Analysis of Multimodal Metaphors in news reports: A Case Study of *The Times*

Chuang Wang[1,a,*], Rongjuan Duan[1,b], Xiaoying Wu[2,c]

[1]Taiyuan University of Technology, Daxuejie Street, Jinzhong City, China

[2]College of Foreign Languages, Taiyuan University of Technology, Daxuejie Street, Jinzhong City, China

[a] 1733357538@qq.com, [b] duan6018312@163.com, [c] W1727033060@163.com

*Corresponding author

Keywords: Multimodal Metaphor, System Function, News Reports, Pictures

Abstract: With the development of *The Times*, information is diversified and people's access to information is no longer limited to the text level. With the rise of multimodal metaphor, the combination of metaphor with visual, auditory, picture and other non-literal symbols has become the main means of current news reports, which effectively improves the persuasiveness of news reports. However, many media have a lot of political guidance in news reports. Therefore, the interpretation of multimodal metaphor in news reports is very important. This paper analyzes the reports related to China in *The Times* during the epidemic period, and studies the application of multimodal metaphors in pictures and text reports in the news, which explores how the pictures in news reports use the superposition, intersection and fusion of visual symbols in space to construct virtual metaphorical scenes. Moreover, the multidimensional metaphorical interaction is used to interpret the representational meaning of the original domain to the target domain, and to show the hierarchical structure and mapping types. This paper can help readers avoid the misleading of the media rationally, cultivate dialectical thinking, and provide the new perspective for the analysis of news reports.

1. Introduction

The upsurge of interdisciplinary research in the late 20th century has greatly promoted the study of multimodal metaphor. For example, the organic integration of cognitive science with psychology, linguistics and sociology has provided rich theoretical and methodological support for it and promoted the development of related research. Researchers of conceptual metaphor theory believe that the metaphor is not a rhetorical device, but a way of thinking[1] (Lakoff 1980: 5). Researchers have summed up the thinking essence, cognitive mechanism and Mapping Law of metaphor. Metaphor operates on the level of thinking, so language, as a tool of modern society, needs human beings to find the operation mechanism of metaphor in other symbols. Therefore, the multimodal metaphor research initiated by Charles Forceville at the end of the 1990s makes the research of metaphor cross into a new aspect. Multimodal metaphor is a new research method emerged under the trend of multimodal research and interdisciplinary research, which makes up for and enriches the defects of classical cognitive metaphor research. Nowadays, multimodal metaphor has become the main tool of media, especially in news reports. News reports use visual symbols and picture symbols to stimulate the multiple mapping between the source domain and the target domain in multimodal metaphor and to complete the transmission of information. Moreover, combined with the text symbols, it makes the news reports more persuasive and influential. However, there are still many limitations in the analysis of multimodal metaphors in news reports in domestic academic circles, and most of the research on multimodal metaphor focuses on the text level, while the analysis of metaphors in related pictures lacks in depth and systematic discussion. Therefore, this paper analyzes the news reports in *The Times* during the epidemic period, discusses the multimodal metaphors in the news reports and analyses how the pictures use the superposition and fusion of visual symbols in space to construct the virtual metaphorical scene, and make the multi-dimensional metaphorical interact to interpret the representation meaning of the source domain and the target

domain. From the perspective of multimodal metaphor, this paper analyzes the application of multimodal metaphor in news, aiming to explore the representation mechanism and application of multimodal metaphor in news reports.

2. Literature Review

The development of metaphor has gone through a transition from rhetorical metaphor to cognitive metaphor. Metaphor involves mapping from familiar, concrete source domains to unfamiliar, abstract target domains. Its essence lies in the cognitive process of understanding abstract concepts through concrete ones[2]. Research on metaphor abroad can be traced back to explorations in language and rhetoric. As time has progressed, media convergence and interdisciplinary approaches have become prominent trends in metaphor research. In 1996, Forceville published his doctoral thesis "Pictorial Metaphor in Advertising," where he introduced the concept of "visual metaphor." This marked the beginning of multimodal metaphor studies. Forceville categorized modalities into nine types, including visual symbols, written symbols, verbal symbols, gestures, sounds, music, smells, tastes, and tactile sensations. He systematically defined multimodal metaphors as those where both the source and target domains are represented primarily or entirely through two or more of these modalities. Research on metaphor abroad is relatively comprehensive and covers various areas, such as the linguistic characteristics of multimodal metaphors, their distinctive features, the relationship between multimodal metaphors and metonymy, and representation methods for the similarity of multimodal metaphors. Pollaroli (2015) conducted exploratory research on image metaphors and multimodal metaphors in print advertising[3]. Hart (2017) adapted cognitive linguistic approaches to study how metaphor functions in language, visual, and multimodal forms of media[4]. Ahmed Abdel-Raheem (2021) focused on specific comic behaviors and expressions from a social cognitive perspective, using the Egyptian comic corpus as a research object[5]. Overall, research on multimodal metaphors abroad is relatively comprehensive and diverse.

Research on multimodal metaphors in China started relatively late but has delved into various fields. Numerous research papers in China have emerged that apply multimodal metaphor analysis to different types of discourse. These primarily include advertising (Feng Dezheng, Xing Chunyan 2011; Zhang Hui, Zhan Weiwei 2011 e.g.)[6,7], comics (Liu Yi 2019; Pan Yanyan 2011 e.g.)[8], and gesture language (Jiang Guiying, Wang Ronghua 2013 e.g.)[9], among others. Compared to the static nature of linguistic metaphors, multimodal metaphors involve the collaborative participation of multiple modal symbols, exhibiting dynamic, vivid, and narrative characteristics. The constructed potential meanings are also richer, capable of engaging multiple human senses to facilitate effective interaction between symbols and information. For example, Feng Dezhen (2011) proposed a text-image multimodal metaphor type system network from the perspective of system functionality, simultaneously categorizing metaphor types into A1B2, A2B1 cross-modal mappings, A1B1B2, A1B1A2, A2B2B1, A2B2A1 mono-modal mappings, and A1B1A2B2 multimodal mappings[10]. Pan Yanyan (2011) discussed multimodal metaphors in political cartoons, further emphasizing the importance of source domain selection and cultural connotations in the formation of multimodal metaphors[11]. Duan Rongjuan (2021) analyzed the system characteristics in advertising design from the perspective of systems science theory, and compared the differences and synergies presented in three automotive advertising designs through multimodal metaphor analysis[12]. Cheng Jintao (2021) explored the interaction between multimodal metaphors and narrative in advertising discourse, using examples from graphic advertisements of American information and communication technology companies and Huawei's internet mobile phone advertisements[13]. Zhao Xiufeng (2022) integrated ecological discourse analysis and multimodal cognitive critical analysis, using political comics related to bioenergy as an example to analyze ironic representations of ecological positions, among other studies[14].

