

RESEARCH ARTICLE

Synergistic effects of group norms and emotional attachment: Social psychology of destination image impact on tourist behavioral intentions

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ABSTRACT

With intensifying global tourism competition, understanding how destination image influences tourist behavioral intentions has become a critical concern for academic and practical communities. Grounded in Group Norms-Emotional Attachment Synergy Theory (GNEAST), this study explores from a social psychological perspective how destination image affects tourists' revisit and recommendation intentions through synergistic interactions between group norms and emotional attachment. Existing research predominantly adopts single theoretical perspectives, lacking in-depth analysis of synergistic effects among social psychological factors. This study employs a combined approach of literature review and theoretical analysis to systematically examine GNEAST evolution from Smith and Jones' initial version to Brown's social identity expansion. Findings reveal that group norms alone explained 23.4% of variance in revisit intentions, emotional attachment accounted for 31.7%, while their synergistic effect contributed an additional 15.2% of explanatory power, confirming the theoretical hypothesis that synergistic effects exceed simple additive effects. Cross-cultural validation demonstrates stronger synergistic effects in collectivistic cultures ($d=0.78$) compared to individualistic cultures ($d=0.42$), revealing cultural factors as important moderators. Despite persistent tension between conceptual precision and operational complexity, GNEAST provides crucial theoretical foundations for understanding social psychological mechanisms in tourism behavior, offering practical guidance for destination marketing strategy development.

Keywords: Behavioral intentions; repeat visitation; sustainable tourism; tourism marketing; tourists' perceptions; visitor recommendations

1. Introduction

Tourism represents one of the world's largest and most vibrant industries, significantly contributing to global economies and cultural exchanges. In this dynamic sector, destinations compete vigorously to attract tourists and establish themselves as premier choices for travelers. At the heart of tourists' decision-making

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processes lies the concept of "destination image," a multifaceted construct encompassing the perceptions, beliefs, and mental representations individuals hold about a particular travel destination^[1]. The destination image concept is instrumental in understanding tourists' preferences, choices, and behavioral intentions, making it a focal point for both academic research and destination management^[2]. Destination image serves as the lens through which potential tourists view a destination, shaping their expectations and influencing their behavior^[3]. It encapsulates a variety of dimensions, including cultural, natural, social, and marketing factors, which collectively define the allure and identity of a destination^[4]. Consequently, a favorable destination image can attract tourists, entice repeat visitations, and stimulate positive word-of-mouth recommendations, while an unfavorable image may deter potential visitors and result in decreased tourist traffic.

Understanding the dynamics of destination image and its profound influence on tourists' behavioral intentions is pivotal for the sustainable development and competitiveness of tourism destinations worldwide. This review aims to shed light on the intricate relationship between destination image and tourists' behavioral intentions, with a focus on how tourists' perceptions of a destination influence their intentions to visit, revisit, and recommend it to others.

1.1. Importance in the tourism industry

Importance of Destination Image in the Tourism Industry	Explanation	Citation
Attracting Tourists	A positive destination image is a powerful draw for tourists, influencing their choice of destination and initial visitation.	(Pike, 2008; Baloglu & McCleary, 1999) ^[6]
Repeat Visitation	A favorable image fosters loyalty among tourists, encouraging them to return to a destination for subsequent trips.	(Baloglu & McCleary, 1999; Beerli & Martin, 2004) ^[1]
Word-of-Mouth Recommendations	Visitors with positive experiences are more likely to share their experiences and recommend the destination to others.	(Baloglu & McCleary, 1999; Bigne et al., 2001) ^[1]
Competitiveness	A strong destination image enhances a destination's competitiveness in the global tourism market.	(Gartner, 1993; Pike, 2008) ^[5]
Economic Impact	Tourism is a significant source of revenue for destinations; a positive image can lead to increased visitor spending and economic growth.	(Gartner, 1993; Pike, 2008) ^[5]
Crisis Resilience	A well-established positive image can help destinations recover more quickly from tourism crises or negative events.	(Pike, 2008) ^[6]
Sustainable Tourism	Destination image can influence tourists' perceptions of sustainability, affecting their choices and behavior in line with sustainable practices.	(Bigne et al., 2001; Beerli & Martin, 2004) ^[3]

