

Conspicuous Green Consumption under Dual Identity Motivations: The Moderating Roles of Empathy and Future Orientation

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Abstract

Background and Aims: Based on altruistic motivation, identity, and costly signaling theories, this study explores the effects of green self-identity and moral identity on conspicuous green consumption, and examines the moderating roles of empathy and future orientation.

Methodology: Partial least squares structural equation modeling (PLS-SEM) was employed to analyze survey data collected in March 2025 from 929 Chinese new energy vehicle (NEV) owners, obtained through an online convenience sampling approach using WeChat and QQ.

Results: Both green self-identity and moral identity positively affect conspicuous green consumption; empathy moderates both relationships positively, while future orientation only positively moderates the link between moral identity and the consumption.

Conclusion: This study uncovers the dual identities driving the consumption, clarifies the boundary conditions of empathy and future orientation, and provides insights for practitioners and policymakers to design strategies for promoting conspicuous green and sustainable consumption.

Keywords: Conspicuous Green Consumption; Green Self-identity; Moral Identity; Empathy and Future Orientation; Costly Signaling Theory

Introduction

Accelerating ecological degradation and rising expectations for sustainable development have positioned green consumption as a central topic across environmental studies, psychology, and marketing (Hui & Khan, 2022; Sharma et al., 2020). Early research predominantly framed green consumption as an altruistic response driven by concern for environmental and social welfare (Lu & Li, 2023; Griskevicius et al., 2010). However, as green markets have expanded and green products have become increasingly visible, technologically advanced, and premium-priced, this perspective has proven incomplete. Accumulating evidence suggests that green consumption is shaped not only by prosocial motives but also by identity expression and social signaling dynamics (Brough et al., 2016; Mazar & Zhong, 2010; Brick et al., 2017).

A salient manifestation of this shift is conspicuous green consumption, defined as the acquisition of costly and highly visible green products to communicate environmental commitment, moral worth, or social status (Griskevicius et al., 2010; Choi et al., 2018). Among such products, new energy vehicles (NEVs) provide a particularly suitable empirical context due to their high cost, durability, and public visibility. Consistent with costly signaling theory, NEV adoption entails substantial economic and functional investment, rendering it a credible and difficult-to-fake signal of environmental commitment (Griskevicius et al., 2010; Rezvani et al., 2015; White et al., 2019). As a result, NEV adoption exemplifies green consumption that is environmentally beneficial yet socially strategic, enabling identity expression and moral reputation building through sustained visibility (Johnson et al., 2018; Wu & Yang, 2018).

Despite growing interest, research on conspicuous green consumption remains theoretically fragmented. From a motivational perspective, altruistic concerns are often internalized into stable self-concepts that guide behavior, giving rise to distinct yet related identities in the green domain, including green self-identity and moral identity. While both identities have been shown to predict pro-environmental behavior, limited attention has been paid to how identity-based altruistic motives are translated into costly and publicly observable green actions, particularly in the context of durable goods such as NEVs (Winterich et al., 2013; Becerra et al., 2023). Moreover, the differentiated roles of these identities and the boundary conditions under which they motivate conspicuous green consumption—such as empathy and future orientation—remain underexplored (Aquino & Reed, 2002; Khare & Pandey, 2017; Chekima et al., 2019; Wang et al., 2023).

Crucially, conspicuous green consumption embodies an unresolved theoretical tension between genuine moral commitment and strategic self-interest. Whereas altruistic motivation and identity perspectives emphasize authentic concern for environmental and social welfare, costly signaling theory suggests that the same behaviors may also function as strategic signals aimed at

enhancing social standing or moral reputation. This tension raises a fundamental question: when does conspicuous green consumption reflect authentic moral engagement, and when does it constitute primarily symbolic or reputational signaling?

To address these issues, this study develops an integrative framework combining altruistic motivation theory, identity theory, and costly signaling theory. It examines how green self-identity and moral identity independently and jointly influence conspicuous green consumption in the context of NEV adoption, and how empathy and future orientation moderate the translation of identity-based motives into costly and publicly visible green signals. In this study, pseudo-environmental behaviors are conceptualized as primarily symbolic and reputation-driven green acts lacking substantive environmental impact, whereas authentic green consumption is reflected in high-cost, durable behaviors—such as NEV adoption—that credibly signal long-term environmental commitment.

