

Environmental Action: Understanding Psychological Behavior in the Age of Climate Anxiety a Narrative Review

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Abstract

As climate change continues to destroy ecosystems, it is imperative to understand the psychological factors that drive action. This narrative review examines psychological factors associated with pro-environmental behavior (PEB) among individuals who express environmental concern to identify drivers of sustainable action. Nine peer-reviewed studies (2022-2025) were selected from PsycINFO, using narrative methods aligned with SANRA and PRISMA frameworks. Inclusion and exclusion criteria were presented in a PRISMA flowchart (see Figure 1). Overall themes in the results section were identified using inductive and deductive reasoning. Key psychological influences of PEB included traits such as self-efficacy and openness, as well as values and identity factors, including environmentally centered values and environmental and ecological identity. Seven of nine studies showed at least a moderate positive relationship between environmental concern and PEB, and four of the nine concluded there was a correlation. Mediators of PEB included attitude (e.g., positive views of sustainable

actions), perceived behavioral control, biospheric values, and environmental self-identity. Additionally, resilience and self-transcendence values emerged as a moderator of the relationship between environmental concern and PEB, while COVID-19 experience was linked to PEB intentions through environmental concern as a mediator and self-transcendence values as a moderator. These findings illustrate that a wide range of psychological predictors, such as environmental identity, self-efficacy, and attitude, shape environmental action both through environmental concern and independently of it.

Keywords: pro-environmental behavior, environmental concern, climate anxiety, environmental identity, motivation

Introduction

Climate change, driven largely by human actions, is degrading ecosystems and destroying habitats (Liu et al., 2022; Urbańska et al., 2022). Its worldwide scale can lead environmental enthusiasts and those with environmental concerns to helplessness and hopelessness, as changing the course of Earth's climate is a daunting task for one person. However, certain psychological factors, such as environmental identity (seeing oneself as ecologically sustainable), biospheric values (prioritizing environmental protection over harm), and environmental concern, can encourage PEB even in the face of helplessness (Jia & Liang, 2024; Pavani et al., 2023; Williams & Samuel, 2024).

This review focuses on quantitative studies exploring psychological factors associated with PEB and how environmental concern influences the relationship. It addresses a gap in the

research, as no narrative reviews in the past three years have synthesized the psychological factors associated with environmental action, regardless of whether concern is included or not. Studies included in this article examine different forms of PEB, such as employee-centered PEBs (employee green behavior), promotional methods as PEB (green idea promotion behavior), improving eco-friendly products (green idea generation behavior), and activism for green institutional change (green idea activist behavior) (Fawehinmi et al., 2022; Shao & Yu, 2023; Thanh & Cong, 2025). Rapid urbanization and increased technological usage reduce connections to nature, resulting in heightened concern (DeVillle et al., 2021).

Thus, it is increasingly important to understand which attributes lead to PEB among those with environmental concern, so that leaders, activists, and educators can best prepare future generations to support ecological restoration and resilience. The primary aim of this review is to examine the psychological factors associated with PEB, whether they are independent or dependent on environmental concern. Quantitative studies and literature reviews were included to identify patterns across populations.

Method

A narrative approach was employed to investigate the impact of specific psychological factors on pro-environmental behavior. The SANRA (Scale for the Assessment of Narrative Review Articles) checklist was used to guide transparency, referencing, and synthesis quality. This narrative review protocol was preregistered on the Open Science Framework (OSF) before data extraction and is publicly accessible. Additionally, a flowchart based on PRISMA standards was used to organize the screening and article selection processes.

Search Strategy

A structured search was conducted in June 2025 using the PsycINFO database, using an approach to allow theoretical integration across heterogeneous designs. The primary Boolean search terms were “*environmental concern*” AND “*pro-environmental behavior*” AND “*psychological predictor*.” To broaden the search, alternative terms were also included, for example, “*climate anxiety*” as a substitute for environmental concern, “*climate action*” for pro-environmental behavior, and “*environmental identity*” for possible predictors of PEB. Search results were exported to Zotero for screening (see Figure 1).

Article Selection

Articles were selected based on the following inclusion and exclusion criteria (see Table 1).

