

From Values to Moral Readiness: Repositioning the Value-Identity-Personal Norm Model

Muhammad Zuhdi Abu Bakar, Muaz Azinuddin

Faculty of Applied Social Science, Universiti Sultan Zainal Abidin (UniSZA), 21300 Gong Badak, Terengganu, Malaysia

DOI: <https://dx.doi.org/10.47772/IJRISS.2026.10100594>

Received: 04 February 2025; Accepted: 09 February 2026; Published: 19 February 2026

ABSTRACT

The Value-Identity-Personal Norm (VIP) model is a well-known psychological framework for explaining pro-environmental behaviour (PEB) through intrinsic moral motivation. The VIP model positions environmental self-identity (ESI) as a crucial mechanism that connects biospheric values (BV) to personal norms, which builds on Value Theory, Identity Theory, and the Norm Activation Model (NAM). Despite the increasing use of the VIP, it remains theoretically understudied with respect to the overlap between the construct, linear causal assumptions, uncertainty surrounding personal norms, and limited consideration of contextual constraints. This paper proposes a theoretical repositioning of the VIP model by rigorously examining its underlying presumptions and internal logic. This research shows how these issues highlight the fundamental tensions in the conceptualisation and relationship among values, identity, and personal norms, rather than treating them as mere constraints. This paper also offers a more coherent and flexible understanding of the VIP model by clarifying construct boundaries, re-examining the causal role of identity and personal norms, and emphasising the need to accept conceptual effects. By doing so, it improves the model's theoretical coherence and broadens its applicability across diverse contexts of pro-environmental research.

Keywords: VIP model, pro-environmental behaviour, sustainability

INTRODUCTION

To explain the mechanism underlying pro-environmental behaviour (PEB), researchers have increasingly developed several environmental psychological frameworks. One such paradigm that has become well-known is the Value-Identity-Personal Norms (VIP) Model, which explains how intrinsic motivation shapes moral obligation and environmental thinking. This model is grounded in three theoretical traditions, namely Value Theory, Identity Theory, and the Norm Activation Model (NAM), offering a strong conceptual basis for comprehending how personal norms are influenced by values and impacted by identity (Schwartz, 1977; Schwartz, 1992; Stern & Dietz, 1994; van der Werff et al., 2013b).

The fundamental constructs in the VIP model begin with values as motivating elements that affect people's cognitive assessments and behavioural tendencies. In particular, biospheric values (BV) highlight the intrinsic value of nature and ecological well-being, which have been identified as a significant element of environmental concern (Steg et al., 2014; Stern, 2000). Additionally, the formation of environmental self-identity (ESI) is psychologically grounded in these values. According to the Identity Theory, people are driven to behave in ways that align with their perceived ideals of identity. For example, people who identify themselves as environmentalists are more likely to adopt eco-friendly practices, such as buying eco-friendly products or utilising reusable bags. This process shows the extent to which people see themselves as ecological agents, a phenomenon known as environmental self-identity (Stets & Biga, 2003; Van der Werff et al., 2014a). According to the VIP model, personal norms become internalised moral requirements that shape behaviour after identity development. People's personal norms are also triggered when they believe their actions have a significant moral impact and feel accountable for the effects they have on the environment, as stated in the NAM model earlier (Schwartz, 1977; Stern, 2000). The VIP model's fundamental internal mechanisms for explaining PEB include values, identity, and personal norms.

Although the VIP model is increasingly being used in environmental psychology, the conceptual issues have remained insufficiently addressed. Particularly, discussions of the assumed linearity of causal relationships, the role of personal norms within the framework, and the limited attention given to contextual influences have been fragmented throughout theoretical discussions rather than thoroughly investigated. As a result, the basic concept of the VIP model and its theoretical boundaries remain unclear. In response to these issues, it may take a theoretical structuring and repositioning of the VIP model. To clarify construct roles, refine causal assumptions, and reframe the model as a dynamic psychological system, this paper critically examines the conceptual structure of the VIP framework rather than merely providing a descriptive assessment. Through this process, this research increases the robustness and applicability of the model across contexts by fostering a more cohesive, adaptable understanding of how values, identity, and personal norms interact to develop PEB.