By theorizing the interplay between identity, motivation, and signaling, this research advances a more nuanced theoretical understanding of conspicuous green consumption. It clarifies the mechanisms through which identity-driven altruistic motives are transformed into observable market behaviors, identifies conditions that differentiate authentic green consumption from pseudo-environmental signaling, and offers insights for policymakers and marketers seeking to promote credible and high-impact sustainable consumption.

Literature review

Conspicuous green consumption (CGC) refers to the purchase of costly and highly visible green products to signal environmental commitment and social standing (Griskevicius et al., 2010). Rooted in costly signaling theory, this behavior derives credibility from consumers' willingness to incur financial, functional, or effort costs, distinguishing genuine environmental commitment from superficial claims (Chekima et al., 2019; Brick et al., 2017). Given that green products often entail higher prices or greater inconvenience, they effectively signal unobservable traits such as environmental concern, altruism, and moral integrity (Choi et al., 2018; Nelissen & Meijers, 2011). CGC is thus a strategic social act integrating sustainability motives, identity expression, and reputational management, driven by two identity-based mechanisms: green self-identity (GSI) and moral identity (MI). GSI reflects individuals' self-perception as environmentally responsible actors, grounded in ecological awareness and domain-specific personal norms (Becerra et al., 2023; Van der Werff et al., 2013). Its motivation derives primarily from self-consistency, driving visible green behaviors that affirm environmental self-concept (Brough et al., 2016). In contrast, MI is a broader moral self-schema involving internalization and symbolization, motivating public expression of moral traits across ethical domains (Aquino & Reed, 2002). While GSI predicts environment-specific

behaviors, MI extends to broader prosocial and ethical actions, particularly those with reputational relevance (Aquino & Reed, 2002).

Although conceptually distinct, GSI and MI are mutually reinforcing in CGC. MI provides a general ethical foundation for environmental responsibility, while GSI offers a concrete behavioral channel for enacting moral values (Griskevicius et al., 2010; Choi et al., 2018). When both identities are salient, consumers are more likely to engage in costly and visible green behaviors, generating stronger, more credible signals to enhance social recognition. Costly signaling theory thus clarifies how the convergence of environmental and moral motives amplifies signaling strength and behavioral commitment.

Despite their synergy, GSI and MI may generate theoretical tension in CGC due to distinct motivational priorities and value orientations. First, GSI is rooted in domain-specific environmental concern and prioritizes substantive ecological impact, leading to criticism of CGC with excessive symbolic costs but disproportionate environmental benefits—viewed as inconsistent with environmental efficiency (Van der Werff et al., 2013). In contrast, MI functions as a broad moral self-schema emphasizing public moral reputation, framing costly and visible green consumption as a credible signal of moral integrity (Aquino & Reed, 2002). This creates conflict: GSI may inhibit "environmentally inefficient but reputationally valuable" CGC, while MI may motivate the same behavior for social recognition. Second, GSI's self-consistency motive prioritizes long-term, low-visibility environmental commitment (e.g., consistent new energy vehicle [NEV] use over occasional display) (Brough et al., 2016), whereas MI's focus on moral symbolization may encourage short-term, high-exposure CGC (e.g., social media posts of NEV purchases without sustained pro-environmental practices). This tension is amplified in China's face-conscious cultural context, where social approval drives moral identity expression (Wong & Ahuvia, 1998). Finally, GSI rejects the "strategic self-interest" inherent in costly signaling, as it compromises the authenticity of environmental commitment (Griskevicius et al., 2010); MI, however, may tolerate or embrace this strategic dimension due to its emphasis on external moral validation over pure altruism.