Table 1
Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Population: Humans of any age who report concern, worry, or anxiety about climate change	Studies focused exclusively on organizational or policy-level interventions without individual-level psychological measures
Exposure: One or more psychological predictor variables (e.g., environmental values, self-efficacy, identity, motivation, future orientation, moral emotions, personality traits)	Studies without clearly defined psychological predictor variables
Outcome: Pro-environmental behavior (actual or intended), including but not limited to sustainable consumption, energy conservation, transportation choices, activism, policy support, or lifestyle changes	Studies not explicitly assessing concern, anxiety, or worry about climate change as an inclusion criterion or measured variable
Study Type: All study types (quantitative,	Studies focusing solely on general environmental concerns without specific

qualitative, mixed-methods)

reference to climate change

Language: English

Date Range: 2022–present (last 3 years to
capture recent developments in the field)

Publication Type: Peer-reviewed journal
articles

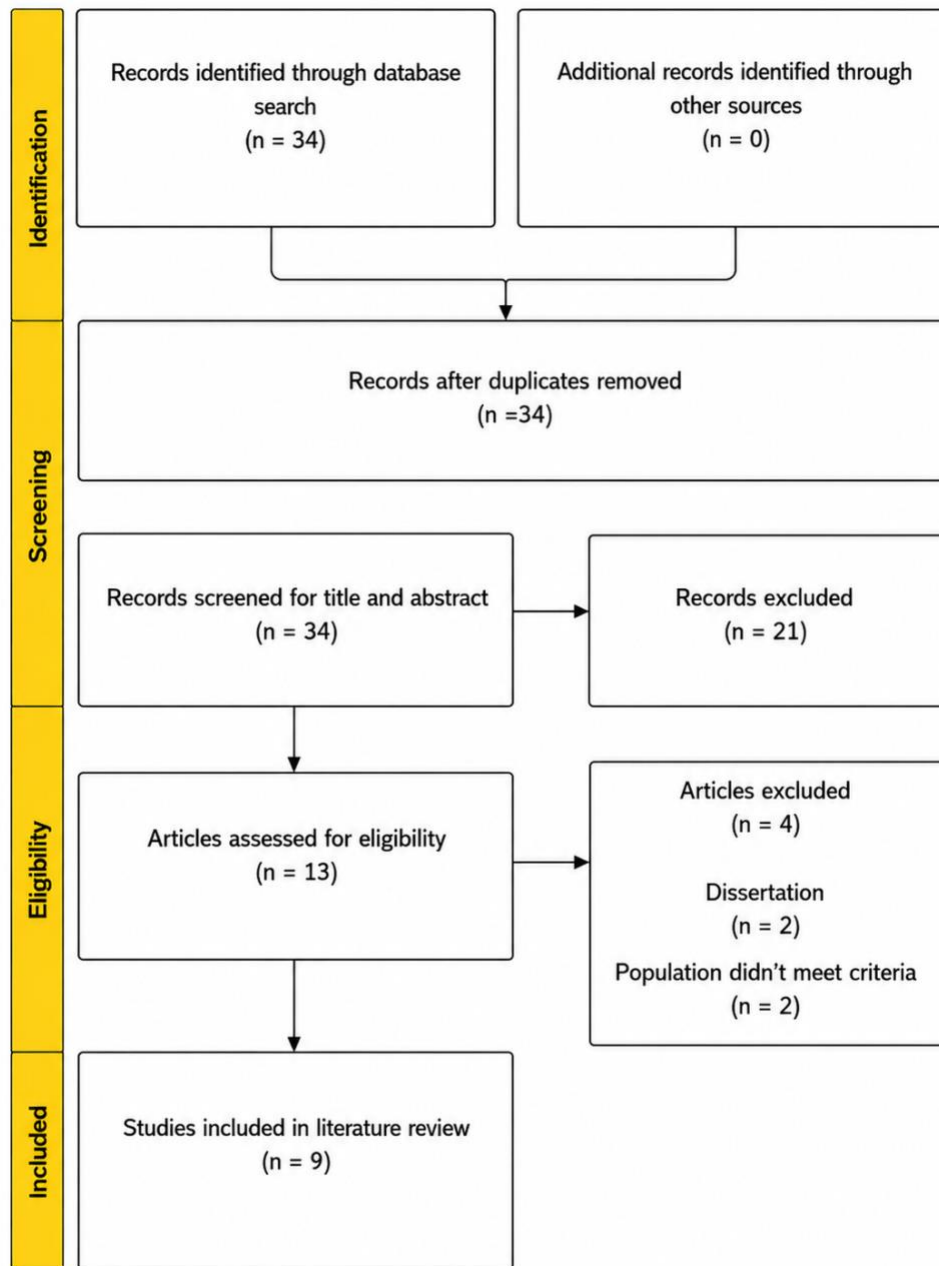
Note. Inclusion and exclusion criteria table outlining the parameters of the search.

