



An Investigation of metaphors in advertising

Mi Jie* and Sakon Phu-ngamdee**

*Ph.D., Candidate, Arts Performance Communication, Academy of Arts and Philosophy,
Shinawatra University

**Assoc. Prof. Dr., Arts Performance Communication, Academy of Arts and Philosophy,
Shinawatra University
Email: 373630807@qq.com

Received: January 20, 2025: Revised: March 8, 2025: Accepted: June 10, 2025

Abstract

Based on a wide range of questionnaires, this study makes a comprehensive feasibility analysis of the current construction methods of advertising metaphors from the perspective of the audience. A systematic and comprehensive set of creative evaluation criteria for advertising metaphors is established, and on this basis, an attempt is made to apply this set of criteria to the artificial intelligence scoring of students' metaphorical advertising works. Through the detailed qualitative analysis of the score, we constantly improve and optimize this set of evaluation criteria to make it more scientific and practical. In addition, this study also standardizes the three construction methods of advertising metaphor, and forms a systematic and practical methodology for the construction of advertising metaphor. Relying on this methodology, we have carried out many design practices and successfully completed a number of design results. The practicability of the metaphorical construction methods and evaluation criteria proposed in this study also provides new ideas for the future development of advertising metaphors.

From the perspective of the advertising metaphor evaluation system, the current research mainly focuses on the field of advertising. In the future, this evaluation criterion can be appropriately adjusted and optimized to apply to more fields, such as dynamic advertising, multimodal advertising, etc., thereby enriching the theory and practice of metaphor evaluation. Besides, the evaluation system can also delve into audience segmentation. The creation strategies and standards of advertising metaphors should be adjusted for different age groups to achieve dynamic changes in standards. For example, young people may be more inclined to accept novel, interesting, and creative advertising metaphors, while middle-aged and older people may pay more attention to the practicality and credibility of advertising information. Female audiences may prefer warm and emotional advertising metaphors, while male audiences may prefer direct and concise expressions.

Keywords: Metaphor, Advertising, Metaphor Construction.



Introduction

With the development of modern society, symbols and images have become crucial tools for people to communicate and comprehend information. We are living in an era of information explosion, and over the past few decades, it has become challenging for individuals to focus their attention. Some have even developed resistance to information, manifesting as aesthetic fatigue. Since the early 20th century, advertising has evolved from mere commercial promotion to a comprehensive product integrating art, technology, and business. Advertising metaphor stands out as an interdisciplinary and cross-domain creative method. By encoding and embedding selling points within images, advertising metaphors effectively convey messages to the audience, sparking their interest and guiding purchase decisions. Simultaneously, audience viewing habits have shifted from passive observation to interactive participation, experiencing advertisements through a multisensory approach. Advertising has progressed from two-dimensional to three-dimensional, and from static to dynamic forms. Interactive and immersive advertisements have emerged as prominent trends in the advertising industry. However, the construction of metaphors in advertising art and the evaluation criteria remain pivotal questions to be explored in this paper.

Nevertheless, despite the frequent application of metaphors in advertising, there is a paucity of deep research on advertising metaphors. Existing advertising metaphors often appear singular and outdated, lacking innovation and depth, making it difficult to continuously attract consumers' attention in the rapidly changing market environment. Hence, exploring and developing novel metaphor construction methods to enhance the vividness, interest, and creativity of advertising metaphors has become an urgent issue for the advertising industry.

Moreover, the evaluation system for advertising metaphors also exhibits certain deficiencies. Currently, the evaluation of advertising metaphors relies heavily on manual scoring and subjective judgments, lacking scientific and objective evaluation criteria. This evaluation method is not only susceptible to individual preferences and subjective consciousness but also struggles to accurately reflect the actual effectiveness and market response of advertising metaphors. Therefore, establishing a scientific and objective evaluation standard for advertising metaphors is particularly significant.

Furthermore, with the continuous advancement of technology, cutting-edge technologies such as artificial intelligence provide new possibilities for the research and evaluation of advertising metaphors. By introducing artificial intelligence technology, we can achieve more precise data analysis and processing, thereby improving the accuracy and objectivity of advertising metaphor evaluation. Simultaneously, artificial intelligence technology can assist us in optimizing metaphor construction methods and enhancing the creativity and communication effectiveness of advertising metaphors.

In summary, this study aims to provide more systematic and scientific theoretical guidance and practical guidelines for the advertising industry by deeply exploring the construction methods, evaluation criteria, and human-machine combined scoring mechanisms of advertising metaphors. We hope that through this research, we can promote the innovative development of advertising metaphors, elevate the overall creativity level of the advertising industry, and present consumers with more creative and insightful advertising works.

Additionally, we anticipate that the human-machine combined scoring mechanism will provide a more objective and accurate method for evaluating advertising effectiveness, assisting businesses in better measuring advertising performance and optimizing advertising strategies to maximize advertising benefits.

Research Objectives

1. To study deepen the construction method of advertising metaphor. Through questionnaire surveys and image sample analysis, a systematic and innovative metaphor construction method is extracted.
2. To study establish an advertising metaphor evaluation criterion. By comprehensively considering multiple dimensions such as metaphorical semantic span innovation, associativity, acceptability, and effectiveness, an evaluation system capable of objectively assessing the quality of advertising metaphors is constructed.
3. To study implement a human-machine combined scoring mechanism. By introducing ChatGPT4o's image recognition artificial intelligence technology, a human-machine combined advertising metaphor scoring mechanism is implemented. This goal aims to utilize modern technological means to improve the objectivity and efficiency of evaluation and reduce evaluation deviations caused by human factors.

Literature Review

A total of 1043 articles were retrieved from CNKI database, including 761 academic journals, 194 master's and doctoral theses, 40 conference papers, 14 books, 488 Chinese articles, and 554 English and other language articles. The number of papers on Visual Metaphor Research in the ten years from 1989 to 1999 was about 1-2 per year, and the number of papers continued to rise in the twenty years from 1999 to 2019. From 10 articles in 2000 to 98 articles in 2019. Since 2019, the number of articles has declined and tends to be flat Figure.1.