Translation of identity motives into CGC is further shaped by empathy and future orientation, critical boundary conditions amplifying the influence of green self-identity (GSI) and moral identity (MI). Empathy, encompassing affective (emotional concern for others) and cognitive (perspective-taking) dimensions (Davis, 1983), heightens the salience of social-environmental consequences in decision-making. Affective empathy intensifies emotional distress from environmental harm, boosting the intrinsic reward of visible green actions signaling care and responsibility (Batson et al., 2002; Font et al., 2016). Cognitive empathy enables anticipation of others' perceptions, strengthening the reputational value of conspicuous signaling and making

CGC a more compelling vehicle for expressing GSI and MI in social contexts (Aquino et al., 2011). Together, these dimensions position empathy as a catalyst bridging internal identity commitments with public behavioral expression. Future orientation—defined as the tendency to consider long-term consequences and maintain present-future self-continuity (Joireman et al., 2008; Hershfield, 2011)—reinforces identity-behavior consistency by anchoring current choices in enduring self-concepts. Individuals high in future orientation perceive CGC not just as a present sacrifice but an investment in a coherent long-term moral and environmental self-narrative (Oyserman, 2007). This temporal perspective strengthens the motivational force of GSI (rooted in long-term ecological responsibility) and MI (emphasizing sustained moral integrity), thereby increasing willingness to bear the costs of highly visible green consumption to uphold a stable, future-aligned identity.

These mechanisms are particularly salient in China's cultural context, marked by collectivism, relational identity, and face consciousness (Markus & Kitayama, 1991; Wong & Ahuvia, 1998). Here, visible green consumption serves both personal identity expression and group-oriented signaling, enabling individuals to convey moral standing, social conformity, and responsibility to reference groups. Face culture further amplifies the reputational value of public moral behavior, rendering CGC a culturally embedded signaling practice for negotiating personal values and collective expectations. These tensions highlight an unresolved literature gap concerning how GSI and MI interact—both synergistically and contradictorily—in shaping CGC, underscoring the need to investigate boundary conditions (e.g., empathy, future orientation) that may mitigate or amplify such conflicts.

Together, empathy and future orientation function as moderators that enhance or weaken the effects of green and moral identities on conspicuous green consumption (see Figure 1).

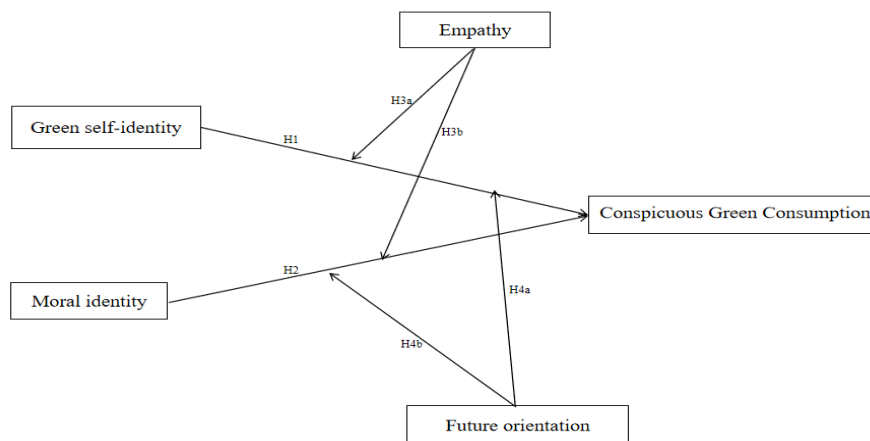


Figure 1 The Conceptual Framework

Effects of Dual Identities on Conspicuous Green Consumption

Green self-identity, as a behaviorally salient self-concept, motivates individuals to engage in actions that externalize and reinforce their pro-environmental identity. Conspicuous green consumption—defined by its environmental attributes and public visibility—offers a symbolic means through which such identity expression is realized (Choi et al., 2018; Griskevicius et al., 2010). Consistent with identity theory, self-identity guides behavior to sustain valued social roles and self-definitions (Sharma et al., 2020; Becerra et al., 2023). Empirical evidence indicates that green self-identity robustly predicts a range of pro-environmental behaviors, including organic product purchases and electric vehicle adoption (Hustvedt & Dickson, 2009; Barbarossa et al., 2017). From a symbolic interactionist perspective, conspicuous green consumption functions as a visible signal that communicates one's environmental identity to others, thereby reinforcing self-concept and facilitating social recognition (Van der Werff et al., 2013). Accordingly, individuals with stronger green self-identity are more likely to engage in conspicuous green consumption.

H1. Green self-identity has a positive effect on conspicuous green consumption.

