Internet Meme from the Perspective of Embodied Cognition

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Abstract: A meme can be understood as a unit of cultural information that spreads through imitation. This paper investigates Internet memes from the perspective of embodied cognition, drawing on three main frameworks: the simulation mechanism of the mirror neuron system, the body-specificity hypothesis, and multimodal embodiment. By analyzing representative examples of popular Internet memes, the study aims to clarify how memes are both triggered and re-created. We argue that the triggering of memes relies on their "human-like" elements, which activate embodied simulations in the brain, allowing individuals to comprehend and resonate with the Internet meme while the phenomenon of meme re-creation emerges from the inherent ambiguity in individuals' perceptual interpretations, which enables the modification, reinterpretation, and recombination of meme elements across contexts. This study highlights the role of human embodiment in shaping both the reception and ongoing evolution of Internet memes in digital culture from a different perspective.

Keywords: Internet meme; embodied cognition; mirror neurons; body-specificity hypothesis

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1. Introduction

1.1 Background

The rapid development of digital communication technologies has created new forms of cultural expression, among which the Internet meme stands out as one of the most attractive. Meme, a concept originally proposed by Dawkins (1976) as a unit of cultural transmission analogous to the gene, has evolved to encompass the symbolic, behavioral, and conceptual elements that replicate through imitation within a cultural context. In the era of social media, memes have acquired new multimodal forms that combine text, image, sound, and video, enabling them to spread widely across diverse internet communities. As both cultural artifacts and communicative

tools, Internet memes not only entertain but also embody emotional resonance and collective identity.

1.2 Review of Previous Studies

Research on memes has evolved from the original memetic theory to Internet meme analysis. Early researches focused on defining memetics concepts and explaining its transmission procedure. Dawkins (1976) introduced memes as cultural replicators analogous to genes, possessing longevity, fecundity, and fidelity. Later, Blackmore (1999, 2000) emphasized imitation as a key mechanism of meme replication. Distin (2005) and Sperber (1996) further developed cognitive and representational interpretations of memes, positing that memes exist as mental representations shaped by human cognition.

In the digital age, Internet memes now have become a focus of linguistic and cultural inquiry. Castaño Díaz (2013) defines them as "units of information transmitted via the Internet" that may replicate with variation. Chinese scholars have also contributed important perspectives: He (2014, 2021, 2023) and colleagues (2003, 2005, 2013) examined memes as pragmatic and linguistic phenomena; Xiong and Zeng (2011) analyzed Internet catchphrases as linguistic memes; Cao (2016) discussed the communicative power of strong linguistic memes; Feng (2023) explored visual meme transmission mechanisms; and Mo & Feng (2021) discussed meme variation in translation.

However, most existing studies pay limited attention to the cognitive mechanisms that underlie meme comprehension and re-creation and remain descriptive in nature. The process by which individuals perceive, interpret, and reproduce memes is not merely linguistic or social—it is also embodied and sensorimotor in essence. While some scholars have suggested that the success of memes depends on emotional resonance and intuitive understanding, few have investigated how these effects are achieved in the human brain and body. This gap points to the need for an embodied cognitive approach to meme studies, which can bridge memetics theory and cognitive neuroscience.

1.3 Theoretical Rationale

The present study adopts embodied cognition as its theoretical foundation to reinterpret Internet memes. Traditional cognitive models believes that human cognitive process is symbolic and disembodied. In contrast, embodied cognition posits that thinking and understanding are grounded in bodily experience and sensorimotor systems (Clark, 1999; Gallese, 2011; Gibbs, 2006; Lakoff & Johnson, 1980). Within this framework, several key mechanisms are particularly relevant to Internet memes:

1. Mirror Neuron System: Mirror neurons are a class of sensorimotor neurons that are activated when an individual performs a specific motor action or when an individual observes another individual performing a similar motor action (Rizzolatti & Craighero, 2004; Kilner & Lemon, 2013). The matching function of mirror neurons in the observation and execution of actions supports the unconscious simulation of empathy as a mechanism that bridges the gap between the understanding and the understood, or the two subjects and develops mental simulation into embodied simulation based on the mirroring mechanism (Ye, 2016).

