

# A Complementary Perspective of Conceptual Blending Theory and Relevance Theory on Metaphor Interpretation

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**Abstract**—Conceptual blending theory and relevance theory fall under the umbrella of cognitive science. Both of them have contributed to our interpretation of the role of metaphor in cognition and language use. Conceptual blending theory considers metaphor interpretation to be the activation of relevant conceptual structures and places emphasis on how conceptual mechanism works in metaphor interpretation. Relevance theory views metaphor interpretation to be the recovery of an array of weak implicatures and places its major emphasis on the functions of the communicative principle and the relevance principle in metaphor interpretation. This article holds that conceptual blending theory and relevance theory may provide a complementary perspective on metaphor and suggests an integrative hypothesis on metaphor understanding on account of the similarities between and deficiencies of both theories.

**Index Terms**—metaphor, conceptual blending theory, relevance theory, complementary, similarities

## I. INTRODUCTION

Metaphor seems to be of obvious interest in the area of linguistic study. Ever since the time of Aristotle, researchers from many fields have endeavored to define metaphor and interpret metaphorical language. The past few decades has seen an explosion in the study of metaphor within cognitive science, where scholars from linguistic, philosophical and psychological disciplines have put forward diverse theories on metaphorical thought and language (Tendahl & Gibbs, 2008). Many of these theories hold that metaphor is pervasive in life, not only in ordinary language but also in our thoughts and experience (Lackoff & Johnson, 1980). Among these theories, the most important and influential one specific to metaphor interpretation has been proposed by Fauconnier and Turner (2002), namely, conceptual blending theory.

A different perspective on metaphor is proposed by relevance theory (Carston, 2002; Sperber & Wilson, 1995; Wilson & Carston, 2006). Relevance theory originates in a broad theoretical framework for explaining cognition and communication in its primary claim that human cognition is geared to the maximization of relevance, such that each act of ostensive communication carries a presumption of its own optimal relevance (Sperber & Wilson, 1995). From their viewpoint, verbal metaphors are instances of “loose talk” and speaking in a metaphorical manner is the most appropriate way to achieve optimal relevance. Although verbal metaphors deviate from the accurate state of affairs on surface, listeners can understand the speaker’s communicative intention by resorting to the appropriate context and interpretative strategies on the basis of the principle of optimal relevance.

To many metaphor researchers, there are so many important differences between these alternative perspectives on metaphor interpretation that systematic comparison of these two theories in an effort to understand how and why they are different from each other seems impractical since these theories pursue different theoretical goals and follow different methodological assumptions. To some other scholars, however, conceptual blending and relevance account of metaphor understanding may be complementary. Taking into account the deficiencies of each theory, they believe that both perspectives may have their contribution to make toward an integrative cognitive theory of metaphor.

This article aims to investigate the possibility that conceptual blending theory and relevance theory can be integrated as a cognitive theory of metaphor despite the significant differences between these two theories in terms of theoretical basis and methodological assumptions. I believe that neither the conceptual blending theory nor the relevance theory is adequate enough in discussions of metaphor and that these alternative perspectives on metaphor are both in need of in understanding why people use metaphor and how they do so in daily life.

The article continues with an introduction of conceptual blending theory, relevance theory and their respective views on metaphor. After comparison of these two theories in the following section, important connections are made in the last section between these two alternative theories in an effort to provide a more comprehensive theory of metaphor.

## II. CONCEPTUAL BLENDING THEORY AND METAPHOR

Conceptual blending theory provides interesting insights into the possible creation of metaphors. Conceptual blending theory develops from mental space theory (Fauconnier, 1994/1997), aiming to offer an account for meaning construction from conceptual perspectives. Conceptual blending refers to a basic mental operation that gives rise to new meanings (Fauconnier, 2001). In conceptual blending theory, mental spaces are small conceptual packets constructed the moment we think and talk, for the sake of local understanding and action (Fauconnier, 1998). The essence of the operation is the construction of a partial match between two inputs, selective projection from those inputs into a novel blended mental space, where an emergent structure is generated (Fauconnier, 2001).