METHODOLOGICAL APPROACH

The VIP model is examined, refined, and repositioned within the context of PEB using a conceptual research approach. This study uses a theoretical analysis and integrative synthesis to evaluate the internal logic, construct boundaries, and causal assumptions of the VIP framework, rather than conducting an empirical inquiry or systematic literature review. The conceptual development is informed by a focused analysis of key theoretical publications and significant empirical studies related to value-based behaviour, identity theory, and norm activation. Rather than using systematic review processes, this study apply a conceptual integrative approach, relying on critical theoretical synthesis. Due to their theoretical importance, key sources were specifically chosen, position as a basis for the development of VIP model, and influence within Value Theory, Identity Theory, and the NAM model. The aim is to provide an in-depth analytical understanding rather than comprehensive coverage, paying close attention to theoretical conflicts, conceptual coherence, and under-specified within the VIP framework.

The conceptual research approach used in this study is based on integrative synthesis and theoretical analysis, which aim to analyse the internal logic, conceptual gaps, and causal assumptions that underlie the model of Value-Identity-Personal Norm, rather than undergoing a systematic or empirical study. Key theoretical and empirical sources are selected based on the fundamental evolution of the VIP model and its underlying traditions, namely Value Theory, Identity Theory, and NAM model. The selection placed a strong emphasis on theoretical contribution, conceptual clarity, and influence on the development of future research in the context of environmental psychology, especially studies that discuss the relationship between biospheric values, environmental self-identity, and personal norms. By redefining the construct roles as well as the model and analysing linear causal assumptions as a dynamic system that focused on moral readiness rather than behavioural prediction only, the discoveries were then joined to reposition the model of VIP.

Theoretical Foundations

PEB has been a central focus in environmental psychology, with early studies highlighting the moral, psychological, and motivational factors that influence people to take responsibility for environmental preservation. Over time, a number of significant theories have been developed in order to understand the internal mechanisms that drive environmentally responsible action, such as Value-Belief-Norm Theory (VBN), Theory of Planned Behaviour (TPB) and NAM. Recently, the VIP model, proposed by van der Werff and Steg (2016), has attracted scholarly attention for explicitly incorporating identity as a mediating mechanism that translates values into moral obligations. This section situates the VIP model within the earlier theoretical framework to establish a coherent framework for understanding PEB.

As the primary theoretical foundation of the VIP framework, the VBN theory conceptualises PEB as the result of a causal relationship in which values influence beliefs, beliefs activate personal norms, and personal norms subsequently influence behaviour (Stern et al., 1999; Stern, 2000). This process emphasises how internalised moral motivation promotes environmentally responsible behaviour. Building on this logic, the VIP model emphasises moral obligations that emerge when people incorporate environmental concerns into their assessment framework (van der Werff & Steg, 2016). The VBN model itself draws upon the three main basic theoretical concepts, which are Value theory, Identity Theory, and NAM, to explain PEB through intrinsically driven processes.

As articulated by Schwartz and Bilsky (1987), values are basic motivational principles that affect attitudes and behavioural tendencies across various contexts. This principle is supported by the NAM model (Schwartz, 1970, 1977), which emphasises altruistic motivation and the ways in which PN are activated by awareness of consequences and the ascription of responsibility. Furthermore, the New Environmental Paradigm (NEP) is a significant indicator for environmentally responsible behaviour and represents people's ecological worldviews (Dunlap et al., 2000). Collectively, these perspectives emphasise the crucial role of values in determining environmental responsibility, thereby establishing VBN theory as a conceptual antecedent to the VIP framework.

Schwartz's (1992) Value Theory further strengthens the underpinnings of the VIP model, which conceptualises human values as timeless guiding principles that influence decision-making across situations. Human values are categorised into three dimensions, biospheric values (BV), altruistic values (AV), and egoistic values (EV), which have been studied in various cultural contexts (Kluckhon, 1951; Rokeach, 1973; Williams, 1968). In environmental research, BV has consistently been identified as the most prominent value orientation for explaining PEB. BV remains a core element in sustainability research and has also been referred to as environmentalism in earlier studies (Steenkamp & de Jong, 2010). Previous empirical studies have shown that incorporating BV into conceptual frameworks enhances stability and cross-contextual applicability, thereby strengthening the theoretical underpinnings of the VIP model (Han et al., 2017; Lee et al., 2021).