This underpinned embodied simulation theory. Embodied simulation theory is based on the activation mechanism of mirror neurons. It posits that when an individual understands another person's behaviors, emotions, and sensations, the corresponding embodied representations of the observed behaviors or emotions are

activated in the individual's brain. This allows the individual to use his or her own sensory and mental states to simulate the experience of the other person, thus achieving the goal of understanding the other person. The process is unconscious and non-reflective. The simulation process is not limited to visual information; it also encompasses the integration of information from other channels, including auditory, tactile, olfactory, gustatory, and visceral senses. The system supports embodied simulation, allowing viewers to internally reenact perceived actions, emotions, and intentions (Iacoboni, 2009; Gallese, 2011).

2. Body-Specificity Hypothesis: Casasanto (2009) proposed that individuals' bodily characteristics and habitual movements shape their cognitive and affective representations. This means that meme interpretation may vary according to bodily experiences and perceptual tendencies among audiences.

3. Multimodal Embodiment: Internet memes combine text, image, and sound. Zhu (2007) argues that multimodal discourse integrates multiple symbolic systems, which interact with sensory modalities. Therefore, memes inherently invite embodied simulation through visual and emotional resonance.

These frameworks together suggest that the triggering and re-creation of Internet memes are not merely semiotic acts but embodied processes grounded in perception, imitation, and bodily experience.

1.4 Research Aims and Questions

Building upon the theoretical gap identified above, this study aims to investigate how embodied cognitive mechanisms underlie the triggering and re-creation of Internet memes. Specifically, our study aims to integrate memetics with embodied cognition to explain the processes of comprehension and reproduction in the Internet memes.

The study addresses the following research questions:

1. How do embodied mechanisms—particularly mirror neuron activation—facilitate the comprehension and affective resonance of Internet memes?

2. How does the body-specificity hypothesis explain individual differences in meme re-creation and reinterpretation?

3. In what ways can an embodied perspective enrich our understanding of the dynamics of meme evolution and cultural dissemination in digital environments?

This inquiry contributes to both memetic theory and embodied cognition theory by bridging cultural transmission with human embodiment, offering an interdisciplinary framework for understanding the Internet memes.

1.5 Methodology

The study employs a qualitative analytical approach, combining theoretical synthesis with case-based analysis. Representative Internet memes—such as "Confused Nick Young", "Plot twist", "Leo Toast", "Daily Struggle", and "Two Cats Talking"—are examined to illustrate how those embodied mechanisms operate during Internet meme triggering and re-creation. These examples were selected for their multimodal richness and popularity, which allow for analysis of both visual-perceptual and cognitive-affective engagement.

Through this interdisciplinary approach, the study aims to extend embodied cognition theory to digital discourse analysis, revealing how human embodiment shapes the evolution and affective power of Internet

memes.

2. Analysis and Discussion

2.1 Imitation as embodied comprehension

The whole process of meme propagation includes three main stages: triggering, replication, and propagation. The term "triggering" refers to the act of a meme being deposited into the brain as a representation of the information it contains. The triggering of a meme is contingent upon two conditions. Primarily, the information that is already present within the human brain may transform into a meme (Distin, 2005, p. 19). Distin terms this kind of information as meta-representational information with potential effects. Secondly, the contexts that can make the information with potential effects to trigger a meme are diverse (He, 2013).

Firstly, from the embodied perspective, a meme's triggering is the host's embodied simulation of the information of the meme through the mirror neuron system. This activates the embodied representations in the host's brain, enabling them to understand the content of the meme. This is analogous to the initial condition of meme triggering, which is based on information that is already present in the brain. This meta-representational information can be conceptualized as an embodied representation in embodied cognition. Furthermore, an individual's mental mimicry of a meme activates the embodied representations in the brain of the individual, thereby enabling the individual to recognize the meme. Additionally, the action-compatibility effect plays a pivotal role in the triggering of memes. The action-compatibility effect refers to the influence of a person's body movements on their cognitive processes and decision-making (Sanford & Emmott, 2012: 143). In other words, individuals are more likely to respond faster and more accurately when a certain cognitive task or decision is coordinated with their body movements. Internet memes typically contain visual or verbal information that can be coordinated with an individual's body movements and responses in an action-coupling effect, which enhances the cognitive effect of the meme.