Moral identity, defined as a self-schema centered on moral traits, is a key driver of prosocial behavior (Aquino & Reed, 2002). Consistent with identity theory, individuals strive for congruence between moral self-concepts and behavior, and discrepancies can elicit self-regulatory responses. Because pro-environmental behavior aligns closely with moral norms of responsibility and sustainability, individuals with stronger moral identity exhibit greater engagement in such actions (Li et al., 2022). Prior studies demonstrate that moral identity positively predicts pro-environmental beliefs and behaviors (Chowdhury & Fernando, 2014; Aquino & Reed, 2002). In this context, conspicuous green consumption enables morally identified individuals to both uphold and publicly express their moral values, serving functions of self-consistency and symbolic signaling (Winterich et al., 2013; Wu & Yang, 2018). Accordingly, stronger moral identity increases the likelihood of conspicuous green consumption.

H2. Moral identity has a positive effect on conspicuous green consumption.

Moderating Role of Empathy

In green consumption, empathy fosters moral reasoning about environmental harm and strengthens emotional connections to ecological issues (Font et al., 2016; Davis, 1980). Empathetic individuals are more likely to express their green self-identity through visible consumption behaviors that reflect social responsibility (Lee et al., 2014). Conversely, less empathetic individuals are less responsive to feedback, reducing their green identity's external expression. Furthermore, empathy amplifies the influence of moral identity on conspicuous green consumption by deepening moral self-identity and enhancing symbolic expression (Winterich et al., 2013). Those with high empathy, motivated by a strong emotional connection to

environmental issues, are particularly driven to showcase their moral values through conspicuous green consumption (Xie et al., 2015; Jiao & Wang, 2018).

H3a. Empathy moderates the relationship between green self-identity and conspicuous green consumption.

H3b. Empathy moderates the relationship between moral identity and conspicuous green consumption.

Moderating Role of Future Orientation

Future orientation plays a crucial role in translating green self-identity into visible green consumption, enhancing both identity expression and long-term value perception. Individuals with a high future orientation view conspicuous green consumption not just as a way to affirm identity through ostentatious products, but as a meaningful contribution to sustainability (Joireman et al., 2008). Their lower uncertainty about the benefits of green products (Chekima et al., 2019) helps align their identity with consumption behaviors. In contrast, low future orientation consumers, focused on immediate utility, show a weaker connection between identity and consumption.

Future orientation also strengthens the link between moral identity and long-term responsibility. Those with high future orientation associate moral behavior with society's enduring well-being (Carmi & Arnon, 2014) and are more likely to express their moral identity through conspicuous green consumption (Joieman et al., 2008). They see a stronger alignment between their moral identity and sustainable practices (Chekima et al., 2019). Conversely, individuals with lower future orientation tend to downplay long-term consequences, weakening the connection between moral identity and conspicuous green consumption.

H4a. Future orientation moderates the relationship between green self-identity and conspicuous green consumption.

H4b. Future orientation moderates the relationship between moral identity and conspicuous green consumption.

Methods

This study focused on Chinese new energy vehicle (NEV) owners. A screening question was included at the questionnaire's start to confirm respondents' NEV ownership (e.g., BYD, Tesla), ensuring sample relevance. All measurement items were adapted from validated scales. The questionnaire was localized via bilingual translation-back-translation and expert review (3 green consumption specialists) to guarantee semantic equivalence and cultural appropriateness before formal data collection.

Data were collected via convenience sampling through online questionnaires on WeChat and QQ. Note that this method may limit sample representativeness and introduce self-selection bias, so findings' generalizability should be cautiously interpreted. Core constructs adopted validated scales: conspicuous green consumption (Johnson et al., 2018), green self-identity (Sharma et al., 2020), moral identity (Aquino & Reed, 2002), empathy (Davis, 1980), and future orientation (Chekima et al., 2019). All items used a 7-point Likert scale (1=strongly disagree, 7=strongly agree). To mitigate social desirability bias, the survey emphasized anonymity and academic purpose; abnormal responses were excluded during data cleaning. Conducted in March 2025, the survey collected 1,030 questionnaires, with 929 valid (effective rate: 90.19%), which met Hair et al.'s (2011) sample size guideline for subsequent statistical analyses.

