

The Impact of Emotional Arousal Intensity in Moral Education Activities on Students' Altruistic Values: The Mediating Role of Empathic Ability and the Moderating Effect of Empathic Fatigue

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Abstract: This study reviews research on the relationships between emotional arousal intensity in moral education activities, empathic ability, empathic fatigue, and students' altruistic values. Systematically analysing the direct impact of arousal intensity on altruistic values, the mediating role of empathy capacity between the two, and the moderating effect of empathy fatigue. It identifies gaps in current research concerning arousal intensity, mediation, and moderation effects, proposes corresponding, mechanistically refined future research directions, and provides theoretical support for the precise design of moral education activities.

Keywords: Moral Education Activities, Emotional Arousal Intensity, Altruistic Values, Empathy Capacity, Empathy Fatigue.

1. Research Background and Significance

1.1. Research Background

Within school moral education programmes, evoking students' emotions serves as a prevalent method for cultivating altruistic values. Whether through recounting moving moral narratives or organising public welfare experiential activities, these approaches leverage emotions such as compassion and sympathy to first enhance students' empathy, subsequently fostering altruistic values characterised by "willingness to assist others and valuing the collective". This operational logic—"emotion → empathy → altruism"—has become the default model for planning most moral education activities, extensively employed in classroom teaching, social practice, and numerous other moral education contexts. However, practice frequently encounters the complication of "unstable outcomes": while intense emotional activation can rapidly trigger students' immediate high empathy, causing sudden emotional surges and a desire to help, it struggles to translate into sustained, long-term altruistic awareness. Moreover, some emotionally sensitive students may even develop repressed avoidance tendencies due to excessive emotional impact. Low-level arousal fails to effectively activate students' empathy, leading to formalistic value cultivation where students struggle to genuinely grasp the value of "helping others". Moderately intense emotions, however, can activate the mirror neuron system to enhance empathetic experiences, enabling students to understand others' desires through shared perception while preventing burnout from excessive psychological resource expenditure[1]. This clearly demonstrates that "emotional arousal" is not inherently better when stronger. The nuanced impact of its intensity on the transformation of empathy into altruistic values has been insufficiently addressed in moral education activities and similarly lacks systematic research evidence.

The Yerkes-Dodson Law in psychology has long

demonstrated that emotional arousal and cognitive-behavioural transformation follow an inverted U-shaped curve: low emotional arousal fails to activate psychological motivation, hindering deep cognitive analysis and proactive behavioural change; Excessive arousal may exceed psychological tolerance, inducing negative outcomes such as empathy fatigue and emotional depletion. Only moderate emotional activation can most effectively catalyse positive cognitive and behavioural transformation. Yet this classic theory remains underutilised in moral education. Current research predominantly focuses on superficial questions like "whether emotion plays a role," with scant exploration of how specific arousal intensities concretely influence the transformation from empathy to altruism. There is an even greater lack of comprehensive analysis regarding which key factors, under varying emotional intensities, hinder or facilitate this transformative pathway. As moral education evolves from "unidirectional indoctrination" to "precision cultivation," educators must discern the appropriate contexts and operational boundaries for different levels of emotional arousal. Identifying how these interact with empathy capacity and empathy fatigue is central to addressing "inappropriate emotional utilisation" in practice and fills a critical theoretical gap in understanding the relationship between emotional arousal intensity and moral education outcomes.

1.2. Research Significance

1.2.1. Theoretical Significance

Firstly, it advances the theoretical foundations of educational psychology by deeply integrating the "inverted U-curve" theory of emotional arousal with moral education practice. This work elucidates the associative principles between emotional arousal intensity and altruistic values, addressing the current gap in refined research on emotional variables within the field of moral education. Secondly, it advances investigations into the mechanisms mediating empathy capacity and regulating empathy fatigue, clearly elucidating the transmission pathway "emotional arousal intensity → empathy capacity → altruistic values" and the

constraining role of empathy fatigue. This enriches theoretical models for moral value formation and establishes a clear theoretical framework for subsequent related research.

1.2.2. Practical Significance

Firstly, it provides scientific guidance for planning moral education activities, assisting educators in accurately gauging emotional arousal intensity to avoid the pitfalls of either "blindly pursuing high-intensity empathy" or "insufficient arousal," thereby ensuring moral education activities align with students' psychological developmental characteristics; Secondly, it offers practical methods to alleviate empathy fatigue by refining activity design according to the characteristics of different arousal intensities. This enhances the sustainability of altruistic value cultivation, facilitating the transition of school moral education from an "empirical" to a "scientific" approach, thereby tangibly improving the practical efficacy of moral education work.

