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Complementarity of the Relevance-theoretic and Cognitive Linguistic Approaches to Metaphor Study: A Critical Review

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Abstract—This paper attempts to take a critical review of research work on the complementarity of the cognitive linguistic and relevance-theoretic approaches to metaphor study. Addressing the current concerns and problems of metaphor studies, the complementarity view demonstrates the cooperative potential of relevance-theoretic and cognitive linguistic approaches which will benefit metaphor studies and give full accounts of metaphor understanding and interpretation. In particular, the relevance-theoretic approach gives an account of ad hoc concept, emergent property and mental imagery which complements the cognitive linguistics and helps solve some issues in metaphor interpretation.

Index Terms—complementarity, cognitive linguistic approach, relevance-theoretic approach, ad hoc concept, emergent property, mental imagery

I. INTRODUCTION

Metaphor, as a kind of special language form, allows humans to express themselves implicitly. Metaphor has fascinated many scholars from various fields and has been studied from the perspectives of linguistic psychology, philosophy, pragmatics and cognitive linguistics. Among these approaches, pragmatics and cognitive linguistics are the most influential. Both relevance theory and cognitive linguistics play an important role in investigating metaphors since these theories have offered important insights into the working mechanism of metaphor. At the present critical stage of developing these approaches, some scholars have become aware of their cooperative and complementary potential instead of viewing them as contradictory (Gibbs & Tendahl, 2008; Tendahl, 2009; Stöver, 2010; Wilson, 2011), suggesting that it is essential to do researches of metaphors from a new, integrative or complementary approach.

It was Gibbs & Tendahl (2008) who first illustrated the complementarity of relevance theory and cognitive linguistics which offered insight into metaphor study. Tendahl (2009) puts forward a hybrid theory of metaphor which integrates relevance theory and cognitive linguistics to makes further exploration of metaphor. Afterwards, Stöver (2010) proposes a new hybrid model with a modular mental architecture built in it. The studies of Tendahl and Stöver shed light on how to view the metaphor interpretation. Wilson (2011) argues that cognitive linguistics may greatly benefit from a relevance-theoretic explanation about the intended meaning of speaker during metaphor interpretation. Carston (2002) proposes an ad hoc concept construction in metaphor interpretation. Other scholars such as Esther Romero, Bel én Soria (2014), Xose Rosales Sequeiros (2016), Ewa Walaszewska (2014) also study the complementarity of the cognitive linguistic and relevance-theoretic approach to metaphor. All of these researches take the complementary view and further explore, such issues as emergent property and mental imagery related to metaphor understanding.

It should be noted that although the study of complementarity has made some achievements, there are still many open questions which are inadequately addressed in the existing studies. This paper aims to take a critical review of contributions and deficiencies of the current complementary study of metaphor, offering evaluative comments and suggestions along the way.

The paper is organized as follows. The second section states what metaphor studies are generally concerned with and reviews researches on the complementary perspective offered by relevance theory. The third section addresses the complementary perspective offered by cognitive linguistics. Section four discusses metaphor by dealing with the emergent property. Section five concludes the paper.

II. COMPLEMENTARY PERSPECTIVE ON RELEVANCE-THEORETIC APPROACH TO METAPHOR

According to current theories and studies of metaphor, there are many questions metaphor studies have focused on: How does metaphor work? How is metaphor processed in the mind of the addressee? Are there some mechanisms for metaphor understanding? Do literal expression and figurative expression share the same mechanism? Do any other representational formats besides propositional utterance get involved during the process of metaphor interpretation? And, if so, what roles do they play and what effect do they have on the metaphor interpretation? Will the metaphorical interpretation take longer than literal interpretation? All of these questions are the debating concerns of metaphor study and prompt linguists to combine different theories in order to

find an answer to them. In particular, two directions of researches, cognitive linguistics and relevance theory, offer complementary perspectives on metaphor. The integration approaches of cognitive linguistics and relevance theory will benefit these current concerns of metaphor studies.