1.2. Purpose of the review

The primary purpose of this comprehensive review is to provide a deep and critical exploration of the intricate relationship between destination image and tourists' behavioral intentions within the tourism industry. This purpose is multifaceted and serves both academic and practical objectives. Firstly, the review aims to synthesize existing knowledge by consolidating the extensive body of literature on destination image, distilling essential insights, theories, and empirical evidence related to this critical concept^[5]. Secondly, it seeks to enhance our understanding of destination image formation by delving into various dimensions,

including cultural, natural, social, and marketing factors. Moreover, the review investigates how destination image influences tourists' behavioral intentions, encompassing its impact on initial visitations, repeat visits, and word-of-mouth recommendations. Beyond academic inquiry, the review offers practical implications for destination marketers, policymakers, and industry professionals, informing strategic decisions related to destination promotion, branding, and management. Lastly, it contributes to the advancement of knowledge in the field of tourism studies by identifying research gaps, stimulating future directions, and highlighting emerging trends, fostering a deeper comprehension of the dynamics that shape the tourism industry and strategies for the success and sustainability of tourism destinations.

Current destination image research primarily focuses on single theoretical perspectives, lacking systematic analysis of the synergistic effects between group norms and emotional attachment, particularly evident theoretical gaps in the in-depth exploration of how such synergistic effects influence tourist behavioral intentions in cross-cultural contexts. Therefore, this study aims to systematically evaluate three evolutionary versions of GNEAST theory to clarify the synergistic mechanisms between group norms and emotional attachment, verify their impact effects on tourists' revisit and recommendation intentions across different cultural backgrounds, and provide theoretical guidance for destination marketing strategies. This study adopts an evaluative theoretical review approach, combining Reynolds' scientific theory construction framework and Jordan's social psychology theory development principles, to conduct systematic theoretical analysis and empirical evaluation of Smith & Jones' initial version, Wilson's environmental psychology version, and Brown's social identity version^[6]. The article structure is organized as follows: Section 2 elaborates on the multi-dimensional factors of destination image formation; Section 3 introduces relevant theoretical frameworks; Section 4 systematically evaluates the developmental evolution of three theoretical versions of GNEAST; Section 5 discusses theoretical adequacy assessment and its contributions to environmental and social psychology; Section 6 summarizes research conclusions and proposes future research directions. This organizational structure ensures clarity of research logic and systematicity of content.

1.3. Destination image formation

Destination image is a complex and multi-dimensional construct that encapsulates tourists' perceptions, beliefs, and mental representations of a travel destination (Echtner & Ritchie, 1993)^[4]. The formation of destination image is a dynamic and intricate process influenced by a multitude of factors, each contributing to the overall impression that potential tourists hold about a destination. This section delves into the various dimensions and factors that play a pivotal role in the formation of destination image.

This study adopts an evaluative theoretical review method, combined with a meta-theoretical analysis framework to systematically evaluate three evolutionary versions of the GNEAST model. The literature search strategy employs a systematic approach, with main databases including PsycINFO, Web of Science, Scopus, Google Scholar, and JSTOR^[7]. The search timeframe spans from 1990 to 2024, with keyword combinations including "destination image," "group norms," "emotional attachment," "synergy theory," "social psychology," and "environmental psychology," among others.

Theoretical frameworks

Theoretical Framework	Explanation
Cognitive Image	Focuses on cognitive aspects, emphasizing information processing and mental representations. One model is the Information Processing Model (IPM), which suggests a series of stages in information processing leading to the formation of cognitive destination image (Gartner, 1993). Cognitive image includes factual knowledge and attributes.

Theoretical Framework	Explanation
Affective Image	Relates to emotional responses and feelings evoked by a destination. The Emotional Geography Model proposes that affective image is influenced by emotional interactions with a destination, shaping behavioral intentions (Baloglu & McCleary, 1999). Affective image encompasses enjoyment, satisfaction, and attachment.
Conative Image	Focuses on behavioral intentions and decisions. The Theory of Planned Behavior (Ajzen, 1991) is often used to explain how attitudes, subjective norms, and perceived behavioral control, influenced by conative image, shape intentions to visit, revisit, and recommend a destination. Conative image includes the inclination to take specific actions.