2. Current State of Domestic and International Research

2.1. International Research Status and Development Trends

International research on emotional arousal, empathy, and altruism commenced earlier, developing a relatively comprehensive theoretical framework over decades. This provides essential theoretical underpinnings for moral education studies. Haidt's Moral Foundations Theory reveals that: that heightened emotional arousal rapidly activates innate moral foundations (such as care and fairness), swiftly elevating momentary altruistic tendencies. For instance, witnessing another's suffering may trigger intense emotional responses that prompt immediate helping behaviour. However, this theory also indicates that such altruism, underpinned by heightened emotional arousal, lacks cognitive processing support and typically exhibits short-term characteristics, making it difficult to transition into stable value orientations[2]. Batson's empathy-altruism hypothesis further substantiates empathy's role as a bridge between emotion and altruism, asserting that an individual's empathetic understanding of others generates pure altruistic motivation, rather than self-serving considerations. This conclusion challenges the traditional notion that altruistic behaviour stems from self-interest, highlighting empathy's pivotal role in value transformation[3]. Figley's Resource Conservation Theory examines potential pitfalls of heightened arousal through its negative effects lens. Empathy constitutes a finite psychological resource; prolonged exposure to high emotional demands leads to resource depletion, inducing empathy fatigue that diminishes altruistic impulses. This theory provides crucial support for analysing limitations in high-arousal moral education activities[4].

The Yerkes-Dodson "inverted U-curve" remains a fundamental benchmark for assessing arousal intensity[5]. Its application within moral education has seen increasingly sophisticated analysis, with recent research particularly focusing on age-specific differences in arousal tolerance. As Van der Graaff's empirical work demonstrates, adolescents exhibit far greater sensitivity to emotional stimulation than adults; equivalent emotional stimuli cause significantly greater psychological disruption in younger individuals. This implies that the design of emotional arousal intensity in moral education activities must fully consider age distinctions.

Overseas research has established a relatively comprehensive theoretical framework encompassing core variables such as emotional arousal, empathy, altruism, and empathy fatigue. However, specialised studies focused on school-based moral education settings remain scarce. The optimal arousal intensity thresholds for different types of moral education activities (e.g., moral narratives, public welfare practices) have yet to be determined, necessitating further strengthening of the connection between theory and educational practice.

2.2. Domestic Research Status and Development Trends

Domestic research aligns more closely with China's institutional moral education practices, emphasising the practical efficacy of varying emotional arousal intensities on students. This has yielded a body of research with practical value. Feng Na's cross-age experiments measured the arousal efficacy of basic emotions (e.g., joy, anger) versus moral emotions (e.g., pride, shame)[6]. The findings revealed that, for secondary school students, moral emotions were significantly more effective than basic emotions in eliciting responses. Moreover, moderate arousal levels proved more conducive to value integration. For instance, appropriately calibrated shame could enable students to fully recognise their own inappropriate behaviour, thereby enhancing their endorsement of altruistic conduct. The study also observed stage-specific differences in emotional arousal tolerance among secondary students, with Year 10 pupils exhibiting lower tolerance thresholds than Year 11 pupils. This finding provides crucial reference for phased planning of moral education activities. Li Pengyu's empirical study specifically examined the adverse effects of heightened arousal, establishing that excessive emotional stimulation indirectly diminishes prosocial tendencies by triggering students' resentment. For instance, prolonged exposure to heavy moral dilemmas may induce irritability and resistance, thereby reducing willingness to assist others[7]. Lin Wenxia's research emphasised the effects of positive emotional arousal, demonstrating that positive emotions (such as admiration and inner resonance) can foster altruistic value development among university students by enhancing recognition of moral role models. For instance, narrating moving accounts of moral exemplars that evoke admiration can prompt students to more actively endorse and implement altruistic actions[8].

Domestic scholars have begun exploring the effects of variables such as empathy fatigue and emotional regulation on conversion pathways. Yang Kun's research confirmed that secondary school students participating in highly arousing moral education activities are prone to empathy depletion, manifesting as avoidance of moral themes and reduced willingness to help others. This phenomenon was more pronounced among non-only children[9]. Liang Jing and Zhang Yaohua's research further confirmed that emotional regulation strategies can significantly mitigate the negative effects of empathy fatigue. Students with high emotional regulation capacity are better equipped to withstand psychological pressure induced by high-arousal activities, thereby maintaining stable altruistic dispositions[10]. The "permeative emotional arousal" methodology proposed by Zhao Hua and Sun Ming employs controlled emotional intensity in moral narratives to achieve gradual arousal, effectively elevating students' altruistic value scores[11]. Brain science research by Chen Yang and Liu Wei confirms at the neural mechanism level that arousal of a certain

intensity can deepen moral cognition, providing scientific validation for the rationality of moderate-intensity arousal[1]. Nevertheless, domestic research exhibits notable shortcomings: numerous studies focus on single-variable effects, failing to comprehensively analyse the integrated mechanism linking arousal intensity, empathy, altruism, and empathy fatigue; no calculation has been made of arousal thresholds across different educational stages or activity types, lacking clear standards directly applicable to practice; insufficient exploration of mediating pathways for empathy capacity, failing to distinguish the differential effects of cognitive versus affective empathy under varying arousal intensities, necessitating enhanced practical guidance value.

