditionally called "ground" is the shared area between tenor and vehicle; in modern cognitive linguistics is termed as "mapping" which is the outcome (CM) that resulted from matching the properties between source and target domains. Moreover, he even uses other terms for the same contemporary concepts; the base space and focus space have common attributes, which can be summarized as the "generic space" which is the blended space that represents the new emergent understanding.

The central premise of CMT is that metaphor is more than just a stylistic aspect of language; it is inherently metaphorical in nature. According to this view, the mental structure is formed based on cross-domain mappings or correspondences between conceptual domains. Those mappings are either being resulted from pre-conceptual experiences or build on these experiences in order to make more complex mental structures. For example, we can think and talk about QUANTITY in terms of VERTICAL ELEVATION, as in She got a really high mark in the test, where high doesn't indicate its literal meaning; physical height, but refers to a good mark in studying evaluation. This is, according to CMT, due to the fact that the mental domain QUANTITY is conventionally formed and hence comprehended in terms of the mental domain VERTICAL ELEVATION. Such conceptual operations containing mapping, like CM, are known as conceptual projection (Evans & Green, 2006: 286).

In technical terms, (Kövecses, 2010: 7) argued that mapping is a bunch of systematic correspondences shared by the source and the target in the sense that constituent mental elements of B correspond to constituent elements of A. Let's look at the conceptual metaphor LOVE IS A JOURNEY and comprehend clearly
how SD is mapped into TD. When conceptualizing love as a journey, we have three component elements of journeys: the traveller, the travel or the journey, and the destination. When hearing a sentence like We aren't going anywhere or Look how far we've come, in the suitable context, they can be comprehended to be about love not real physical journey, and the speaker bears in mind not real travellers but lovers, not a physical journey but an imaginative love relationship, and not a physical destination at the end of the journey but the goals of the imaginative love relationship. The sentence The relationship is foundering denotes that the relationships are mentally equivalent to the vehicles usually used in real journeys. The sentence It's been a dumpy road doesn't refer to real concrete obstacles on the way, but metaphorically the difficulties the two lovers face and experience in their relationship. Moreover, speaking about love, a sentence like: We've made a lot of headway will imply that the two lovers have made a huge portion of progress in the relationship, and not indicate the real physical meaning that the travelers have reached a far distance. And the sentence We're at a crossroads will mean that the lovers have to select from the choices have in their relationship, and not that a traveler has to select a way that takes them to their destination. Based on these interpretations, we can lay down a list of correspondences or mappings between component elements of the source and those of the target.

Source: JOURNEY                     Target: LOVE
the travelers   → the lovers
the vehicle    → the love relationship itself
the journey    → events in the relationship
the distance covered → the progress made
the obstacles encountered → the difficulties experienced
the destination of the journey → the goal(s) of the relationship
decisions about which way to go → choices about what to do

This is the systematic collection of correspondences, or mappings, that define LOVE IS A JOURNEY conceptual metaphor. It might appear, though it is not the case, from our explanation that, the elements in the TD have always existed, and because of the availability of preexisting similarities between the elements shared in both domains. The domain of love was lacking these elements before 'it was structured' by the journey domain. The domain of love was given this structure or collection of elements by applying the journey domain to the love domain. In some ways, the concept of journey was the one which "created" the concept of love (Ibid: 8-9).
On the basis of what has been discussed, to make sure that you have understood what metaphor entails understands the systematic mappings that exist between a source and a domain that occurs unconsciously. However, if we understand a CM, we use the linguistic expressions that indicate we don't break the mappings which are conventionally established for the linguistic community. To put it another way, mapping is not an arbitrary process; that's not any element of B can be mapped onto any element of A. The linguistic expressions used metaphorically should correspond with pre-determined mappings, or correspondences, between the source and the target (Kövecses, 2010: 10).

Mapping is described by most cognitive linguists as "the set of systematic correspondences between SD and TD" or "the transformation of the correlations shared between SD and TD". However, such process matching or transformation is not boundless or open-ended, but on the contrary, is said to have a limited scope. Ungerer and Chemid (2006: 119) called this scope "mapping scope" and defined it as below:

A set of constraints regulating which correspondences are eligible for mapping from a source concept onto a chosen target concept. These constraints not only help to avoid just any kind of feature that is transferred from the source to the target concept but also motivate the range of possible correspondences. Essentially, the mapping scopes of metaphors reflect our conceptual experiences in dealing with the world around us.