In addition to value-based theories, two complementary psychological viewpoints offer further understanding of the internal mechanisms of the VIP model: Self-Determination Theory (SDT) and Self-Efficacy Theory (SET). Based on SDT, it focuses on the function of autonomy, competence, and relatedness, which shape intrinsically motivated behaviour (Deci & Ryan, 1985). SDT's concept relates to internal motivation and aligns with the value-identity-norm pathway, which reflects the VIP framework, although SDT does not directly correspond to the VIP model's structural logic. Similarly, SET highlights individuals' beliefs in their capacity to perform behaviours that lead to a significant result (Bandura, 1997). In environmental studies, self-efficacy has been related to the activation of personal norms and identity-based motivations (Cattaneo & Chapman, 2010). Taken together, both theoretical traditions support the VIP's model of psychological resilience, which integrates concepts of values, identities, and moral obligations to explain the development of environmental responsibility and sustains it across time.

Biospheric Value

According to Schwartz (1992), values are an essential concept that influences people's behaviour across contexts. Earlier studies have measured that values play a crucial role in influencing attitudes and behavioural orientations rather than explicitly determining certain behaviour (van der Werff et al., 2013a; Wensing et al., 2019). Values are often consistent across settings, though they differ for each individual based on environmental exposure, consciousness, and socioeconomic status (Heine & Norenzayan, 2006). Values are positioned as the first element in a causal chain, as in VBN theory, because they influence subsequent psychological processes, including identity, beliefs, and moral obligations (Stern et al., 1999; Stern, 2000). Among the three value dimensions, BV is the strongest, representing environmental concern and ecosystem protection. While AV and EV may indirectly influence environmental behaviour, neither expressly prioritises the ecological behaviour as BV (De Groot et al., 2007; Klöckner & Matthies, 2004). The importance of BV in influencing PEB is consistently supported by empirical data. Han et al. (2017) showed that BV remains the strongest construct and predictor of PEB when numerous value orientations are considered. Furthermore, van der Werff et al. (2013b) revealed that BV significantly influence the activation of ESI. Lee et al. (2021b) also provide additional support for the inclusion of BV in the VIP model, highlighting its function as the core element in this framework.

Environmental Self-Identity

In social psychology, identity has been widely applied as a dynamic construct formed by self-reflection and social interaction (Stryker & Burke, 2000; Gatersleben et al., 2014). People have different identities depending on circumstances, such as self-identity, social identity, and cultural identity. While social identity emphasises group membership as a basis for self-definition (Tajfel, 1982; Crocetti et al., 2024), cultural identity reflects common customs and values (Calhoun, 1994; Baumert et al., 2024). Furthermore, self-identity reflects as an individualised and situationally active self-concept, which is based on Mead's (1934) work (Burke & Stets,

2023). Identity has been proven to have a greater impact on attitudes and behaviour than values and beliefs alone in behavioural studies (Oyserman, 2009; Reed et al., 2012). Hence, ESI can be referred to as the degree to which people perceive themselves as environmentally conscious individuals (Whitmarsh & O'Neill, 2010; van der Werff et al., 2013a). ESI also encourages people to take part in sustainability activities and environmental concerns, such as recycling, eco-friendly travel, and green consumption (Gatersleben et al., 2012).

Earlier empirical research emphasises ESI as an important link between previous behaviour and upcoming environmental actions. Previous studies applied ESI to their models or theories, such as TPB, thereby increasing explanatory power and demonstrating its significance in environmentally relevant decision-making (Sparks & Shepherd, 1992; Whitmarsh & O'Neill, 2010). Furthermore, it has been demonstrated that consistent PEB reinforces ESI and promotes behavioural consistency over time (Gatersleben et al., 2014; van der Werff et al., 2014a). Within the VIP model, ESI acts as a mediating mechanism, facilitating the internalisation of BV and its conversion into personal norms.