3. Data Collection and Research Methods

3.1. Data Collection

This paper collected news reports during the epidemic period from *The Times* and selected news reports related to the epidemic in China between 2020.6.1 and 2020.12.31. In the database of *The Times* (https://www.thetimes.co.uk/), "coronavirus China" is used as the key words to search, and then get rid of news reports without pictures. The remaining reports are selected and the selection criteria are as follows:

1) News reports directly related to the epidemic
2) The representative picture of a news report with typical hints
3) The pictures in the news report with typical people who can represent the country
4) Combination of pictures and words in news reports

These pictures are not special cases in news reports, but have certain commonalities on the theme level. At the same time, from the perspective of the interaction theory between the source domain and the target domain, the expression of multimodal metaphor in these pictures does not rely on the literal symbols, but mainly presents information by visual symbols, which has a very distinctive feature. Finally, 77 pictures were selected.

3.2. Research Methods

This paper will answer the following questions：
1) How do multimodal metaphors work in news reports.
2) How do the pictures in the news reports complement the text reports.
3) What are the general characteristics of the pictures in the news reports.

In this paper, the metaphorical interaction framework was used to analyze the pictures in news reports with system science theory. According to the multimodal metaphor theory, multimodal metaphor has a meta-function, and the spatial position of its picture elements is the construction element of the meaning of the pictures in the news reports. These pictures not only reflect the significance of the news reports, but also play an auxiliary role in the text part of the reports. At the same time, the use of multimodal metaphor in news reports not only gives people a more intuitive feeling visually, but also has a tendency to guide people's thoughts and opinions, thus making the content of news reports more meaningful. The information of pictures is expressed through visual elements, and then the specific meaning of the picture is constructed through multimodal metaphor. Finally, the news report finishes the expression of the information through the corresponding title and text report of the picture. At the same time, in the actual analysis, in order to better analyze the specific application of multimodal metaphor in news reports, this paper uses the multimodal metaphor selection model proposed by Yang Xieran (2019: 89) in his paper to analyze the selection effect of multimodal metaphor in pictures[15]. In other words, not all kinds of metaphors can be used in pictures. When multimodal metaphors are combined with news reports, pictures, as a system, have the selection.

The research method of system science is used in this paper. The picture as an organic whole can be analyzed as a system. Generally speaking, a system is an organic whole composed of many interacting elements. The system often has the basic characteristics, such as integrity, relevance, hierarchical structure and so on. The theory of system science is a theoretical system which studies the general pattern, structure and law of system. Mr. Qian Xuesen (1981: 3) pointed out that everything in the world is a system, which exists in all fields of society and nature[16]. First of all, there is an organic connection between the system and the internal elements as well as the corresponding environment. Feng Dezheng (2011: 24-29) made an in-depth analysis of the construction of multimodal metaphor from the perspective of system function[17]. All systems are hierarchical. Systems can also be divided into smaller subsystems in the pictures, and there are multiple interactions between subsystems and the overall system. The method of system science has been widely used in the human society.

4. Analysis and Results

4.1. Data Analysis

Pictures in news reports have the characteristics of integrity, hierarchy and dynamic. Pictures in different news reports can be adjusted according to different metaphorical levels to express almost the same meaning, while extremely similar pictures may affect the interaction of various metaphorical subsystems and express different meanings just because of a little tiny difference. From the perspective of system science, each picture is an organic system and multiple elements in the system combine and interact with each other to form a number of subsystems. The differences and synergy among various systems in the system work together on the operation mechanism of metaphor, thus affecting the expression of information. The picture systems in news reports have certain similarities. Each picture system can be divided into multiple levels. Through the interaction between subsystems at various levels, the layers are superimposed on each other, and the meaning behind the pictures in the news report is conveyed step by step.

However, there are obvious differences in the purposefulness and the selectivity of multimodal metaphor among the picture systems. The pictures in news reports use many kinds of multimodal metaphors, such as structural metaphor, spatial metaphor and ontological metaphor, so as to realize the operation of multimodal metaphor through the mapping between the source domain and the target domain, and converge to the association layer in the brain finally, creating a virtual metaphor scene and strengthening the purpose and guidance of text reports.

This paper collects origin domains in the pictures of the news reports, and sixteen origin domains are found, such as the national leaders, the national flags, Wuhan City, the Forbidden City and so on. Since the same picture in news sometimes has two or more source domains pointing to the target domain, the statistical results are larger than the total number of collected pictures. The results are shown in Figure 1.
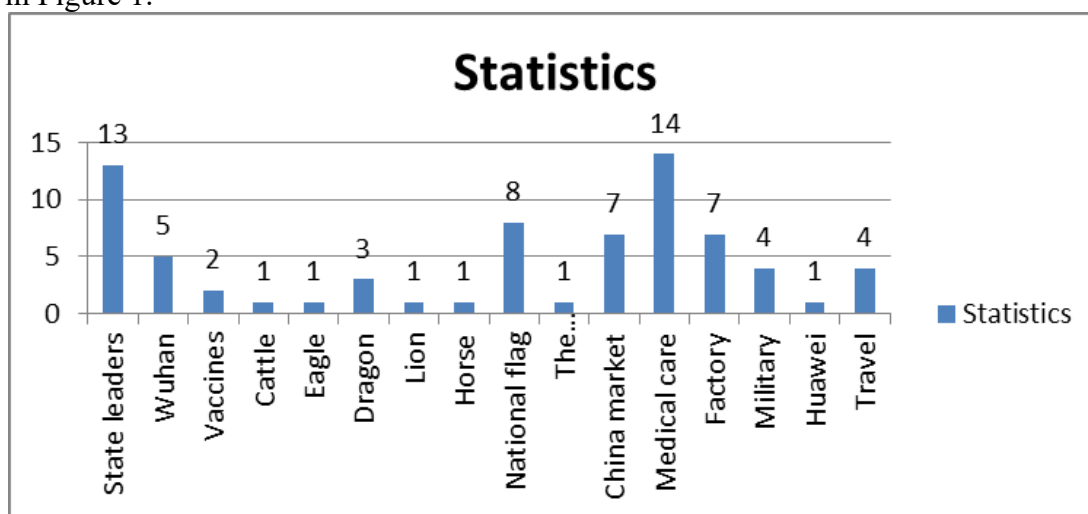

Figure 1 The statistics of Origin domain.