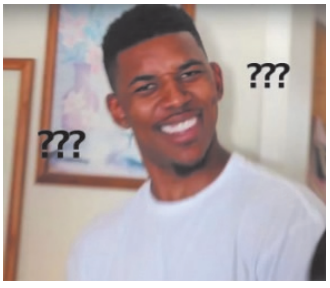

Figure 1 "Confused Nick Young" meme

Figure 1 provides an illustrative example. When an individual encounters the meme "Confused Nick Young", a phenomenal Internet meme which exploded in 2015, the mirror neuron system will elicit the individual's unconscious facial simulation of the subject depicted in the meme. This unconscious facial simulation is a form of meta-representation, the potential effect of the individual's brain for the emotion of confusion which is already restored in the individual's brain. That is to say, the somatization representation of the interoceptive

modality is activated. And due to the facial simulation and the physical representation of the interoceptive modality is activated by the potential effect, it reinforces the individual's perception of the meme by the action-compatibility effect of the consistency of the facial simulation with the facial expression in the meme. The "?" symbol in "Confused Nick Young" is only presented to help solve the ambiguity caused by different individuals' body-specificity.

Secondly, the entire process of a meme's triggering is contingent upon context, thereby the involvement of relevance theory is necessary. In the case of Internet memes, one type of meme is designed to be as relevant as possible, and the target host of this type of meme is seeking to achieve the greatest cognitive effect with the least amount of reasoning effort. This means that the meme itself is easy to understand for the host. The "Confused Nick Young" meme in Fig. 1 represents the first type of meme. The second type of Internet meme pursues optimal relevance. The target host of this type of meme hopes to achieve a maximum cognitive effect with a certain amount of reasoning effort. This type of Internet meme is designed to be as relevant as possible. In other words, the meme itself is not easy to understand. The hosts of this type of meme require a certain amount of encyclopedic knowledge or a threshold of in-person experience, as exemplified by Figure 2, whose triggering process is more complicated. An individual without the experience of accidentally stepping on the legos can hardly trigger this Internet meme, and it also involves a reversal reason capacity.

Figure 2 "Plot twist" meme

2.2 Re-creation as cognitive and contextual transformation

The replication process of Internet memes is characterized by variation, which can be understood as re-creation. From the embodied perspective, re-creation is closely related to the body-specificity hypothesis. As previously stated, during the triggering process of an Internet meme, the individual's meta-representational information and somatization representations of a meme's potential effects already existing in the brain are activated. Some of the information in the Internet meme serves to disambiguate the ambiguities arising from differences in the individual's somatization representations. However, due to the body-specificity of individuals, two points should be noted. First, the degree of activation of meta-representational information and somatization representations of the potential effects varies among individuals. Second, disambiguation does not imply the achievement of a complete understanding of the meme; rather, it only ensures that the individual's understanding

of the meme is consistent with the direction of the ontology of the meme. Consequently, there are discrepancies between individuals' comprehension of the same meme, and even between an individual's understanding of the same meme at different points in time. Furthermore, there is a certain degree of fuzziness in the individual's understanding of the meme.

The recreation of Internet memes can be divided into three categories.

The first is context-level recreation, which involves the host reinterpreting and applying the same Internet memes in different contexts based on specific communicative needs and audience characteristics. This process allows the meme to take on new meanings and uses. This process encompasses not only the content of the meme itself but also the context and purpose of the host's use of the meme. The same meme can exhibit diverse meanings and effects in different contexts. This kind of reinterpretation is not merely a simple forwarding or copying of the Internet meme; rather, it is the introduction of new meanings and functions through the alteration of context. Figure 3, "Leo Toast," is an illustrative example. The meme originated from the film "The Great Gatsby," in which Gatsby smiles and raises his wine glass to gesture to people in the scene. This image has become a widely spreading Internet template, and hosts can utilize this template in different contexts, including multiple positive and negative situations.