Data Extraction and Synthesis

Themes were identified using both deductive and inductive approaches. Deductively, themes were guided by the research question and included codes on environmental concern and PEB. Themes were also developed inductively, based on recurring patterns found across the literature. Data was organized using tables to identify which psychological factors, including factors among individuals with environmental concern, were linked to pro-environmental behavior (PEB). Environmental concern was treated broadly, encompassing worry, anxiety, and affective distress. Articles were evaluated for relevance and categorized as either providing contextual background or direct evidence supporting the main findings.

Figure 1

PRISMA Flowchart Depicting the Article Selection Process



Note. PRISMA flowchart illustrating the study selection process.

Results

Nine articles were included in the review: eight quantitative studies and 1 literature review. These articles explored a variety of psychological predictors related to PEB, including Perceived Behavioral Control (PBC), attitude, intrinsic and extrinsic freedom of mind and thought, climate change media attention, COVID-19 experience, resilience, motivation, identity, personality, and values. Findings suggest eco-anxiety can both motivate and inhibit PEB, depending on moderating psychological factors. Studies were conducted in Poland, China, the United Kingdom, the United States, Malaysia, South Korea, Vietnam, and France. However, because of the wide range of samples, direct comparability of psychological factors is limited.

Environmental Concern and Pro-Environmental Behavior

Seven sources confirm the positive correlation between environmental concern and PEB in various designated settings (Fawehinmi et al., 2022; Kim & Lee, 2022; Pavani et al., 2023; Shao & Yu, 2023; Shulman et al., 2022; Thanh & Cong, 2025; Williams & Samuel, 2024). An example of this relationship was a cross-sectional study of 507 Chinese youth reported in Shao & Yu (2023). This study reported a direct positive correlation between environmental concern and PEB ($r = 0.31, p < .001$), suggesting that greater environmental concern is linked to greater action. These findings were similar to those of other studies (Fawehinmi et al., 2022; Kim & Lee, 2022; Pavani et al., 2023; Shao & Yu, 2023; Shulman et al., 2022; Thanh & Cong, 2025; Williams & Samuel, 2024). Interestingly, Shao & Yu (2023) also reported that participants in the experimental group, named the “climate change group,” donated more to the China Environmental Protection Foundation ($M = 0.63, SD = 0.74$) compared to the control group ($M =$

0.45, $SD = 0.61$), $t(282) = 2.27$, $p = .024$, $d = 0.27$, illustrating how eco-anxiety is linked to environmental concern (Shao & Yu, 2023). Furthermore, the findings of Shao & Yu (2023) indicate that environmental concern on its own is linked to PEB without mediating predictors.

Unlike Shao & Yu (2023), Williams & Samuel (2024) reported in a literature review that eco-anxiety negatively affects PEB, suggesting that emotional distress regarding climate change counteracts environmentally driven action. The review describes the “value-action gap,” where individuals’ environmental values, such as eco-anxiety or concern, don’t always lead to pro-environmental behavior (Blake, 1999). This gap is highlighted in a cited study (Kennedy et al., 2009), which found that 72% of Canadians reported a discrepancy between their intended and actual PEBs (Kennedy et al., 2009; Williams & Samuel, 2024). Williams & Samuel (2024) also highlight the potential harm to PEB linked with environmental concern, further underscoring the importance of other psychological predictors in mediating or moderating the relationship between environmental concern and PEB.

Psychological Predictors of Pro-Environmental Behavior

Sources examining psychological predictors of PEB, whether dependent or independent of environmental concern, highlight the importance of pro-environmental-related identities, self-efficacy, ecological motivation, and pro-environmental social pressure.

Environmentally-Centered Values and Identity Related to PEB

Ecologically supportive values (e.g., biospheric values) and identities that connect sustainable practices and environmental concern to one’s sense of self (e.g., environmental self-identity) are associated with PEB, as demonstrated in four of the nine selected articles.