Sperber & Wilson (2008) propose a deflationary account of metaphor. They assume that there are no clear boundaries among metaphors, hyperboles and literal utterances but rather they exist on a literal-loose-metaphorical continuum. There is also no special mechanism but an inferential procedure to process different representations. Thus, metaphors, hyperboles and literal utterances share the same inferential procedure. It is noted that the meaning intended by the speaker is inferred rather than is derived by the concept decoding. The implications of the utterance are derived by mutually adjusting the implicit and explicit components of the interpretation (Sperber & Wilson, 2008). This deflationary account of metaphor is based on the relevance theory and gives a good explanation of the metaphor processing problems. However, there are still some problems to be discussed. The authors argue that the hearer follows a path of least effort to derive implications of the utterance, but what's the decisive factor in implication derivation? According to RT, the cognitive effect is the most important factor to achieve optimal relevance and the least effort is the attempt to achieve cognitive effect. Can the least effort decide the derivation of implication? Here the authors just give inadequate accounts. Besides, the authors lack enough evidence to prove the derivation of emergent properties since the same inferential procedure, which interprets all different types of utterance, is used to explain the inference of emergent properties (Sperber & Wilson, 2008). The authors also recognize the inferential comprehension process faces a challenge to deal with all different and complicated cases of emergent properties (Sperber & Wilson, 2008). Thus, the deflationary account is inadequate.

Carston (2017) sorts out three stages of development for the RT account of metaphor. The first period is in the mid 1980s when scholars claim metaphorical language is a kind of loose use; The second period is in the mid 1990s when it is assumed that metaphorical uses of word are used to communicate a different linguistically encoded concept; In the late 2000s, it is claimed that there are two relevance-driven routes to metaphor understanding which are determined by the degree of familiarity, complexity and novelty.

According to Carston, the RT account of loose use illustrates that the speaker employs the loose use of language to convey a wide range of implications and the hearer follows the path of least effort to satisfy expectation of relevance to retrieve those highly accessible contextual assumptions as Sperber and Wilson propose. The adjustment of encoded concepts results in the broadening or narrowing of concept extension. In the strength of utterance, some communicate strongly and others weakly. The strong implication shows specific intended meanings while the weak one makes the hearer infer the implications until it satisfies the expectation of relevance (Wilson & Sperber, 1995, p.222).

To derive contextual implications, the "mutual parallel adjustment" of explicatures, contextual assumptions, and contextual implications works out. Thus, the process of metaphor understanding is modified and inferential. This view is borrowed from Wilson and Sperber's opinion and Carston adds some of her views to it.

There are questions that raise some critical points. RT explains that the metaphor arises in communication but not in cognition. Is the arising of metaphor not related to cognition but only to loose use of language? This paper argues that metaphor may arise not only in communication but also in cognition. This is what RT fails to explain. Wilson (2011) links two conceptual domains to familiar metaphors and makes metaphorical use in a systematic way. Another challenge for RT is the inadequate investigation of non-propositional effects such as sensory, imagistic and affective effect. Later, Carston (2018) argues that mental imagery plays a significant role in the process of language comprehension. Although it is not the non-proposition communicated, it may attract the hearer's attention and make proposition manifest. In this respect, RT lacks any attention to the imagery. In order to solve the imagery problems, Carston (2017) proposes two routes of understanding metaphor. One is the quick, local, on-line meaning adjustment process; the other is a slower, more global appraisal of the literal meaning of the metaphorical language which can modify meaning to process novel metaphors.

One theory that has also paid attention to the non-propositional forms including imagery is the new hybrid model proposed by Stöver (2010). She assumes that there is a mechanism for different types of representations, and imagistic-experiential representations can indirectly influence propositional representations through a metarepresentational mediator. Imagistic-experiential representations can become computational input and part of the propositional meaning outcome. Non-propositional representations might get incorporated as part of encyclopedic entries and are made fit for reference (Stöver, 2010, p.200). Hence, Stöver's model makes progress in this aspect since it offers an account of the non-propositional effects that come about in metaphor understanding. It also incorporates an imagistic-experiential level of processing (Stöver, 2010, p.217). Stöver's model takes the relevance-theoretic perspective and also absorbs some cognitive concepts or cognitive forms into the model. The approach makes the metaphor theory more perfect and solves the problems in metaphor understanding that reveals the complementarity of these two approaches.

