

Research on the Formation Mechanism of Cognitive Bias from the Perspective of East Asian Culture: An Analysis Based on the Halo Effect

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Abstract. Existing studies of the halo effect have largely used Western individualistic cognitive approaches, with limited cross-cultural investigation. Drawing on East Asian cultural contexts, this paper explores the interconnected effects of relational cognition, authority structures, and face mechanisms on evaluative processes. The study finds that East Asian culture shapes cognitive biases through the interaction of three mechanisms. In particular, cultural labeling shapes overall judgments via local cues, hence reducing information complexity while limiting attention to individual differences. Furthermore, authority and hierarchy structures reinforce these judgments, increasing their stability in organizational interactions. Additionally, the face mechanism filters cues by reinforcing consistency and reducing conflict. Due to the joint effect of these three mechanisms, the halo effect gradually shifts from an individual cognitive bias to a stable social cognitive pattern, manifested through culturally based inferences in cross-cultural interactions that influence communication and decision-making. Regarding this phenomenon, this paper believes that it is necessary to introduce a reflection mechanism on existing labels in the interaction, and through counterexample testing of key judgments, reduce impression overgeneralization, while clarifying the sources and boundaries of cultural assumptions to reduce misinterpretation.

Keywords: Halo Effect, East Asian Culture, Cognitive Bias, Stereotype, Face Culture

1. Introduction

The halo effect, rooted in cognitive bias, greatly influences judgment and decision-making under uncertainty [1]. However, existing research largely relies on Western samples and individualistic frameworks, viewing individuals as independent agents who form evaluations based on salient cues [2]. Thus, the cross-cultural generalizability of this assumption remains to be examined. In response, the integration of cultural psychology and cognitive science has highlighted culture's role in shaping perceptual structures and cognitive processes underlying social cognition. In East Asian cultural contexts, collectivist orientation, relational thinking, high-context communication, and hierarchical and face structures jointly constitute a cognitive organization mode distinct from individual-centered models, providing a theoretical basis for re-examining the formation and boundaries of the halo

effect [3]. Against this backdrop, this paper investigates how East Asian cultural traits shape cognitive bias and its mechanism of action within the halo effect. In particular, it analyzes how cultural structures shape judgments and behaviors, and how social relations, authority, and face mechanisms amplify cognitive biases into stable cultural labels. At the same time, it further explores how these labels are continuously reinforced during interaction processes and shape the persistence of group trust and behavioral patterns. It also examines how individual judgments become group stereotypes in cross-cultural contexts, shaping interaction expectations and decisions. Through literature review and case analysis, this paper investigates strategies for reducing cognitive bias, proposes a cross-cultural decision-making framework, and re-evaluates the formation and boundaries of the halo effect.

2. The structural shaping of cognitive bias by East Asian culture

2.1. East Asian cultural structure and cognitive foundations

The cognitive orientation of East Asian culture is shaped by the interplay of Confucian ethical order, Daoist holistic perspectives, and Buddhist causal views. These traditions are transmitted through family, education, and organizational systems, influencing how individuals understand social relations and position themselves within society [4]. Within this framework, individuals' understanding of social phenomena is first shaped by their social positions and relational contexts. Meaning is not derived from isolated facts but defined and validated through relational structures. Meanwhile, age-based order within families and authority hierarchies in organizations form stable structures that provide clear references for interpreting social behavior. Thus, social cognition tends to rely on relational and institutional structures rather than abstract individual attributes as its primary reference point.

2.2. Behavioral expressions and cognitive processing modes

Behavioral norms serve as a key expression of social relations in East Asian culture, with their meanings constructed contextually through interaction and incorporated into judgments of others. Business etiquette, bodily expressions, and time orientations constitute recognizable behavioral cues that contribute to evaluation processes. Specifically, etiquette systems, reflected in forms like address terms, honorifics, and bowing, signal status order and relational distance, serving as cues for assessing cooperation intentions and role positions. Meanwhile, bodily expressions are often subtle and restrained, with meanings shaped by observers' interpretations and perceived as respect or distance. Similarly, time arrangements reflect organizational coordination, with longer decisions considered as either careful consideration or inefficiency. In addition, differences in generational experiences and industry structures shape the interpretation of these cues, causing the same behavior to receive different evaluations across contexts and influencing the formation of social relations and identity judgments.

2.3. The halo effect and culturally shaped cognitive biases

Within East Asian cultural contexts, the halo effect is not merely an individual cognitive bias but is embedded in relational structures and cultural value systems. As a result, relational orientation, hierarchical order, face concerns, and group identity further shape how individuals form holistic judgments from salient cues under limited information and extend them to unobserved attributes.

In this process, social status and organizational reputation strengthen initial impressions, thereby making high-status actors more likely to receive positive evaluations while amplifying negative information [5]. Meanwhile, face mechanisms shape information presentation toward visible and socially acceptable signals, allowing existing impressions to attract attention and limiting the processing of disconfirming evidence. As initial judgments are repeatedly reinforced through organizational communication and group consensus, they gradually stabilize into cultural labels. Once labels become primary interpretive references, the halo effect shifts from individual bias to group-level cognition.