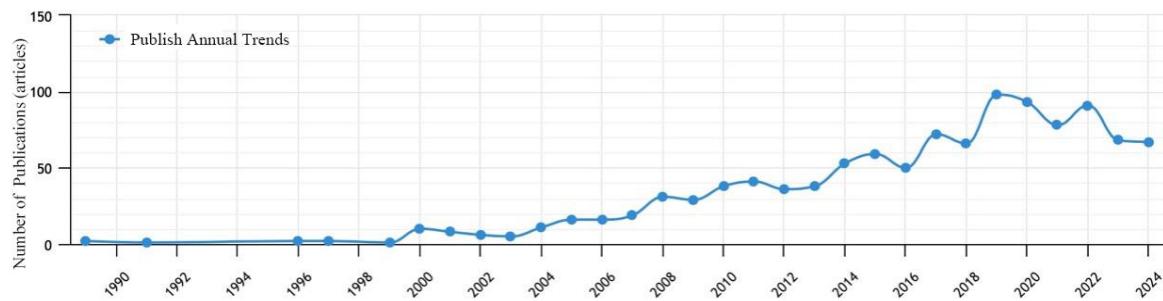


Figure 1 The Trend of the Number of Publications on Visual Metaphor Research from 1989 to the Present 35 Years



From the analysis of the above figure, the study of visual metaphor can be divided into three stages: the initial stage, the hot stage and the stable stage.

The decade before 2000 is the initial period of visual metaphor research. The important literature in this period includes: Noel Carroll's paper Visual Metaphor¹; Visual metaphor is defined as some visual images, and the function and mechanism of visual metaphor and discourse metaphor are roughly the same. At the same time, it is mentioned that visual metaphor is a highly theoretical research category. The articles of this period focus on the connotation and denotation of visual metaphor, which is in the stage of discovering visual metaphor.

The period from 2000 to 2019 is a hot research period, during which a large number of visual metaphor research literatures have emerged. In the field of philosophy, cognitive science, semiotics, linguistics and other disciplines, some important views and theories related to visual metaphor are put forward. In the field of psychology, Jacobs, A. (2000) explored the substitution diagram of Bernian three-circle ego-state diagram based on the theory of visual symbols or metaphorical language. In the field of education: McKay E (2000) Examines the interactive effects of instructional strategies and mastery of programming concepts through the use of literal plus literal metaphors or literal plus graphic metaphors of instructional strategies and cognitive styles². In addition, the research on visual metaphor of knowledge visualization is also popular in the field of education. Yanyan, C. (2012) started from the internal relationship between knowledge visualization and visual representation to explore the meaning of visual metaphor in knowledge visualization and its thinking mode and method. In the field of philosophy, Yan, G. (2005) studied visual metaphor from the perspective of philosophy in her doctoral dissertation, proposed the important position of eyes in the field of philosophy, analyzed the relationship between visual metaphor and body and spatial turn, as well as the cultural symbolic implications of visual centralism and vision, and expounded the deciphering of visual metaphor in Western thought since the 20th century³. According to Yan, G. (2012), visual metaphor is the most important and most frequently used form of sensory metaphor, and its core position in Western thought is established through the ocular centric tradition. With the rediscovery of sensibility and body in post-modern thought, visual metaphor not only acquires new theoretical connotations, but also extends to the field of daily life, combines with contemporary visual culture, and becomes the basic logic of modern life. Visual metaphors in modern western thought determine the nature and characteristics of current visual images in two ways. Visual culture is the realistic manifestation of visual metaphor in contemporary western thought. The change of the status and nature of visual metaphor in western thought determines the unique characteristics of contemporary image and visual culture. The field of design explains the two basic styles and methods of stage design with the rhetorical model of the binary opposition of "metonymy and metaphor" by the semiotician Jacobson: the realistic style based on metonymy and typification, and the non-realistic style based on metaphor and symbolization

Since 2019, it has been a stable period of research, during which the theoretical research of visual metaphor has become mature and has been applied to different disciplines. On the one hand, with the rise of new media such as short videos and social networks, the literature on the application of visual metaphor theory to the study of short video culture, multimodal

metaphor and visual design of digital media is increasing. On the other hand, with the turn of cultural values such as contemporary art concepts and feminism, the study of visual metaphors of female topics is increasing.

In recent years, the study of visual metaphor has gradually shifted from basic theory to specific art categories, and the use and artistic value of visual metaphor in film, dance, drama, print advertising, animation design and other fields have been analyzed Figure.2.

