| RESEARCH ARTICLE

Constructing BRI Image with Multimodal Conceptual Metaphor in Pictorial News from *China Daily* and *BBC*

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| ABSTRACT

The Belt and Road Initiative (BRI) has been playing an important role in constructing and propagating China's international image. This study explores BRI-themed pictorial news reports featured with the coexistence of text and pictures from *China Daily* and *BBC* to analyze the BRI image construction. Our discussion centers on two perspectives of multimodal conceptual metaphors, namely representational meaning, and interactive meaning. The study finds that the multimodal conceptual metaphors to construct BRI images were mainly embodied and accentuated in the text-picture representation and interaction. Two salient images were portrayed by the two media, respectively, which might be attributed to different cognitive and cultural factors.

1. Introduction

The conceptual metaphor was firstly proposed by Lakoff &Johnson in *Metaphors We Live by*. The theory claims that metaphor is a way of thinking. It affects not only the linguistic construction but also people's thinking and behavior (Lakoff & Johnson, 1980). Li and Zhan (2013) explicated that conceptual metaphor is the semantic mapping from the origin domain towards the target domain, whose function is to help understand those rare and abstract concepts through relatively common or specific ideas. Currently, the discursive investigations into conceptual metaphors have expanded from monomodal text to multimodal symbols, such as pictures, sound, gestures, and so on. Multimodal concept metaphor is thus becoming the new direction of conceptual metaphor studies.

Multimodal conceptual metaphor integrates cognitive conceptual metaphor (Lakoff & Johnson, 1980) and pictorial metaphor theory (Forceville, 1996). It refers to the metaphorical phenomenon mainly characterized by different modes such as images, languages, sound, symbols, etc., in the origin domain and the target domain, respectively. Therefore, if the origin domain or target domain mapping of a metaphor is realized with two or more symbolic resources, it can be positioned as a multi-modal metaphor (Forceville & Urios-Aparisi, 2009). It focuses on the discussion of the value and significance of the experiential and cultural foundations of the dynamic metaphorical construction. It also explores the role of multimodal metaphors in the process of meaning construction under different cognitive or cultural contexts of symbolic practices (Forceville, 2009).

BRI has received great attention from Chinese and foreign media since President Xi Jinping's visit to Central and Southeast Asian countries in 2013. BRI-related pictorial news play increasingly important roles in the construction and the communication of the BRI image as well as China's image as a whole. The BRI-related news discourses have been discussed and analyzed from the perspectives of appraisal theory (Zhu, 2016), cross-cultural communication (Sun, 2017), and transitivity theory (He & Gao, 2018). However, few fine-grained discursive studies were conducted to explore the cognitive and cultural differences that frame and

construct different salient images of BRI and China through multimodal conceptual metaphors in the news report. This paper, according to the dynamic and narrative features of multimodal conceptual metaphor (Zhao, 2011, 2013), will reproduce the construction of the BRI image from the perspective of multimodal metaphor and interpret the cognitive deviations.

2. The integration of systemic functional visual grammar and multimodal metaphor
Systemic Functional Grammar (SFG henceforth) views language as a series of inter-related systems of active choices. Particularly, the "systemic" principle regards grammar as a system of paradigmatic choice, and the "functional" principle implies that language simultaneously provides resources for construing three interdependent metafunctions, which in turn construe three layers of meaning, namely, ideational meaning, interpersonal meaning and textual meaning (Feng & Espindola, 2013). Social semioticians argue that "systemic" and "functional" principles are also applicable to non-linguistic resources, broadening metafunctional frameworks with semiotic resources, including images and mathematical symbols (e.g., Kress & van Leeuwen 1996; Kress & van Leeuwen,2006; O'Halloran,2005).

Kress and van Leeuwen (2006) claim that visual images realize the metafunctions of representing the experiential world (namely, representational meaning), the interaction between the represented participants in the visual design and the viewers (namely, interactive meaning), and the compositional arrangements of visual resources (namely, compositional meaning). The multimodal metaphor theoretical framework, therefore, includes representational meaning, interactive meaning, and compositional meaning. These meanings are cognitively perceived with metaphorical potentiality. This paper selects BRI-themed pictorial news reports from two representative media of China and the UK: *China Daily* and *BBC*. Our exploration focuses on the image construction with the representational meaning and interactive meaning of the selected pictorial news to recognize and interpret salient BRI images. The cultural factors that might lead to the differences will also be explicated.

