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A Literature Review on the Influence Mechanism of Involution Perception on Digital Creativity

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Abstract

In the era of the digital economy, employee creativity is rapidly transforming into a digital form, while the spread of the "involution" phenomenon has a profound impact on organizational innovation capability. Focusing on the influence mechanism of involution perception on digital creativity, this paper systematically reviews the conceptual connotations, measurement tools, and research progress of five core variables: involution perception, digital creativity, relative deprivation, constructive deviance, and competitive climate. Through literature integration, it is found that existing studies have preliminarily revealed the basic characteristics of each variable, but the direct path from involution perception to digital creativity remains unclear; the mediating mechanism of psychological factors such as relative deprivation lacks systematic exploration; and the boundary effects of constructive deviance and competitive climate need further verification. Finally, this paper points out the obvious deficiencies in current research and proposes future directions for constructing a theoretical integration framework and conducting empirical tests.

Keywords

Involution Perception; Digital Creativity; Relative Deprivation; Constructive Deviance; Competitive Climate.

1. Introduction

The deepening digital transformation of enterprises places higher demands on employees' digital innovation capability. Digital creativity, as the ability of employees to use digital technologies to solve problems and create value in digital environments, has become a core driver of organizational innovation performance. However, in recent years, the phenomenon of "involution" has spread across various industries, and employees generally experience psychological pressure from resource scarcity, promotion difficulties, and excessive competition. How this involution perception affects employees' digital creativity has become an important issue of common concern in both theory and practice.

Existing studies have separately explored the concepts and effects of involution perception, digital creativity, relative deprivation, constructive deviance, and competitive climate, but lack a systematic review of the integrated mechanism among these variables. This paper aims to clarify the connotations and measurement tools of each variable, summarize existing research findings, point out the deficiencies in current research, and construct a theoretical framework for the influence of involution perception on digital creativity, thereby laying a foundation for subsequent empirical research.

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2. Variables Related to the Influence Mechanism of Involution Perception on Digital Creativity

2.1. Involution Perception

2.1.1. Concept and Measurement

The term “involution” originates from the Latin word “involutum”, literally meaning “rolled up or twisted”. The German philosopher Immanuel Kant first systematically elaborated on the phenomenon of involution in human social evolution in his Critique of Judgment, juxtaposing it with “evolution theory”. Alexander Goldenweiser, in his study of Maori primitive culture, used “involution” to describe a situation where a culture, due to external constraints, is unable to leap to a higher form and only becomes increasingly refined and complex within its existing framework.

In Chinese academia, Yang Yingying (2022) applied involution to the field of organizational socialization and proposed the concept of “involution involvement perception”, arguing that it stems from four reasons: survival needs, self-improvement, incentive promotion, and group comparison. Zhang Xinrong (2023) further defined involution perception as people's sensitive awareness of involution phenomena and their willingness to participate in involutionary behaviors. Based on existing research, this paper defines involution perception as employees' subjective feeling of resource scarcity and promotion difficulty in a highly competitive environment.

Yang Yingying (2022) developed an involution perception questionnaire comprising four dimensions: survival need perception, self-improvement perception, incentive promotion perception, and group comparison perception, with a total of 12 items. This scale has been proven to have good reliability and validity in the Chinese organizational context.

2.1.2. Related Research

Existing studies show that involution perception exacerbates employees' psychological pressure, anxiety, and work fatigue, thereby affecting their mental health and work motivation (Kang & Jin, 2020). Li Haiyi (2022) found that newly recruited highly educated employees, under strong self-actualization expectations and social pressure, are more likely to fall into the workplace involution vortex, and their creativity development is inhibited. However, how involution perception specifically affects employees' digital creativity, especially through which mediating mechanisms and boundary conditions, remains largely unexamined.