From Figure 1, it is easy to see that the most used things in the news reports of *The Times* are medical scenes, national leaders and national flags as the origin. Among them, the national leaders and medical scenes account for a large proportion. During the epidemic, it is not difficult to understand that the news reports of various countries focus on medical treatment. However, *The Times* uses a large number of structural metaphors to satirize China with national leaders and national flags. From the data in the above figure, it can be seen that the situation that the national leaders are regarded as the source domain in the pictures of the news reports in *The Times* is far greater than that of using national flag as the source domain.

In addition, despite the significant progress made in vaccine in China, the news reports in *The Times* use picture mapping text type cross modal mapping (A1B2), satirizing that China has begun to use it before the vaccine is completed. In this way, China is irresponsible and has always been skeptical about the level of medical development in China. Thus, Western countries always blame

China for the outbreak of the epidemic, and unfairly report the measures taken by China during the outbreak. The use of pictures on news reports strengthens the role of text reports and deepens the purpose and guidance of news reports.

In news reports, there are many ways of multimodal metaphor, such as structural metaphor and spatial metaphor. However, all metaphors do not appear in a report at the same time, but have certain selections. There are many metaphors used in a common picture. Therefore, the statistical results are larger than the number of pictures. The final results are shown in Figure 2.
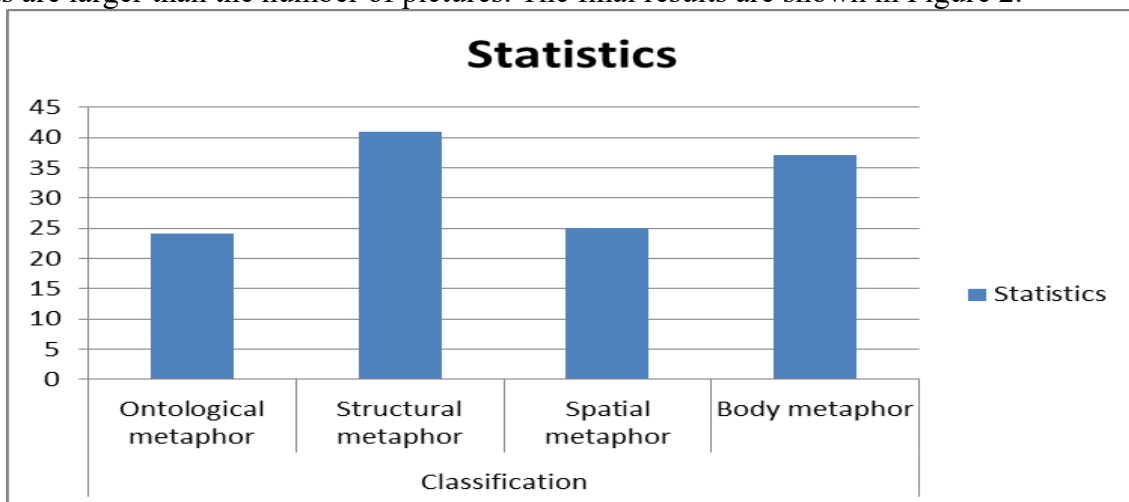

Figure 2 The statistics of metaphor.

It can be seen from the Figure 2, structural metaphor, body metaphor and spatial metaphor are used more frequently in the news reports of *The Times* on China's epidemic situation. According to Lakoff and Johnson's (1980) definition of metaphor, structural metaphor is the use of one concept to understand another concept[18], while the extensive use of structural metaphor in news reports implies irony, which makes the reports with serious political bias. Secondly, body metaphor is also widely used in news reports, which uses the symbolic system to show the characters' expressions and actions, In order to further explain the data, this paper further classifies the structural metaphor and body metaphor in the above tables. The results are as follows (in Table 1-2).

Table 1 The statistics of structural metaphor.

Structural metaphor	
Classification	Statistics
Economics	17
Politics	8
Military	13
Cultural life	3

Table 2 The statistics of body metaphor.

Body metaphor	
Classification	Statistics
State leaders	13
Chinese soldiers	5
Cartoon characters(China)	6
Dragon	2
Lion	1
Eagle	1
Horse	1
Cattle	1
Other characters	7

It can be seen from the Table 1, *The Times* uses multimodal metaphors to map China's economic

and military aspects in the structural metaphors,. Western countries use the literal symbol system and structural metaphor system to compare the epidemic situation to war, and the spread of the epidemic situation is China's weapon, etc., and focus on China's economy, which is related to China's high-quality economic development in recent years, It makes Western countries fear that their international status will be affected, and these war metaphors just show that Western countries have very hostile attitudes towards China, regard China as a threat, and create a purposeful negative picture of China through news reports.

Secondly, from the Table 2, body metaphors are widely used in the pictures of national leaders and Chinese soldiers, satirizing China's hegemonic attitude towards international affairs and strengthening the unjust view that China is dangerous from another level. Moreover, it is a direct attack on China to directly defame the picture of national leaders, which is consistent with the results in Figure 1.

4.2. The Application of Multimodal Metaphor in News Reports

In order to further illustrate the role of multimodal metaphor in news reports and explore how the images in news reports use the spatial characteristics of visual symbols to construct virtual metaphorical scenes and complete multidimensional metaphorical interaction. At the same time, ontological metaphor is divided into container metaphor and anthropomorphic metaphor. In news reports, container metaphor often overlaps with spatial metaphor, and anthropomorphic metaphor also overlaps with structural metaphor and body metaphor. Therefore, this paper mainly discusses the role of structural metaphor, spatial metaphor and body metaphor in news reports. According to the characteristics of the three kinds of multimodal metaphor, this paper selects three most representative pictures and corresponding text reports to illustrate. The results are shown in Table 3

Table 3 Case analysis.