2.1. The metaphorical potentiality of the representational meaning
Representational meaning (namely, ideational meaning) provides effective methods for semantic substitution. According to the systemic functional grammar, ideational meaning is constituted by three elements: participant, process, and circumstance. Metaphor is often formed in the process when any of the conventional elements are substituted by unconventional elements (Feng, 2011). The metaphor mapping direction usually flows from conventional elements to unconventional elements (as shown by the vertical arrow in Table 1), and although rare, the mapping direction can also flow from unconventional components to conventional ones (as shown by the oblique arrow in Table 1).

Table 1. The metaphorical potentiality of the representational meaning (Feng, 2011)

Grammatical Function	Participant		Process		Circumstance	
Unconventional Elements (Current Text)	A1	*B1*	A2	*B2*	A3	*B3*
Conventional elements (Background)	B1	*A1*	B2	*A2*	B3	*A3*

Feng (2011) indicates that different combination elements such as A1B2B3 and B1A2B3 contribute to the metaphorical potentiality when any conventional element in the combination compound is replaced by any unconventional member in the current text as shown in Table 1. This process of member substitution, either implicitly or explicitly, fulfills the mapping between element A and element B and simultaneously constructs the conceptual metaphor A IS B. Besides, the text in multimodal discourse generally represents the target domain of conceptual metaphor, while images with their pictorial characteristics generally represent the source domain of conceptual metaphor. The creation of a multimodal conceptual metaphor could be realized by converting the abstract concept of the target domain to concrete ideas of the source domain.

2.2. The metaphorical potentiality of the interactive meaning
Unlike the metaphorical construction of representational meaning, the metaphorical potentiality of the interactive meaning is mainly created by the camera positioning (Feng, 2011). From the cognitive perspective, camera positioning and shooting distance can construct the source domain in spatial metaphors, and the viewer-image relationship constructed by camera positioning and shooting distance constitutes the target domain in spactial metaphors (Lakoff & Johnson, 1980). The interactive meaning of the multimodal discourses mainly refers to the symbolic relationship between viewers and images, in which the camera positioning and shooting distance create the symbolic social and emotional distance between viewers and images.

Particularly, the vertical shooting angle constructs the symbolic power relation. The interpretation of the symbolic connotation with vertical shooting angle derives from people's cognitive and experiential consensus. For example, individuals tend to look up to those in superiority (or those whose social status is higher) (Messaris, 1994). The picture with a low angle may accentuate the strength and power of the viewed objects, individuals, or scenarios, while pictures with a high angle may accentuate the power of the viewers. Horizontal shooting includes frontal angle and back angle, with both implying participants' involvement. The frontal angle, especially the eye-level angle, represents the participants' willingness to communicate, while the back angle represents participants' unwillingness to communicate and engage. Images taken from the front angle, especially those looking directly at viewers, can form a symbolic engagement and communication with viewers. Therefore, the horizontal frontal shooting angle constructs the high participation as well as relatively equal social or emotional relationship or involvement of viewers with the image scenario or event (Kress & van Leeuvan, 1996).

The interpretation of the spatial metaphors constructed by the shooting positioning is drawn from people's experiential cognition or the default value. Kittay (1987) considers this life experience or default value as the default context. From the perspective of cognitive metaphor, these default values are the target domain and can be comprehended through the default context within the human-society interactive relationship. The spatial metaphors constituted by the shooting positioning examine how human beings understand the symbolic relationship between images and viewers through the default value of the spatial context and fulfill the comprehension of abstract concepts. Therefore, camera positioning, shooting distance, and the relationship between viewers and images constitute a conceptual metaphor: IMAGE-VIEWER RELATION IS CAMERA POSITIONING. The source domain of this conceptual metaphor also includes many spatial relationships, which constitutes a conceptual metaphor system (details see Figure 1, Feng, 2011). What's worth mentioning is that these values are not imposed on spatial relationships but concluded from human experience (Lakoff & Johnson, 1980).
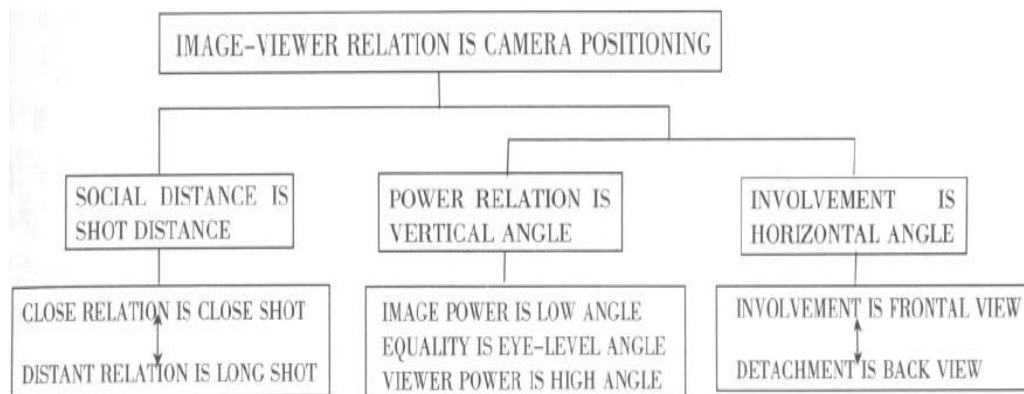