Descriptive Statistics

Among the respondents, 474 were male (51.0%) and 455 were female (49.0%), indicating a balanced gender distribution. The largest age group was 36–45 years (38.8%), typically associated with career and family stability. A total of 762 respondents were married (82.0%), with this group primarily in the 36–45 age range. Of the 929 respondents, 60.2% had a bachelor's degree or higher, with bachelor's degree holders making up 51.2%. The largest occupational group was enterprise employees (60.8%). Most respondents (41.8%) had an income between RMB 5,001–8,000, and 85.9% reported middle-to-high income (above RMB 5,000).

Reliability and Validity

Data were analyzed using SmartPLS 4.0 with partial least squares structural equation modeling (PLS-SEM), suitable for exploratory research, moderate sample sizes, and complex models with latent variables (Hair et al., 2019). Reliability was assessed using Cronbach's alpha and average variance extracted (AVE) values. This study Cronbach's alpha ranged from 0.893 to 0.936, indicating strong internal consistency. Composite reliability (CR) values exceeded the 0.70 threshold (Hair et al., 2019), confirming the constructs meet reliability standards for reflective measurement models.

The outer loadings of all items surpassed the recommended minimum threshold of 0.70 (Hair et al., 2011). The diagonal entries (see Table 1) show the square root of the average variance extracted (AVE) or the composite reliability for each latent construct. The values for GSI (0.862), MI (0.814), E (0.836), FO (0.852), and GCC (0.843) all exceeded 0.70. This confirms the convergent validity of the proposed model, as all AVE values were above the 0.50 threshold (Fornell & Larcker, 1981). These findings demonstrate satisfactory internal convergence and construct validity. Furthermore, VIF values for all constructs are below 1.489, suggesting no multicollinearity issues (Hair et al., 2019). To address potential common method bias due to self-reported cross-sectional data, we conducted Harman's single-factor test (Podsakoff et al., 2003). An unrotated

principal component analysis of all 30 measurement items yielded a first factor that accounted for 38.73% of the total variance, well below the 50% threshold. This suggests that common method bias is unlikely to be a serious concern in our study.

Table 1 Results of Measurement Model and Structural Model Analysis.

Construct	GSI	MI	E	FO	GCC	R ²	R ² adjusted	Q ²
GSI	0.862	0.386	0.389	0.367	0.394			
MI		0.814	0.371	0.429	0.432			
E			0.836	0.374	0.413			
FO				0.852	0.405			
GCC					0.843	0.365	0.360	0.338

Note: Green Self-Identity (GSI), Moral identity (MI), Empathy (E), Future Orientation (FO), Green Conspicuous Consumption (GCC)

Hypothesis Testing

We tested the hypotheses via partial least squares structural equation modeling (PLS-SEM) with a 5,000-subsample bootstrapping procedure. Results show H1 was supported, with green self-identity exerting a positive effect on conspicuous green consumption ($\beta = 0.111$, $t = 3.317$, $p < 0.01$). H2 was also supported, as moral identity positively influenced conspicuous green consumption ($\beta = 0.170$, $t = 5.277$, $p < 0.001$). Most moderating hypotheses were supported except H4a: H3a was confirmed (empathy significantly moderated the green self-identity–conspicuous green consumption link, $\beta = 0.071$, $t = 2.091$, $p < 0.05$), H3b held (empathy significantly moderated the moral identity–conspicuous green consumption link, $\beta = 0.071$, $t = 2.091$, $p < 0.001$), and H4b was supported (future orientation moderated the moral identity–conspicuous green consumption link, $\beta = 0.083$, $t = 2.446$, $p < 0.05$), while H4a was not statistically supported ($\beta = 0.061$, $t = 1.778$, $p = 0.076$).

For control variables: gender, income, and occupation had no significant effects on conspicuous green consumption. In contrast, age and education exerted significant negative influences, whereas marital status showed a significant positive effect (see Table 2).

Table 2. Standardized structural estimates and tests of the main hypotheses.