Category	Specific examples of Pictures	Source	Hue	Key elements
Picture 1		*The Times* 2020.6.9 Coronavirus: China denies August outbreak claim	Dark color	Flag, A man with a whip
Picture 2		2020.6.4 Coronavirus: China and US snub global talks on vaccine	Bright color	Dragon, Lion, Horse Flag
Picture 3		2020.8.3 Coronavirus: China's 'wolf warrior' diplomats sink teeth into the West	Bright color	Classic Chinese Slogan

4.2.1. The Application of Structural Metaphor in News Reports

As an organic system, news reports have a combination relationship among all levels and parts of the system. According to the orientation sub metaphor system, the structure metaphor system, the ontology sub metaphor system and the visual sub metaphor system, we can analyze the operation

process of metaphor in pictures, and all kinds of mappings and metaphors are interrelated. The function of each element should be brought into full play among various systems. The parts of report showed in picture 4.

> Coronavirus: China denies August outbreak claim
>
> China has hit back at a claim that…, describing the evidence as "superficial" and the conclusion as "absurd"…
> At the same time there was an increase in Chinese internet searches for symptoms that …associated with the virus. Searches on the Baidu browser for "cough" began to increase from August…
> China denies knowledge of earlier cases and insists that it has been forthcoming and transparent in …

Picture 4 Excerpts from news reports corresponding to Picture 1.

On the text level, the picture is titled "coronavirus: china denies August outbreak claim", indicating that China denies that the outbreak originated from China. It uses ontology metaphor system to personify the epidemic and gives the sense of lovers. Meanwhile, it uses symbolic system to show whether China recognizes the outbreak of August epidemic as the condemnation of the epidemic to China, which is irrelevant to other countries. It has been hidden from the existence of western countries. In news reports, it is unreasonable and absurd to say that China believes that foreign accusations are unfounded and absurd first. However, a large number of data are written. For example, the search for virus symptoms on Chinese Internet is increasing, and the search volume of cough symptoms in Baidu search is also increasing. Finally, it is timely and transparent to write out that China shares information in time and openly, which makes the article highlight that all Chinese practices are absurd. Meanwhile, the relationship between dragon and cartoon man is mapped to the relationship between China and other countries by means of picture-assisted text mapping (A1B1B2) and ontology metaphor, and the outbreak of the epidemic are satirized.

At the picture level, the picture itself as an organic system, combined with multi-modal metaphor, each metaphor is linked and related layer by layer. Therefore, the understanding of the picture must start from the whole. The pictures in news reports reflect the systematic characteristics of hierarchy, integrity, functionality, purpose and openness. The metaphorical system is often combined with a variety of symbol systems, such as text symbol system, Picture symbol system and so on. Many systems interact and play different effects, and the combination of each system serves the picture system together. In order to transfer the information behind the picture, and the framework model of metaphor interaction proposed by Ruiz de Mendoza and Galera (2014)[19]. The result is shown in Figure 3.
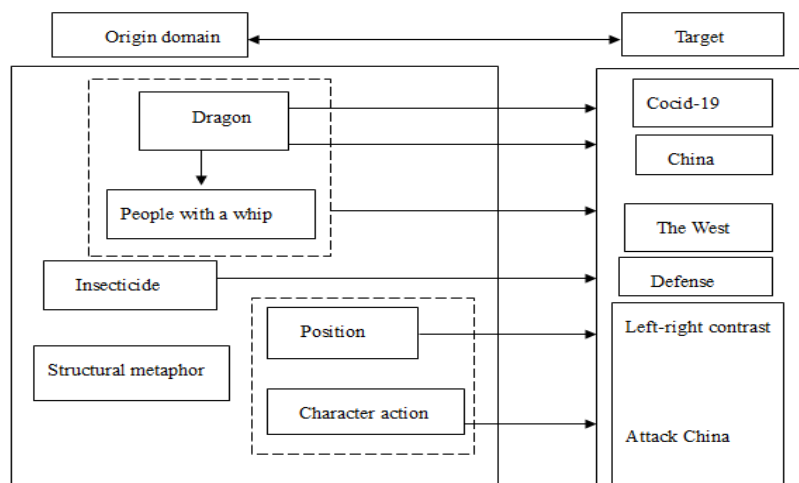
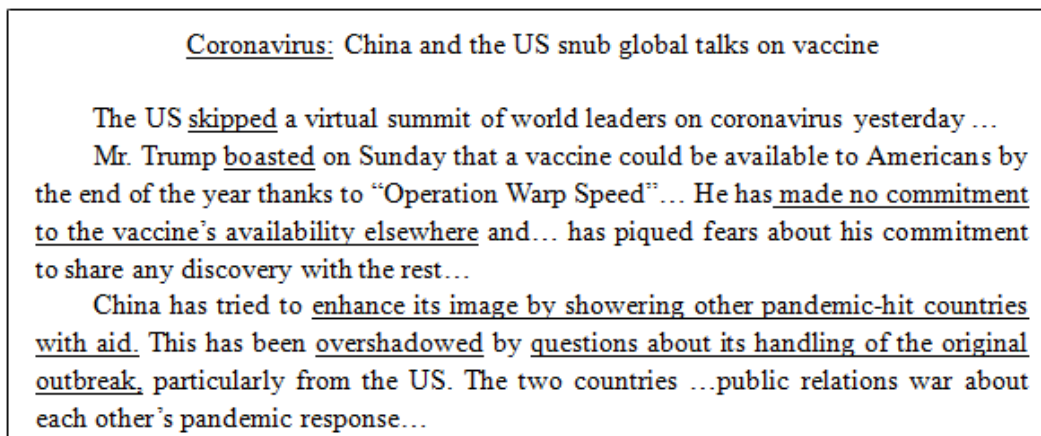Figure 3 Mapping of metaphor system in Picture 1.

The core of Picture 1 is the structural metaphor system, and it is also a typical "left and right Juxtaposition" sub metaphorical system. According to people's visual inertia, people are always used to giving priority to the large size of things located in the center of the picture. So the most attractive thing to note is the dragon on the left and the people on the right. The two constitute the spatial metaphor subsystem, while dragon itself has the auspicious meaning in the oriental culture, which often represents China and also constitutes the structural metaphor subsystem.

Secondly, in the body sub metaphor system, dragon expression and the action of characters form a competitive form. Through the interaction between source and target domain and the role of metaphor system, the back meaning of the picture is transmitted. That is, Western countries are trying to safeguard their own interests and eliminate the epidemic situation in the Eastern countries.

At the same time, the whip and insecticide in human hands constitute a structural sub metaphorical system. Moreover, the system forms a dual metaphor system with the sub metaphorical system of the previous metaphor, and then through mapping and the multiple functions of the two source regions.

