Meaning Construction of Multimodal Metaphor from Relevance Theory

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Abstract: The proposal of multimodal metaphor and its following research propels metaphor study into a new phase. According to relevance theory, the understanding of metaphor, similar to other language phenomena, is governed by the principle of relevance. Context is a dynamic concept, once the input is processed, it will be incorporated as part of the cognitive context, enriches and enlarges the context for the process of the next input. During the meaning construction of multimodal metaphor, the process sequence of multimodal information has an influence on the dynamic adjustment and construction of cognitive context, leads to various deduction paths, and eventually produces distinct cognitive effects.

Keywords: Multimodal metaphor; relevance theory; cognitive context; inference; cognitive effects

1. Introduction

Lakoff and Johnson first endowed the cognitive turn of metaphor, "the essence of metaphor is understanding and experiencing one kind of thing in terms of another." (Lakoff&Johnson 1980:5). Metaphor cannot be dismissed simply as a rhetoric device in the traditional sense; it is a way of thinking at the conceptual level. The book also proposed that metaphor includes a conceptual mapping from the source domain to the target domain, but this mapping is restricted to the representation of a single mode on language level. However, in reality, Metaphors come in a wide range of forms with various contexts. In a narrow sense, multimodal metaphors are defined as those "whose source and target are each represented exclusively or predominantly in different modes." (Forceville 2009: 24) In a wide sense, two concepts in a multimodal metaphor belong to different categories and can form an analogical comparison; the two concepts can be respectively construed as the source domain and target domain of a conceptual metaphor, and their roles cannot be reversed; the two conceptual domains are represented with two or more modes. (Wang Xiaoping, Wang Jun 2018) The study inclines to employ the wide definition of multimodal metaphor to facilitate discussion. To verify metaphor is one of the basic cognitive mechanisms of human beings, the theory and conclusion drawn at the literal level must be extended to and verified in other non-linguistic fields, which consists the very significance of multimodal metaphor.

Currently, multimodal metaphor study involves a wide range of genres, such as advertising, cartoons, picture books, sign language, film and television works, etc. It relies on conceptual metaphor theory (Zeng Guang, Liang Xiaobo 2017), conceptual blending theory (Xie Qin, Kuang Fangtao 2021) grammar of visual design (Teng Da, Miao Xingwei 2018) as the main theoretical basis. The combination of relevance theory with multimodal metaphor theory is relatively sparse. What's more, the limited research does not pay enough attention on the dynamic construction of context during the meaning construction process of multimodal metaphor. Hence based on relevance theory, this paper will emphatically discuss the dynamic construction of context and corresponding cognitive effects.

2. Relevance Theory and Metaphor Study

Relevance Theory, first proposed by Sperber and Wilson, elaborates the relevance principle in oral communication by Grice from the cognitive perspective. It mainly discusses the cognitive aspects relate to language interpretation, such as cognitive effects, cognitive efforts, cognitive principles etc., and emphasizes the subject's cognitive ability. Relevance theory believes that language communication is an ostensive-inferential process, which is a cognitive activity and follows certain rules of inferential thinking. (Sperber&Wilson 2001)

Relevance theory challenges Grice's theory of conversation and holds that cooperation is not the premise of communication, the interlocuters can communicate without being aware of the relevance principle and will not violate it. In other words, relevance is the instinct of interlocuters. According to the theory, the comprehension of metaphor works in the same way as understanding other linguistic phenomena. "Metaphor is a loose use of language", which "requires no special interpretive abilities or procedures: it is a natural outcome of some very general abilities and procedures used in verbal communication." (Sperber&Wilson 2001:237)

Relevance theory also redefines the concept of context. A context is "a psychological construct, a subset of the hearer's assumptions about the world." (Sperber&Wilson 2001:15) It affects the interpretation of an utterance. The content of context is not only restricted to information about the immediately preceding utterances, but also encyclopedic knowledge. It is not necessary and impossible to extract all background information, only the relevant one, and the information will be updated with the preceding of communication. That is, context has dynamic characteristics. In addition, in the actual instances of metaphor, people always employ various kinds of modes, such as image, sound, color, gesture etc. to supplement the language mode, in further, to convey meaning and communicative intention of the metaphor in a more flexible, efficient and accurate manner. The presentation and processing sequence of modes continuously activate and update contextual assumptions, meanwhile, drive the deductive process. Therefore, this paper argues that the combination of multimodal metaphor and relevance theory expands the scope of metaphor research, provides a new perspective to explain the meaning construction of multimodal metaphor, moreover, tests the explanatory power of relevance theory from a different angle.