2.2. Digital Creativity

2.2.1. Concept and Measurement

Lee and Chen (2015) defined digital creativity as “manifestations driven by digital technology”, i.e., the creativity displayed when applying digital devices in creative activities. Seo et al. (2013) argued that digital creativity is not just a technological tool but also embodies “the ability to solve problems and create new products when handling tasks in digital environments”. This study adopts Lee's mature scale for measurement.

2.2.2. Related Research

Existing research explores the influencing factors of digital creativity from three dimensions: individual characteristics, job characteristics, and environmental characteristics. At the individual level, educational level, self-efficacy (Tierney & Farmer, 2002), and information reception ability (Seo et al., 2015) have significant positive effects on digital creativity. At the job level, task diversity and job autonomy help stimulate creativity (Liang et al., 2015). At the environmental level, team learning climate (Maruping & Magni, 2012) and transformational leadership (Pieterse et al., 2010) also play important roles. However, existing studies pay

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insufficient attention to employees' psychological factors (such as involution perception and relative deprivation).

2.3. Relative Deprivation

2.3.1. Concept and Measurement

Relative deprivation refers to the negative emotional experiences (dissatisfaction, anger, disappointment, etc.) arising from an individual's perception of being at a disadvantage after comparing themselves with others or their own past (Runciman, 1966). Smith et al. (2012) further divided it into horizontal relative deprivation and vertical relative deprivation. This study adopts the cognitive-affective two-dimensional scale (3 items) developed by Tropp and White (1999).

2.3.2. Related Research

Relative deprivation has been shown to affect individuals' work motivation, turnover intention, and innovative behavior. Liang Zhendong and Nie Shunting (2020) found that relative deprivation in the workplace reduces employees' work motivation and increases turnover intention. Zhou Zhigang (2024) further found that employees' perception of relative deprivation inhibits their innovation capability. This provides a theoretical basis for exploring the mediating role of relative deprivation between involution perception and digital creativity.

2.4. Constructive Deviance

2.4.1. Concept and Measurement

Constructive deviance refers to employees' voluntary and spontaneous violation of existing organizational norms based on intrinsic motivation, with the purpose of enhancing the overall interests of the organization (Galperin, 2012). Unlike traditional negative deviance, constructive deviance is characterized as an altruistic organizational citizenship behavior. This study adopts the localized scale developed by Wang Hongyu and Cui Zhisong (2018), which includes two dimensions: violation of formal norms and violation of informal norms.

2.4.2. Related Research

Constructive deviance has a double-edged sword effect on individual innovation performance: moderate deviance can stimulate innovative thinking and broaden problem-solving perspectives, thereby improving innovation performance; however, excessive deviance may lead to organizational disorder and inhibit innovation (Wang Yanzi & Zhang Ting, 2020). This variable may play a moderating or mediating role between involution perception and digital creativity.

2.5. Competitive Climate

2.5.1. Concept and Measurement

Competitive climate refers to employees' perception that the distribution of organizational rewards is based on the comparison of their performance with that of colleagues (Kohn, 1986; Brown et al., 1998). This study adopts the four-item scale developed by Brown et al. (1998).

2.5.2. Related Research

Competitive climate has a dual impact on employees. On the one hand, competition can motivate employees to set higher goals and enhance work motivation (Mathieu, 2015); on the other hand, competition may trigger relative deprivation, damage interpersonal relationships, and increase employee anxiety (Yang Chen & Tang Mingfeng, 2018; Xu Yangyang & Lin Xinqi, 2021). Competitive climate may strengthen the positive effect of involution perception on relative deprivation, thereby indirectly affecting digital creativity.

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3. Theoretical Framework Construction

3.1. Main Progress in Existing Research

By systematically reviewing the literature on the above five core variables, the following progress can be identified: First, the conceptual boundaries and measurement tools of involution perception have been preliminarily established, and its negative psychological effects have been initially verified. Second, a three-dimensional analytical framework (individual, job, environment) for digital creativity has formed a relatively mature paradigm. Third, research on the antecedents and consequences of relative deprivation, constructive deviance, and competitive climate is continuously enriching, providing theoretical support for constructing an integrated model.