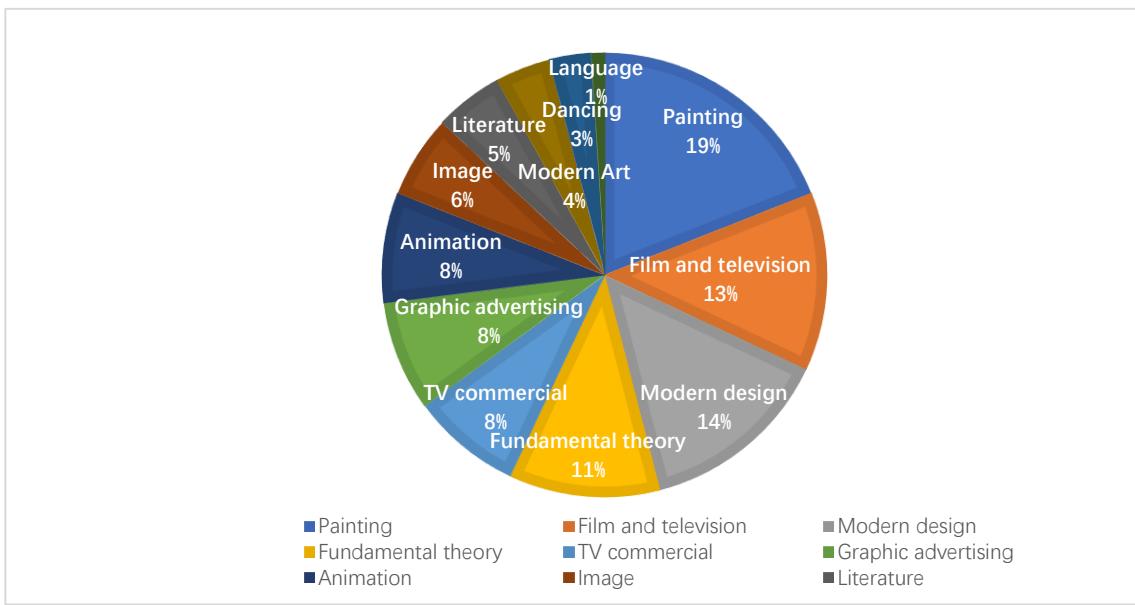


Figure 2 Distribution of Advertising Metaphor Research

Among the 15 most cited articles Table 1 , the first one is Liu Tao's article "Metaphor Theory: Generation of Transferred Meaning and Analysis of Visual Rhetoric" published in 2017, in which she pointed out that the basic principle of metaphor generation is the generation of transferred meaning. In the meaning mechanism of visual rhetoric, visual metaphor depends on the metonymic structure formed by visual elements, and realizes the production of metaphorical meaning on the aggregation axis of image text. In her opinion, the working principle of visual metaphor can be divided into constitutive visual metaphor and conceptual visual metaphor according to the difference of presence between the noumenon and the vehicle. Tao, L. (2018) points out the difference between visual metaphor and visual metonymy. The essence of visual metonymy is image reference, which emphasizes that one visual element refers to another thing associated with it. Different from the principle of "cross-domain mapping" of visual metaphor, the essential feature of visual metonymy is "co-domain reference". Visual metonymy can be divided into deictic metonymy and conceptual metonymy according to the two basic referential aspects of pictograms: representation and ideography. The former refers to the whole in part and focuses on the "language" of space-time in the dimension of representation. The latter refers to abstraction in concrete and focuses on the "grammar" of relevance in the dimension of ideography. Tao, L. (2018) pointed out that metaphor and metonymy are interactive. In the interactive structure of metaphor and metonymy, metaphor provides the basic framework for meaning generation, and metonymy is embodied as a local structure in the meaning chain, mainly playing the cognitive intermediary function



of metaphor generation. In the system of visual representation, visual metonymy must be embedded in the overall structure of visual metaphor, which constitutes the ubiquitous phenomenon of "visual metonymy" in the practice of visual rhetoric. As far as the interactive mechanism between metaphor and metonymy is concerned, "visual metonymy" is different from "linguistic metonymy" in its rhetorical structure and cognitive characteristics in terms of its mode of existence, metonymic function and basic model. According to the interaction between visual metaphor and visual metonymy, the working principle of "" visual metonymy "" can be further divided into two functional models: one is based on single-domain metonymy, and the other is based on dual-domain metonymy. Liu Tao's series of studies have a certain context, from metaphor to metonymy, and then to metonymy, clarifying the difference and interaction between metaphor and metonymy.

Table1 Highly-cited analysis of the top 15 literatures

Serial number	Number of references	References
1	196	Tao., L. (2017). Metaphor Theory: Transferred Meaning Generation and Visual Rhetoric Analysis. <i>Journal of Social Sciences of Hunan Normal University</i> (06), 140-148.
2	139	Tao., L. (2018). Metonymy: Image Reference and Visual Rhetoric Analysis. <i>Nanjing Social Sciences</i> (10)
3	133	Yan., G. (2012). Visual Metaphor and the Visualization of the World: On the Ideological Roots of Contemporary Visual Culture. <i>Journal of Sun Yat-sen University (Social Science Edition)</i> (05), 66-74.
4	100	Tao., L. (2018). An Interactive Model of Metaphor and Metonymy: From Language to Image. <i>Press</i> (12), 33-46.
5	95	Yanyan., C. (2012). Visual Metaphor and Its Thinking Methods in Knowledge Visualization. <i>Modern Educational Technology</i> (06), 16-19.
6	89	Yundong. D. (2009). Film, Art as Metaphor, Doctoral Dissertation, Chinese National Academy of Arts
7	84	Wenjing., C. (2010). Master Dissertation on the Application of Metaphor and Visual Metaphor in Animation Creation and Performance, Central South University.
8	83	Yan., G. (2005). Ph. D. Dissertation on Visual Metaphor and Spatial Turn, Fudan University.
9	72	Zhiyong., Z. (2015). Metaphor Design Methodology: From Source to Target. <i>Decoration</i> (04), 126-127.
10	62	Tingting, X. & Haoran., M. (2017). Twenty Years of Visual Rhetoric Research Abroad: Focus and Prospect. <i>Journal of Xi'an International Studies University</i> (03)
11	36	Feng., C. (2015). Visual Metaphor Phenomenon and Enlightenment in the Use of Color in "Chinese School" Animation. <i>Contemporary Film</i> (07), 158-161.



12	36	Jiaqi.,M. (2010). Research on Interaction Design of Handheld Mobile Devices Based on Metaphor (Master Dissertation, Beijing University of Posts and Telecommunications).
13	35	Binghong., Z. (2008). Visual Metaphor for the Transformation of Information Form. Decoration (10), 142-143. Doi: 10. 16272/J. CN ki. Cn11-1392/j.2008.10.041.
14	33	Xiang, X. & Xin., G. (2009). An Analysis of Visual Metaphor and Visual Metonymy in Chinese Print Public Service Advertisements. Journal of Hunan Medical University (Social Science Edition) (06), 257-259.
15	25	Xueping, H.et.al.. (2014). The Effect of Perceptual Similarity of Object Shape on Visual Metaphor Processing. Acta Psychologica Sinica (05), 607-620.

The study of visual metaphor abroad originated from rhetoric and later developed into multiple disciplines Fig.3. Aristotle mentioned the formation and rhetorical functions of metaphor multiple times in his works "Poetics" and "Rhetoric". He believed that metaphor is a linguistic device where one word replaces another to express the same meaning. For more than 2,000 years after that, the primary research direction of metaphor focused on its decorative effect on language. This lasted until the publication of I.A. Richards' "The Philosophy of Rhetoric" in the 1930s, which proposed that metaphor is not only a linguistic phenomenon but also a way of human thinking.