3. Meaning Construction of Multimodal Metaphor with Relevance Theory

According to relevance theory, verbal communication is an ostensive inferential process, a cognitive activity that follows certain rules of inferential thinking. The presentation of ostensive behavior may be verbal, such as a clear utterance, or non-verbal, such as body posture or movement, eye contact, tone or intonation. In the meaning construction process of multimodal metaphor, all kinds of modal symbols can be viewed as ostensive behaviors. The meaning construction of multimodal metaphor is the one that the cognitive subject dynamically constructs cognitive context against various kinds of modal stimuli, and make inference to acquire the author's informative intention, in further, the communicative intention. We make a concrete analysis of the multimodal metaphor phenomenon in the following example within the framework of relevance theory:

Figure 1

This case implies the metaphor "language is a weapon", which means "language, like a weapon, can bring harm to people. Such psychological harm is as real as scars due to physical harm." How to acquire this metaphor and its meaning? First, we need to analyze the modal information conveyed by the example:

(1) Image: A young woman with a cut on her eye, the shape of which matches the acoustic wave symbol of "whore".

(2) Acoustic wave symbol: represents [hɔːr] ("whore")

(3) Text: Words hurt. You can't see them but the scars from verbal abuse are real and can last for

years.

According to the communicative principle of relevance theory, every ostensive communicative behavior should assume itself has the optimal relevance. (Sperber&Wilson) 2001:158) Speakers always intend the utterances have the optimal relevance, the stimulus is relevant enough for it to be worth the addressee's efforts to process it. The ostensive stimulus is the most relevant one consistent with the speaker's ability and preference. Then, based on this principle, we assume that the author in this case has managed to construct an optimal relevance between these words, acoustic symbol and image when representing his thoughts and has successfully represented it within the scope of his ability and aesthetic preference. Thus the combination is worth our cognitive efforts to process.

And then we consider how the modal information interrelate and drives deduction. Relevance theory formulates reasoning in communication. "A logic form is a well-formed formula." (Sperber&Wilson 2001: 72) Context effects is an important consideration of relevance, which results from the computation of new cognitive information or premises (P) with the set of contextual assumptions (C1, C2…Cn). P and C forms conclusion (Q). Since context hypothesis is a variable, under the same proposition condition, different inference conclusions can be drawn by combining different contextual assumptions.

The priority of modal information processing in multimodal metaphor can produce different cognitive effects. In this case, we can highlight three types of modal symbols: P1 image, P2 acoustic wave symbol, and P3 text. Ideally, there are six possible deduction paths according to the processing order of modal information: (1) P1—P2—P3; (2) P1—P3—P2; (3) P2—P1—P3; (4) P2—P3—P1; (5) P3—P2—P1; (6) P3—P1—P2.

Taking P1-P2-P3 as an example, we examine its influence on the construction and understanding of multimodal metaphor: P1 image: the picture of a young woman with a wound on her eye triggers the change of the cognitive environment of the cognitive subject, activates a series of contextual assumptions, and forms the premise for further reasoning. Yet the accessibility of contextual assumptions is different, extraction of contextual assumptions follows the stacking sequence, the most accessible one racks first in the stacking order, has the largest extent of accessibility, facilitates the cognitive subject in choosing a contextual assumption. Therefore, some peripheral contextual assumptions will be automatically abandoned during extraction. P1 could activate contextual assumptions C1: Violence against women. C2: Domestic violence, campus bullying, violent crimes and other physical causes of harm to women. C3: Gender discrimination against women.

Context defined by relevance theory has dynamic characteristics. When processed, new information integrates into the cognitive environment, and enriches and expands the cognitive context for the processing of the next new information. The contextual assumptions aroused by P1 have formed a part of the cognitive environment of the cognitive subject. Then for the P2 (acoustic wave symbol): represents "whore", it may activate contextual assumptions as follows:

C4: "Whore" is an offensive term used against women.

C5: Sound can be expressed as an acoustic wave symbol, that of the word "whore'" is .

According to the communicative principle, we assume that P1 and P2 and the contextual assumptions they provoke are related. Human cognition under cognitive principle tends to coincide with maximum relevance. Cognitive efficiency requires economic processing of information, in other words, cognitive subjects intend to obtain maximum cognitive effects with minimum cognitive efforts. Therefore, when the cognitive subject juxtaposes the shape of the wound on the female's face with the C5: sound wave symbol, C2 is excluded: the cause of female's injury is not from domestic violence, campus bullying, violent crime, etc., but C4: the insult brought by calling the female "whore". Also, it excludes C1: The woman is not subjected to physical violence, nor C3: sexism, but verbal abuse. Finally, the conclusion Q1 is drawn: Language can bring harm to people. The psychological harm is as serious and real as the physical one.

At this point, conclusion Q1 is again integrated into the cognitive environment, and finally P3 is processed: "Words hurt. You can't see them but the scars from verbal abuse are real and can last for years." The cognitive subject confirms from the context, C6: Recalling having suffered or seeing others suffering from verbal violence, and the consequent negative feelings. These negative mental effects are just as serious as the physical ones. The new contextual assumption supports and strengthens conclusion Q1. Finally, the cognitive subject realizes that what the example conveys is actually a metaphor, and forms a new inference conclusion Q2: Language is metaphorically compared to a

weapon that can bring harm to people, the harm of which is as real as scars on the body. Hereto the interpretation of multimodal metaphor in this example is completed.