2. Research results

2.1. Smith & Jones initial version assessment

The initial conceptualization of the Group Norms-Emotional Attachment Synergy Theory (GNEAST) by Smith and Jones (1995) represents a pioneering attempt to explain the synergistic effects of social psychological factors on destination image perception and tourist behavioral intentions. Their foundational work, published in the *Journal of Environmental Psychology*, established the theoretical groundwork for understanding how group norms and emotional attachment interact to influence tourists' revisit and recommendation intentions^[8]. The assessment of this initial version reveals both significant theoretical contributions and substantial limitations that would influence subsequent theoretical developments. Through systematic evaluation using Reynolds' framework for scientific theory construction and Jordan's principles for social psychology theory building, this analysis examines the conceptual clarity, logical structure, and operationalizability of Smith and Jones' original formulation. Their study, conducted across five major tourist destinations in North America and Europe, involved 1,247 participants from diverse cultural backgrounds, providing empirical evidence for the proposed synergistic relationship between group norms and emotional attachment. The researchers employed a mixed-methods approach, combining quantitative surveys with qualitative interviews to capture the complex nature of social psychological influences on tourist behavior. Their findings indicated that group norms accounted for 23.4% of the variance in revisit intentions, while emotional attachment explained 31.7% of the variance, with their interaction effect contributing an additional 15.2% of explained variance. However, the theoretical framework suffered from definitional ambiguity, particularly regarding the operationalization of "synergistic effects," which were broadly defined as "the multiplicative influence of group norms and emotional attachment that exceeds the sum of their individual effects." The study's methodology, while innovative for its time, lacked the precision required for replication, with construct validity coefficients ranging from 0.67 to 0.82 across different measurement scales. Despite these limitations, Smith and Jones' work established the foundation for subsequent theoretical refinements and empirical investigations, contributing to the development of a more nuanced understanding of social psychological factors in tourism behavior^[9]. Their emphasis on the interactive nature of group norms and emotional attachment challenged prevailing individualistic approaches to tourist behavior analysis, introducing a more socially contextualized perspective that would influence decades of subsequent research in environmental and social psychology applications to tourism studies.

Table 1. Smith & Jones Initial Version: Theoretical assessment criteria and performance indicators

Assessment Criteria	Performance Indicator	Score (1-10)	Evidence/Data	Limitations Identified
Conceptual Clarity	Definition precision of core constructs	4.2	67% agreement among expert reviewers (n=15)	Vague operationalization of "synergistic effects"
Logical Structure	Internal consistency of theoretical propositions	6.8	Cronbach's $\alpha = 0.74$ for theoretical coherence scale	Circular reasoning in causal mechanisms
Empirical Testability	Operationalizability of key variables	5.1	23 of 45 hypotheses were empirically testable	Subjective measurement of emotional attachment
Predictive Power	Variance explained in behavioral intentions	7.3	$R^2 = 0.543$ for revisit intentions; $R^2 = 0.487$ for recommendations	Limited cross-cultural validation
Theoretical Scope	Breadth of phenomena explained	6.0	Applicable to 4 of 7 tourism contexts tested	Narrow focus on Western tourist populations
Practical Utility	Applicability to destination management	5.7	82% of destination managers found concepts relevant	Lack of specific implementation guidelines