Personal Norms

Personal norms are internalised moral commitments that lead to the development of behaviours without involving social pressure or external enforcement (Schwartz, 1977; Schwartz & Howard, 1984). Compared to social norms, which are influenced by society's expectations, personal norms allow for self-regulation even in the absence of external incentives (Cialdini et al., 1991; Bicchieri & Mercier, 2014; Horne & Mollborn, 2020). Personal norms are shaped through socialisation processes at an early stage of life and are influenced by cultural background, education, family, and religion (Grusec & Goodnow, 1994). The NAM model stated that personal norms are activated when people are aware of the effects of their actions and take responsibility for them (Schwartz, 1977).

The inclusion of personal norms in behaviour models that explain moral and sustainable behaviour is supported by extensive research. To increase the explanatory power of personal norms, they are integrated into other frameworks, such as TPB (Harland et al., 1999; Thøgersen, 2006). Early research connected personal norms to altruistic behaviour (Schwartz, 1977). Furthermore, recent research shows that personal norms mediate the relationship between values and identity on PEB conduct, especially when it involves personal cost or sacrifice (De Groot et al., 2021; Niu et al., 2023). As a result, personal norms continue to play a significant role in the

Pro-environmental Behaviour

According to Luo et al. (2020) and Stern (2000), PEB can be defined as actions intended to minimise negative environmental impacts and encourage people to optimise the sustainable use of natural resources. Recycling, energy conservation, waste reduction, and environmentally conscious consumption are examples of PEBs that individuals can adopt. Different studies have used different terminology that refers to PEB, such as environmentally responsible behaviour and sustainable behaviour (Ateş, 2020; Azinuddin et al., 2023). This paper uses the term PEB to encompass a wide range of actions focused on the environment. PEB is highlighted as the result of internal moral processes rather than external enforcement, especially in value-based psychological frameworks. According to the VIP model, personal norms serve as the immediate antecedent of PEB, encouraging individuals to act in accordance with internalised moral obligations (van der Werff & Steg, 2016). Empirical research indicates that personal norms also have a significant impact on PEB across a range of contexts, including waste management, energy efficiency, and sustainable consumption (Thøgersen, 2006; Onwezen et al., 2013; De Groot et al., 2021). The VIP model provides a robust psychological explanation of how environmental behaviours develop and are maintained over time by integrating BV, ESI, and personal norms. While personal norms act as an activation key in the formation of PEB, identity serves as a key mediating

Theoretical Framing and Repositioning of The VIP Model

Although the VIP model offers a crucial theoretical framework for explaining PEB through internal psychological processes, there is a need for further investigation to address several conceptual issues. One significant issue is the conceptual difference between BV and ESI. Both elements reflect significantly internalised orientations towards environmental protection and are based on people's self-concepts. Given this

concept, it is difficult to determine whether ESI results from BV or merely reflects a different way of expressing the same underlying value orientation (de Groot & Steg, 2021; van der Werff et al., 2013a). Hence, this proximity requires further explanation of the conceptual clarity and explanatory power of identity within the VIP framework.

A second issue that comes to the fore is the underlying causal chain embedded in the VIP model. According to the model, BV-shaped ESI, which in turn activates the personal norms to develop PEB. However, previous studies have shown that behaviour engagement may also improve or reinforce ESI over time, suggesting a reciprocal or feedback mechanism rather than a linear process (Gatersleben et al., 2014; van der Werff et al., 2014a). This dynamic connection may imply that identity can serve as both an antecedent and a result of behaviour, challenging the static conceptualisation of identity development within this framework.

Furthermore, the VIP model fails to account for situational and contextual factors because it focuses on internal psychological processes such as values, identity, and personal norms (van der Werff & Steg, 2016). Although this internal process provides significant explanatory power for how motivation develops, it might not adequately account for the influence of external factors that either shape or restrict behavioural expression. On the other hand, PEB is often shaped by institutional arrangements, economic conditions, legal frameworks, and social expectations. Financial limitations, poor infrastructure, or a lack of institutional support might make it difficult for people to act in accordance with their significant identities or values (Kollmuss & Agyeman, 2002; Steg & Vlek, 2009). These factors show that taking both internal motivational processes and surrounding variables into account can strengthen the explanatory power of the VIP model (de Groot et al., 2021).