Since the 1980s, Lakoff and Johnson analyzed in their book "Metaphors We Live By" that the essence of metaphor is to understand one thing through another thing or experience. This shows that metaphor is not just a linguistic phenomenon because language is only a part of human cognitive activities, and paintings, designs, music, etc., are all products of people's cognitive activities. The study of metaphor by the above scholars indicates that people are paying more and more attention to the role of metaphor in human cognition and various social activities.

In 1963, Gombrich officially used the concept of "Visual metaphor" in his book "Meditations on a Hobby Horse". In 1968, Vergil Aldrich's article "Visual Metaphor" first defined the concept of visual metaphor and attempted to analyze the attributes and structural characteristics of visual metaphor through pure visual forms, such as image texture and color. After the 1990s, Dennis Duke and Brian Roberts advocated obtaining the analysis and understanding of visual metaphor through "graphic and imagistic means" in their article "Visual Analysis of Visual Metaphors". They believed that the acceptance of visual metaphor meaning is achieved through visual structure, which consists of visual elements. Their analysis of visual metaphor broke through the boundaries of linguistics and explored it theoretically from the perspectives of cognition, acceptance, and the ontology of visual thinking.

In his article "The Unity of Target and Source Domains in Image Metaphors," Charles Forceville analyzed visual metaphors using the theory of verbal metaphors for reference. In subsequent studies, he started with static visual metaphors based on the perspective of cognitive linguistics and analyzed static multimodal metaphors through numerous examples such as print advertisements and comics. Later, he shifted his focus to the study of dynamic multimodal

metaphors, paying attention to the interaction between language, words, sound, acoustics, music, and other factors.

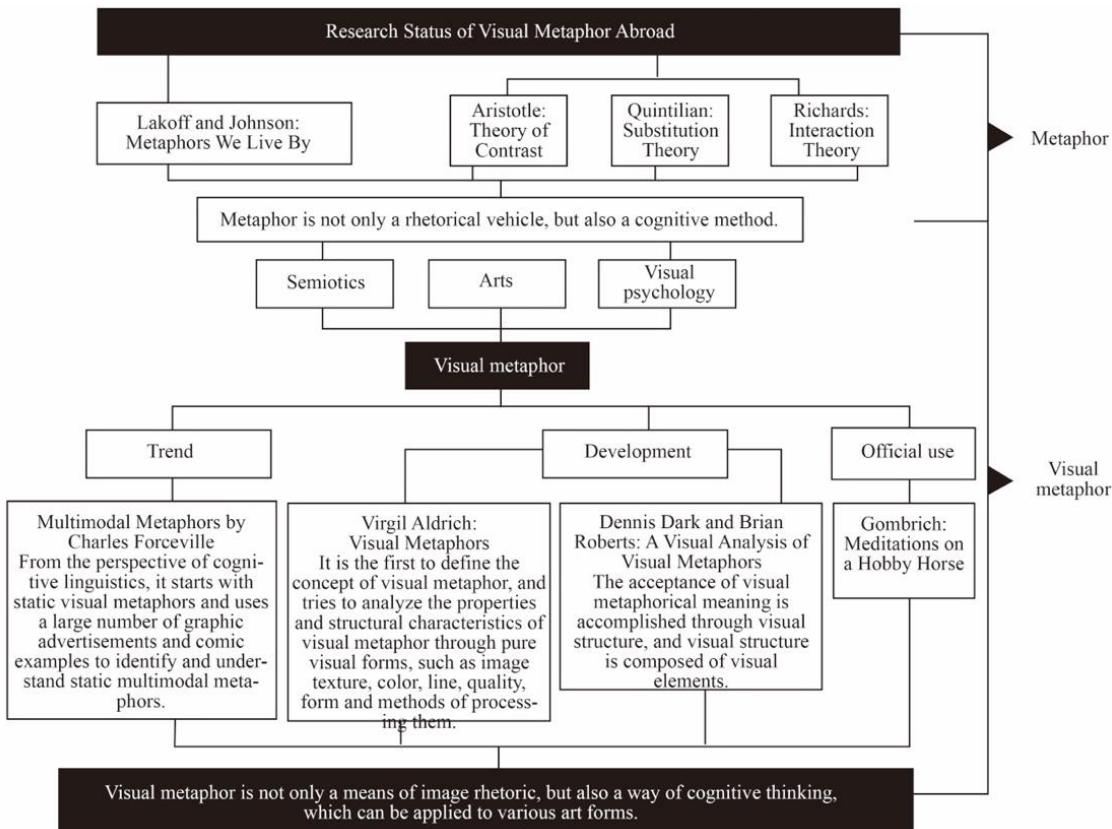


Figure 3 Analysis of the status quo of researches on visual metaphor

Conceptual Framework

The research framework including research areas, research objectives, research methods, innovations, applied research, and more Fig.4.

The research areas of this paper are advertising metaphor construction and methods for measuring the innovative effectiveness of advertising metaphors. Construction, specifically advertising metaphor construction, involves the use of language, images, and narratives. Measurement, referring to the innovative effectiveness of advertising metaphors, requires the establishment of a multidimensional and scientific evaluation framework to assess the creativity, appropriateness of expression, and impact on the audience of advertising metaphors.