Figure 3 "Leo toast" meme

Secondly, the recreation within the Internet memes. Internet memes are comprised of various elements, and the host can recreate them by modifying some of the elements within the module. Such re-creation includes (but is not limited to) modifying the text content, image content, video content, and audio content of the Internet meme, which gives rise to a series of "meme templates." For example, in Fig. 4, the cartoon character is depicted trying to choose between two buttons, expressing a kind of tangle. In this template, the comic character attempts to select between two buttons to convey a complex emotional state. The host is required to enter text into the blank spaces of the buttons to complete the modification of the meme. By modifying the internal elements of the meme appropriately, Internet memes can be adapted to a compatible context and find their next host.

Third, cross-meme recreation: hosts form memeplexes by combining two or more Internet memes. Meme complexes emerge from the replication and propagation pressures of individual memes rather than from a host selection process that forces them to combine. Blackmore (ibid: 20) further suggests that memeplexes are more likely to be replicated than individual memes. From the perspective of embodiment, the specificity of the body makes hosts uncertain about the nature of memes. This ambiguity allows for intersections between different memes, which hosts can combine dynamically. They can then use image-video splicing, text fusion, or audio editing to align the ambiguities of the Internet memes with their intentions, thus forming Internet memeplexes

Figure 4 "Daily struggle" meme

with a new meaning and a new propagation effect. The recent video of the questioning cat and the aggrieved cat meme that gained significant attention on Chinese social media platforms, as illustrated in Fig 5, represents a combination of two distinct and independent Internet memes into one memeplex. The primary subject of the meme, the cats, as an animal, is perceived differently by humans based on its facial expression, which may convey a variety of psychological intentions. Additionally, the psychological intentions attributed to the cat by different individuals may also vary. However, through the editing technique, the communicator makes the two subjects of the meme exhibit a cognitive interval of questioning on one side and aggrieved on the other. This allows the meme to be disseminated in a broader context, evoking a greater resonance and interaction than a single meme, thus facilitating its further propagation and reproduction.

Figure 5 "Two cats talking" meme

2.3 Discussion: Imitation and Re-creation — A Consensus

The analyses of Internet meme communication above shows that the mechanism of Internet memes replication corresponds closely with the mechanism of embodied cognition. Both of them rely on imitation, variation, and contextual adaptation as driving forces of transmission and evolution. From Dawkins's perspective, memes replicate through imitation and transform through mutation in the process of cultural selection. Similarly, embodied cognition explains understanding and empathy through embodied simulation—the neural mirroring of perceived actions and emotions within the observer's sensorimotor system.

At the micro-cognitive level, meme triggering mirrors the activation of the mirror-neuron system. When individuals encounter an Internet meme, they simulate the perceptual and affective states depicted in it, thus

reproducing the meme's informational pattern within their own neural and bodily systems. At the macro-cultural level, meme re-creation parallels the body-specificity hypothesis: different bodily experiences and perceptual habits lead to different ways of interpreting and modifying memes. These diverse reinterpretations accumulate into memeplexes, where memes co-evolve through imitation and recombination.

In essence, the dynamics of Internet meme communication externalize the dynamics of cognition itself. The processes of imitating and re-creating of Internet memes reflect the embodied nature of human understanding. Therefore, the success and vitality of Internet memes derive from their ability to engage the human body and mind simultaneously, thus transforming imitation into creativity and perception into netizens' participation.

3. Conclusion

This paper examines the phenomenon of the triggering and recreation of Internet memes from the perspective of embodied cognition. The mirror neuron system and the body-specificity hypothesis provide a different theoretical basis for understanding the triggering and recreation of Internet memes which are profoundly influenced by human embodied cognition mechanisms. In the process of meme triggering, individuals engage in an embodied simulation of meme information through the mirror neuron system, thereby activating the embodied representations in the brain to achieve meme understanding. In the process of meme re-creation, the host gives new meanings and communication effects to the meme through three methods: context transformation, modification of internal elements of the meme, and cross-module combination.