According to the new hybrid theory of metaphor (Stöver, 2010), the module works on the framework of relevance theory so it can retrieve mental knowledge to deal with information on time since the relevance theory includes cognitive aspects such as cognitive effects and cognitive efforts. The relevance theory complements the content of modular to make it information retrievable. For example, the perceptual module, capable of dealing with external bodily experience, is based on the relevance theory, and the internal module, dealing with the sentiments, is also related to

relevance theory. If these modules have optimal relevance to the communicative information, then it will be activated to process the metaphor. That is to say, only those modules that have optimal relevance can be activated to interpret the metaphor. All these aspects show complementarity of these two approaches and can be combined.

However, the relevance-theoretic approach does not focus on issues about metaphorical discourse since it considers metaphor to be on a part with other forms of language. This is part of the reason why relevance-theoretic approach is not very perfect.

III. COMPLEMENTARY PERSPECTIVE ON COGNITIVE LINGUISTIC APPROACH TO METAPHOR

The cognitive linguistic approach provides an alternative view to metaphor. According to conceptual metaphor theory, metaphor arises from mental mapping from source domain to target domain in the mind of people with the view that we conceptualize the world metaphorically which reflects the way of thinking. Gibbs & Tendahl (2009) emphasize the important role of mapping in metaphor since mapping can access contextual assumptions of utterances and is responsible for linking physical and psychological senses of concept attributes. Through mapping, it helps us recognize conventional metaphor and novel metaphor. If the attribute of the source domain does not typically map into the target domain then we can recognize the metaphor as a novel one. This is what relevance theory fails to recognize since relevance theory just pays attention to the inference of novel metaphor interpretation. Besides, only cognitive linguistics studies the motivation for individual metaphors, class of metaphorical statements and metaphorical inference patterns (Gibbs & Tendahl, 2009). Cognitive linguists explain that the recurring sensorimotor patterns motivate the use of metaphorical language, and many novel metaphors arise from complex blending processes.

From the perspective of cognitive linguistics, the complexity of human activities requires different kinds of representations to deal with human cognition and activities. We need different kinds of representations to handle the complexity of human experience. However, relevance theory holds that both the literal utterance and the metaphorical expression are only represented in the form of proposition since it proposes that only proposition can be communicated. Thus, the view of cognitive linguistics that different representational formats get involved in the process of metaphor interpretation seems to be more convincing than relevance theory as it considers the complexity of human cognitive activities. This is where cognitive linguistic approach can complement the relevance-theoretic approach.

What deserves a special mention is that cognitive linguistics offers a number of insights which are likely to enrich relevance theory, for example, emergent properties (Wałaszewska, 2014). Emergent properties emerge in the process of interpretation of a metaphor, thus creating something new ((Wałaszewska, 2014). In the following section, a more detailed discussion about the emergent property will be shown.

Tendahl (2009) puts forward the hybrid model of metaphor that approves the integration of these two approaches. Tendahl points out that conceptual region of words should be gained first when retrieving a word. The conceptual region consists of several components which are contextual information of the word, lexical concept, encyclopedic knowledge, as well as phonological and morphological knowledge and free slots. The free slots need to be filled via the activation of connectors to external knowledge structures. A conceptual metaphor is the type of external knowledge structure connected to entrenched free slots. The conceptual region provides lexical information and procedural information for making up an ad hoc concept (Tendahl, 2009, p.200). Given the information, we can know how to construct a specific ad hoc concept. Thus, a conceptual region is a preparation stage for building an ad hoc concept. In my view, the external knowledge stored in the conceptual region can be used to construct the ad hoc concept. And the external knowledge varies from context to context in different situations. In this sense, there exists a complementary relationship between cognitive linguistics and ad hoc concepts within the scope of relevance theory in that ad hoc concept encompasses external knowledge in the conceptual region in human mind. Without these materials, ad hoc concepts will not be successfully accessed.