4.2.2. The Application of Spatial Metaphor in News Reports

According to the basic principles of system function, combined with multimodal metaphor theory, picture information is mainly produced by people's sensory system. The use of metaphors is often unconscious[20]. In the process of analysis, people should consciously use people's visual rules and psychological association mechanism. Pictures in news reports have their own characteristics. One is the characteristics of artistic conception content, and the other is the characteristics of work form picture creation, color combination and other aspects should have a purpose. The parts of report are showed in Picture 5.

> Coronavirus: China and the US snub global talks on vaccine
>
> The US skipped a virtual summit of world leaders on coronavirus yesterday …
> Mr. Trump boasted on Sunday that a vaccine could be available to Americans by the end of the year thanks to "Operation Warp Speed"… He has made no commitment to the vaccine's availability elsewhere and… has piqued fears about his commitment to share any discovery with the rest…
> China has tried to enhance its image by showering other pandemic-hit countries with aid. This has been overshadowed by questions about its handling of the original outbreak, particularly from the US. The two countries …public relations war about each other's pandemic response…

Picture 5 Excerpts from news reports corresponding to Picture 2.

In Picture 5, at the text level, we use the ontological metaphor system to express the emotion of the infected lover in the title. Compared with the word "absent", it reflects the attitude of China and the United States. It forms the anthropomorphic metaphor and forms the double anthropomorphic metaphor subsystem, which makes the title more vivid. At the same time, in the content of news reports, it also reflects the attitude of China and the United States. At the beginning of the article, skip is used to express the absence of the United States, which forms a personification metaphor and reflects the irresponsible attitude of the United States. Secondly, it uses "toast" and "made no commitment" to further strengthen the irresponsible image of the United States. The word "overshadowed" is used in the article, which is more concrete than "cover", highlighting the degree of China's guilty heart from the side.

At the picture level, according to the principle of relevance, news works should accurately analyze the aesthetic value and taste of the target public, and create and publicize according to the aesthetic needs of the public and mass culture. In today's society, there is a large amount of information flow. Again, we apply the metaphor interaction framework model to get Figure 4.
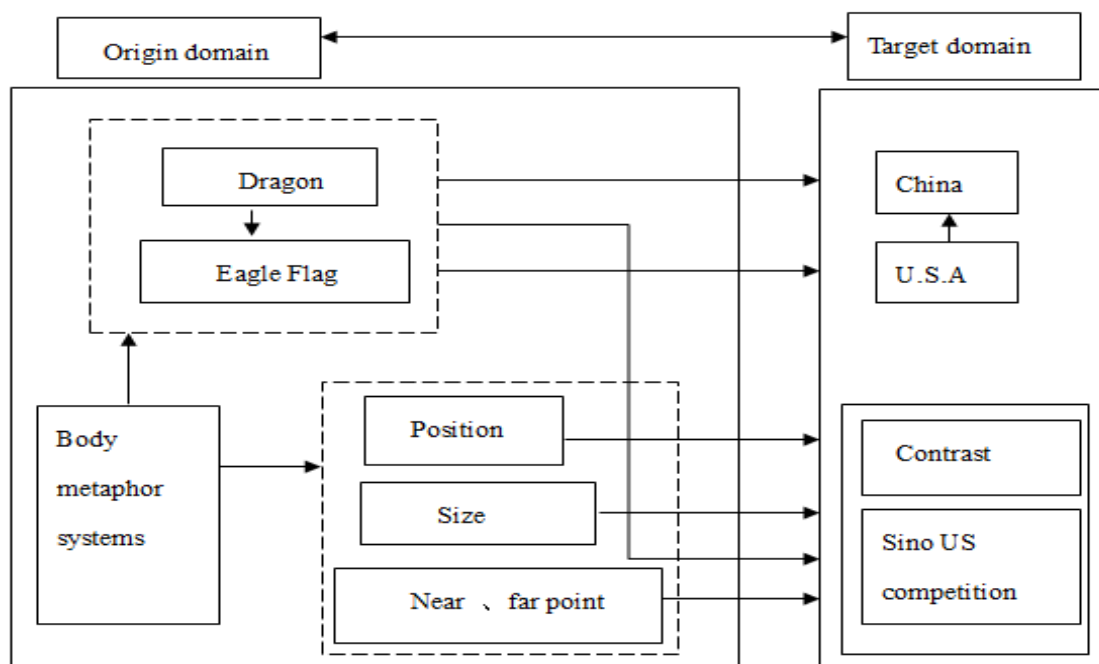
Figure 4 Mapping of metaphor system in Picture 2.

The picture is a typical "center-edge" sub metaphor system, in which the orientation sub metaphor system determines the emotional tendency of the news report picture, and plays an important role in the transmission of the whole picture information. The eagle and the dragon are respectively located in the left and right position of the picture. The eagle represents the United States, and the dragon still represents China, and the two characters form a mutual competition. The visual size of the picture shows that the size of lions and horses is in sharp contrast with that of eagle and dragon. The use of orientation sub metaphor system shows the difficult survival of Britain in the competition between the two powers. The subsystem of body metaphor plays an important role in the figure.

Moreover, the body metaphor and dimension symbol work together, which shows the fierce competition between China and the United States and the helpless state of Britain living under two big countries. The two systems are independent and operate together. The helpless British news reporting has shown the interest principle and characteristic principle. Combined with the structure, level and function of pictures, the author uses a variety of symbol systems and metaphorical systems to finish the mapping from the origin to the target domain. The core meaning of metaphorical news reports can be seen that the use of pictures strengthens the effect of text metaphor, which makes the text symbol dynamic in static news reports.

4.2.3. The Application of Body Metaphor in News Reports

Coronavirus: China's 'wolf warrior' diplomats sink teeth into the West

In China's vastly popular Wolf Warrior film blockbusters, a muscle-bound special force command vanquishes "bad guys" in the form of American mercenaries across Africa and Asia…

Now, Chinese fighters are going into battle to promote the…. They are China's so-called "wolf warrior diplomats", named after the films. Traditionally, Chinese envoys have cut colorless figures, sticking to staid, carefully regimented speeches while shunning the limelight…

Picture 6 Excerpts from news reports corresponding to Picture 3.