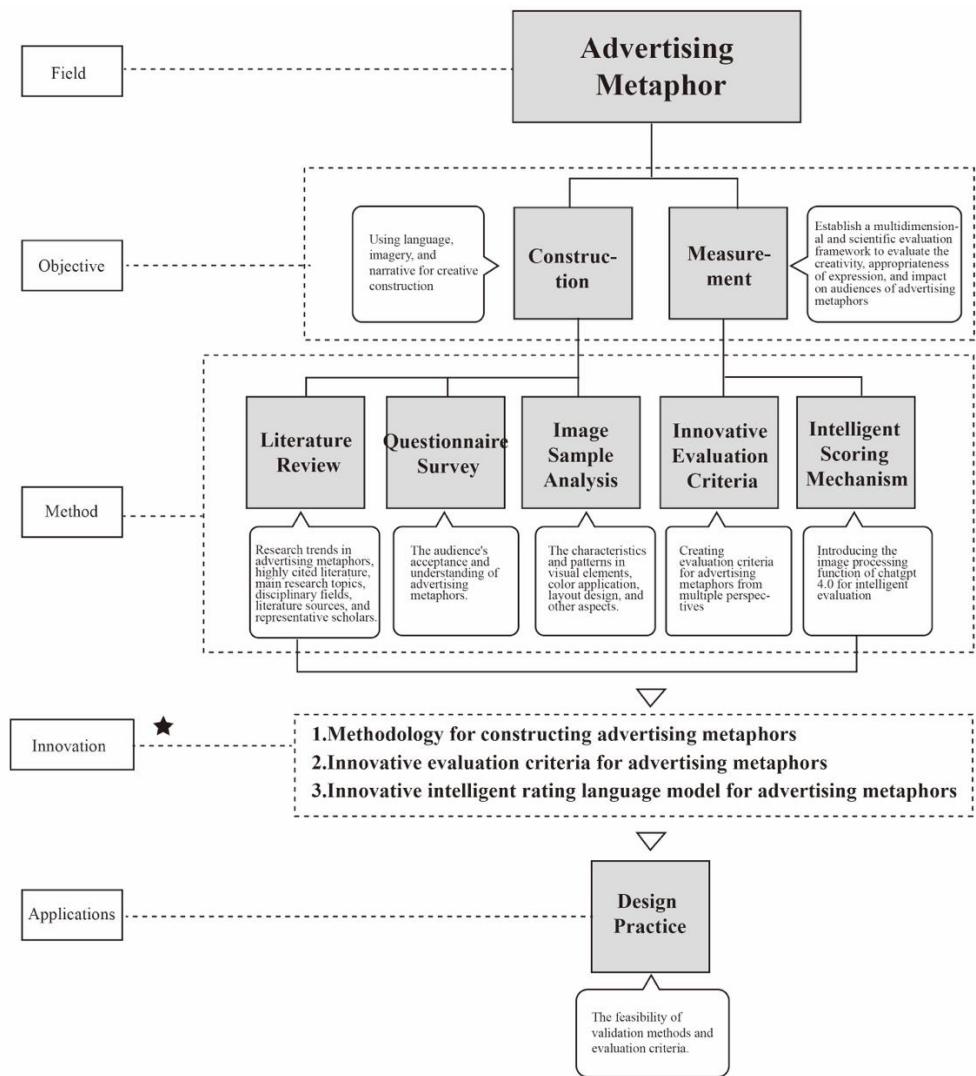


Figure 4 Conceptual Framework

Research Methodology

Based on the theory of visual metaphor, this paper adopts a mixed qualitative and quantitative research methodology, including literature review, questionnaire survey, statistical analysis, inductive and deductive reasoning, case studies, and applied research.

Literature Review: This paper systematically reviews the historical context of advertising metaphor research in both Chinese and Western cultures, summarizing the research progress of advertising metaphor in rhetoric, cognition, the relationship between images and words, and multimodal expression.

Questionnaire Survey: An online survey was conducted targeting advertising audiences. The survey collected audience reactions and preferences for different metaphor construction methods, as well as their acceptance and understanding of advertising metaphors.

Statistical Analysis: Statistical analysis methods were applied to process and analyze the large amount of data collected through the questionnaire survey in depth.



Image Sample Research: A series of representative advertising metaphor images were selected from different score ranges, especially the low and high score segments, as research samples. Through image sample research, the characteristics and patterns of advertising metaphors in visual elements, color application, layout design, and other aspects were further revealed.

Inductive and Deductive Reasoning: General rules and strategies were extracted from specific advertising metaphor cases. Based on the revised metaphor theory, specific advertising design strategies and expected effects were derived, which were then verified through practice.

Case Studies: This paper studied cases such as Absolut Vodka, Issey Miyake, and Shigeo Fukuda's posters, deeply analyzing the design philosophy, creative strategies, and market effects behind these successful cases.

Applied Research: The research results were applied to practical advertising design cases to test and demonstrate the effectiveness and practicality of the new methodology through practice. The construction method of visual metaphor was explored. It was concluded that visual metaphors in print advertisements are designed and perceived through the process of construction, perception, understanding, and persuasion, thereby influencing audience behavior.

Research Results

Objective 1: To refine the RAF method for constructing advertising metaphors through questionnaire surveys and image sample analysis.

The survey results indicate that among the RAF methods, the dynamic verb method received the highest multi-dimensional score compared to the other two metaphorical approaches Table 2. This suggests that the dynamic verb method effectively integrates advertising messages with the brand or product while maintaining the authenticity of the information. By adding action to the thematic concept, the dynamic verb method ensures both product relevance and advertising innovation.

On the other hand, the forced connection method connects metaphors with a large semantic span, resulting in high innovativeness. However, this large semantic span acts as a double-edged sword. While it enhances innovativeness, it also increases the difficulty of understanding the information, potentially leading to a decrease in the effectiveness and appropriateness of the message.

Compared to the other two methods, the rhetorical device method received a relatively lower multi-dimensional score, particularly in terms of evoking strong emotional resonance and a sense of participation. This may imply that this method is relatively weaker in engaging the audience's emotions and sense of involvement.

Table 2: Understanding and Acceptability of Advertising Metaphor Construction Methods

Method	Easil y	Moderatel y Understood (%)	Neutr al (%)	Difficu lt to	Ver y Difficult to
--------	------------	----------------------------------	-----------------	------------------	--------------------------



	Understood (%)			Understand (%)	Understand (%)
Rhetorical Figure	10.6 4	52.48	22.7	9.22	4.96
Dynamic Verb	18.4 4	45.39	25.53	8.51	2.13
Forced Connection	19.1 5	45.39	28.37	5.67	1.42

Image Sample Analysis: After conducting detailed research and exploration on the RAF method for advertising metaphors, I collected a total of 1432 advertising metaphor image samples from student assignments in the course "Advertising Planning and Performance" from 2019 to 2024. The purpose was to identify issues and bottlenecks in the construction method of advertising metaphors and explore measures for improving and refining these methods. The samples were collected from five consecutive years of second-year university students, totaling 337 individuals. All of these image samples were creatively designed using the RAF method.