The hybrid theory of metaphor digs out great potentials for integrating these two kinds of linguistic approaches which has been ignored in the past. The model provides some solutions to the metaphor interpretation and is convincing although there still some deficits in it. Tendahl's model lacks enough empirical work to ascertain whether there is a difference in processing effort between category-crossing and category modification metaphors. And he suggests that literal expressions, conventional and novel metaphors, category-crossing and category modification metaphors all work similarly. All of these are characterized by a relevance-sorting process of the lexical concept and profiling against external knowledge domains. But there exist questions about whether they all work in the same way. If they work in the same way, then how to differentiate the processing of these different concepts or expressions? And is it true to assume that literal expression and metaphor process in the similar way? Tendahl does not work out a specific mechanism to explain his assumption instead of explaining it generally and it is not convincing enough. This problem is solved by Stöver (2010) in her new model. Moreover, due to our general complexity and fluidity of the conceptual system, it is difficult to design psycholinguistic experiments on the cognitive effects. Therefore, it is difficult for scholars to ascertain the cognitive effects derived from the addressees.

Stöver (2010) proposes her new hybrid model of metaphor with a modular mental architecture. Different representational formats should be processed separately and thus would not interrupt each other. Stöver assumes that the metaphor understanding mechanism is inner inference within the modular framework of the mind since it needs to have its special mechanism to deal with its processing and interpretation of implications. Within the modular mental

architecture, we can differentiate the logic facts between subjective intuitions, and we avoid putting all the representational formats together to overgeneralize them. The modular framework has a special processing mechanism that can ensure a specialization at the propositional level, ascertaining accuracy and directionality of thinking, and thus it can keep away from purely associative processes (Stöver, 2010, p.184). This view contradicts the relevance theory as relevance theory does not view metaphors as a separate category requiring specialized language processing. Besides, to account for the metaphor understanding and metaphoricity, cross-domain mappings can do it (Stöver, 2010, p.186). Cross-domain mappings can account for the metaphors with accompanying effects by means of source - to - target mapping. Thus we find that it is essential to use the cognitive approach to improve the theory of metaphor even though the whole framework is based on the principle of relevance theory. The new hybrid model of metaphor provides powerful support for the metaphor interpretation and forces the metaphor research into a new direction to complementary relationship.

IV. THE EMERGENT PROPERTY

A. Relevance-theoretic Account of Emergent Property

Relevance-theoretic approach gives an inferential account of the emergent property. Wilson and Carston (2006) propose how the emergent properties are derived from contextual implicature. The emergent properties are not the components of the lexical concept but derived from our combination of encyclopedic knowledge and contextual implications. They are relevance-driven and more relevant than other information so they are selected by RT according to the intended meaning of the speaker (Wilson & Carston, 2006, p.12) and satisfy the expectation of relevance theory.

According to the view of Wilson and Carston, the encyclopedic knowledge used to derive emergent features should be transformed to fit the discourse context. The encyclopedic knowledge cannot directly give rise to the emergent properties but should be transformed or modified to apply to the discourse context.

In the process of deriving emergent properties, there is no special mechanism but an inferential interpretive procedure to give rise to emergent features. The forward inference and backward inference, the mutual adjustment of the explicature, implicature and context are used to commonly infer the emergent feature.

Thus, RT explains emergent properties are the result of a series of transformation and deductive inference. While Tendahl and Gibbs propose that the incongruity of the means and the end of the encoded concepts results in emergent properties (Tendahl & Gibbs, 2008, p.1829). But they also recognize that RT cannot explain that a physical attribute can acquire a psychological sense (Tendahl & Gibbs, 2008, p.1839). Hence, they assume that the mapping can connect the physical and psychological sense. This is the complementary aspect of these two approaches. However, does RT really illustrate where emergent properties come from? It seems that RT stills faces many challenges. Vega Moreno (2007) defines that "emergent properties are constituents of assumptions derived as implications in processing a metaphor" and "emergent properties need to be derived inferentially from the combination of at least two premises used in the utterance comprehension" (Vega Moreno, 2007, p.101). The combination of assumptions, implicatures and explicatures results in the emergence of emergent features (Vega Moreno, 2017, p.311). The emergent features arise from the combination of our knowledge of topic and vehicle and emerge through the identification of an existing category (Vega Moreno, 2017, p.311).