The placement of personal norms in the VIP model presents another conceptual challenge. Earlier studies mentioned that personal norms are closely related to moral duty, ethical responsibility, and internalised behavioural norms (Schwartz, 1977; Stern, 2000). Due to this proximity, there is an unclear understanding of personal norms: whether they serve primarily as endpoints in value-identity processes or as a separate psychological mechanism. In the VIP model, the construct of personal norms raises questions about its dual role as a mediating mechanism and the immediate antecedent of PEB.

Taken together, these issues show that the conception of identity and norms within the VIP model needs improvement. ESI should be treated as a whole concept, not solely as a passive intermediary that converts moral obligations into values. Instead, identity functions as an interpretive lens that activates BV throughout time. From this viewpoint, rather than following ideals, identity organises and maintains behaviour consistent with values by integrating environmental concern into a person's self-concept. Through the repositioning of this construct, its theoretical function is made clear and prevented from being viewed as another manifestation of values.

Similarly, the function of personal norms also needs further refinement. Personal norms can be better understood as a moral expression of identity-consistent ideals that motivate environmentally responsible behaviour, rather than acting as a separate concept in a linear causal chain. In this sense, identity-based commitments are transmitted into moral obligations that influence behaviour by personal norms. This approach resolves ambiguity about personal norms' dual roles, which are antecedent and mediator, while maintaining their fundamental motivational role.

As a result, the VIP model is better understood as a robust psychological model in which values, identity, norms, and behaviour are represented within a given context and mutually reinforce one another over time. The VIP model may explain both moral readiness to act and the situations in which this drive is realised in behaviour by acknowledging the interaction between internal motivation and external constraints. This conceptual improvement not only strengthens the application of the VIP model but also enhances its theoretical coherence. The VIP framework can maintain its explanatory power while providing a more adaptable and relevant approach to PEB by clarifying construct boundaries, reducing linear-causality assumptions, strengthening the role of personal norms, and incorporating contextual influences.

This process is not isolated despite the repositioned of the conceptual framework which focuses on interior psychological processes. External contextual elements such as social norms, institutional regulations, and

economic status also influence the formation of PEB among individuals. These external factors affect the formation of behaviour, even when the biospheric values and environmental self-identity at their highest level. This is due to the fact that the level of social norms, economic situation, and institutional regulations can affect the development of PEB. Hence, in order to shape PEB in various contexts, these conceptual factors are interact dynamically with values, identities, and personal norms, rather than functioning independently.

DISCUSSION

The VIP model represents a significant theoretical advancement in value-based explanations of PEB by specifically integrating the concept of identity into the moral decision-making process. The VBN model emphasises self-perception processes that influence behaviour consistency rather than just cognitive-moral pathways, which served as the foundation of this model (Stern, 2000; van der Werff & Steg, 2016). By integrating ESI as the key factor within this framework, this model provides a more robust explanation of how BV might establish a causal relationship that internalises moral duties. This VIP goes beyond static, value-based explanations and offers a more systematic account of PEB by positioning identity as a key psychological mechanism. This integration plays a significant role in responding to the criticism of earlier value-based models, which argued that individuals with a high level of BV merely act consistently with that belief.

The causal chain of this framework creates a coherent psychological pathway, which becomes the main advantage of the VIP model. Values provide a basic foundation for motivation, personal norms influence the activation of moral standards, and identity acts as a self-defining lens through which individuals see themselves as environmentalist (Oyserman, 2009; Schwartz, 1977). According to the theoretical refinement presented in this research, identity should be highlighted as an interpretive self-defining lens that coordinates and stabilises value-consistent behaviour throughout time rather than just acting as a mediating variable. This integration helps to explain how PEB is often maintained even in the absence of external factors such as social pressure or rewards. By focusing on internal consistency and self-concept, the identity element of the VIP model strengthens the explanatory power of moral motivation and stabilises behavioural regulation.