Path	β	M	SD	T- value s	P value s	f^2	Decision
GSI → GCC (H1)	0.111	0.110	0.034	3.317	0.001	0.013	Accepted

Path	β	M	SD	T-value	P value	f^2	Decision
MI -> GCC (H2)	0.170	0.171	0.032	5.277	0.000	0.032	Accepted
E -> GCC	0.158	0.158	0.033	4.743	0.000	0.027	
E x GSI -> GCC(H3a)	0.071	0.071	0.034	2.091	0.037	0.005	Accepted
E x MI -> GCC(H3b)	0.127	0.126	0.032	3.926	0.000	0.016	Accepted
FO -> GCC	0.129	0.129	0.034	3.792	0.000	0.018	
FO x GSI -> GCC(H4a)	0.061	0.060	0.034	1.778	0.076	0.018	Rejected
FO x MI -> GCC(H4b)	0.083	0.083	0.034	2.446	0.015	0.016	Accepted
Gender -> GCC	-0.024	-0.022	0.053	0.448	0.654		
Age -> GCC	-0.099	-0.099	0.037	2.680	0.007		
Edu -> GCC	-0.058	-0.058	0.029	1.968	0.049		
Income -> GCC	-0.003	-0.003	0.029	0.085	0.932		
Marital status -> GCC	0.270	0.272	0.087	3.093	0.002		
Occupation -> GCC	0.019	0.019	0.029	0.658	0.511		

The parameters R^2 and Q^2 were employed to assess the predictive power of the proposed PLS-SEM model. The model yielded an R^2 value of 0.366, indicating that the exogenous latent variables jointly explained 36.50% of the variance in GCC, which suggests a moderate level of explanatory power. In addition, the Q^2 value was 0.338, substantially exceeding the recommended threshold of 0.10, thereby providing evidence of predictive relevance beyond a moderate level (Hair et al., 2011). The f^2 statistic was used to estimate effect sizes. According to Hair et al. (2019), f^2 values of 0.02, 0.15, and 0.35 correspond to small, medium, and large effects, respectively. As shown in Table 4, the overall distribution of f^2 values indicates that all path effects in this study fall within the “small effect” range.

Discussion and Conclusion

This study examined how green self-identity and moral identity influence conspicuous green consumption among Chinese new energy vehicle (NEV) consumers and assessed the moderating roles of empathy and future orientation. The results indicate that green self-identity significantly promotes conspicuous green consumption, reinforcing prior evidence that environmentally salient self-concepts motivate visible green behaviors in contemporary social contexts (Becerra et al., 2023; Sharma et al., 2020; Patel et al., 2020). Moral identity also exerts a positive effect on conspicuous green consumption, suggesting that individuals with stronger moral self-concepts are

more likely to use green consumption as a means of expressing moral values. This finding supports moral extension theory and is consistent with earlier research linking moral identity to pro-environmental and prosocial consumption (Chowdhury & Fernando, 2014; Winterich et al., 2013; Wu & Yang, 2018).

Regarding moderating effects (see Figures 2 and 3), empathy strengthens the relationship between green self-identity and conspicuous green consumption, indicating that empathetic individuals are more likely to translate environmental self-concepts into visible green actions (Van der Werff et al., 2013; Wang et al., 2023; Khare & Pandey, 2017). Similarly, empathy amplifies the effect of moral identity on conspicuous green consumption, as higher empathy facilitates the emotional expression of moral values through publicly observable behavior. In contrast, lower levels of empathy weaken both identity-consumption relationships, constraining the translation of identity-based motives into conspicuous green behavior. These findings align with prior studies emphasizing the central role of empathy in moral and identity-driven consumption decisions (Winterich et al., 2013; Xie et al., 2015; Jiao & Wang, 2018).

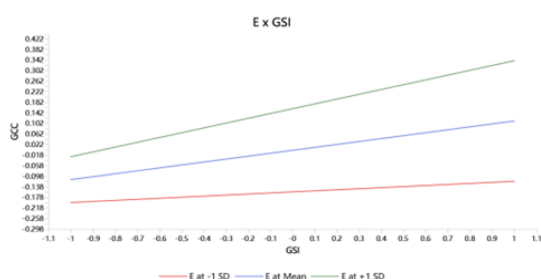


Figure 2 E x GSI Simple Slopes Analysis

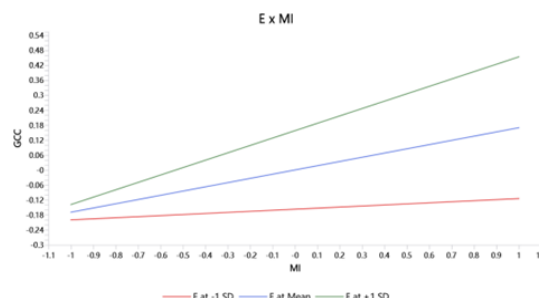


Figure 2 E x MI Simple Slopes Analysis

Note: GSI = Green self-identity; MI=Moral identity; E =Empathy; GCC=Green conspicuous consumption.