Jia et al. reported that biospheric values (values protective of nature; see Table 2) have a very significant positive association with PEB. Their study surveyed 763 4th to 9th graders and concluded that greater biospheric values positively correlate with PEB ($r = 0.299$, $p < 0.01$), which aligns with the findings of Williams et al. In Jia et al., two groups—those with low and high environmental concern—were compared to examine how environmental self-identity (seeing oneself as environmentally conscious) relates to sustainable concern and pro-environmental behavior (PEB). Results revealed a significant negative relationship between the group with low environmental concern, biospheric values, and environmental identity ($\beta = -0.543$, $SE = 0.020$, 95% CI [0.075, 0.154]) (Jia & Liang, 2024). However, in the group with environmental self-identity, biospheric values and higher levels of environmental concern were also linked to PEB ($\beta = 0.543$, $SE = 0.021$, 95% CI [0.150, 0.230]). The difference between the two groups was thus significant ($\beta = 1.087$, $SE = 0.000$, 95% CI [0.075, 0.076]), suggesting that higher levels of environmental concern are associated with more PEB, especially when combined with environmental identity (Jia & Liang, 2024).

Jia & Liang (2024) also examined the link between environmental self-identity and PEB among individuals with eco-anxiety. The study found a significant positive relationship ($\beta = 0.070$, $p < 0.001$), suggesting that self-identity moderates the connection between concern and behavior, highlighting the role of identity in promoting pro-environmental action (Jia & Liang, 2024).

The importance of identity to environmental action is emphasized by a different experiment, specifically connectedness to nature (see Table 2). This two-wave longitudinal study confirmed a very significant association between ecological identity and environmental concern

($r = 0.25$, $p < 0.01$), and between ecological identity and PEB ($r = 0.57$, $p < 0.001$). The experiment thus concludes that individuals with eco-anxiety and ecological identity will have increased PEB (Pavani et al., 2023).

In an experiment similarly exploring the topic of identity and its relationship to PEB, 773 young Polish adults were studied to determine the importance of Identification With All Humanity as a moderator of freedom (intrinsic and extrinsic) and PEB. The definition of intrinsic freedom, according to this article, is freedom restricted by the desires of other people and social norms, while extrinsic freedom is absolute freedom. Identification With All Humanity was defined as a personal identity with humanity as a whole, or “human kinship” (see Table 2). Identification With All Humanity moderated a positive relationship between intrinsic freedom and environmental concern ($\beta = 0.20$, $p < 0.001$), as well as intrinsic freedom and PEB ($\beta = 0.13$, $p = .005$ for model 1, $\beta = 0.12$, $p = .006$ for model 2). Therefore, a higher level of intrinsic freedom is linked to a higher level of environmental concern and PEB through the moderation of Identification with All Humanity. However, this psychological predictor produced a negative relationship between extrinsic freedom and both environmental concern and PEB, suggesting that some degree of societal restraint (intrinsic freedom) may support ecological action (Urbańska et al., 2022).

Motivation, Self-Efficacy, Self-Direction, and Value-Guided Action, and Their Relationship to PEB

While values and identities encourage care for Earth’s ecosystems, they do not directly prompt action. Sustainable motivation (e.g., green autonomous motivation) and self-driven

environmental action (e.g., self-efficacy) all lead to increased PEB, as confirmed by three out of nine selected articles.

Motivation plays a key role in PEB. In a study on hospital workers, green autonomous motivation, defined as motivation to protect the environment (see Table 2), has a significant positive effect with the article's described PEB types: green idea generation behavior ($\beta = 0.115$, $SE = 0.053$, $t = 2.056$, $p < 0.05$) and green idea promotion behavior ($\beta = 0.146$, $SE = 0.053$, $t = 2.300$, $p < 0.05$). External motivation (motivation towards a goal) also has a significant relationship with PEB (green idea promotion behavior) ($\beta = 0.130$, $SE = 0.045$, $t = 2.024$, $p < 0.05$). Since two types of motivation, external and green autonomous, are both beneficial to PEB, these findings suggest that a motivated individual is more likely to be environmentally action-oriented. Kim & Lee (2022) also examined another psychological factor of PEB, self-efficacy, defined as a belief in oneself to carry out a task effectively. Green autonomous motivation had a very significant positive link to self-efficacy ($\beta = 0.242$, $p < 0.01$), which in turn strongly predicted both green idea generation ($\beta = 0.651$, $p < 0.01$) and green idea promotion behaviors ($\beta = 0.339$, $p < 0.01$). This suggests that motivation indirectly drives PEB by increasing individuals' confidence in their ability to act (Kim & Lee, 2022).