![Mapping Scope](https://www.steps-journal.com/jshss/vol1/iss3/42)

Figure 2: Basic components of metaphorical mapping: source concept, target concept, mapping, and mapping scope (adopted from Ungerer and Schmid, 2006:119)
Mapping scope consisted of three basic components which can be differentiated as follows:

- **Image schemas**
  They are strongly rooted in our bodily experiences. They incorporate orientational schemas like ‘in–out’, ‘inside–outside’, ‘front–back’ as well as the ‘inside–outside’ (or ‘container–contained) schema, the ‘part–whole’ (or ‘whole–part’) and the ‘path’ schema; image schemas are most probably shared by all human beings.

- **Basic correlations**
  Basic correlations are unlike image schemas, we do not experience them physiologically; they help us in comprehending events and actions that happened in the world we live in. Examples are relationships of ostensibly universal significance such as; ‘action/change correlates with motion’ (or short ‘action/change-motion’), ‘cause-effect’, ‘purpose-goal’ and ‘presence-existence’; it is likely that they also have a universal status like image schemas.

- **Culture-dependent evaluations**
  They are constrained to the members of a specific culture. In the Western culture, they include for example evaluative attributes like ‘rich’, ‘young’, ‘stupid’ or ‘beautiful’ (attributed to persons); ‘strong’, ‘majestic’, ‘aggressive’ or ‘dirty’ (for animals), and ‘valuable,’ ‘durable’, ‘useful’ or ‘fragile’ (for objects).

The CM LIFE IS A JOURNEY work best within the mapping scope that depends on the image schema of "path" and is supported by the correlations ‘change-motion’ and ‘purposes-goals’. While the second mapping scope component is needed in the CM, TIME IS MONEY that is metaphorically expressed in You're wasting my time or We're running out of time including the pervasive evaluation that "money" is a valuable commodity. A lexeme like 'pig' for instance, has distinct cultural differences. Such differences can be used to illustrate the last mapping component; culture-dependence evaluation. In the western culture, for example, the entity 'pig' can have culture-specific attributes as 'dirty' or 'greedy' that in a metaphorical phrase like John is a pig can be interpreted as 'he is untidy' or 'he doesn't eat with good manner' whereas pigs may have different connotations in other cultures. In modern China, for example, the lexeme 'pig' can be associated with implications comparable to those in the Western, nevertheless it is used as a term by lovers to indicate endearment, and can also connote a simple straightforward, and silly kind of loveliness. Because attributes like 'dirty' and
'greedy' are not considered as part of the mapping scope, the metaphor A PERSON IS A PIG has a completely different meaning in Chinese culture than it does in the West.

A prominent feature of metaphorical mapping is it is inherently asymmetrical and unidirectional. This means that metaphorical mapping operation moves in one direction; that's the target is construed in terms of the source, but not only and can't occur the other way around. Consequently, concepts functioning as the source and target of a conceptual metaphor cannot be reversed (Szawerna, 2017: 73; Evans & Green, 2006; Grandy, 2007: 191). Although a word like 'weather' can be used metaphorically to indicate a collection of economic and political circumstances, the reverse metaphor is impossible, either linguistically or conceptually (e.g., the nonsensical idea of referring to an actual storm as a recession). Similarly, it is meaningful to describe a person as warm but nonsensical to describe a cup of tea as affectionate, and it is meaningful to refer to a foundation of a theory, but nonsensical refer to postulates of a building (Grandy, 2007: 191).

Conclusions

This study has reached the conclusion that there is an obvious mapping between metaphors and the conceptual domains in the human mind. The properties of mapping can be comprehensively summarized as follows:

1. Metaphors are mappings across conceptual domains.
2. Those mappings are systematic and partial.
3. Each mapping is a consistent collection of ontological correspondences between entities in an SD and entities in a TD.
4. When such consistent collections are activated, mapping can project SD inferences patterns onto TD inferences patterns.
5. Metaphorical mappings comply with the Invariance Principle: the SD's image-schema structure is projected onto the TD in a way that is compatible with TD's intrinsic structure.
6. Mappings are not haphazardly made, but built in the body, everyday experience, and knowledge.
7. A conceptual system includes thousands of conventional metaphorical mappings that compose a heavily structured subsystem of the conceptual system.
8. Mapping can be divided into two types that both comply with the Invariance Principle; conceptual mappings and image-mappings.
References