According to Vega Moreno, the metaphor interpretive process is based on the premises that may be a set of assumptions made accessible by the encoded concepts. The potential assumptions can be used as premises to help derive emergent properties.

Vega Moreno proposes a solution to the emergent property that pragmatic inference enables the combination of assumptions, encoded concept and implications to derive the emergent properties. After combination, the adjustment process will stop until it warrants the derivation of implications and ad hoc concepts. In this process, it also involves pragmatic fine-tuning of other concepts.

In this sense, we would like to know whether the principle of optimal relevance guides the ending of the gap. Here Vega Moreno does not fully explain it. There are other questions: Vega Moreno argues that the hearer will acquire the implications chosen as the intended meaning of the utterance and treat other implicature as potential implicatures (Vega Moreno, 2007, p.104). How does the hearer regard other implicature as potential ones but not the intended ones? Vega Moreno (2007) assumes that some premises may be accepted as part of the speaker's intended meaning in order of the assumption's accessibility.

Is there any procedure to determine whether it is intended or not? Obviously, the account of this problem lacks enough evidence.

By relevance-theoretic approach, an inferential account of metaphor can explain how these emergent features get derived and are applied to attributes of encoded concepts which solve the problems of how addressees interpret the metaphorical utterance. The relevance-theoretic approach sheds new light on accounts of metaphor. However, this relevance-theoretic approach cannot convey the full force of metaphor because it does not combine images into theory. As Carston (2010) proved, the imagery is a distinctive feature of metaphor so it is necessary to complement relevance-theoretic approach by using cognitive linguistic approach to carry mental images in a proposition and explain how emergent property emerges as images in the mind of hearers. On the other hand, analyzing the emergent property

merely from the inferential perspective can only make sure the validity of the inference, that is, the verification of hypotheses but cannot fundamentally illustrate the derivation of the emergent property.

B. Cognitive Linguistic Account of Emergent Property

From the above analyses, it is noted that relevance theory offers a genuine alternative into cognitive linguistic approach to metaphor. But there are some deficiencies that need to be solved by cognitive linguistic approach. And cognitive linguistics offers insights to emergent properties. Tendahl and Gibbs (2008) argue that the neural theory of metaphor with conceptual metaphor can account for the emergent properties. The conceptual mental blend can yield a new emergent structure arising from the juxtaposition of elements from the input space. The integration of the blending structures becomes the emergent structure which contains more meanings and elements than original structures. It is the conceptual blending structure that provides explanations for the emergent properties. And Fauconnier and Turner (2002) propose the Conceptual Integration Network to further explore this kind of fusing space. It is noted that there are three kinds of processes resulting in the emergent structure, namely, composition, completion and elaboration. Through a series of complex blending and projection of the elements and spaces, the metaphor blend is formed and it fuses elements and associates the source input and the target input to make interpretations. As a result, the emergent properties emerge in blending spaces.

In conclusion, both relevance-theoretic approach and cognitive linguistic approach give account of emergent properties based on linguistic theories but they also lack strong support and evidence to be convincing. It is believed that the integration of both of these two approaches can shed new light on metaphor study.

V. CONCLUDING REMAKES

This paper has analyzed how relevance-theoretic approach and cognitive linguistic approach to metaphor study complement each other and explained the advantages of these two approaches which can solve problems cooperatively in metaphor interpretation. But as mentioned above, there are stills some problems in these two approaches and it is needed to find some solutions to give better accounts for these problems.

Through these analyses of metaphors, the complementary perspective of two approaches sheds light on the metaphor interpretation in literature. It is known that there are usually metaphors in literary works which endow the works literariness and artistry and we need to find a new approach or perspective to interpret the metaphors in literature since metaphor interpretation lack any concrete mechanisms and needs to explore a new perspective to complete it. The complementarity view can encourage literary studies to reconceive literary works and metaphors in literature as well as afford new ways of literary studies and account for metaphors in literary works. Both the cognitive linguistic and relevance-theoretical approaches can offer new ways of accounting for metaphor and the complementary perspective can provide frameworks for literary metaphors that can complement some aspects which cannot be explained solely. Therefore, the complementarity view is of great value since it can be applied in many other fields such as literature.

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