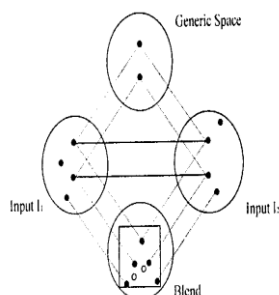


Figure 1 A four-space conceptual blending network

As is depicted in Fig.1, conceptual blending network consists of four connected mental spaces: two partially matched input spaces, a generic space, and the blended space. The two input spaces go through cross-space mapping, through which the cognitive relationship between the counterpart elements of the two inputs can be reflected. The generic space is composed of whatever structure that is recognized as common to both of the two input spaces. The blended space provides a new space in which the selective structures and elements projected from the inputs are manipulated. And out of the operation of three blending processes, i. e. composition, completion, and elaboration, the emergent structure is born. Composition refers to the (partial) selection of elements, structures or frames from input spaces and their projection to the blended space to generate new relations and scenarios. Completion points to introduction of additional material from the speaker's background knowledge to the blend to enrich the relations and scenarios of the blend. Elaboration has to do with the running of the blend, or the unfolding of the scenarios or development of the relations involved (Fauconnier & Turner, 2002).

To make sure that meaning construction is constrained such that we derive the right structure to be projected to the blend (Evans & Green, 2006), Fauconnier and Turner (2002) put forth several optimality principles, including integration principle, topology principle, web principle, unpacking principle, good reason principle and metonymic tightening. Satisfaction of these principles is selective, which means satisfying one constraint may result in the inconsistency with another. Among all of the interpretations of a given blend, the one that best observes the constraints is the one that is most likely to be selected.

Central to conceptual blending theory is the ability of the integration networks to compress diffuse conceptual structure into easily understood and manipulated human-scale situations in a blended space. Compressions operate on a group of essential conceptual relations of Cause-Effect, Analogy and Disanalogy, Time, Space, Change, Identity, Part-Whole, and Representation which can be compressed into a human-scale version of themselves, or into different vital relations (Pan, 2012).

Conceptual blending account of metaphor proposes that metaphor interpretation involves the projection of partial structure from the input spaces of the target and the source and the integration of this information in a blended space. As conceptual blending theory usually sees metaphors as analogical mappings (Fauconnier & Turner, 2002), the association between the two concepts (i.e. the target and the source) is often said to be based on shared features which are aligned with the two (Grady, 2005). The figurative conception of surgeon as butcher, for instance, must begin with an activation of the target space containing a representation of the surgeon. The image of an incompetent surgeon, his imprecision, and insensitivity toward his patients in the surgeon space, can evoke the same elements in the butcher space. The cognitive link between the relevant elements in each space constitutes the counterpart connection(s) between surgeon and butcher which blending theory requires in order for the spaces to be combined. These selected elements from both of the inputs are manipulated in the blending and hence the emergent inference that "My surgeon is incompetent, crude, etc." In the metaphor "Caroline is a princess", the semantic attribute of "princess" in the source is mapped onto the attribute of Caroline in the target, and therefore the emergent structure and the metaphorical meaning that Caroline is spoiled, indulged girl, self-willed, free from housework, etc. (Wilson & Carston, 2006).

Conceptual blending theory is vulnerable to criticism, however, due to its failure to specify the interpretive process for producing emergent structure. In response to this, Brandt and Brandt (2002) propose a network of six mental spaces: a semiotic space, a presentation space, a reference space, a relevance space and a virtual space. These spaces are designed to obtain the critical meaning of any given utterance based on conceptual metaphor theory, conceptual

blending theory and cognitive semiotics. They exemplify the six-space model through analysis of the Surgeon is butcher blend by drawing the context that the operation causes a large scar on a patient. Under this circumstance, the blend is used to question the ethical conduct of the surgeon instead of complaining that the surgeon is incompetent. Under this model, the local context has a vital role to play in the generation of the intended meaning of an utterance. Given different contexts, the hearer may interpret the speaker's intentions in quite different ways.