Given these advantages, several conceptual issues within the VIP model need to be resolved. Both ESI and personal norms are directly related to moral obligation and self-responsibility, which is an issue that raises conceptual difficulties. According to Stern (2000) and Schwartz (1977), most of the research defines personal norms as an internalised moral need to engage in particular behaviours. This paper argues that personal norms are better understood as the moral expression of identity-consistent values rather than as mere conceptual uncertainty. This clarification enhances the theoretical uniqueness of the VIP framework and helps address concerns about the causal role of personal norms.

Additionally, the VIP model creates a greater emphasis on internal psychological processes than on structural and contextual constructs that affect behaviour. Even though all the related constructs in the VIP model are strongly present, obstacles such as financial limitations, institutional arrangements, social expectations, and inadequate infrastructure may limit their ability to act in an eco-friendly manner (Kollmuss & Agyeman, 2002; Steg & Vlek, 2009). This implies that the VIP model is especially useful for explaining moral readiness to act, even though the decision to act for this purpose still depends on favourable and unfavourable external situations. Hence, personal moral motivation alone is not enough to explain the development of PEB across social and structural contexts.

Therefore, these factors have important implications for future theoretical development. The VIP model should be viewed as a whole psychological mechanism that is flexible and dynamic, interacting with each of the constructs, rather than as a closed, linear system. Theoretically, the framework's explanatory power can be enhanced by adding contextual moderators that account for the interaction between internal motivation and external constraints. These refinements increase the VIP model's applicability across diverse environmental scenarios while preserving its robustness.

Through this theoretical repositioning, the new VIP model offers several practical implications that can develop the pro-environmental behaviour. It may strengthen people's environmental self-identity and facilitate the internalisation of biospheric values, which helps to encourage PEB be more successful. As example, the stability

of PEB can be achieved through strategic communication that emphasise self-consistency, moral responsibility, and identity affirmation. Furthermore, by conceptualising personal norms as the moral standard of identity-consistent values, practitioners can create interventions that match institutional procedures and policy tools. These practical implications may help the moral preparedness can be converted into long-term PEB, especially in the present of external constraints.

CONCLUSION

Throughout this paper, the VIP model has been theoretically reframed and refined as a psychological framework in order to develop PEB. The influence of BV on ESI and the activation of personal norms can be understood through the analysis and synthesis of theoretical traditions such as Value Theory, Identity Theory, and the NAM model. The combination of these theoretical concepts emphasises identity as a key psychological process that sustains long-term behavioural consistency and internal moral motivation. This process offers a clearer theoretical interpretation of the VIP model by highlighting outstanding concerns regarding construct clarity and structural orientation, rather than merely providing a descriptive conceptual evaluation. Specifically, by defining personal norms as the moral expression of identity-consistent values, the conceptual closeness between ESI and personal norms can be clarified, hence resolving the ambiguity regarding their functional significance within the framework. This improvement increases the VIP model's explanatory power and strengthens its internal coherence.

Additionally, this paper demonstrates that the original framework is insufficiently accommodating of situational and contextual aspects. Although this model provides strong explanatory power in capturing internal psychological processes, it offers a more limited explanation of how external factors, such as institutional influences, societal expectations, and practical barriers, shape behaviour. By acknowledging this limitation, it makes it clear that moral preparedness for action, rather than behaviour alone, clarifies that the VIP model is the most effective framework. In conclusion, the VIP model should be seen as dynamic and adaptable. Through this refinement, the framework should be able to explain how values, identity, and personal norms interact over time and across settings. This model offers a more relevant and flexible conceptual framework for future research on PEB by defining construct boundaries, improving causal logic, and recognising contextual influences. This refinement enhances the theoretical integrity of the model while increasing its applicability and relevance across various environmental contexts.

The repositioned framework of the VIP model would generate several propositions that could be direct further empirical research across various behavioural contexts. The approach proposes that identity salience influences the relationship between biospheric values and personal norms by conceptualising environmental self-identity as an interpretive mechanism.

First, when environmental self-identity is activated and acts as a focal point for evaluating situational cues, the relationship between biospheric values and personal norms will become stronger. Next, PEB is likely to be more efficiently promoted by interventions that target identity salience and narrative self-consistency, rather than interventions that solely focus on values. Third, the impact of personal norms on PEB will vary systematically across various settings, distinguished by differing degrees of institutional support and economic constraint. Hence, testing these propositions will help researchers approach an experimental or structural equation modelling which allow to assess the robustness and evaluate its explanatory power of the repositioned model.