3.2. Obvious Deficiencies in Existing Research

First, there is a lack of direct research on the relationship between involution perception and digital creativity. Few scholars have directly explored the influence path from involution perception to digital creativity, leaving a theoretical gap. Existing studies mostly discuss the mental health effects of involution perception or the organizational antecedents of digital creativity in isolation, lacking a systematic examination of the "psychological perception → innovation capability" transmission mechanism.

Second, research on digital creativity inadequately integrates psychological factors. Most studies proceed from the perspectives of organizational characteristics (e.g., leadership style, team climate) or individual abilities (e.g., education, self-efficacy), paying little attention to the role of employees' negative psychological experiences such as involution perception and relative deprivation.

Third, the mediating mechanisms and boundary conditions remain to be revealed. Does relative deprivation play a mediating role between involution perception and digital creativity? Do constructive deviance and competitive climate moderate the strength and direction of the above relationship? These questions have not yet been empirically tested.

3.3. Theoretical Integration Framework

Based on the above analysis, this paper constructs a theoretical integration framework for the influence of involution perception on digital creativity. The framework takes involution perception as the independent variable, digital creativity as the dependent variable, introduces relative deprivation as a mediator, and introduces constructive deviance and competitive climate as moderators.

The corresponding research propositions are as follows:

- Proposition 1: Involution perception has a negative effect on digital creativity.

- Proposition 2: Relative deprivation mediates the relationship between involution perception and digital creativity.

- Proposition 3: Constructive deviance moderates the relationship between involution perception and digital creativity.

- Proposition 4: Competitive climate moderates the relationship between involution perception and relative deprivation.

4. Conclusion

(1) Research Conclusion

This paper systematically reviews the conceptual connotations, measurement tools, and research progress of five core variables: involution perception, digital creativity, relative deprivation, constructive deviance, and competitive climate. Existing research has

preliminarily confirmed that involution perception exacerbates employees' psychological pressure and anxiety; digital creativity is influenced by three dimensions (individual, job, environment); relative deprivation inhibits innovative behavior; constructive deviance has a double-edged sword effect on innovation; and competitive climate has both motivational and stress-related attributes. On this basis, this paper constructs a theoretical framework in which involution perception affects digital creativity through relative deprivation, and proposes four research propositions.

(2) Theoretical Contributions and Practical Implications

Theoretical contributions: This paper introduces involution perception into the field of digital creativity research for the first time, expanding the antecedent variable system of the latter; reveals the mediating mechanism of relative deprivation, providing a theoretical basis for understanding the "psychological perception → emotional experience → innovation capability" transmission path; and introduces constructive deviance and competitive climate as moderators, deepening the understanding of boundary conditions.

Practical implications: Managers should pay attention to employees' level of involution perception, optimize resource allocation, improve promotion mechanisms, and establish a fair and transparent performance evaluation system to reduce relative deprivation; simultaneously, appropriately tolerate constructive deviance to provide employees with room for breakthrough innovation, and reasonably control the intensity of competitive climate to avoid the inhibition of innovation capability by excessive competition.

(3) Limitations and Future Research Directions

Limitations: This paper is a literature review without empirical testing; the proposed theoretical framework may omit other important variables (e.g., organizational support, psychological safety); and the differences in cultural contexts have not been discussed in depth.

Future research directions: First, conduct large-sample empirical studies to test the direct effect of involution perception on digital creativity and the mediating effect of relative deprivation. Second, adopt longitudinal or experimental designs to reveal the dynamic causal relationship between involution perception and digital creativity. Third, explore the differences in the above relationships across industries and organizational cultures, especially the heterogeneity of the moderating effect of competitive climate. Fourth, introduce neuroscientific methods (e.g., eye-tracking, EEG) to measure the physiological responses of involution perception, improving measurement objectivity. Fifth, incorporate macro-level factors such as corporate social networks into the analytical framework to explore the contagion effect of involution perception across organizations and its indirect impact on digital innovation.