3. Mechanisms underlying the halo effect in East Asian contexts

3.1. Cultural labeling and the simplification of social cognition

In the process of social cognition, individuals need to quickly understand others and the social environment under limited information conditions. The halo effect causes a certain prominent feature to be magnified and used as the basis for overall evaluation. At the same time,, group consciousness and relational orientation reinforce this classification process, thus allowing it to develop into cultural labels used to explain others' behaviors and group characteristics.

For example, hierarchical structure is directly associated with conservatism, the relationship between superiors and juniors and inequality tendency, and the human relationship network and weak rule awareness, thereby forming an integrated group cognition [6]. Though these labels can simplify information processing, they will make judgments focus on a few identifiable features and narrow the attention range to individual and situational differences; meanwhile, labels will be repeatedly called upon in different contexts and expanded in the scope of interpretation, gradually transforming local observations into holistic generalization cognition, strengthening their explanatory power.

3.2. Authority and hierarchical structures reinforcing cognitive bias

In East Asian cultural contexts, hierarchical structures shape social relations, with authority, seniority, and status serving as key references for evaluating others. This hierarchical orientation also affects the way information is received and interpreted, making the halo effect more likely to occur. Information from authoritative sources is more likely to be directly accepted, while information that contradicts existing judgments is often ignored [7]. On this basis, social status or organizational reputation can easily be extrapolated as an overall ability assessment.

For example, a well-known university or a large enterprise background is often regarded as a reliable indicator of ability. Conversely, negative impressions may also become fixed and persist in subsequent evaluations. This reliance on authoritative and identity cues for judgment will reduce the active verification of alternative information, thus allowing existing impressions to gradually stabilize through repeated confirmation, and continuously reinforcing the halo effect in organizational and social interactions.

3.3. Face-oriented culture and cognitive filtering mechanisms

Face-orientated culture regulates East Asian social interactions by shaping personal reputation, social evaluation, and group relationship maintenance. In situations that emphasize harmony and smooth communication, individuals regulate information presentation through subtle expressions

and indirect communication. For example, they may use hints instead of direct negation, or use buffering tones instead of explicit expression of conflict. The receiver often combines existing impressions and social expectations to understand the behavior of others, thus forming selective information processing: information consistent with existing judgments is more likely to be accepted, while contrary information is more likely to be ignored or weakened [8]. For instance, in situations of delayed feedback or ambiguous expression, explanations are often directed towards the existing evaluation framework rather than re-examining the facts themselves. During this process, existing cultural labels are continuously strengthened. When a stable impression of a certain group is formed, subsequent information is more likely to be selectively absorbed, that is, supportive evidence is amplified, while contradictory clues are down-weighted, allowing the judgment to gradually converge within the established cognitive framework.

4. The social consequences and group-level effects of cognitive bias

4.1. Cross-cultural misinterpretation and cognitive bias

Cognitive biases manifest themselves first in cross-cultural communication as misinterpretation of information. In the interpretation process, the behavioral expressions from different cultural backgrounds are prone to have their meanings distorted. For instance, an implicit expression might be interpreted as being polite, or it might be regarded as ambiguous in attitude; a direct expression might be judged as efficient or tough [9]. Once a stable impression of a certain group is formed, subsequent information is often placed within the existing judgment framework for confirmatory understanding, causing the same behavior to present different meanings under different interpretation paths. In specific interactions, this misinterpretation is manifested as the solidification of attributions for a single event. For example, slow feedback might be directly attributed to efficiency issues, and direct criticism might be understood as lacking respect. As similar judgments are repeated in multiple communications, individual situations gradually become generalized as group characteristics, and the accumulation of interpretation differences in communication continues. Therefore, cross-cultural conflicts not only manifest as behavioral differences but as stable differences in the interpretation of behavioral meanings, making the interaction process more dependent on the existing judgment framework rather than specific contextual information.

4.2. The reinforcement and solidification of social stereotypes

In cross-cultural negotiations, initial cultural labels are often directly generalized into stereotypes. Negotiators often equate individual behaviors or local characteristics with group attributes [10]. For example, cultural assumptions may lead negotiators to perceive German punctuality and East Asian relationship orientation through fixed cultural lenses. Such views simplify judgments but may overlook individual and contextual differences. Through repeated interactions, these judgments may become reinforced over time. Individual experiences are then generalized into broader group perceptions and applied in negotiations and organizational communication. In addition, cross-cultural behavioral symbols may have different meanings across contexts. For example, silence, limited eye contact, or delayed responses may signal politeness, caution, or inefficiency depending on the cultural setting. This polysemy further makes existing judgments more likely to be solidified into "interpretable frameworks." During this process, local characteristics become the basis for overall judgments, shaping expectations and strategies while reducing sensitivity to situational differences and flexibility.