Kim & Lee (2022) conducted another experiment on self-efficacy in hospital workplaces in South Korea. Self-efficacy positively influenced green idea promotion behavior ($\beta = 0.339$, $SE = 0.063$, $t = 5.274$, $p < 0.01$), illustrating how increased self-assurance is also associated with increased PEB. Furthermore, Kim & Lee uncovered how self-efficacy perpetuates concern for the environment, finding a very significant positive relationship between the two ($\beta = 0.262$, SE

= 0.045, $t = 4.756$, $p < 0.01$). Thus, environmental concern correlated to PEB through the mediation of self-efficacy (Kim & Lee, 2022).

Similar to self-efficacy, self-direction prompts individual action. In an experiment with 600 university students from Moscow, self-direction was linked to PEB and environmental concern; therefore, environmental concern has an indirect relationship to pro-environmental behavior through the mediation of self-direction (Urbańska et al., 2022; Zibenberg et al., 2018). Similarly to self-efficacy, this psychological factor relates to value-guided action in the sense that one is guided by and acts on their beliefs and opinions. The relationship of self-direction and PEB suggests that living by and acting on one's values leads to more environmentally-focused decisions and behaviors (Urbańska et al., 2022).

As Urbańska et al. and Kim & Lee have concluded, action is key to PEB. However, environmental concern can lead to decreased environmental action (see the *Environmental Concern and Pro-Environmental Behavior* section of Results for more information). Acceptance and Commitment Therapy (ACT) can reduce the unproductive effects of environmental concern and eco-anxiety by promoting value-guided action (acting based on one's beliefs). ACT fosters psychological flexibility by helping individuals become more open, aware, and engaged, thereby supporting environmentally conscious behavior. Williams & Samuel (2024) note that ACT encourages commitment to value-guided actions while addressing barriers such as experiential avoidance, cognitive defusion, and the "value-action gap," thus increasing participation in pro-environmental activities. The article describes experiential avoidance as the avoidance of past experiences, therefore harming PEB. Cognitive defusion is defined as detaching oneself from a problem (climate change) through feelings of hopelessness and helplessness, and thus also harms

environmental action and PEB. ACT also promotes connectedness with nature, which leads to PEB, indicating how engaging in the natural world leads to more initiative to protect it. By encouraging openness, awareness, and engagement with the environment, Acceptance and Commitment Therapy is a promising framework for navigating the PEB-harming ways of environmental concern and eco-anxiety (Williams & Samuel, 2024).

How attitude and Perceived Behavioral Control (PBC) correlate to PEB

Promoting sustainable practices as achievable and rewarding is an important part of increasing PEB, as emphasized by two of the nine selected studies.

In a questionnaire study evaluating academic scholars in Malaysia, both attitude ($\beta = 0.087$, $t = 2.969$, $p < 0.05$) and Perceived Behavioral Control ($\beta = 0.044$, $t = 2.540$, $p < 0.05$) significantly mediate the relationship between environmental concern and PEB (employee green behavior). In this study, attitude is defined as how positively a person evaluates a lived experience. Its strong relationship with PEB through the mediation of environmental concern illustrates that a positive association with sustainable action leads to more PEB. Alternatively, Perceived Behavioral Control refers to an individual's belief of how much control they have over completing a certain goal or aspiration. Therefore, the positive correlation between Perceived Behavioral Control and PEB illustrates that belief in one's ability to achieve goals is linked to increased environmental action. This article reports that environmental concern is a positive predictor of attitude; thus, environmental concern indirectly positively affects PEB through attitude (Fawehinmi et al., 2022). Additionally, Thanh & Cong 2025 confirm that attitude and Perceived Behavioral Control significantly mediate the relationship between environmental

concern and PEB (attitude: ($\beta = 0.149$; $p < 0.05$) and Perceived Behavioral Control ($\beta = 0.298$; $p < 0.05$)) (Thanh & Cong, 2025).