In news reports, there are often many elements interact with each other. The distant scene and

the near scene play an extremely important role. The virtual picture and the proportion relationship in the news reports can give people a clear feeling. Combined with the application of different styles and colors, it also brings people different emotions, and the emotional control is an important means of news reports. The parts of report are showed in Picture 6.

Zhang Delu pointed out that there is a connection between multimodal symbols and culture from the perspective of social symbols[21].At the textual level, besides using anthropomorphic metaphor, the title also uses structural metaphor subsystem to compare wolf to Chinese diplomat and wolf opening his mouth to the west to Chinese diplomacy. In the aspect of text content, the first chapter introduces Chinese movies, describes Chinese soldiers as people with developed limbs and simple mind. At the same time, it makes up a structural sub metaphor system in the transition to China's diplomacy, and uses the word "wolf warrior" to describe China's rough, simple and irresponsible diplomacy. At the same time, picture mapping text type cross modal mapping(A1B2) is used to form the system interpretation function of text symbol subsystem.

At the picture level, in the system science theory, all systems are in dynamic balance, and each level and all elements are in continuous motion and development. The picture integrity and hierarchy have different functions. Figure 5 is obtained by using the framework model of metaphor interaction.
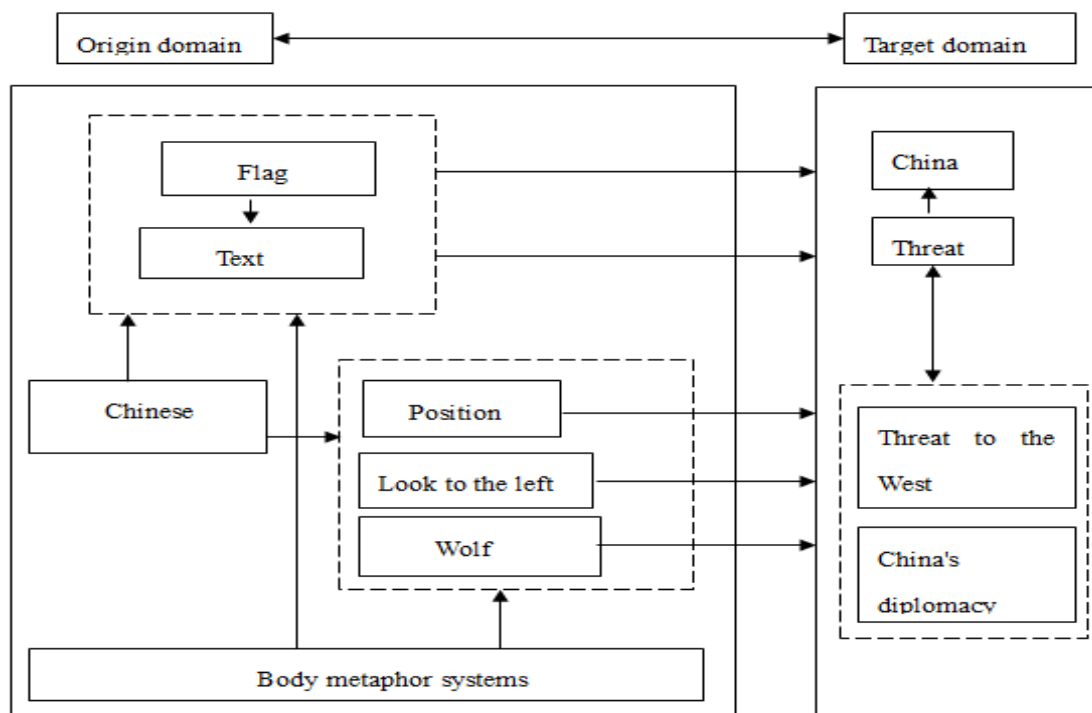

Figure 5 Mapping of metaphor system in Picture 3.

The picture is a typical text picture system, a typical combination of multiple elements, and a typical combination of real scene and virtual scene. The text symbols have rich meanings. The standing place of the characters on the right itself constitutes a spatial metaphor. Combined with the relevance theory, human cognition tends to be consistent with the maximum degree of relevance. The character lives on the right and looks to the left, and there is a Chinese flag behind the background of the character, which shows that the East is invading the West at any time. The character symbol system is a typical Chinese slogan, but the picture shows China's arrogant attitude. The title of the picture is China showing its wolf claws to the West, which implies that China uses the virus to retaliate against the West. Combined with the text symbol system and structural metaphor system, it fully shows the meaning behind the picture, highlights the focus and irony of news reports, and with the help of left-right contrast and the guidance of text symbols, it can fully attract the visual attention and metaphor the revenge psychology of China.

4.3. The Commonalities of Multimodal Metaphor in News Reports

Since multimodal metaphor is separated from pure words, it has been combined with news media in a large number. In news reports, pictures have common characteristics, which are scientific, prominent, and more importantly, relevance. News reports are created for the target public. Different news reports have different target groups. According to the principle of relevance, news reports should accurately analyze the target public, and typeset news reports according to the needs of the public.

In news reports, structural metaphor, ontological metaphor and orientation metaphor form a number of subsystems to serve the whole picture organic system. Combined with text symbols, body symbols and other satirical meanings hidden behind the pictures, the pictures convey meanings that cannot be expressed by pure text symbols.

4.3.1. The Hierarchy of Multimodal Metaphor in News Reports

Political manga is a visual modal discourse that combines images and language, belonging to multimodal discourse. It contains criticism and satire through exaggeration and exaggeration, with hidden ideology behind it[22]. According to the theory of system science, the material world is a difference synergism. The difference and commonness of the internal structure of the system are the fundamental reasons for the new things to replace the old things. The more layers of commonness in the system, the more complex the system will be and the more information it will transmit. The pictures in news reports are constructed by multiple metaphorical systems, and then combined with the symbolic system. At the same time, there are different combinations between different systems, between different symbols, and between systems and symbols, which have different combination effects, thus demonstrating different mapping results. The picture layer is composed of picture layer and text layer, and the picture layer is divided into theme layer and background layer. The picture adopts the model structure of "center edge, text picture", which conforms to human visual inertia, attracts people's attention, transmits the meaning behind the picture, and strengthens the content of news reports.