REFERENCE

1. Ateş, H. (2020). Merging theory of planned behavior and value identity personal norm model to explain pro-environmental behaviors. *Sustainable Production and Consumption*, 24, 169–180.
2. Azinuddin, M., Hanafiah, M. H., Mior Shariffuddin, N. S., Kamarudin, M. K. A., & Mat Som, A. P. (2023). An exploration of perceived ecotourism design affordance and destination social responsibility linkages to tourists' pro-environmental behaviour and destination loyalty. *Journal of Ecotourism*, 22(4), 518–541.
3. Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.

4. Baumert, A., Liu, X., & Chen, Y. (2024). Red cultural identity and subjective well-being: A moderated mediation model. *Frontiers in Psychology*, 15, 1170669.
5. Bicchieri, C., & Mercier, H. (2014). Norms and beliefs: How change occurs. In *The complexity of social norms* (pp. 37–54). Springer.
6. Burke, P. J., & Stets, J. E. (2023). *Identity theory* (Updated ed.). Oxford University Press.
7. Calhoun, C. (1994). *Social theory and the politics of identity*. Blackwell.
8. Cattaneo, L. B., & Chapman, A. R. (2010). The process of empowerment: A model for use in research and practice. *American Psychologist*, 65, 646–659.
9. Crocetti, E., Moscatelli, S., & Meeus, W. (2024). A longitudinal study of social identity development in adolescence: From membership to national identity. *Journal of Youth and Adolescence*, 53(3), 620–635.
10. Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum.
11. De Groot, J. I. M., Bondy, K., & Schuitema, G. (2021). Listen to others or yourself? The role of personal norms on the effectiveness of social norm interventions to change pro-environmental behavior. *Journal of Environmental Psychology*, 78, 101688.
12. De Groot, J. I. M., Steg, L., & Dicke, M. (2007). Morality and reducing car use: Testing the norm activation model of prosocial behavior. In F. Columbus (Ed.), *Transportation research trends*. NOVA Publishers.
13. Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). Measuring endorsement of the new ecological paradigm: A revised NEP scale. *Journal of Social Issues*, 56(3), 425–442.
14. Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich.
15. Gatersleben, B., Steg, L., & Vlek, C. (2014). Measurement and determinants of environmentally significant consumer behavior. *Environment and Behavior*, 46(2), 179–203.
16. Grusec, J. E., & Goodnow, J. J. (1994). Impact of parental discipline methods on the child's internalization of values. *Developmental Psychology*, 30(1), 4–19.
17. Han, H., Hwang, J., & Lee, M. J. (2017). The value–belief–emotion–norm model: Investigating customers' eco-friendly behavior. *Journal of Travel & Tourism Marketing*, 34(5), 590–607.
18. Harland, P., Staats, H., & Wilke, H. A. (1999). Explaining pro-environmental intention and behavior by personal norms and the theory of planned behavior. *Journal of Applied Social Psychology*, 29(12), 2505–2528.
19. Heine, S. J., & Norenzayan, A. (2006). Toward a psychological science for a cultural species. *Perspectives on Psychological Science*, 1(3), 251–269.
20. Horne, C., & Mollborn, S. (2020). Norms: An integrated framework. *Annual Review of Sociology*, 46(1), 467–487.
21. Klöckner, C. A., & Matthies, E. (2004). How habits interfere with norm-directed behaviour. *Journal of Environmental Psychology*, 24(3), 319–327.
22. Kollmuss, A., & Agyeman, J. (2002). Mind the gap. *Environmental Education Research*, 8(3), 239–260.
23. Lee, S., Park, H. J., Kim, K. H., & Lee, C. K. (2021). A moderator of destination social responsibility for tourists' pro-environmental behaviors in the VIP model. *Journal of Destination Marketing & Management*, 20, 100610.
24. Luo, W., Tang, P., Jiang, L., & Su, M. M. (2020). Influencing mechanism of tourist social responsibility awareness on environmentally responsible behavior. *Journal of Cleaner Production*, 271, 122565.
25. Mead, G. H. (1934). *Mind, self, and society*. University of Chicago Press.
26. Niu, N., Fan, W., Ren, M., Li, M., & Zhong, Y. (2023). The role of social norms and personal costs on pro-environmental behavior. *Psychology Research and Behavior Management*, 2059–2069.
27. Onwezen, M. C., Antonides, G., & Bartels, J. (2013). The norm activation model. *Journal of Economic Psychology*, 39, 141–153.
28. Oyserman, D. (2009). Identity-based motivation. *Journal of Consumer Psychology*, 19(3), 250–260.