Taken together, the results reveal an asymmetric moderating role of future orientation across identity pathways. Future orientation significantly strengthens the positive relationship between moral identity and conspicuous green consumption (H4b), suggesting that individuals with a stronger future orientation are more likely to translate moral self-concepts grounded in long-term responsibility into visible green behavior (see Figure 4) (Aquino & Reed, 2002; Joireman et al., 2008). This finding aligns with prior evidence showing that future orientation reinforces prosocial and sustainable behaviors by emphasizing long-term consequences and future self-consistency (Carmi & Arnon, 2014; Chekima et al., 2019). In contrast, future orientation does not moderate the relationship between green self-identity and conspicuous green consumption (H4a),

indicating that green self-identity primarily operates as a present-oriented social identity oriented toward immediate visibility and social recognition rather than long-term evaluative processes (Sharma et al., 2020). This asymmetric pattern is consistent with evidence from the Chinese cultural context (Markus & Kitayama, 1991), yet diverges from some Western findings (Joireman et al., 2008), underscoring the importance of cultural embeddedness in shaping identity-consumption relationships.

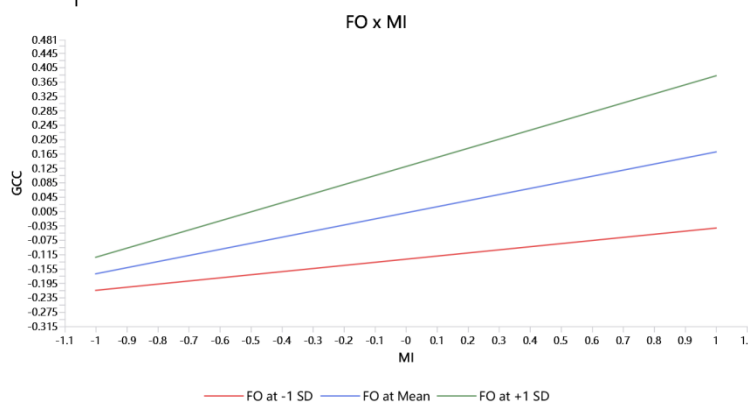


Figure 3 FO x MI Simple Slopes Analysis

Note: MI=Moral Identity; FO=Future Orientation; GCC=Green Conspicuous Consumption

Focusing on NEV consumers provides a theoretically appropriate context for examining conspicuous green consumption, as NEVs are high-cost and highly visible products that intensify social evaluation and identity-based signaling (Griskevicius et al., 2010). Compared with lower-cost and less observable green products (e.g., organic foods) (Zhang & Bunchapattanasakda, 2025), NEV consumption is more likely to activate costly signaling and moral reputation-building processes. Accordingly, the findings should be interpreted as context-specific rather than representative of all Chinese consumers, and future research may extend this framework to other green consumption domains.

The analysis of demographic control variables (Table 6) further indicates that age, educational attainment, and marital status significantly influence conspicuous green consumption in the Chinese context. Age exhibits a significant negative effect ($\beta = -0.098$, $p < 0.01$), suggesting that younger consumers are more inclined to engage in green consumption for social signaling purposes. This pattern reflects generational differences in China, where younger cohorts—particularly post-1990s consumers and Generation Z—have been more extensively exposed to sustainability discourse and are therefore more likely to perceive green consumption as a symbol of modernity, social responsibility, and progressive identity (White et al., 2019; Griskevicius et al., 2010). In contrast, older consumers tend to adhere more strongly to norms of frugality and

utilitarian consumption, reducing their propensity for conspicuous green display (Hwang & Kim, 2019; Markus & Kitayama, 1991).