Objective 2: Establish Advertising Metaphor Evaluation Criteria

By comprehensively considering multiple dimensions such as metaphorical semantic span, innovation, association, acceptability, and effectiveness, we aim to construct an evaluation system that can objectively assess the quality of advertising metaphors. The scoring system is divided into five dimensions: semantic span, degree of innovation, degree of association, acceptability, and effectiveness. These dimensions are further subdivided into 14 evaluation criteria: semantic span, cultural context fit, audience cognition fit, originality, novelty, cognitive stickiness, product relevance, image relevance, audience psychological fit, legality, benevolence, authenticity, evocation, and resonance Figure.5

Overall, there are 214 individual students scoring below 0.60, accounting for 15.15%. The overall situation is considered good.

Analyzing the overall situation, scores below 0.60 indicate a lack of product relevance, suggesting that the connection between the advertising content and the product being promoted is not strong enough. In simpler terms, the advertisement may not effectively highlight the key features and advantages of the product or service, leading consumers to feel uncertain about the link between the advertisement and the product.

Scores ranging from 0.60 to 0.65 encompass originality, novelty, evocation, cognitive viscosity, and semantic span:

Originality: While the advertisement contains some innovative elements, it may not exhibit sufficient uniqueness and creativity.

Novelty: The creativity or mode of expression in the advertisement is relatively commonplace and has not attained a high level of innovation.

Evocation: There is still scope for improvement in guiding consumers towards taking action.

Cognitive stickiness: The advertisement performs adequately in captivating and maintaining the audience's attention, but there is room for enhancement.

Semantic span: The advertisement strives to amalgamate disparate concepts and elements to forge new meanings, yet the level of integration can be further refined.

Scores between 0.65 and 0.70 pertain to the degree of resonance and the degree of the audience's psychological conformity. To some extent, advertisements can resonate with the audience and align with their psychological anticipations, albeit there is still potential for augmentation.

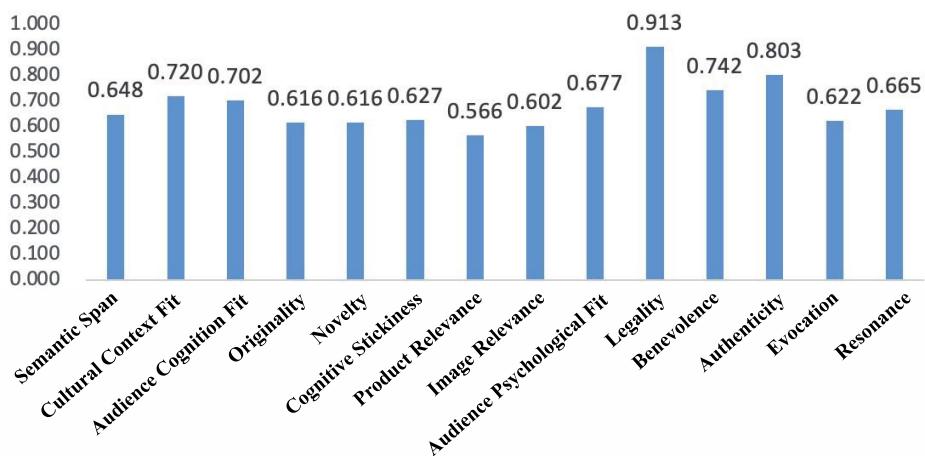


Figure 5 Overall Achievement

Objective 3: Implement a human-machine combined scoring mechanism for advertising metaphors by introducing the image recognition artificial intelligence technology of ChatGPT 4O

This objective aims to utilize modern technological means to improve the objectivity and efficiency of evaluation and reduce evaluation deviations caused by human factors.

During the image sample analysis process, the scoring of images is completed with the assistance of ChatGPT 4O. The specific process is as follows: image preparation, image optimization processing, uploading images to the server, preparing prompt words, calling large models, writing the scoring process into documents, extracting document information, and summarizing it into a table. Please refer to Fig.6 for the image encoding process.

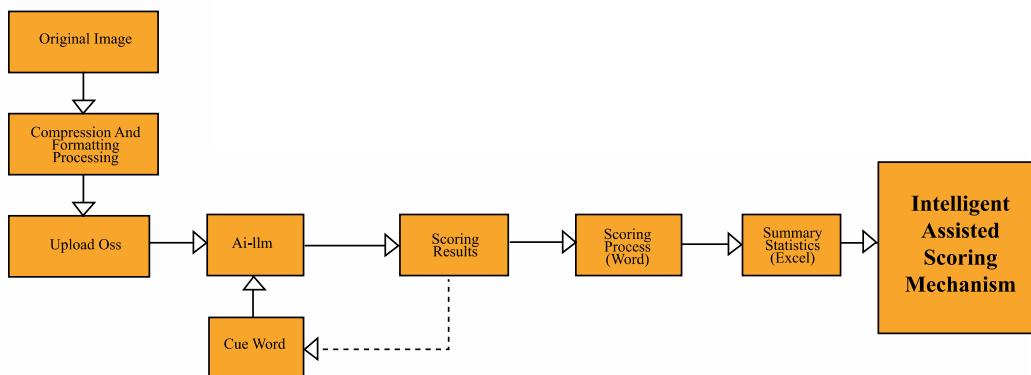


Figure 6 Image encoding flowchart



Discussions

This study not only deepens the theoretical foundation of metaphor construction but also provides strong support for advertising practice through innovative evaluation tools and a human-machine combined scoring mechanism. These results not only validate our research hypotheses but also point out the direction for innovative development in the advertising industry.