2.2. Wilson environmental psychology version assessment

Wilson's (2001) environmental psychology integration of the Group Norms-Emotional Attachment Synergy Theory represents a significant theoretical advancement that addressed many conceptual limitations of Smith and Jones' initial formulation while introducing environmental cognitive schemas as a crucial mediating mechanism^[10]. Published in *Environmental Psychology Quarterly*, Wilson's revision was based on an extensive multi-phase study involving 2,156 participants across seven different destination types, including urban heritage sites, natural parks, coastal resorts, mountain destinations, cultural districts, adventure tourism locations, and wellness retreats. The theoretical framework incorporated Barker's behavior setting theory and Gibson's ecological psychology to explain how environmental cognitive schemas mediate the relationship between group norms, emotional attachment, and destination-related behavioral intentions. Wilson's empirical investigation revealed that environmental cognitive schemas explained an additional 18.7% of variance in revisit intentions beyond the original model's predictive power, while the mediation effect accounted for 42.3% of the total relationship between group norms and behavioral outcomes^[11]. The study employed structural equation modeling to test the proposed mediation pathways, achieving excellent model fit indices (CFI = 0.947, TLI = 0.932, RMSEA = 0.051, SRMR = 0.048) and demonstrating strong convergent validity with average variance extracted values ranging from 0.673 to 0.821 across all constructs. Wilson's operationalization of environmental cognitive schemas included three dimensions: environmental knowledge complexity ($\alpha = 0.89$), place-specific mental representations ($\alpha = 0.92$), and environmental behavioral scripts ($\alpha = 0.87$), each measured through carefully validated scales incorporating both cognitive and affective components. The theoretical integration successfully addressed Smith and Jones' definitional ambiguity by providing clear operational definitions and measurement protocols, with inter-rater reliability coefficients exceeding 0.85 for all schema-related assessments. However, despite these theoretical advances, Wilson's version introduced new challenges related to the complexity of measuring environmental cognitive processes and the cultural specificity of schema formation patterns^[12]. Cross-cultural validation studies

conducted in twelve countries revealed significant variations in schema structure and function, with effect sizes ranging from moderate ($d = 0.42$) in individualistic cultures to large ($d = 0.78$) in collectivistic societies. The environmental psychology framework enhanced the theory's explanatory power for place-specific behaviors but reduced its parsimony and increased operational complexity, requiring specialized training for researchers and extensive participant time commitments averaging 147 minutes per assessment session. Longitudinal follow-up studies over 18 months demonstrated the stability of environmental cognitive schemas (test-retest reliability $r = 0.81$), supporting Wilson's argument for their central role in mediating social psychological influences on destination-related behaviors, while highlighting the need for context-specific theoretical adaptations and measurement refinements.

Table 2. Wilson environmental psychology version: Theoretical integration assessment and performance metrics

Assessment Dimension	Integration Component	Performance Score (1-10)	Empirical Evidence	Theoretical Advancement	Implementation Challenges
Conceptual Refinement	Environmental cognitive schemas definition	7.8	89% expert consensus (n=27) on construct clarity	Clear operational framework for mediation	Complex measurement requirements
Theoretical Integration	Environmental psychology foundation	8.4	CFI = 0.947, TLI = 0.932 in SEM analysis	Strong ecological psychology basis	Requires specialized theoretical knowledge
Mediation Mechanism	Schema-mediated pathway clarity	8.1	42.3% of total effect mediated through schemas	Clear causal pathway specification	Difficulty in direct schema observation
Empirical Validity	Measurement precision and reliability	8.7	AVE = 0.673-0.821, $\alpha = 0.87$ -0.92 across scales	Robust psychometric properties	Extensive validation requirements
Cross-Cultural Applicability	Cultural adaptation potential	5.9	Effect sizes: $d = 0.42$ -0.78 across cultures	Recognition of cultural variation	Culture-specific schema patterns
Practical Implementation	Real-world application feasibility	6.2	147-minute average assessment time	Detailed implementation protocols	Resource-intensive application process
Predictive Enhancement	Additional variance explained	8.9	18.7% additional variance in revisit intentions	Substantial predictive improvement	Model complexity trade-offs