Figure 1. The metaphorical potentiality of camera positioning (Feng 2011)

The metaphorical mapping between camera positioning and the image-viewer relationship is often grounded in the image's iconicity and its identification with reality (Chandler, 2002). Particularly, shooting distance can represent people's emotional distance that is proportionate to the human body's physical distance towards a certain scenario or event. The distance generated by distant shooting can thus be interpreted as the estranged social or emotional relationship between viewers and the image. Distance shooting increases the social or emotional distance between the image and viewers, defamiliarizing the components or elements in the image. On the contrary, close shooting can shorten the social or emotional distance between viewers and the image, drawing viewers to be engaged with the components, elements, or ideas presented in the image.

2.3 Two modes of constructing multimodal conceptual metaphors
According to different mapping methods and interactive relationships between source domains and target domains, there are mainly two modes to construct multimodal conceptual metaphors (Feng, 2011). First, it is constructed by bimodal mapping, which often allocates a visual image with a specific attribute or an identity. Halliday (1994) argues that images can be regarded as a token, and texts are value-added information. The integration of images and text is thus constructing a relation of identification, namely identifying with the image's value through text. Second, multimodal conceptual metaphor can also be constructed with monomodal mapping, namely either with text mapping or with image mapping. As for the text mapping, words alone can construct metaphor, and the existence of images functions as the exemplification of the source domain or target domain. Similarly, the image alone can also construct metaphor in image mapping, with text explaining or illustrating the concept of either the source domain or the target domain in the image. In this study, the majority of the multimodal conceptual metaphors from China Daily and BBC mainly adopt bimodal mapping. Our analysis thus centers on the pictorial news reports with bimodal mapping.

3. Methods and materials
This study draws upon the integrated analytical framework from systematic functional grammar (Halliday, 1994), visual grammar (Kress &Leeuwen, 2001), and pictorial metaphor (Feng & Espindola, 2013). It is mobilized to construe and interpret the multimodal conceptual metaphors that are dynamically constructed by the representational meaning and the interactive meaning. The BRI-themed pictorial news reports were derived from the corpus of Lexis-Nexis with keywords of "new silk road," "the Belt & Road Initiative," and "one Belt and One Road". 15 BRI-related news reports from *BBC* since October 2015 were obtained. After irrelevant 4 BBC news reports were removed (these four news reports only mention keywords occasionally instead of highlighting the BRI-themed reports in-depth), eleven reports accentuate BRI-theme, among which 8 are illustrated news reports. Three of them are illustrated with low-angle pictures of the China-Europe express freight train. We selected one representative pictorial news report for further analysis. Two of the illustrated news reports are pictured with their highlight of people. Two are pictured with BRI roadmaps using long-shot and horizontal shots, respectively. One news report is pictured with CMEC (namely, China Machinery Engineering Cooperation). The details about BRI-themed pictorial news reports from *BBC* are shown in Table 2.