From the perspective of the relationship between text and image, in the multimodal metaphors of single domain image presentation and dual domain image presentation, image and text are mainly manifested as mutually reinforcing and reinforcing relationships. In the text image complementarity, image and text are indispensable[11].The pictures in news reports use a lot of structural metaphor systems, and one concept represents another. For example, the confrontation between dragon and human represents the confrontation between China and Western countries. Secondly, the pictures in news reports use character symbol system, and the character level and picture level echo each other, reflecting the internal elements of pictures, In news reports, there are also a large number of metaphorical systems of location, which form contrast and emphasis, making the static picture dynamic and narrative, and making the whole news reports rich in interest and readability, and facilitating the transmission of meaning.

Finally, the text substitution is used in the reproduction meaning of the picture level. When the text symbol maps the picture level, it has the remaining reproduction meaning besides the meaning of replacing the picture because there are many meanings in the pure text, and this part of the remaining reproduction meaning is often the information behind the pictures.

4.3.2. The Integrity of Multimodal Metaphor in News Reports

The picture has many elements, and each element has different responsibilities. Each element exists independently and influences each other. Each element forms different systems, and the system and system form an organic whole. According to the system science theory, the function of the organic system composed by each part is greater than the simple addition of each part. From the perspective of integrity, simultaneous interpreting of pictures in news reports serves the picture symbols system with the use of character symbols, and the two collaborate together to transmit information.

The text symbol system and picture symbol system are independent and have different functions.

Secondly, the location metaphor used in the pictures in news reports is helpful to the operation of the text system and various metaphors from the perspective of integrity. The orientation metaphor plays an important role in highlighting and emphasizing. For example, the dragon representing China in the picture is juxtaposed with the eagle representing the United States in the orientation. The size of the two countries shows the power contrast of the two countries in the visual symbol, while the size shows the status of other countries such as the United Kingdom under the competition between China and the United States. Meanwhile, the absence of the conference between the United States and China is shown by using the picture assisted text type cross modal mapping (A1B2B2), which is the picture and text of the overall mapping only has the function.

4.3.3. The Function of Multimodal Metaphor in News Reports

In the field of systems science, multimodal metaphor has many functions, such as guidance, satire, command, etc. as an organic system, pictures share the same functions among different parts and the functions embodied on the whole. In news reports, picture symbol system and text system use picture mapping text type (A1B2) cross modal mapping. It is the transmission function of the surface meaning of information. Secondly, the system has external functions. Generally speaking, external functions are the real meaningful functions of the organic system, and they are also the functions that people use and pursue in their daily life. In news reports, the two modes of picture and text match and interact with each other, showing different functions. While the picture system gives people intuitive expression, it has the overall function of publicizing to the public. The text symbol system further promotes the transmission of the picture system, which makes the metaphor process more perfect and the information transmitted more specific. The internal function and external function are combined to upload and deliver the deep information of the picture as a whole, which plays a strong propaganda function. Moreover, the text symbol system has the function of promoting the picture system and strengthening the report of words.

4.4. The Differences of Multimodal Metaphor in News Reports

4.4.1. The Purpose of Multimodal Metaphor in News Reports

According to the theory of system science, purposiveness usually refers to the goal and result of the behavior that the subject conceives according to his own needs and with the help of the intermediary function of consciousness and concept. As a concept form, it reflects the practical relationship between people and objective things. People's practical activities are based on purpose, which runs through the whole process of practice. The pictures in news reports are similar in the level of composition, but they have different purposes under the action of location metaphor system, structure metaphor system and character symbol system, through the interaction between the systems and a variety of combinations. Combined with picture assisted text type (A1B1B2) mono-modal mapping and picture mapped text type (A1B2) cross modal mapping, it reflects a lot of Western criticism of China, weakens the function of words and guides readers to express dissatisfaction with the absence of the meeting between China and the United States. Secondly, in terms of structural metaphor, the relationship between eagle and dragon reflects the relationship between China and the United States.

At the same time, animals such as lions and horses represent other countries such as the United Kingdom, and constitute a structural metaphor subsystem to show the state of other countries in the competition between China and the United States. At the same time, the orientation metaphor system and the body metaphor system in Figure 3 are used to show the expression of the characters in the right picture. The combination of text symbols shows China's arrogant attitude. At the level of text symbols, the same modal mapping is used to metaphorize "wolf warrior" to show the irregular state of China's diplomacy.

4.4.2. The Selection of Multimodal Metaphor in News Reports

According to the theoretical model of multimodal metaphor selection framework proposed by Yang Xilan (2019: 89) in his thesis, selectivity mainly refers to the selection and reception of things

according to the needs of the practical theme and with certain purpose. Since the combination of multimodal metaphor and news reports, not all metaphors will appear in news reports, but according to different news reports, audience perspectives and characteristics, there are different choices for the use of multimodal metaphor. In Figure 1, structural metaphor and orientation metaphor are mainly used to show the meaning behind news reports, but there is no text symbol system and ontology metaphor system. Accordingly, many metaphorical techniques can be used in some pictures. In the theory of system science, the system is in dynamic balance, not static state. The purpose of the system determines the function, and the ability of the system is in the process of continuous optimization. Therefore, the picture system itself has the selectivity. This paper uses theoretical model to get Figure 6.
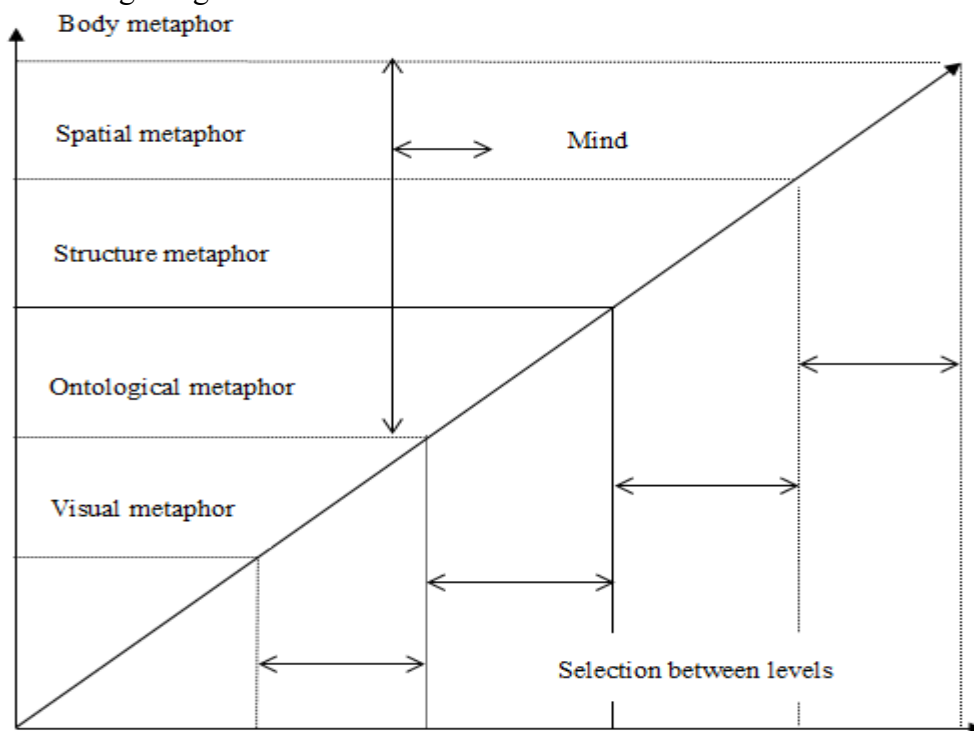
Figure 6 Selection between levels.