Firstly, through an in-depth exploration of metaphor construction methods, we have integrated theoretical knowledge from linguistics, psychology, and advertising to form a systematic and practical process for metaphor construction. This process not only helps advertising creators better understand audience psychology but also enhances the creativity and attractiveness of advertising works. The success of empirical research further proves the effectiveness and practicality of this construction method, which is undoubtedly a valuable tool for advertising creators.

Secondly, in terms of evaluation, we innovatively introduced artificial intelligence technology, especially utilizing the image processing function of ChatGPT 4O to achieve intelligent evaluation of advertising metaphors. This evaluation method not only improves the objectivity and accuracy of evaluation but also greatly enhances evaluation efficiency. The human-machine combined scoring mechanism provides advertisers with fast and accurate feedback, helping them adjust their advertising strategies in a timely manner to achieve better market results.

However, this study also has certain limitations. For example, in the empirical study, we mainly focused on the construction and evaluation of advertising metaphors, while the research on the acceptance and influence of advertising metaphors in different cultural backgrounds is not deep enough. In addition, although the application of artificial intelligence technology in evaluation has achieved significant results, how to further optimize the algorithm and improve the accuracy of evaluation is still a challenge we need to face.

Therefore, this research will continue, and the next step of the research will mainly focus on cross-cultural research, algorithm optimization, and empirical research. The study will further explore the differences in audience acceptance and understanding of advertising metaphors in different cultural backgrounds, aiming to provide more precise marketing strategies for multinational advertising companies. We will continue to optimize the artificial intelligence evaluation algorithm, improve the accuracy and efficiency of advertising metaphor evaluation to meet the growing demands of the advertising industry. We will collaborate with more advertisers and advertising companies to apply research results to actual advertising cases, and continuously improve and optimize our research methods and evaluation criteria through market feedback.

In summary, this study brings new breakthroughs and innovations to the field of advertising metaphors, but there are still many aspects worth exploring in depth. We look forward to contributing more to the sustainable development and innovation of the advertising industry through the next research plan.

Knowledge from Research

The following figure illustrates the knowledge system of this research Fig.7.

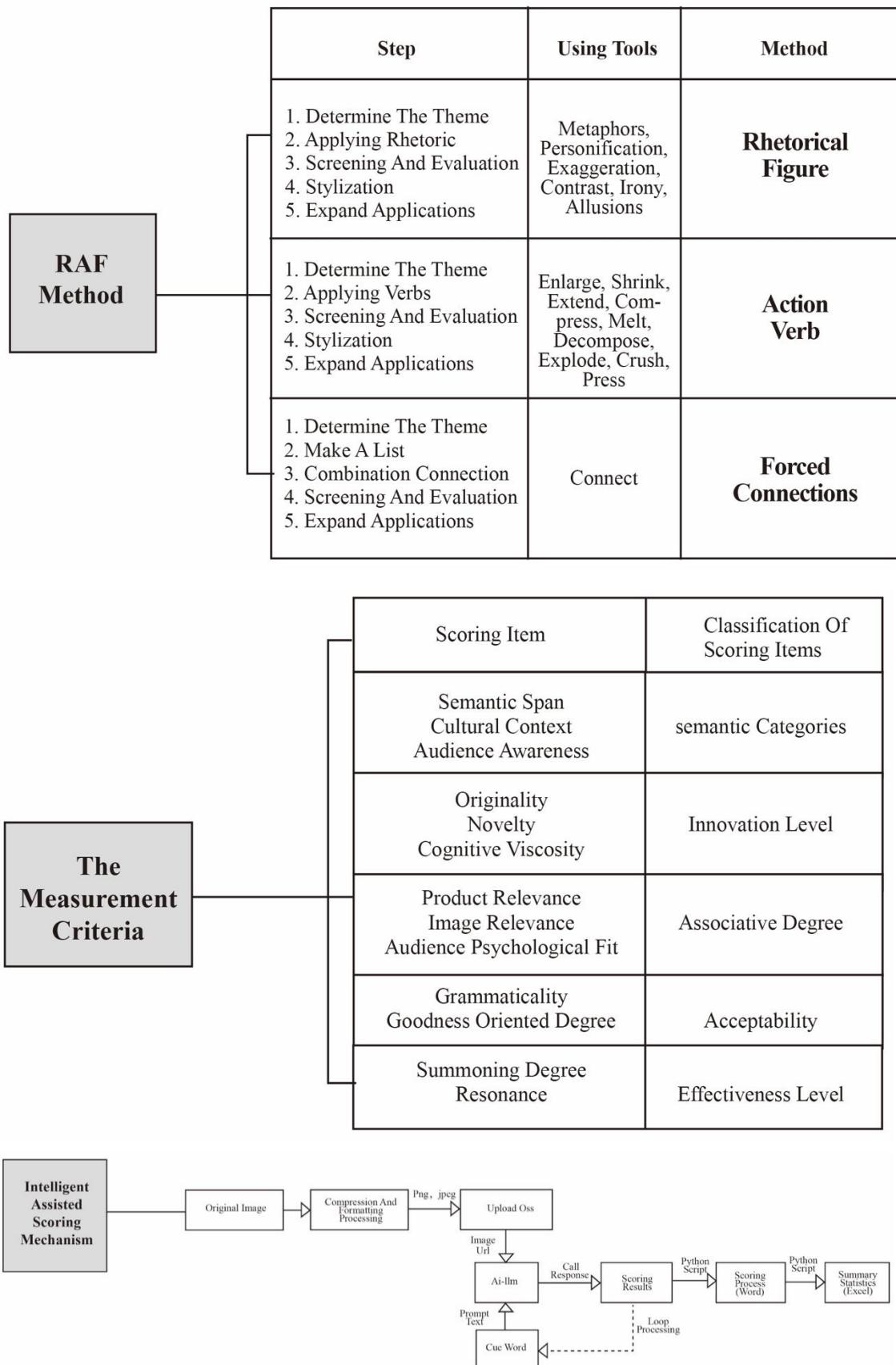


Figure.7 knowledge from metaphor advertising



Conclusion

This study provides a new theoretical perspective for the research of advertising metaphors through an in-depth exploration of the construction methods, evaluation criteria, and human-machine combined scoring mechanisms of advertising metaphors. The metaphor construction method we propose not only combines theoretical knowledge from linguistics, psychology, and advertising, but also verifies its effectiveness and practicality through empirical research, thereby enriching the theoretical foundation of advertising metaphors.