Table 2. Distribution of BRI-themed multimodal discourse from BBC since October 2015

Image Content	Shooting Positioning	Shooting Distance	Involvement	Numbers	Modes of Constructing MCM
China-Europe express freight train	Low angle	Close shot	Frontal angle	3	Bimodal mapping
People	Horizontal angle Low angle	Long shot &close shot	Frontal angle Side angle	2	Bimodal mapping
Roadmaps	Horizontal angle	Long shot	Frontal angle	2	No mapping
CMEC	Horizontal angle	Close shot	Frontal angle	1	No mapping
Total				**8**	

The BRI-related pictorial news reports from *China Daily* outnumber those from *BBC*. Removing those irrelevant reports, we collected 90 BRI-themed pictorial news reports from *China Daily*. This study selected the top 3 representative categories of pictorial news reports. Details are shown in Table 3. The 3 pictures that are to be analyzed were drawn from the top 3 categories. They are the middle picture (the most frequent one from the top 1 category: authentic BRI architecture), the left picture (the most frequent one from the top 2 categories: simulation image), and the right picture (the most frequent one from top 3 category: composite image), as shown in the following section.

Table 3. Distribution of BRI-themed multimodal discourse from *China Daily* since October 2015

Image Content	Shooting Positioning	Shooting Distance	Involvement	Numbers	Modes of Constructing MCM
Authentic BRI-related architecture	Horizontal angle	Close shot	Frontal angle	20	Bimodal mapping
Composite Image	Horizontal angle	Close shot	Frontal angle	18	Bimodal mapping
Simulation Image	Horizontal angle	Close shot	Frontal angle	18	Bimodal mapping
High-tech	Horizontal angle	Close shot	Frontal angle	15	Bimodal mapping
Heads of State	Horizontal angle	Close shot	Frontal & Side angles	12	No mapping
Roadmaps	Horizontal angle	Close shot	Frontal & Side angles	7	No mapping
Total				**90**	

4. Results and discussion
4.1 BRI Image construction with representational meaning from China Daily pictorial reports

BRI creates new opportunities for Sino-British 'golden era'.

Belt and Road set to 'transform' global economy.

Service trade between China, B&R countries surpasses $120b.

From the three BRI-themed pictorial reports from *China Daily*, we can find that the construction of multimodal conceptual metaphors is realized by bimodal mappings. Particularly, the picture functions as the sign, and the text below the picture functions as the value-added information. The interaction between the picture and the text reproduces the identification relationship with the BRI concept. For example, the colors that stand out in the left picture are yellow and read dollar signs and green RMB sign, which echoes the text theme "golden era". The integrated interaction between the picture and the text constructs the multimodal conceptual metaphor; namely, BRI IS A NEW SILK ROAD WITH FINANCIAL STABILITY. In the middle picture, the bright color embedded in the far-reaching arch structure not only creates a sense of visual extension but also echoes the text theme "'transform' global economy". Therefore, the multimodal conceptual metaphor is established; namely, BRI IS A GLOBALLY ECONOMIC TRANSFORMATIVE INITIATIVE.

Unlike the middle and the left pictures, the right picture is composed of authentic coins, the simulated engineer, and blurred money signs. Except for the BRI theme highlighted by the magnifying lens, the simulated engineer and the authentic coins echo the text theme "service trade" and "$120b", co-constructing the multimodal conceptual metaphor: BRI IS AN ECONOMIC AND TECHNOLOGICAL INITIATIVE.

Given the multimodal conceptual metaphors in *China Daily* are mainly realized by bimodal mapping, the specific conversions of the three elements (participants, process, and circumstances) for representational meaning need to be analyzed from two aspects, namely pictures and text. The detailed converting processes are shown in Table 4.

The participants in the left picture include "BRI" in the text and the dollar and RMB signs in the picture. The abstract concept in the text is specified by the dollar and RMB pictorial signs. The circumstance is linguistically embodied in "Sino-British" in the text and pictorially embodied by "camels" in the picture. What's worth noticing is the substitution of the abstract concept New Silk Road with the specific "camels" in the picture. Therefore, the picture-text co-existence constructs the multimodal conceptual metaphor BRI IS A NEW SILK ROAD WITH FINANCIAL STABILITY.

As for the middle picture, the participant "Belt &Road" is consistently represented by the text and the picture. The element of the process is specified by the "transform" in the text and further accentuated by the bright color in the middle picture. The integration of the text and the picture highlights the positivity of BRI. The element of circumstances is embodied by the "global economy" in the text and the E alphabet, and the far-reaching arch structure in the picture, which highlights the concept of globalization. The multimodal conceptual metaphor BRI IS A GLOBALLY ECONOMIC TRANSFORMATIVE INITIATIVE is thus established.