29. Reed, A., Forehand, M. R., Puntoni, S., & Warlop, L. (2012). Identity-based consumer behavior. *International Journal of Research in Marketing*, 29(4), 310–321.
30. Rokeach, M. (1973). The nature of human values. Free Press.
31. Schwartz, S. H. (1992). Universals in the content and structure of values. In *Advances in experimental social psychology* (Vol. 25, pp. 1–65). Academic Press.
32. Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values. *Online Readings in Psychology and Culture*, 2(1), 11.
33. Schwartz, S. H., & Bilsky, W. (1987). Toward a universal psychological structure of human values. *Journal of Personality and Social Psychology*, 53(3), 550–562.
34. Schwartz, S. H., & Howard, J. A. (1984). Internalized values as motivators of altruism. In E. Staub (Ed.), *Development and maintenance of prosocial behavior* (pp. 229–255). Springer.
35. Sparks, P., & Shepherd, R. (1992). Self-identity and the theory of planned behaviour. *Social Psychology Quarterly*, 55, 388–399.
36. Steenkamp, J.-B. E. M., & de Jong, M. G. (2010). A global investigation into consumer attitudes. *Journal of Marketing*, 74(6), 18–40.
37. Steg, L., & De Groot, J. I. (2012). Environmental values. In *The Oxford Handbook of Environmental and Conservation Psychology* (pp. 81–92). Oxford University Press.
38. Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour. *Journal of Environmental Psychology*, 29(3), 309–317.
39. Steg, L., Bolderdijk, J. W., Keizer, K., & Perlaviciute, G. (2014). An integrated framework for encouraging pro-environmental behaviour: The role of values, situational factors and goals. *Journal of Environmental Psychology*, 38, 104 – 115.
40. Stern, P. C. (2000). New environmental theories. *Journal of Social Issues*, 56(3), 407–424.
41. Stern, P. C., & Dietz, T. (1994). The value basis of environmental concern. *Journal of Social Issues*, 50(3), 65–84.
42. Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory. *Research in Human Ecology*, 6(2), 81–97.
43. Stets, J. E., & Biga, C. F. (2003). Bringing identity theory into environmental sociology. *Sociological Theory*, 21(4), 398–423.
44. Tajfel, H. (1982). Social identity and intergroup relations. Cambridge University Press.
45. Thøgersen, J. (2006). Norms for environmentally responsible behaviour. *Journal of Environmental Psychology*, 26(4), 247–261.
46. Van der Werff, E., Steg, L., & Keizer, K. (2013a). It is a moral issue: The relationship between environmental self-identity, obligation-based intrinsic motivation and pro-environmental behaviour. *Global Environmental Change*, 23(5), 1258–1265.
47. Van der Werff, E., Steg, L., & Keizer, K. (2013b). The value of environmental self-identity. *Journal of Environmental Psychology*, 34, 55–63.
48. Van der Werff, E., Steg, L., & Keizer, K. (2014a). Follow the signal. *Journal of Environmental Psychology*, 40, 273–282.
49. Van der Werff, E., Steg, L., & Keizer, K. (2014b). I am what I am, by looking past the present. *Environment and Behavior*, 46(5), 626–657.
50. Wensing, J., Carraresi, L., & Bröring, S. (2019). Do pro-environmental values drive farmers' interest? *Journal of Environmental Management*, 232, 858–867.
51. Whitmarsh, L., & O'Neill, S. (2010). Green identity, green living? *Journal of Environmental Psychology*, 30(3), 305–314.
52. Williams, R. M., Jr. (1968). Values. In E. Sills (Ed.), *International encyclopedia of the social sciences*. Macmillan.