### III. RELEVANCE THEORY AND METAPHOR

Relevance theory offers a different perspective on metaphor. It makes two general claims about the role of relevance in cognition and communication. According to the Cognitive Principle of Relevance, human cognition tends to be geared to the maximization of relevance. That is to say, people focus their attention on information that seems most relevant to them. According to the Communicative Principle of Relevance, every act of ostensive communication communicates the presumption of its own optimal relevance (Sperber & Wilson, 1995). To be specific, the speaker produces an utterance which is expected to be relevant enough for it to be worth the hearer's effort to process it. In accordance, the hearer will consider the utterance to be the most relevant one the speaker is able and willing to produce.

Relevance is dependent on two factors: cognitive effect and cognitive effort. Cognitive effects are achieved when a speaker's utterance strengthens, revises or contradicts an available assumption in combination with in-hand context assumptions or by combining an in-hand context assumption with the new information to produce some new cognitive implications. Cognitive effort refers to the effort made in the mental representation of the input or the access to contextual information (Tendahl & Gibbs, 2008). Every utterance goes with itself a presumption of the best balance of cognitive effort against cognitive effect. For one thing, the effect that can be achieved will never be less than is needed to make it worthy of processing. For another, the efforts that are required will never be more than is needed to achieve these effects. In comparison to the effects achieved, the effort needed is always the smallest. Roughly put, human cognition tends to achieve the optimal contextual effects with the least cognitive efforts. Other things being equal, the larger the contextual effect, the smaller the contextual effort, the greater the relevance of the input will be to the individual (Hu, 2001).

Relevance Theory makes a distinction between explicature and implicature. Explicature refers to an assumption that is explicitly communicated. And implicature is what can be derived from the proposition expressed by the utterance in combination with the context. In other words, the implicatures are contextual assumptions and those which the addressee has to recover in accordance with the principle of relevance. According to Vyvyan Evans and Melanie Green (2006), explicature and implicature corresponds to the traditional idea of semantic meaning and pragmatic meaning respectively. Despite that relevance theory adheres to the standard formal view that semantic decoding takes place prior to calculating pragmatic inferences, the recovery of explicatures is thought to depend on inference to a considerable degree. And the recovery of implicatures is believed to rely on explicatures, long-term memory and the context.

Relevance theoretic account of metaphor holds that metaphors are examples of "loose talk" (Sperber & Wilson, 1985/1986) instead of "an extraordinary phenomenon of language" (Wilson & Carston, 2006) and that speaking loosely is the best way to achieve optimal relevance (Tendahl & Gibbs, 2008). Metaphor interpretation requires the listener to make cognitive efforts to seek out the optimal relevance between the source and the target, or seek out similarities between the source and the target. In metaphor understanding, the listener relates the source to the target, forms assumptions on hearing an utterance, and after relating the assumptions to the appropriate context and inferring, gets the conversational implicature.

Consider the metaphoric utterance "Caroline is a princess". According to relevance theory, the addressee is supposed to assume that the addresser is aiming for optimal relevance by producing this utterance. Since Caroline is not literally a princess, this utterance literally makes no sense and thus is irrelevant. The addressee, therefore, must assume that the addresser intends some other interpretation and then resorts to his encyclopedic knowledge and contextual knowledge in order to produce an inference. Encyclopedic knowledge brings about the fact that a princess is associated with the attributes of being spoiled, indulged, and willful, etc. The resemblance between the encyclopedic knowledge of a princess and Caroline in the given context allows the addressee to infer that the addresser intends to convey the message that Caroline, who is not a female royal, is spoiled, indulged, and willful and so on. According to Relevance Theory, the use of this metaphor carries additional contextual effects which the direct expression that Caroline is spoiled, indulged, willful may fall short of. By comparing Caroline to a princess, the speaker provides a much richer representation of the attributes of Caroline which might trigger further implicatures.

Relevance theory holds that metaphor interpretation involves an array of weak implicatures, the understanding of which requires the listeners to make additional cognitive efforts. According to the principle of relevance, however, this cognitive effort can be offset by the extra cognitive effects achieved, or rather the poetic effects. In other words, the wider the range of potential implications and the greater the addressee's efforts to infer them, the more poetic the effects and the more creative the metaphor will be.