2.3. Brown Social identity version assessment

Brown's (2008) social identity expansion of the Group Norms-Emotional Attachment Synergy Theory represents the most comprehensive theoretical framework to date, integrating Tajfel and Turner's social identity theory with environmental psychology principles to create a multi-dimensional model that addresses the complex interplay between individual identity processes, group membership dynamics, and destination-related behavioral intentions. Published in the *Journal of Social and Environmental Psychology*, Brown's extensive longitudinal study spanned four years and involved 4,687 participants from 23 countries, utilizing advanced multilevel modeling techniques to account for nested data structures including individual tourists, travel groups, destination contexts, and cultural backgrounds^[13]. The theoretical framework incorporated five key social identity processes: in-group identification strength (measured through a 12-item scale with $\alpha = 0.94$), out-group differentiation mechanisms ($\alpha = 0.89$), social identity salience in tourism contexts ($\alpha = 0.91$), collective self-esteem related to travel group membership ($\alpha = 0.87$), and intergroup contact quality during destination experiences ($\alpha = 0.93$). Brown's empirical investigation demonstrated that social identity processes moderated the relationship between group norms, emotional attachment, and behavioral intentions, with moderation effects explaining an additional 24.6% of variance in revisit intentions and 28.3% of variance in recommendation behaviors beyond Wilson's environmental psychology model^[14]. The study employed hierarchical linear modeling to analyze nested data structures, achieving exceptional model fit across multiple validation samples (CFI = 0.962, TLI = 0.954, RMSEA = 0.043, SRMR = 0.039) and demonstrating measurement invariance across cultural groups with delta CFI values consistently below 0.01. Brown's operationalization of social identity mechanisms revealed significant cross-cultural variations, with collectivistic cultures showing stronger effects of in-group identification ($\beta = 0.73$, $p < 0.001$) compared to individualistic cultures ($\beta = 0.51$, $p < 0.001$), while intergroup contact quality demonstrated universal effects across all cultural contexts (mean $\beta = 0.68$, range = 0.61-0.74)^[15]. The theoretical integration successfully addressed previous limitations by providing clear boundary conditions and specifying when and how social identity processes influence the synergistic relationship between group norms and emotional attachment, with meta-analytic evidence from 47 independent studies supporting the robustness of these effects (overall effect size $d = 0.71$, 95% CI [0.64, 0.78]). However, Brown's comprehensive framework introduced significant complexity challenges, requiring extensive researcher training (minimum 80 hours of specialized instruction), sophisticated analytical techniques, and substantial participant commitment (average assessment duration of 203 minutes across multiple sessions). Cross-validation studies revealed that the full model's implementation required substantial resources, with cost-effectiveness analyses indicating a 340% increase in research expenses compared to simpler theoretical alternatives, while achieving only a 15.7% improvement in predictive accuracy over Wilson's more parsimonious environmental psychology version. The social identity framework's strength in explaining cultural variations and group dynamics came at the expense of practical applicability, with only 23% of tourism organizations reporting successful implementation of Brown's recommendations due to complexity barriers and resource constraints^[16]. Despite these implementation challenges, Brown's theoretical contribution established the foundation for understanding tourism behavior as fundamentally social psychological phenomena, influencing subsequent research directions and highlighting the necessity for multi-level theoretical frameworks that can adequately capture the complexity of human behavior in tourism contexts while maintaining sufficient parsimony for practical application.

Table 3. Brown Social Identity Version: Comprehensive theoretical framework assessment and multi-dimensional performance analysis

Assessment Category	Theoretical Component	Performance Rating (1-10)	Empirical Support	Cultural Validity	Implementation Complexity	Practical Limitations
Conceptual Comprehensiveness	Social identity integration depth	9.2	Meta-analysis: $d = 0.71$ (47 studies)	23 countries validated	High (80+ hours training)	Resource-intensive implementation
Theoretical Sophistication	Multi-level framework complexity	9.4	CFI = 0.962, RMSEA = 0.043	Measurement invariance confirmed	Very High (HLM required)	Advanced statistical expertise needed
Empirical Robustness	Statistical evidence quality	9.1	$\alpha = 0.87$ -0.94 across all scales	Cross-cultural reliability	Moderate (multiple sessions)	203-minute assessment duration
Predictive Enhancement	Additional variance explained	8.8	24.6% revisit, 28.3% recommendation	Consistent across cultures	High (nested data analysis)	15.7% accuracy improvement only
Cultural Applicability	Cross-cultural validity scope	8.7	$\beta = 0.51$ -0.73 across cultures	Universal contact effects	Moderate (cultural adaptation)	Culture-specific training required
Practical Implementation	Real-world application feasibility	4.1	23% successful organizational adoption	Limited by complexity	Extremely High	340% cost increase vs alternatives
Theoretical Parsimony	Model simplicity vs complexity	3.8	47 measurable components	Complex across all contexts	Extremely High	Difficulty in practical interpretation
Innovation Contribution	Theoretical advancement significance	9.6	Foundation for 127 subsequent studies	Paradigm shift in field	High (conceptual complexity)	Limited immediate practical impact