Additional Psychological Factors Associated With PEB

Additional traits linked to increased PEB—openness (explorative and willing to learn), resilience (able to overcome traumatic situations), and intrinsic freedom (freedom limited by societal pressures) — all contribute to PEB according to three of the nine selected articles.

Openness, one of the Big Five personality traits, was associated with PEB according to Pavani et al. (2023), a two-wave longitudinal study. It was concluded that predictors of PEB from those who experience eco-anxiety did not include the Big Five domains of personality. The Big Five domains of personality, also known as the Five Factor Model, consist of the general categories of personality: openness, neuroticism, agreeableness, conscientiousness, and extraversion (Widiger & Crego, 2019). Of the five personalities, openness, defined as a willingness to explore the unknown (see Table 2), had the strongest positive relationship with PEB ($r = 0.20$, $p < 0.05$). Therefore, higher levels of openness lead to higher levels of PEB, as open individuals are more willing to grow and explore environmentally friendly behaviors. Unlike openness, neuroticism, defined as an individual vulnerable to emotional instability, had a highly significant relationship to environmental concern among the five ($r = 0.40$, $p < 0.001$) (Angarita-Osorio et al., 2024; Pavani et al., 2023). Seven out of nine selected studies also found a positive correlation between environmental concern and PEB; thus, neuroticism suggests a possible pathway to PEB through the mediation of environmental concern. (Fawehinmi et al.,

2022; Kim & Lee, 2022; Pavani et al., 2023; Shao & Yu, 2023; Shulman et al., 2022; Thanh & Cong, 2025; Williams & Samuel, 2024)

According to Shao & Yu (2023), resilience, defined as the ability to overcome threatening situations (see Table 2), is significantly associated with PEB ($r = 0.26$, $p < 0.001$). Shao et al. also uncovered how resilience was a weak but statistically significant moderator between eco-anxiety and PEB, meaning that a stronger resistance to anxiety-producing events leads to more environmental activity ($\beta = -0.09$, $SE = 0.04$, $p = .041$, 95% CI $[-0.17, -0.003]$). Thus, resilience is stronger as a factor relating to PEB (Shao & Yu, 2023).

Urbańska et al. also explored the relationship between psychological factors associated with PEB (intrinsic and extrinsic freedom) and environmental concern. While an intrinsic understanding of freedom had a positive effect on environmental concern ($\beta = 0.33$, $p < 0.001$) and PEB ($\beta = 0.30$, $p < 0.001$), this predictor acting as a moderator or mediator between environmental concern and PEB was not specified. Unlike the intrinsic form of freedom, extrinsic freedom was a negative predictor of environmental concern ($\beta = -0.17$, $p < 0.001$), but its relationship with PEB alone was only classified as “statistically non-significant” and not defined further. The effects of extrinsic freedom on PEB were therefore inconsistent or non-significant, aligning with the results from Urbańska et al. (2022) that discussed Identification With All Humanity. Given the consistent positive association between environmental concern and PEB across seven of the nine studies, the role of societal constraints warrants further investigation (Fawehinmi et al., 2022; Kim & Lee, 2022; Pavani et al., 2023; Shao & Yu, 2023; Shulman et al., 2022; Thanh & Cong, 2025; Williams & Samuel, 2024; Urbańska et al., 2022).

Personal experience also plays a role in PEB. A study on the psychological effects of COVID-19 and its impact on PEB intentions suggests that experience with COVID-19 acts as a situational factor influencing PEB intentions, mainly through strengthening self-transcendence values. Shulman et al. (2022) examine how self-transcendence values, values that extend beyond your own needs to help others, act as a moderator of the positive relationship between COVID-19 experience and PEB (Howell and Allen, 2017; Lucas, 2018; Schultz et al., 2005). Additionally, COVID-19 experience positively correlates with PEB intentions ($\beta = 0.19$, $t = 2.22$, 95% CI [0.155, 0.234], $p = .028$) and environmental concern ($\beta = 0.24$, $t = 2.84$, 95% CI [0.20, 0.28], $p = .005$), although the relationship is weak. Shulman et al. (2022) also confirm that environmental concern mediates the relationship between COVID-19 experience and PEB intentions (indirect effect = 0.03, SE = 0.01, 95% CI [0.004, 0.060]); therefore, COVID-19 experience is also associated with PEB among those with environmental concern (Shulman et al., 2022).