As for the right picture, the participant refers to the "service trade" in the text, and it is specified by the "coins and engineer" in the picture. The process refers to "surpass" in the text, and the circumstance includes the "between China and B & R countries" in the text and "BRI" accentuated by the magnifying lens. These three elements construct the multimodal conceptual metaphor BRI IS AN ECONOMIC AND TECHNOLOGICAL INITIATIVE.

Table 4. The Converting process of the three elements of representational meaning in the BRI-themed pictorial reports from *China Daily*

	Participant	Process	Circumstance
Left picture	BRI ⇩ money	create	desert & camel ⇩ new Silk Road
Middle picture	Belt & Road	transform ⇩ brighten	global economy ⇩ E
Right picture	service trade ⇩ coins & engineer	surpass	the Belt and Road ⇩ between China and B&R countries

4.2 BRI Image construction with representational meaning from BBC pictorial reports

China's billion-dollar Belt and Road party: Who's in and who's out.

Are the wheels coming off China's Belt and Road megaproject?

How the world is grappling with China's rising power?

The pictorial news reports from BBC mainly utilize bimodal mapping and metonymy (namely, components are used to substitute the whole) to construct the multimodal conceptual metaphors. The left picture specifies the BRI concept with a one-time event of the BRI Summit held in December 2017; the train shot at a low angle in the middle picture accentuates the powerful status of the train that might identify with the "Belt and Road megaproject" in the text; the accentuated red Chinese national flag in the right picture echoes the text theme "China's rising power". All three pictorial reports mobilize metonymy to visualize the whole abstract concept in texts with the concrete components in pictures.

The converting process of the three elements for the representational meaning in the *BBC* BRI-themed pictorial reports is different from that in *China Daily*. The detailed conversion is shown in Table 5.

Table 5. The Converting process of the three elements of representational meaning in the BRI-themed pictorial reports from *BBC*

	Participant	Process	Circumstance
Left picture	who ⇩ President Xi & African leaders	is ⇩ inviting gesture	summit ⇩ party
Middle picture	train ⇩ wheels	speed ⇩ come off	on the road with clouds overhead ⇩ China's Belt and Road megaproject
Right picture	China's rising power ⇩ The red Chinese national flag	How to grapple ⇩ take photos	the world ⇩ public place with Chinese people

In the left picture, the linguistic participant in the text is "who", which is pictorially embodied by "leaders from African countries and President Xi Jinping of China" in the picture. The linguistic process is "is", which is specified by the "inviting gesture" of President Xi in the picture. The circumstance in the picture highlights the BRI summit in December 2017, which echoes "party" in the text. The three elements of the left picture try to construct the multimodal conceptual metaphor BRI IS AN INVITING PARTY BUT NOT GLOBALLY WELCOMED.

As for the middle picture, the participant refers to the "train" in the picture, which is specified by "wheels" in the text; the process in the picture accentuates the "speeding train", which is embodied by "come off" in the text. The integration of the process in the picture and the text might create an "unstable" impression. The circumstance in the text refers to "China's Belt & Road megaproject", which is embodied by"on the road with some clouds" in the picture. The integration of the text and picture in the left picture attempts to construct the multimodal conceptual metaphor BRI IS A MEGAPROJECT FACING UNSTABILITY.

In the right picture, the participant in the text is represented with "China's rising power", and it is further embodied by the Chinese female with a smiley face. The process in the text accentuates the question of "how to grapple with", and in the picture, the process is specified by "take photos with a cell phone". The circumstance in the text is represented by "the world", which is further embodied by a public arena crowded with Chinese people. The three elements in the right picture might create the multimodal conceptual metaphor BRI REPRESENTS CHINA'S RISING POWER.

4.3 BRI Image construction with interactive meaning from China Daily and BBC pictorial reports
The pictorial reports from *China Daily* mainly adopt horizontal and frontal shooting angles as well as close shots to create the interactive meaning of the BRI image. It highlights viewers' high participation and the close social and emotional relationship between viewers and images. It echoes the original intention that BRI tries to communicate with viewers. Unlike *China Daily*, the pictorial reports from *BBC* mainly adopt vertical angles, including the high angle to record the BRI Summit and the low angle to capture the train and select long and side shots to estrange the emotional and social connection between viewers and images. It seems that the *BBC*'s attitudes in constructing the image of the BRI have been relatively conservative, cautious, and even doubtful. Although slim, the pictorial reports from *BBC* also show BBC's willingness to keep an open-minded attitude toward the communication and cooperation around BRI.