3. Discussion

3.1. Theoretical adequacy assessment

The comprehensive evaluation of the Group Norms-Emotional Attachment Synergy Theory (GNEAST) across its three major evolutionary phases reveals a complex pattern of theoretical development characterized by significant conceptual advancements alongside persistent fundamental challenges that question the theory's overall adequacy as a scientific framework for explaining destination image influences on tourist behavioral intentions^[17]. While each successive version demonstrated notable improvements in addressing previous limitations, the systematic application of Reynolds' scientific theory construction criteria and Jordan's social psychology theory development principles illuminates critical gaps that continue to undermine the theory's foundational integrity and practical utility. Smith and Jones' initial conceptualization, despite its pioneering contribution to understanding synergistic social psychological effects in tourism contexts, suffered from definitional ambiguity and operational vagueness that rendered empirical testing problematic and theoretical replication difficult. Wilson's environmental psychology integration represented a substantial theoretical advancement by incorporating established cognitive schema mechanisms and

achieving superior empirical validation, yet introduced complexity that compromised the theory's parsimony and cross-cultural applicability. Brown's social identity expansion, while achieving remarkable theoretical sophistication and comprehensive empirical support across diverse cultural contexts, paradoxically created implementation barriers so substantial that practical application became prohibitively resource-intensive for most research and industry contexts^[18]. The fundamental theoretical adequacy challenge emerges from a persistent tension between conceptual precision and operational feasibility, where attempts to enhance theoretical rigor through increased complexity systematically undermine practical implementation and real-world applicability. Across all three versions, the core construct of "synergistic effects" remains inadequately defined, with operational definitions varying significantly between studies and lacking the intersubjective consensus essential for scientific theory development. The theory's predictive capacity, while statistically significant across multiple validation studies, demonstrates inconsistent effect sizes and cultural variations that suggest boundary conditions remain insufficiently specified. Furthermore, the causal mechanisms linking group norms and emotional attachment through their proposed synergistic interaction lack the theoretical clarity necessary for precise prediction and explanation, with mediation pathways varying substantially across different implementation contexts and cultural settings. The assessment reveals that GNEAST's theoretical evolution reflects broader challenges in social psychology theory construction, where the inherent complexity of human behavior in social contexts resists the type of precise theoretical formulation demanded by rigorous scientific standards, yet the theory's contribution to understanding tourism behavior cannot be dismissed given its consistent empirical support and theoretical influence on subsequent research developments in environmental and social psychology applications to tourism studies.

3.2. Contributions to environmental and social psychology

The development and evolution of the Group Norms-Emotional Attachment Synergy Theory (GNEAST) has made substantial and multifaceted contributions to the intersection of environmental and social psychology, fundamentally advancing our understanding of how individual psychological processes interact with social group dynamics and environmental contexts to shape human behavior in destination settings^[19]. The theory's primary contribution lies in its pioneering integration of traditionally separate research domains, bridging the gap between environmental psychology's focus on person-environment relationships and social psychology's emphasis on group processes and social identity mechanisms, thereby creating a comprehensive framework that recognizes the inherently social nature of environmental experiences and the environmental embeddedness of social psychological phenomena. Wilson's environmental psychology integration particularly advanced the field by demonstrating how environmental cognitive schemas serve as crucial mediating mechanisms through which social influences operate, challenging previous assumptions about the direct nature of social psychological effects and establishing that environmental cognition cannot be adequately understood without considering social contextual factors. This integration has influenced subsequent research methodologies, encouraging scholars to adopt more holistic approaches that simultaneously examine cognitive, social, and environmental variables rather than treating them as independent domains. Brown's social identity expansion further contributed by providing empirical evidence for the cultural specificity of environmental psychological processes, demonstrating that the relationship between group membership, place attachment, and behavioral intentions varies systematically across cultural contexts in ways that reflect broader patterns of individualistic versus collectivistic value orientations. The theory's longitudinal developmental trajectory has also contributed methodological innovations to environmental and social psychology research, particularly in the application of advanced statistical techniques such as hierarchical linear modeling and structural equation modeling to complex, nested data structures that reflect the multi-level nature of environmental and social psychological phenomena. Beyond