### IV. COMPARING CONCEPTUAL BLENDING THEORY AND RELEVANCE THEORY

Conceptual blending and relevance theoretic account of metaphor both try to provide a cognitive explanation of metaphor interpretation. In cognitive linguistics, metaphor is primarily a matter of thought and action and only derivationally a matter of language (Lackoff & Johnson, 1980). In relevance theory, metaphor is the loose use of language which expresses ideas that would otherwise be difficult to convey using literal language. Conceptual blending theory focuses more on the role of metaphors in our conceptual system whereas relevance theory focuses more on the role of metaphor for communication (Huang & Yang, 2014). Conceptual blending theory sees metaphors to arise from mental mappings and complex conceptual blending while relevance theory views metaphor comprehension to be the recovery of strong or weak implicatures. Despite these differences, being rooted in a broader theoretical framework of cognitive philosophy which views meanings as the product of cognitive process, conceptual blending theory and relevance theory share some similarities (Jiang & Ma, 2003).

First, they both adhere to the principle of economy in utterance interpretation. In speech acts speaker will adopt the most economic strategy to convey what he/she intends to do. Namely, speakers try to convey to the hearer the largest amount of relevant information with the minimum coding effort. In consequence, it may not be possible for a conceptual structure to be fully represented in an ostensive semantic structure. For instance, in the sentence “my surgeon is a butcher”, the attributes of the butcher are left out in the semantic structure. This, however, would not prevent one from understanding this utterance since one would generally trigger more concepts than is represented in speaking and listening. In the expectation of optimal relevance, the hearer will draw the inferences based on the shared communicative intention with the least decoding effort. In a word, under the pressure of relevance, least-effort strategy is taken by the interlocutors to yield the greatest cognitive effect.

Fauconnier once pointed out that language form is simplified such that one linguistic form may be suitable for a variety of scenarios. Consider the example of “John is a soldier”, One may come up with several possible interpretations, among which are: (a) John is devoted to his duty, (b) John obeys orders willingly, (c) John shows obedience to authority, (d) John identifies with the goal of his team, (e) John is a member of the military, etc. (Tendahl & Gibbs, 2008). All that needs to be done is to select from these interpretations the one that is most relevant to a certain context. Take the following conversation cited from Sperber and Wilson (2002, p.319):

Peter: Can we trust John to do as we tell him and defend the interests of the Linguistics department in the University Council?

Mary: John is a soldier!

This conversation is about whether or not John can be trusted to defend the interests of the Linguistics department. In this specific context, Mary uses the word ‘soldier’ to convey the idea that John is just like a devoted soldier and follows orders willingly. As a consequence, Peter would obtain the implicit meaning that they can rely on John to defend the interests of Linguistics department.

Second, they both put emphasis on conceptual blending in online meaning construction. Conceptual blending theory and relevance theory both place emphasis on the important roles of working memory in conceptual blending and information processing. To Fauconnier & Turner, conceptual blending is a dynamic process, which cannot be presented statically. Semantic meanings are dependent on one’s cognitive association abilities, or the abilities of cross-space projection and conceptual blending. Relevance theory claims that utterance interpretation is a decoding process and an inference process as well, which involves identifying the coding information, activating the contextual assumptions, matching the coding information with the contextual assumptions and drawing an inference. To Sperber & Wilson (1995), utterance meaning is achieved through association and complex operations between the ostensive information and the physical and contextual contexts.

Their similarities make it possible for us to carry out an integrative analysis on metaphor understanding. Nevertheless, neither of them provides satisfying answers to metaphor interpretation. Their deficiencies on metaphor understanding make it necessary to integrate these two theories.

According to relevance theory, human cognition and communication are relevance-oriented. Communication is a process in which the balance between the cognitive efforts and cognitive effects is sought in its primary aim to achieve optimal contextual effects in the dynamic cognitive context and hence improve one’s cognitive environments. The relevance theoretical account of metaphor is of important significance in metaphor study, but it places more emphasis on the function of pragmatic principle and cognitive principle in metaphor interpretation, overlooking the important role played by the conceptual structures and cognitive mechanism that activate conceptual structures (Zhang & Cai, 2005). Conceptual blending theory, on the contrary, could make up for its defects.