This paper also has several limitations. First, this paper primarily relies on existing theories and a few case studies and lacks comprehensive empirical studies to verify the generalizability of embodied cognition theory in Internet meme communication. Second, when analyzing the phenomenon of re-creation of memes, this paper primarily focuses on the three aspects of context, internal elements, and cross-modality. However, in the actual process of communication, the form of re-creation of memes may be more complex.

Future research could extend these findings by conducting empirical studies including eye-tracking or neuroimaging experiments to measure embodied responses to meme stimuli. Further exploration of cross-cultural and linguistic variations in meme embodiment could also enhance our understanding of how Internet memes reflect the diversity of human cognition processes.

References

Blackmore, S. J. (2000). *The meme machine*. Oxford: Oxford Paperbacks.

Castaño Díaz, C. M. (2013). Defining and characterizing the concept of Internet meme. *Ces Psicología*, 6(2), 82−104.

Clark, A. (1999). An embodied cognitive science? *Trends in Cognitive Sciences*, 3(9), 345−351.

Dawkins, R. (2016). *The selfish gene*. Oxford: Oxford University Press.

Gallese, V. (2011). Embodied simulation theory: Imagination and narrative. *Neuropsychoanalysis*, 13(2), 196−200.

Gibbs, R. W. (2006). *Embodiment and Cognitive Science*. Cambridge: Cambridge University Press.

Lacoboni, M. (2009). Imitation, empathy, and mirror neurons. *Annual Review of Psychology*, 60, 653−670.

Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By*. Chicago: University of Chicago Press.

Kilner, J. M. & Lemon, R. N. (2013). What we know currently about mirror neurons. *Current Biology*, 23(23), R1057−R1062.

Mukamel, R., Ekstrom, A. D., Kaplan, J., et al. (2010). Single-neuron responses in humans during execution and observation of actions. *Current Biology*, 20(8), 750−756.

Rizzolatti, G. & Craighero, L. (2004). The mirror-neuron system. *Annual Review of Neuroscience*, 27, 169−192.

Sanford, A. J. & Emmott, C. (2012). *Mind, brain and narrative*. Cambridge: Cambridge University Press.

Sperber, D. (1996). *Explaining culture: A naturalistic approach*. Oxford: Blackwell.

Wang, L., Lou, L., & Zhu, Q. (2025). Researching the translation of implicit modifiers in Chinese chunks. *Asia-Pacific Journal of Humanities and Social Sciences*, 5(2), 106−117.

曹進、靳琰:《網絡強勢語言模因傳播力的學理闡釋》,《國際新聞界》,2016 年第 2 期,頁 37−56。

馮建明:《網絡視覺模因傳播機制研究》,《外國語文》,2023 年第 4 期,頁 112−120。

何自然:《語言中的模因》,《語言科學》,2005 年第 6 期,頁 54−64。

何自然:《語言模因中的元語用意識》,《華文教學與研究》,2021 年第 1 期,頁 41−47。

何自然:《新媒體中網絡語言的語用問題》,《天津外國語大學學報》,2023 年第 5 期,頁 1−9+110。

何自然、何雪林:《模因論與社會語用》,《現代外語》,2003 年第 2 期,頁 200−209。

何自然、李冬梅:《模因論的一個評議性重估——Distin〈自私的模因〉讀後》,《外文研究》,2013 年第 3 期,頁 7−12+104。

何自然:《流行語流行的模因論解讀》,《山東外語教學》,2014 年第 2 期,頁 7−13。

莫愛屏、馮建明:《新時期文化外譯的模因變異與翻譯策略選擇》,《英語研究》,2021 年第 1 期,頁 32−41。

熊永紅、曾蓉:《從模因論的角度解讀流行語"被 XX"》,《外國語文》,2011 年第 2 期,頁 70−73。

葉浩生:《鏡像神經元的意義》,《心理學報》,2016 年第 4 期,頁 444−456。

朱永生:《多模態話語分析的理論基礎與研究方法》,《外語學刊》,2007 年第 5 期,頁 82−86。

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