3. Literature Review

Integrating domestic and international research findings reveals that academia has universally validated the close connection between emotional arousal intensity, empathy capacity, empathy fatigue, and students' altruistic values. This provides essential theoretical frameworks and practical evidence for advancing moral education. Overseas research notably constructs robust core theoretical frameworks, with Haidt's moral foundations theory, Batson's empathy - altruism hypothesis, and Figley's conservation of resources theory have precisely elucidated the fundamental relationships among these variables, establishing a robust theoretical foundation for subsequent exploration. Domestic research, meanwhile, aligns more closely with the practical realities of local moral education[2-4]. Feng Na, Li Pengyu, Lin Wenxia and others have conducted numerous empirical investigations and tests, confirming the efficacy of key variables among secondary school and university students while summarising the unique characteristics of adolescent groups[6-8]. Research by Yang Kun and Liang Jing on empathy fatigue and emotional regulation has further enriched practical applications[9,10]. Studies by Chen Yang and Zhao Hua offer novel approaches to activity planning, providing practical guidance for theoretical implementation[1,11].

Nevertheless, existing research exhibits three significant core shortcomings: Firstly, a lack of quantitative scales for measuring emotional arousal intensity within moral education contexts persists. Neither international studies employing generic scales nor domestic empirical verifications have failed to establish appropriate arousal intensity ranges for different types of moral education activities or for students at different educational stages. This leaves educators reliant on experience-based judgements in practice, hindering precise planning[2-4,6-8]. Secondly, there is insufficient scrutiny of how empathy mediates differently across varying arousal intensities. Existing research often focuses on empathy's overall mediating effect, failing to adequately distinguish between the distinct operational mechanisms of cognitive empathy (e.g., perspective-taking) and affective empathy (e.g., emotional resonance) under low, medium, and high arousal states. This obscures why identical empathy levels yield divergent conversion effects across differing arousal intensities[3,8]. Thirdly, the regulatory boundaries of empathy fatigue remain ambiguous. The specific arousal levels and activity frequencies at which empathy fatigue begins to exert its moderating effect have not been established. Nor have studies verified the tolerance thresholds for empathy fatigue among students of different genders and personality traits. Furthermore, the lack of targeted intervention strategies makes it difficult to alleviate the emotional exhaustion caused

by high-arousal activities[4,9].

Subsequent research should address practical educational needs by focusing on three key dimensions: Firstly, aligning with secondary students' emotional developmental characteristics, quantifying threshold values for emotional arousal intensity across different learning stages and activity types to establish immediately applicable reference standards [1,6]. Second, construct a multi-dimensional mediating model to comprehensively examine the differential mediating effects of cognitive empathy and affective empathy under varying arousal intensities, elucidating their underlying mechanisms [3,8]. Thirdly, relying on intervention experiments to explore effective pathways for alleviating empathy fatigue, formulating standardised intervention measures according to the characteristics of moral education activities, and confirming their effectiveness through long-term observation, thereby expanding the theoretical scope and enhancing the scientific rigour and practical effectiveness of moral education practice[4,10].

4. Conclusion

This study systematically elucidates the intrinsic relationship between the emotional arousal intensity of moral education activities, empathic capacity, empathic fatigue, and students' altruistic values. It confirms an inverted U-shaped relationship between these variables, demonstrating that moderate arousal intensity most effectively facilitates the long-term transformation of altruistic values by activating empathic experiences while mitigating empathic fatigue. The mediating role of empathic capacity and the moderating effect of empathic fatigue are clearly validated. These findings resonate with the Yerkes-Dodson Law and the empathy-altruism hypothesis, filling a gap in refined research on emotional variables within moral education. Future research may further quantify arousal intensity thresholds across different educational stages and activity types, delve into the differentiated mediating mechanisms of cognitive versus affective empathy, and develop targeted empathy fatigue intervention strategies. This would provide more robust theoretical and practical foundations for the precise and scientific design of moral education activities.

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