Conceptual blending network is a multi-space projection network in which the four spaces interrelates and interacts with one another, among which the corresponding components in the two input spaces (i.e. the source and the target) mapped onto the blending space, where an emergent structure comes into form through the cognitive processes of composition, completion and elaboration. Conceptual blending theory offers a more detailed analysis of metaphor interpretation. It treats metaphor inference as activating relevant conceptual structures and places emphasis on the cognitive structure and its dominating role in metaphor interpretation. Yet, conceptual blending theory fails to acknowledge the vital role of contextual constraints on information processing, which undoubtedly plays an essential part in emergence of the intended meaning. Strictly speaking, isolated words cannot be metaphorical. It is only in a context can an expression be judged whether or not it is metaphorical. Metaphorical expressions cannot be understood

or even recognized when only interpreted from semantic perspectives regardless of contextual factors. The good thing to see is that relevance theory seems to complement for that.

Taking all these into account, conceptual blending theory and relevance theory may be complementary in metaphor interpretation: the activated mappings between the source space and the target space of a given metaphorical structure are essential for pragmatic inference; the two principles of the relevance theory---the cognitive principle and the communicative principle constrain the activated mappings and determine which mapping is to be first activated in a given context.

#### V. A COMPLEMENTARY VIEW ON METAPHOR

A comprehensive theoretical account of metaphor provides important insights to metaphor interpretation. This complementary perspective on metaphor interpretation gives full recognition of the vital role that contextual constraint plays in both the optimal relevance aspects between the source and the target and the generation of the intended meaning of a metaphorical utterance in the blended space. In this article, I take the initiative to draw a distinction between broad contextual factors and local contextual factors. Broad contextual factors refer to the background information relevant to an utterance while the local contextual factors refer to the specific context in which an utterance is made. Take the example of “my surgeon is a butcher”. The broad contextual factors refers to background information of the nature of both surgeon and butcher, the fact that they operate on animated beings, etc. whereas the local contextual factors refer to the context in which the utterance is made, as when the operation causes a large scar on a patient, for instance.

Under this integrative model, metaphor interpretation becomes an online conceptual blending process in which the optimal relevance (i.e. the similarities between the source and the target) is sought out before cross-space mapping takes place. In this process, the linguistic form selects from the broad conceptual factors (the background information) activated in the cognitive context the optimally relevant contextual assumptions and then establishes the corresponding mental spaces. After cross-space mapping between the source space and the target space of a metaphorical structure, these optimally relevant contextual assumptions selected from the input spaces are projected to the blended space to generate new relations and scenarios. In the blended space, local contextual factors will act as a checking filter to make sure that the derived emergent structure or the implicature best reflects the speaker’s intention. In this process, one achieves cognitive effect enough to change his cognitive environment.

Consider “My surgeon is a butcher” in the context that the operation causes a large scar on a patient, as is exemplified by Brandt and Brandt (2002). On hearing the utterance, the hearer would draw from the cognitive context the background information of both surgeon and butcher and map onto each other the relevant constituents in the source space of butcher and the target space of surgeon, like the nature of surgeons and butchers, their operations on animated beings, their imprecision, their insensitivity to humans/animals, etc. The corresponding elements in the input spaces are then projected into the blended space, where local factors specify the elements to be processed in the blended space, like their insensitivity toward dealing with animals/ human beings. Hence comes out the emergent structure and the metaphoric meaning “my surgeon is crude, insensitive, indifferent to his patients’ feelings, etc.” In this local context, the blend is used to question the ethical values of the surgeon.

In general, the above example offers a glimpse of how conceptual blending theory and relevance theory can be applied to metaphorical interpretation. Metaphor interpretation is a conceptual blending process in which optimal relevance between the source and target are sought for by the principles of relevance theory before cross-space mapping takes place and new meanings come into being with reference to local contexts afterwards.

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