The advertising metaphor evaluation criteria constructed in this study comprehensively considers multiple aspects such as the creativity of the metaphor, the accuracy of expression, and the audience's acceptance, providing a scientific basis for evaluating the quality of advertising metaphors. The establishment of this evaluation criterion not only fills the gap in the advertising metaphor evaluation system but also provides a powerful evaluation tool for subsequent advertising metaphor research.

This study innovatively introduces artificial intelligence technology to achieve a human-machine combined scoring mechanism for advertising metaphors. Through technical means such as machine learning and natural language processing, we conduct fast and accurate analysis and evaluation of advertising metaphors, improving the objectivity and efficiency of evaluation. This exploration not only provides a new method for evaluating advertising metaphors but also opens up a new research direction for the application of human-computer interaction in the field of advertising.

Suggestions

The future research direction is diversified. Based on the methodology of Advertising Metaphor Framework (RAF), we can further explore how the construction of advertising metaphors can meet the needs of the market and audience according to the changing new trends and environments.

From the perspective of the advertising metaphor evaluation system, the current research mainly focuses on the field of advertising. In the future, this evaluation criterion can be appropriately adjusted and optimized to apply to more fields, such as dynamic advertising, multimodal advertising, etc., thereby enriching the theory and practice of metaphor evaluation. Besides, the evaluation system can also delve into audience segmentation. The creation strategies and standards of advertising metaphors should be adjusted for different age groups to achieve dynamic changes in standards. For example, young people may be more inclined to accept novel, interesting, and creative advertising metaphors, while middle-aged and older people may pay more attention to the practicality and credibility of advertising information. Female audiences may prefer warm and emotional advertising metaphors, while male audiences may prefer direct and concise expressions.

From the perspective of advertising scoring tools: With the continuous progress of artificial intelligence technology, the scoring tool combining human and machine has broad application prospects. Future research can focus on improving the accuracy and efficiency of machine evaluation and how to better combine manual evaluation to form a more complete and efficient scoring system.



From the perspective of cross-cultural research on advertising metaphors: In the context of globalization, the acceptability and understanding of advertising metaphors in different cultural backgrounds are worth exploring. For example, some cultures may prefer direct and clear expressions, while others may prefer implicit and poetic metaphors. Through a deep understanding of these cultural differences, we can provide targeted guidance for cross-cultural advertising. In addition, cross-cultural research can also help us identify and avoid potential cultural conflicts and misunderstandings. In the process of creating advertising metaphors, we should fully consider the cultural background and values of the target audience to ensure that the advertising message can be accurately and effectively conveyed.

Reference

Binghong., Z. (2008). Visual Metaphor for the Transformation of Information Form. Decoration (10), 142-143. Doi: 10.16272/J.CN.ki.Cn11-1392/j.2008.10.041.

Feng., C. (2015). Visual Metaphor Phenomenon and Enlightenment in the Use of Color in "Chinese School" Animation. Contemporary Film (07), 158-161.

Gao, Y. (2005). Visual metaphor and spatial turn [Doctoral dissertation, Fudan University]. Retrieved from <Https://kns.cnki.net>.

Gao, Y. (2012). Visual metaphor and the visualization of the world: On the ideological roots of contemporary visual culture. Journal of Sun Yat-sen University (Social Science Edition), 52(05), 66-74.

Xiang, X. & Xin., G. (2009). An Analysis of Visual Metaphor and Visual Metonymy in Chinese Print Public Service Advertisements. Journal of Hunan Medical University (Social Science Edition) (06), 257-259.

Hu, M. (2000). Metaphor and metonymy: Rhetorical patterns in stage design. Drama Art, (04), 4-21. doi:10.13737/j.cnki.ta.2000.04.001

Jacobs, A. (2000). Psychic Organs, Ego States, and Visual Metaphors: Speculation on Berne's Integration of Ego States, Sega journal30(1)<https://doi.org/10.1177/03621537000300103>

Jiaqi.,M. (2010). Research on Interaction Design of Handheld Mobile Devices Based on Metaphor (Master Dissertation, Beijing University of Posts and Telecommunications).

Liu, T. (2017). Metaphor theory: Transference generation and visual rhetorical analysis. Journal of Social Sciences of Hunan Normal University, 46(06), 140-148. DOI: 10.19503/j.cnki.1000-2529.2017.06.019

Liu, T. (2018). Metonymy theory: Image reference and visual rhetorical analysis. Social Sciences in Nanjing, (10), 112-120+128. doi: 10.15937/j.cnki.issn1001-8263.2018.10.017

Liu, T. (2018). The interactive model of metaphor and metonymy: From language to image. Journalism Circle, (12), 33-46. DOI: 10.15897/j.cnki.cn51-1046/g2.2018.12.005.

McKay E.(2000).Measurement of cognitive performance in computer programming concept acquisition: interactive effects of visual metaphors and the cognitive style construct. .Journal of applied measurement(3),257-91.



Tingting, X. & Haoran., M. (2017). Twenty Years of Visual Rhetoric Research Abroad: Focus and Prospect. *Journal of Xi'an International Studies University* (03)

Wenjing., C. (2010). Master Dissertation on the Application of Metaphor and Visual Metaphor in Animation Creation and Performance, Central South University.

Xueping, H.et.al.. (2014). The Effect of Perceptual Similarity of Object Shape on Visual Metaphor Processing. *Acta Psychologica Sinica* (05), 607-620.

Yan., G. (2012). Visual Metaphor and the Visualization of the World: On the Ideological Roots of Contemporary Visual Culture. *Journal of Sun Yat-sen University (Social Science Edition)* (05), 66-74.

Yundong. D. (2009). Film, Art as Metaphor, Doctoral Dissertation, Chinese National Academy of Arts