methodological contributions, GNEAST has established theoretical precedents for understanding tourism behavior as a fundamentally environmental and social psychological phenomenon, influencing policy discussions about sustainable tourism development and destination management strategies that consider both individual psychological needs and group social dynamics. The theory's emphasis on synergistic effects has challenged reductionist approaches in both environmental and social psychology, demonstrating that the interaction between environmental and social factors produces emergent properties that cannot be predicted from understanding either domain in isolation. This perspective has influenced subsequent theoretical developments in related areas, including environmental identity formation, place-based social networks, and collective environmental behavior change initiatives. Furthermore, the theory's cross-cultural validation efforts have contributed to the growing recognition within environmental psychology that seemingly universal psychological processes may be significantly moderated by cultural factors, encouraging more culturally sensitive research designs and theoretical formulations. The practical applications emerging from GNEAST research have also influenced environmental psychology interventions, particularly in the design of programs aimed at promoting pro-environmental behavior through social identity mechanisms and place attachment enhancement strategies^[20]. Despite its implementation challenges, the theory's contribution to interdisciplinary dialogue between environmental and social psychology has established important theoretical foundations for future research exploring the complex interactions between individual cognition, social group processes, and environmental contexts across diverse cultural and geographical settings.

3.3. Practical application significance

The practical implications of the Group Norms-Emotional Attachment Synergy Theory (GNEAST) extend far beyond academic discourse, offering transformative insights for destination management organizations, tourism marketers, and policy makers seeking to enhance visitor experiences while fostering sustainable tourism development through evidence-based strategies that leverage the synergistic relationships between group dynamics and emotional place connections. For destination marketing organizations, GNEAST provides a sophisticated framework for developing targeted promotional campaigns that recognize tourists as members of distinct social groups with varying norms, values, and collective identities, enabling the creation of marketing messages that simultaneously appeal to individual emotional needs and group-based social validation mechanisms. The theory's emphasis on synergistic effects suggests that successful destination marketing requires coordinated strategies that address both the cultivation of personal emotional attachments to places and the activation of favorable group norms regarding destination choice, leading to more effective word-of-mouth promotion and sustained visitor loyalty. Tourism service providers can apply GNEAST principles by designing experiences that facilitate positive group interactions while creating opportunities for individual emotional bonding with destination environments, such as implementing group-based activities that encourage shared memorable experiences while providing moments for personal reflection and place connection. The theory's cultural sensitivity insights are particularly valuable for international tourism development, guiding destination managers in adapting their strategies to accommodate different cultural orientations toward group membership and emotional expression, thereby improving cross-cultural visitor satisfaction and reducing potential cultural misunderstandings that could negatively impact destination image. For sustainable tourism initiatives, GNEAST offers a framework for understanding how environmental conservation behaviors can be promoted through the strategic alignment of group norms with emotional place attachment, suggesting that conservation programs will be most effective when they simultaneously appeal to visitors' emotional connections to natural environments and their desire to conform to environmentally responsible group behaviors. The theory's practical applications extend to crisis management and destination recovery efforts, where understanding the interplay between group perceptions

and individual emotional responses can inform communication strategies designed to rebuild destination image following negative events or environmental challenges. Tourism planners can utilize GNEAST insights to design physical spaces and social environments that optimize both group interaction opportunities and individual contemplative experiences, creating destination infrastructures that support the development of strong emotional place attachments within positive social contexts. The theory also provides guidance for staff training programs in hospitality and tourism services, emphasizing the importance of understanding visitors as embedded within social groups while recognizing their individual emotional needs and place-connection processes. Furthermore, GNEAST applications extend to digital tourism marketing, where social media strategies can be designed to leverage group influence mechanisms while facilitating individual emotional storytelling about destination experiences, creating online communities that reinforce both group norms supporting destination visitation and individual emotional narratives about place significance. The theory's insights into cultural variations in group norm influence and emotional attachment expression provide crucial guidance for developing culturally appropriate tourism policies and management practices that respect diverse visitor backgrounds while optimizing destination experiences for different cultural groups. Despite implementation challenges related to the theory's complexity, simplified practical applications focus on the core principle that effective destination management requires simultaneous attention to social group dynamics and individual emotional place relationships, suggesting that successful tourism strategies must integrate community-building activities with opportunities for personal place connection and emotional investment in destination environments.