5. Conclusion
To explore the salient images of BRI and China constructed in the pictorial news from *China Daily* and *BBC*, this study mobilizes the integrated analytical framework drawn upon systemic functional grammar, visual grammar, and pictorial metaphor. The findings reveal that the multimodal conceptual metaphors constituted by representational meanings in *China Daily* and *BBC* differ significantly. Particularly, the economic, technological, financial, and transformative images of BRI were accentuated in pictorial reports of *China Daily*, while uncertain, unwelcoming, unstable, and powerful images were highlighted in *BBC* pictorial reports. Unlike the vertical shooting angles of *BBC*, *China Daily* mainly selected frontal and horizontal angles to create high participation and establish a closer emotional and social relationship with viewers. It accords with China's efforts for the active promotion of the BRI image. Although the attitudes of *BBC* towards BRI are conservative and cautious, its willingness to communicate and cooperate still remains. Our research provides a new perspective for the study of image or identity by employing the multimodal conceptual metaphor framework. Future research can extend the exploration of the BRI image construction by collecting pictorial reports from social media in China and the UK.

Conflicts of Interest: The authors declare no conflict of interest.
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References
[1]   Charles, F & Urios-Aparisi, E. (2009). *Multimodal Metaphphor*. Berlin:Mouton de Gruyter.
[2]   Chandler, D. (2002). *Semiotics: The Basics* [M]. London: Routledge.
[3]   Feng, D & Espineola, E. (2013). Integrating systemic functional and cognitive approaches to multimodal discourse analysis. *A Journal of English Language*, (3),85-110.
[4]   Feng, D. (2011). Construction and classification of multimodal metaphors: A perspective of systemic functional grammar. *Foreign Languages Research*. (1),24-29.
[5]   Forceville, C.(1996). *Pictorial Metaphor in Advertising*. London. Routledge.
[6]   Halliday, M.A.K.(1994). *An Introduction to Functional Grammar*.2nd ed. London: Edward Arnold.
[7]   He, W & Gao, R. (2018). Study of the representation of the "Belt and Road" Initiative in New Zealand's media-Taking, the *New Zealand Herald* as an example. *Foreign Languages in China*. (3),46-51.
[8]   Kittay, E. (1987). *Metaphor: Its Cognitive Force and Linguistic Structure* JOUR.
[9]   Kress, G.&van Leeuwen, T. (1996). *Reading Images: The Grammar of Visual Design* [M].London: Routledge.
[10] Kress, G.&van Leeuwen, T.(2001). *Multimodal Discourse: The Modes and Media of Contemporary Communication*. London: Hodder Amold.
[11] Kress, G. & van Leeuwen, T. (2006). *Reading images: The grammar of visual design* (2nd ed.). London. Routledge.
[12] Lakoff, G & Johnson, M. (1980).Conceptual metaphor in everyday language. *The Journal of Philosophy*, (8), 453-486.

[13] Li, Y & Zhan, Q. (2013). Conceptual metaphor analysis of Chinese political discourse. *Jianghuai Tribune.* (5),85-89.

[14] Messaris, P. (1994). *Visual Literacy: Image, Mind, and Reality*. Boulder, CO: Westview Press.

[15] O'Halloran, K. L. (2005). *Mathematical Discourse: Language, symbolism, and visual images*. London: Continuum.

[16] Sun, Y & Jiang, L. (2017). The Belt and Road Initiative in Australia's mainstream media. *Modern Media*. (4),37-41.

[17] Zhang, D & Guo, E. (2013). Dual perspectives of multimodal discourse analysis. *Journal of Foreign Languages*. (3),20-28.

[18] Zhao, X. (2011). A new development of conceptual metaphor research -Multimodal metaphor research.*Foreign Languages Research.* (1),1-7.

[19] Zhao, X. (2013). An integrated model built by multimodal metaphors. *Foreign Languages Research*. (5),1-7.

[20] Zhu, G, Guo, J & Che, X. (2016). A Study on British attitude towards the "Belt and Road Initiative" from the perspective of evaluation theory. *Journal of Intelligence*. (10),37-41.