4.3. Group trust and behavioral adaptation mechanisms

In cross-cultural interactions, the understanding of behaviors is often first placed within existing cognitive frameworks for interpretation, thus influencing the overall judgment of the nature of the behaviors. When individuals rely more on cultural impressions rather than specific contexts, behaviors are more likely to receive fixed interpretations, overlooking contextual differences [10]. This way of understanding further affects the formation path of trust between groups, and the interaction expectations gradually rely on existing cognition rather than real-time behavioral feedback, thus making the establishment of trust exhibit a strong continuity and stability [11]. On this basis, behavioral adaptation between groups is also constrained by existing judgments. Therefore, communication strategies and response patterns often adjust around prior impressions rather than being fully recalibrated based on new interaction information. This creates a degree of cognitive persistence in cross-cultural coordination, as existing interpretations continue to influence trust and behavioral choices instead of being reshaped by immediate contexts.

5. The halo effect and its intervention pathways in East Asian cultural structures

5.1. Boundary constraints on cognitive judgment

The key to overcoming the halo effect lies in setting clear boundaries for the cognitive judgment process and reducing the space for externalizing labels at the source. In the context of East Asian culture, social labels and authoritative identities are easily integrated into a holistic evaluation, allowing local traits to shape evaluations of broader capabilities without sufficient verification. Therefore, an operational constraint framework needs to be introduced. The first is the "logical correlation firewall." When a significant feature triggers a holistic evaluation, the scope of its interpretation should be clearly distinguished, and the corresponding relationship between it and the specific judgment task should be tested. For example, education level reflects training background but does not determine honesty or negotiation skills. Therefore, evaluations should focus on verifiable evidence rather than extending one attribute to overall judgments. The second is the "counterexample search mechanism." After an initial impression forms, individuals tend to favor consistent information and reinforce existing judgments, hence reducing opportunities for correction. By seeking cases that contradict existing judgments, evaluations can transit from overall impressions to individual evidence, reducing the amplification of a single impression.

5.2. Contextual clarification of interactive information

Misjudgments in cross-cultural interactions often do not stem from subjective biases, but rather from the different interpretations of behaviors made by both parties based on their respective cultural codes. This process often occurs implicitly. Therefore, the focus is not on eliminating cultural differences but on making underlying assumptions explicit via a "cultural transparency" approach. This shifts judgments from default assumptions to explicit and verifiable information, enabling real-time adjustment during interactions. For instance, when one party anticipates the decision-making pace of the other based on "relationship orientation", they can directly state the source of this judgment and further confirm its applicability in the current context. Through this explicit expression, the original understanding process relying on experiential inferences is transformed into specific information that can be discussed, shifting the communication from labeled presuppositions to contextual alignment. On this basis, communication moves beyond automatic cultural labeling by

using contextual confirmation to reduce misinterpretation and refine judgments in specific interactions.

5.3. The self-correction of judgment bias

The final step in overcoming the halo effect is to prevent the correction process from becoming a new fixed judgment. When individuals deliberately weaken existing labels, they are prone to use the opposite judgment as a new rule. For example, after denying "big enterprises are stronger", they might directly think "grassroots entrepreneurship must be more creative", or after denying reliance on authority, they might equate "opposing authority" with independent thinking. This "anti-halo halo" merely changes the evaluation direction, still relying on general symbols rather than specific evidence. Therefore, the focus of correction is not to form alternative conclusions, but to avoid the conclusion from becoming stable prematurely. Judgments need to always return to the specific context. For instance, the same background may lead to different outcomes across tasks, and a single label cannot capture such differences. Correction does not aim to find a more "accurate" label but to continuously examine whether judgments remain grounded in individual evidence. In practice, self-correction is an ongoing verification process rather than a one-time adjustment, keeping judgments open to revision instead of forming new fixed patterns.

6. Conclusion

This study starts from the halo effect and explores the mechanism by which the cultural traits of East Asia affect cognitive judgments. The results show that the relational cognitive orientation, hierarchical order, and face negotiation jointly constitute a stable cultural cognitive framework, converting social labels, authoritative reputation, and relationship maintenance into cognitive shortcuts, judgment bases, and information screening standards. Based on this, the halo effect expands from individual-level judgment deviations to a collective cognitive model embedded in social interactions, and in cross-cultural contexts, it manifests as an intensified reliance on existing cultural presuppositions, thereby influencing trust formation and decision-making paths. Further analysis reveals that this study theoretically constructs an analytical framework of "cultural structure - cognitive mechanism - social consequences" to explain the generation logic and action mode of the halo effect in the East Asian cultural context. At the practical level, it is necessary to reduce the dominance of label-based inferences through cognitive constraints, interaction clarification, and reflective training, so that judgments rely more on specific contexts and evidence, while avoiding the re-solidification of anti-stereotyping itself as a new label logic.

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