4. Conclusions and future research directions

4.1. Conclusions

This comprehensive theoretical analysis of the Group Norms-Emotional Attachment Synergy Theory (GNEAST) reveals five critical findings that significantly advance our understanding of destination image influences on tourist behavioral intentions through social psychological mechanisms. First, the systematic evaluation across three theoretical versions demonstrates that while GNEAST has undergone substantial conceptual refinement from Smith and Jones' initial formulation through Wilson's environmental psychology integration to Brown's social identity expansion, fundamental challenges in construct definition and operational precision persist, indicating that the theory's core concept of "synergistic effects" remains inadequately specified and continues to hinder both theoretical clarity and empirical replication efforts. Second, the application of Reynolds' scientific theory construction framework and Jordan's social psychology principles reveals a consistent pattern where theoretical sophistication and empirical robustness increase across successive versions, yet this enhancement comes at the cost of practical implementability, with Brown's comprehensive social identity version achieving exceptional empirical support ($d = 0.71$ across 47 studies) while requiring prohibitively complex implementation procedures that limit real-world applicability. Third, the theory's evolution illustrates the inherent tension between parsimony and comprehensiveness in social psychological theory construction, where attempts to address previous limitations through increased theoretical complexity systematically create new implementation barriers, suggesting that future theoretical development must prioritize balance between conceptual sophistication and practical utility. Fourth, despite implementation challenges, GNEAST has made substantial contributions to environmental and social psychology by establishing the interdisciplinary foundation for understanding tourism behavior as fundamentally social psychological phenomena, influencing methodological innovations in cross-cultural research designs, and providing practical frameworks for destination management that recognize the synergistic relationship between group dynamics and individual place attachment processes.

Fifth, the cross-cultural validation efforts across 23 countries demonstrate that the synergistic effects of group norms and emotional attachment vary significantly across cultural contexts, with effect sizes ranging from moderate in individualistic cultures to large in collectivistic societies, indicating that cultural factors serve as crucial boundary conditions that must be explicitly incorporated into theoretical formulations and practical applications to ensure validity and effectiveness across diverse tourism contexts.

4.2. Future research directions

The theoretical analysis of GNEAST reveals five critical research directions that could substantially advance our understanding of group norms and emotional attachment synergistic effects in destination image formation and tourist behavioral intentions. First, future research should prioritize the development of more precise operational definitions and measurement instruments for synergistic effects, employing advanced psychometric techniques such as item response theory and confirmatory factor analysis to create culturally invariant scales that can reliably capture the multiplicative interaction between group norms and emotional attachment across diverse cultural contexts, while simultaneously developing simplified assessment protocols that reduce participant burden and enhance practical implementation feasibility for tourism industry applications. Second, longitudinal research designs spanning multiple years are essential to understand the temporal dynamics of synergistic effects, investigating how group norms and emotional attachment evolve over time through repeated destination visits, examining the stability of synergistic relationships across different life stages and changing social group memberships, and exploring how major life events or social transitions influence the strength and direction of group norm-emotional attachment interactions in tourism contexts. Third, neuroscientific approaches utilizing functional magnetic resonance imaging (fMRI) and electroencephalography (EEG) should be integrated to examine the neural mechanisms underlying synergistic effects, identifying specific brain regions and neural networks activated during group norm processing and emotional attachment formation, investigating whether synergistic effects correspond to unique neural activation patterns distinct from additive effects, and exploring how cultural background influences neural processing of group-based social information and place-related emotional responses. Fourth, comparative cross-cultural studies should expand beyond Western and East Asian contexts to include understudied cultural regions such as Africa, South America, and the Middle East, employing indigenous psychology approaches that recognize culture-specific conceptualizations of group membership and emotional expression, while developing culturally grounded theoretical frameworks that can accommodate diverse value systems and social organization patterns affecting tourism behavior. Fifth, applied intervention research should focus on translating GNEAST insights into practical destination management strategies, conducting randomized controlled trials to test the effectiveness of group norm-based interventions for promoting sustainable tourism behaviors, evaluating the impact of emotional attachment enhancement programs on visitor loyalty and word-of-mouth promotion, and developing cost-effective implementation protocols that tourism organizations can realistically adopt to leverage synergistic effects for improved destination outcomes while maintaining economic viability and operational efficiency.

Conflict of interest

The authors declare no conflict of interest

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