Educational attainment also shows a significant negative relationship with conspicuous green consumption ($\beta = -0.0575$, $p < 0.05$), indicating that highly educated individuals may be less motivated to seek social recognition through overt green display and instead evaluate green consumption based on intrinsic moral considerations or rational criteria. This finding supports Yuan's (2011) argument that education influences conspicuous consumption indirectly through value orientation and aligns with prior research linking education to moral reflexivity and skepticism toward symbolic consumption (Gifford & Nilsson, 2014; Hwang & Kim, 2019). However, it diverges from evidence in Western luxury contexts, where education has been positively associated with conspicuous consumption (Vanhamme et al., 2023), highlighting cultural differences in the social meaning of green consumption. By contrast, marital status exhibits a significant positive effect on conspicuous green consumption ($\beta = 0.2696$, $p < 0.01$), suggesting that, within China's family-oriented culture, green consumption among married individuals serves not only personal preferences but also family-representational and intergenerational signaling functions (Yuan, 2011; Wong & Ahuvia, 1998; Thøgersen, 2014).

Theoretical and Practical Implications

This study makes incremental yet meaningful contributions to the conspicuous green consumption (CGC) literature by proposing a dual-identity framework that integrates green self-identity and moral identity. Extending prior research grounded in the Theory of Planned Behavior, Consumer Value Theory, and the Value-Belief-Norm framework (Patel et al., 2020; Li et al., 2022), the findings demonstrate that identity-based mechanisms offer a complementary psychological explanation for visible green consumption. Importantly, the results show that green self-identity and moral identity operate through distinct motivational logics rather than functioning as uniformly strong predictors of CGC.

Although the observed effect sizes (f^2) are modest, they are statistically robust and consistent with prior evidence that identity- and morality-based factors tend to exert small but systematic influences on complex consumption behaviors (Funder & Ozer, 2019). These relatively small effects suggest that identity-based motives function as conditional and situational triggers embedded within broader social, emotional, and contextual constraints, rather than as dominant drivers of high-cost green behavior. By revealing the differentiated moderating roles of empathy and future orientation, this study advances motivational, identity, and costly signaling theories by clarifying when and for whom identity-based mechanisms are most likely to translate into conspicuous green consumption.

From a practical perspective, the findings indicate that even modest psychological effects can yield meaningful outcomes when accumulated across consumers. Green marketing strategies should therefore emphasize a configuration of identity cues, emotional framing, and temporal orientation rather than relying on a single dominant appeal. Empathy-based messages may have broad relevance, whereas future-oriented appeals are more effective among consumers with strong moral identity concerns. Moreover, demographic differences suggest that targeted communication—such as emphasizing family responsibility for married consumers and social visibility or future-oriented lifestyles for younger segments—can enhance the effectiveness of green marketing efforts. Overall, the key managerial implication is that CGC is shaped not by identity or emotion alone, but by carefully calibrated symbolic cues combined with functional value and credibility.

Limitations and Future Research Directions

This study has several limitations that warrant consideration. First, the data were collected exclusively from Chinese new energy vehicle (NEV) users, which may constrain the generalizability of the findings to other green product categories and cultural contexts. While this focus provides contextual depth, it remains unclear whether the proposed dual-identity mechanisms operate similarly in lower-cost or less visible green consumption domains, or under different institutional and cultural conditions. Second, the reliance on self-reported online survey data raises the potential for social desirability bias and may not fully capture the situational and interactive dynamics underlying conspicuous green consumption. Third, although demographic variables such as age, education, and marital status were included as controls, their roles were not examined in greater theoretical depth (e.g., as moderators or mediators). Finally, the exclusive use of quantitative methods limits interpretive richness regarding how individuals cognitively and socially reconcile green self-identity and moral identity in consumption decisions.

These limitations suggest several directions for future research. Given the relatively small but statistically robust effect sizes observed, future studies should explicitly investigate mechanisms that may amplify identity-based effects, such as perceived authenticity, moral licensing, signaling credibility, and situational cues. Comparative research across high- versus low-cost green products would further clarify how perceived sacrifice and visibility condition the strength of conspicuous green consumption, thereby extending costly signaling theory in sustainability contexts. In addition, mixed-methods approaches—including experiments, interviews, or field studies—would help unpack within-culture heterogeneity by examining how identity construction and signaling logics vary across demographic segments, particularly among older and highly educated consumers who exhibit weaker conspicuous green consumption tendencies. Such

efforts would deepen understanding of when and for whom identity-based mechanisms translate into more practically significant green consumption outcomes.

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