It can be seen that not all multimodal metaphors appear in the pictures of news reports, and news reports will use different metaphorical systems as their main means of expression to show the characteristics of news reports. At the same time, they have a certain purpose before choosing, some only show the national pictures, and others are used to criticize other countries, express their own views on international affairs, and show the content of news reports from another side.

5. Conclusion

In the news reports of *The Times*, the most frequently used things in the source domain are medical scenes, state leaders and national flags. Among them, national leaders and medical scenes account for a large proportion. So, this paper draws the following conclusions. Firstly, a large number of body metaphors and structural metaphors are used to directly defame state leaders and the national flags, and make the news reports have the function of misleading readers. It shows that the slander of western countries on China is more straightforward. Secondly, structural metaphors and body metaphors are used more in pictures to map the epidemic situation as a weapon of China, which is also a means of China's economic development. It shows that western countries always have strong political prejudice against China. Thirdly, according to the theory of systems science, multimodal metaphors in news reports have some similarities in hierarchy, integrity and functionality, while there are differences in purpose and selectivity.

This paper focuses on the construction of multimodal metaphors in news reports. Taking the news reports in *The Times* as the research object, it discusses how the pictures in news reports exert

the characteristics of superposition, intersection and fusion of visual symbols in space and map the conceptual components, judgments and evaluations in the visual scenes into the society. This paper helps readers rationally avoid the directional guidance of the media, and cultivates people's dialectical thinking.

References

[1] Lakoff, G., and M. Johnson. Metaphors We Live By [M]. Chicago: University of Chicago Press, 1980.

[2] Charles Forceville. Pictorial Metaphor in Advertising [M].London: Routledge, 1996.

[3] Pollaroli C, Rocci A. The argumentative relevance of pictorial and multimodal metaphor in advertising[J]. Journal of argumentation in context, 2015, 4(02): 158-199.

[4] Hart C. Metaphor and intertextuality in media framings of the (1984–1985) British miners' strike: A multimodal analysis[J]. Discourse & Communication, 2017, 11(01): 3-30.

[5] Abdel-Raheem A. Multimodal metaphor and (im) politeness in political cartoons: A sociocognitive approach[J]. Journal of Pragmatics, 2021, 185: 54-72.

[6] Feng Dezhen, Xing Chunyan. Spatial Metaphor and Multimodal Meaning Construction—Taking Car Advertisements as an Example [J]. Foreign Languages (Journal of Shanghai International Studies University), 2011, 34(03): 56-61.

[7] Zhang Hui, Zhan Weiwei. Dynamic Construction of Multimodal Metaphor and Metonymy in Advertising Discourse [J]. Foreign Language Research, 2011(01): 16-23.

[8] Liu Yi, Liu Ping. Meaning Construction of "Poverty" Multimodal Metaphor in News Comics [J]. Journal of Northeastern University (Social Science Edition), 2019, 21(04): 419-427.

[9] Jiang Guiying, Wang Ronghua. A Study of the Fusion of Speech-Gesture Multimodal Metaphors in English Speeches [J]. Foreign Language Research, 2013(05): 9-16.

[10] Feng Dezhen. Construction and Classification of Multimodal Metaphors—A Systemic Functional Perspective [J]. Foreign Language Research, 2011(01): 24-29.

[11] Pan Yanyan. Multimodal Metaphors and Identity Construction in Political Cartoons [J]. Foreign Language Research, 2011(01): 11-15.

[12] Duan Rongjuan, Feng Mailun. Automobile Advertisement Design from the Perspective of System Science [J]. Journal of Systems Science, 2021, 29(01): 123-127.

[13] Cheng Jintao, Liu Shisheng. Multimodal Metaphors in Advertising Discourse—A Cognitive Narrative Research Perspective [J]. Chinese Foreign Language, 2021, 18(04): 32-39.

[14] Zhao Xiufeng. Eco-discourse Analysis Based on Multimodal Metaphor Scenes—Taking Political Comics on Bioenergy as an Example [J]. Chinese Foreign Language, 2022, 19(06): 60-69.

[15] Yang Xiran. Discourse Construction from the Perspective of Visual Metaphors [J]. Contemporary Rhetoric, 2019(05): 80-93.

[16] Qian Xuesen. System Science, Cognitive Science, and Human Body Science [J]. Natural Magazine, 1981(01): 3-9,80.

[17] Feng Dezhen. Construction and Classification of Multimodal Metaphors—A Systemic Functional Perspective [J]. Foreign Language Research, 2011(01): 24-29.

[18] Charles J. Forceville, "Non-verbal and multimodal metaphor in a cognitivist framework: Agendas for research." Journal of Pragmatics, vol. 37, no. 10, 2005, pp. 1510-1528.

[19] de Mendoza Ibáñez F J R, Masegosa A G. Cognitive modeling: A linguistic perspective[M]. John Benjamins Publishing Company, 2014.

[20] Shu Dingfang. On the Mechanism of Metaphor Operation [J]. Foreign Language Teaching and Research, 2002(02): 98-106,160.

[21] Zhang Delu. Cultural Context of Multimodal Discourse—A Perspective from Semiotics [J]. Journal of Tianjin Foreign Studies University, 2016, 23(06): 1-7,78.

[22] Yang Wenbo. A Study of Multimodal Metaphor and Metonymy in Chinese Political Cartoons—A Case Study of China-US Trade War Cartoons [J]. Science and Technology Communication, 2022, 14(11): 73-75.