References

[1] Yang Yingying. Research on Organizational Socialization Involution [D]. Shanghai Jiao Tong University, 2022.

[2] Zhang Xinrong. Conceptual Evolution and Measurement of Involution Perception [J]. Management Review, 2023, 35(4): 112-123.

[3] Kang S, Jin Y. The ambiguity of involution concept in Chinese context [J]. Asian Journal of Social Psychology, 2020, 23(3): 267-278.

[4] Li Haiyi. Research on the Relationship between Involution Phenomenon and Creativity among Newly Recruited Employees [D]. South China University of Technology, 2022.

[5] Lee M R, Chen T T. Digital creativity: definition, measurement, and antecedents [J]. Computers in Human Behavior, 2015, 42: 12-21.

[6] Seo Y W, Chae S W, Lee K C. The impact of task diversity and job autonomy on digital creativity [J]. Information & Management, 2013, 50(7): 495-503.

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[7] Tierney P, Farmer S M. Creative self-efficacy: its potential antecedents and relationship to creative performance [J]. Academy of Management Journal, 2002, 45(6): 1137-1148.

[8] Liang T P, Liu C C, Wu C H. Can personality traits and job characteristics foster digital creativity? [J]. Decision Support Systems, 2015, 78: 58-68.

[9] Maruping L M, Magni M. What makes the difference? Team learning climate and IT-enabled creativity [J]. Journal of the Association for Information Systems, 2012, 13(8): 612-641.

[10] Pieterse A N, Van Knippenberg D, Schippers M C, et al. Transformational leadership and innovative behavior [J]. Journal of Organizational Behavior, 2010, 31(4): 609-623.

[11] Runciman W G. Relative Deprivation and Social Justice [M]. London: Routledge, 1966.

[12] Smith H J, Pettigrew T F, Pippin G M, et al. Relative deprivation: a theoretical and meta-analytic review [J]. Personality and Social Psychology Review, 2012, 16(3): 203-232.

[13] Tropp L R, White M J. The relationship between relative deprivation and intergroup attitudes [J]. Personality and Social Psychology Bulletin, 1999, 25(10): 1261-1273.

[14] Liang Zhendong, Nie Shunting. Research on the Impact of Relative Deprivation on Employees' Turnover Intention [J]. Modernization of Management, 2020, 40(5): 88-92.

[15] Zhou Zhigang. Research on the Inhibitory Effect of Relative Deprivation on Employees' Innovative Behavior [J]. Journal of Industrial Engineering and Engineering Management, 2024, 38(2): 88-99.

[16] Galperin B L. Exploring the nomological network of workplace constructive deviance [J]. Journal of Applied Social Psychology, 2012, 42(12): 2893-2922.

[17] Wang Hongyu, Cui Zhisong. Development and Validation of a Constructive Deviance Scale in the Chinese Context [J]. Journal of Management Science, 2018, 31(5): 98-112.

[18] Wang Yanzi, Zhang Ting. The Double-Edged Sword Effect of Constructive Deviance on Innovation Performance [J]. Scientific Research Management, 2020, 41(6): 168-178.

[19] Brown S P, Cron W L, Slocum J W. Effects of trait competitiveness and perceived intraorganizational competition on salesperson goal setting and performance [J]. Journal of Marketing, 1998, 62(4): 88-98.

[20] Yang Chen, Tang Mingfeng. Research on the Influence Mechanism of Competitive Climate on Employee Creativity [J]. Management Review, 2018, 30(7): 156-168.

[21] Xu Yangyang, Lin Xinqi. Competitive Climate and Relative Deprivation: A Social Comparison Perspective [J]. Advances in Psychological Science, 2021, 29(5): 842-853.