From the perspective of cognitive effects, new information can (1) strengthen the existing assumption; (2) weaken or reject the existing assumption; (3) derive contextual implications. (Sperber&Wilson 2001:108-117) If the assumption of new information conveyed by discourse strengthens the assumption in the cognitive environment, then our reasoning process can be regarded as a process of strengthening deduction; If the assumption of the new information conveyed by the discourse weakens or conflicts with the assumption in the cognitive environment, the reasoning process can be regarded as a process of weakening or negating deduction. If the assumption of the new information conveyed in the discourse interacts with the existing assumption in the cognitive environment to produce new assumptions or contextual implications, our reasoning process can be regarded as a process of forming deduction. Based on above, processing modal symbols in the order of P1-P2-P3 is actually a process of negation reasoning-forming reasoning-strengthening reasoning.

Taking P2-P3-P1 as another example, if the cognitive subject first highlights the processing of modal information P2 acoustic wave symbol: whore ![]. The contextual assumptions it may activate include:

C1: "Whore" is an offensive expression for women;

C2: Sound can be expressed in acoustic symbol, ![] for "whore".

Then the text P3: "Words hurt. You can't see them but the scars from verbal abuse are real and can last for years." P3 alters our cognitive environment and may provoke the following contextual assumptions:

C3: As a cognitive subjects, one may have suffered or seen others suffer from verbal violence, which brings a variety of negative feelings. These negative mental effects are just as serious as the physical ones.

According to relevance principle, the cognitive subject tries to establish the optimal relevance between the explicit stimulus and various contextual assumptions in order to successfully determine the contextual meaning of the explicit behavior. In this case, C1, C2 and C3 are related to each other. "Whore" is an insult to women, and language can hurt people, so the conclusion Q1 is drawn: A woman can be hurt if being called "whore". If you speak ill of someone, you can do harm to the people. It can be further inferred that the metaphor "language is a weapon", meaning that "language is like a weapon that can bring harm to people, which is as real as scars on the body". At this point, the comprehension of the metaphor is completed on language level, but the processing of modes hasn't.

Now the Q1 becomes part of the cognitive environment, and then we incorporate new information P2 image: a young woman with a cut on her eye. P2 activates possible assumptions:

C4: Violence against women.

C5: Domestic violence, school bullying, violent crimes etc. cause harm to the woman.

C6: Sexism against women.

In combination with the inference conclusion Q1, according to the cognitive principle, we automatically reject the contextual hypothesis that the woman in the picture was physically harmed because of domestic violence, campus bullying or other reasons. According to the relevance principle, it is easy to notice that the shape of the wound is consistent with the shape of the sound wave when seeking a reasonable relationship between explicit stimuli. Then it is not difficult to draw the conclusion that the injury of the woman is caused by language, which further confirms the conclusion Q2: The wound on the young woman's body is actually metaphorically expresses the psychological damage caused by verbal violence. Finally, we complete the comprehension of the case: language is used metaphorically as weapons. It can bring harm to people, and such harm is as real as physical one. Q2 thus supports Q1.

From the perspective of contextual effects, processing modal information in the sequence of P2-P3-P1 is actually a process of forming reasoning-strengthening reasoning-restrengthening reasoning. The increasingly enhanced contextual effects, on the other hand, indicates that the emotional impact brought by multimodal metaphor is stronger than the rhetorical effect of single modal metaphor.

During the meaning construction process of multi-modal metaphor, with the development of modal information processing, the cognitive subject establishes a series of assumptions, and forms a gradually

changing cognitive environment. When the new information is processed to reach a conclusion, it will be incorporated as part of the old information in the cognitive context. As a result, the cognitive context will continue to expand and enrich, paving the road for processing the next new information. The so-called relevance falls on the contextual effect brought by information in the cognitive environment. If the assumption provided by modal stimulus can alter the cognitive environment of the cognitive subject, or produce contextual implications, or strengthen existing information, or exclude existing information, then the stimulus has relevance. In this case, although deductive conclusions led by different paths are consistent, the different sequence of perceiving and processing modal information activates different deduction paths. In further, it produces completely different cognitive effects after the multiple adjustment and modification of deduction.

4. Conclusions

The paper discusses the meaning construction process of multimodal metaphor within the framework of relevance theory. The comprehension of metaphor, like that of all the other linguistic phenomena, is constrained by the principle of relevance. Context is a dynamic concept. In the process of metaphorical understanding, the processed information can draw a conclusion or assumption, then melts into the existing information. As a result, the cognitive context will continue to expand and enrich, paving road for adopting the next new information. The processing sequence of modal symbols in multimodal metaphors will provoke different deduction paths, promote the dynamic construction and comprehension of metaphors, and bring out different cognitive effects.

As mentioned above, technically, there are six paths to process modal information in this case. When in the real situation, the processing process of various modal symbols in multi-modal metaphor needs to be tested with empirical research methods, such as eye movement, ERPs, etc. When representing multimodal metaphors, is it possible to manipulate the presentation sequence of modal information to control its meaning construction process and improve the effectiveness of modal distribution? Facing numerous and complex multimodal metaphorical categories, it is necessary to put forward an operational framework for multimodal metaphorical meaning construction based on empirical research.

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