Table 2

Descriptions and Relationships Between the Main Psychological Factors Associated With PEB, Dependent or Independent of Environmental Concern

Predictor	Description	Findings	References
<i>Ecologically-Centered Identity and Values</i>			
Biospheric Values	Values that are protective of nature and care for the environment	Significant positive relationship to PEB.	(Jia & Liang, 2024)
Biospheric Values	See above.	Positive relationship between biospheric values and PEB.	(Williams & Samuel, 2024)
Environmental Self-Identity	A view of oneself as environmentally conscious and friendly	Significant positive relationship to PEB. Significant positive relationship to environmental concern. Significant positive relationship to PEB among those with environmental concern.	(Jia & Liang, 2024)
Biospheric Values and Environmental Self-Identity		Significant positive relationship between biospheric values and PEB among those with environmental self-identity and low levels of EC.	(Jia & Liang, 2024)

(Combination)		Significant positive relationship between biospheric values and PEB among those with environmental self-identity and high levels of EC.	
Ecological Identity	A perceived connectedness to the natural world	Positive relationship with eco-anxiety. Positive relationship to PEB.	(Pavani et al., 2023)
Identification With All Humanity	Seeing oneself as a part of humanity as a whole	Moderator between intrinsic freedom and PEB.	(Urbańska et al., 2022)

Motivation and Productivity

Green Autonomous Motivation	Based on a passion for the natural world, leading to a motivation to protect it.	Significant positive relationship to autonomous motivation and PEB (green idea generation behavior, green idea promotion behavior). Indirect positive relationship to green activist behavior.	(Kim & Lee, 2022)
External Motivation	Motivation towards a goal, to gain results or an end product for	Significant positive relationship to green idea promotion behavior. Indirect positive relationship to green	(Kim & Lee, 2022)

a specific action. activist behavior.

Self-Efficacy	Belief in one’s ability to carry out a job or complete a task	Significant positive relationship to PEB (green idea promotion behavior, green idea generation behavior). Indirectly related to green idea activist behavior.	(Kim & Lee, 2022)
Self-direction	Independent thoughts and actions	Positive relationship to PEB. Positive relationship to environmental concern.	(Urbańska et al., 2022)
Value-Guided Action	The concept that an individual’s activity aligns with their values.	No mention of a direct correlation of value-guided action and PEB; however, value-guided action was proven to combat the PEB-harming side effects of environmental concern.	(Williams & Samuel, 2024)

Attitude and Perceived Behavioral Control

Perceived Behavioral Control	The perspective that views actions as achievable rather than	Small positive relationship to PEB. Significantly mediates the positive relationship between environmental concern and PEB. Environmental	(Fawehinmi et al., 2022)
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	impossible	concern strengthens the relationship between Perceived Behavioral Control and PEB.	
Perceived Behavioral Control		Significant positive relationship to PEB (employee green behavior). Mediates the positive relationship between environmental concern and PEB.	(Thanh & Cong, 2025)
Attitude	The perspective that highlights PEB as favorable	Positive relationship to environmental concern. Small positive relationship to PEB. Significantly mediates the positive relationship between environmental concern and PEB.	(Fawehinmi et al., 2022)
Attitude		Significant positive relationship to PEB (employee green behavior). Mediates the positive relationship between environmental concern and PEB.	(Thanh & Cong, 2025)

Additional Psychological Factors Associated With PEB

Openness/Intellect	A willingness to explore the unknown. Also includes a certain degree of creativity	Strongest positive relationship to PEB among the other Big Five Domains of Personality	(Pavani et al., 2023)
Resilience	An individual's emotional coping ability in triggering situations	Moderator between eco-anxiety and PEB. Positive relationship to PEB	(Shao & Yu, 2023)
Intrinsic freedom	Freedom that is restricted by social or external pressures	Positive relationship to PEB	(Urbańska et al., 2022)
Self-Transcendence Values	Values that include others' needs, beyond one's own desires	Moderator of the positive relationship between COVID-19 experience and PEB.	(Shulman et al., 2022)
Personal Experience with COVID-	An individual who has been affected by COVID-19	Significant positive relationship to PEB intentions. Positively related to environmental concern.	(Shulman et al., 2022)

19 Environmental concern mediated the positive relationship between experience with COVID-19 and environmental concern.

Note. Table of traits associated with PEB and sometimes environmental concern.

Discussion

As environmental concern levels increase alongside climate change, the goal of this review was to identify psychological predictors and factors associated with PEB among individuals with environmental concern. Importantly, environmental concern was still one of the most widely accepted psychological factors relating to PEB, emphasized by seven of the nine included articles (Fawehinmi et al., 2022; Kim & Lee, 2022; Pavani et al., 2023; Shao & Yu, 2023; Shulman et al., 2022; Thanh & Cong, 2025; Williams & Samuel, 2024). These findings may help leaders and communities better encourage environmental action.

Most reviewed studies supported a positive relationship between environmental concern and PEB. However, as stated in the results section, environmental concern can lead to environmentally unproductive conditions, such as cognitive defusion and experiential avoidance, which in turn result in feelings of hopelessness and avoidance of climate-related issues.

Across the nine selected studies, environmental concern predicted pro-environmental behavior most significantly when combined with self-efficacy. Individuals with high levels of self-efficacy are more likely to be acting on their goals and values, and thus more likely to

have higher levels of PEB. Because pro-environmental behavior is action for a healthier planet, self-efficacy may be particularly important in predicting PEB.

The findings suggest that PEB is shaped by multiple interacting psychological factors, focusing mainly on those with environmental concern. The principal predictors fell under the categories of motivation, identity, freedom, values, attitude, Perceived Behavioral Control, and lived experiences. While all of the psychological factors were positively associated with PEB, self-efficacy had the strongest link to PEB ($\beta = 0.339$, $SE = 0.063$, $t = 5.274$, $p < 0.01$), illustrating that belief in one's actions leads to more environmental proactivity.

This synthesis aligns with previous theories, such as the Theory of Planned Behavior, which states that those who have environmental concerns and biospheric values are more likely to engage in PEB, as Jia & Liang (2024) conclude. Findings collected from Kim & Lee (2022) also align with the Self-Determination Theory (SDT), as those who experience higher levels of motivation are more likely to engage in PEB. Finally, the Value-Belief Norm theory supports this review, because, similarly to the Theory of Planned Behavior, increased biospheric values and general environmental values lead to increased PEB (Jia & Liang, 2024; Williams & Samuel, 2024).

These findings add to the knowledge base of environmental psychology. Learning about the psychological drivers of PEB among individuals who experience environmental concern may help scientists, activists, and leaders understand which psychological factors may increase PEB.

Strengths, Limitations, and Future Research

Strengths of this article include using PRISMA and the SANRA standards to uphold rigor. The focus of recent research (2022-2025) allows for timely information on the matter.

This narrative review extends prior work by mapping themes of numerous predictors of PEB for accessible understanding.

There are also limitations to this research that may have restricted the findings. This review only used English-language articles and limited the publication times of the studies to after January 1st, 2022, for relevance, restricting the available data. Also, while the goal of this article was to understand patterns of psychological predictors of PEB across multiple countries, studies were only selected if they met the inclusion criteria, limiting the generalizability of predictors across countries and country diversity.

Future research could explore how a person's age affects the relationship between environmental concern and PEB, and if it affects the psychological predictors of PEB. Additionally, studies could improve and extend the research on the environmentally unproductive aspects of environmental concern and how psychological predictors of PEB can help mitigate the negative effects of environmental concern.

Implications for Policy

Achieving more widespread environmental action is crucial to shifting the course of climate change. Leaders should consider how to integrate these psychological factors relating to pro-environmental behavior into society, whether that is increasing ecological awareness through campaigns or demonstrating an achievable and cost-free, environmentally-friendly lifestyle that could increase motivation for ecological action. Schools can improve lessons on climate change by helping students achieve climate productivity through hands-on activities rather than teaching youth to fear climate change, thus encouraging productive behaviors and aspects of PEB. By enforcing climate expectations, workplaces can also institutionalize and integrate PEB, ensuring responsibility is distributed collectively. While no single person can

halt climate change, fostering pro-environmental behavior and cultivating ecological awareness across communities remains essential to meaningful collective progress.

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