

Relationship Between Eco-Anxiety, Environmental Identity, and Pro-Environmental Behaviour among Young Adults

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Abstract

Changes in climate and environmental degradation have resulted in rising levels of eco-anxiety, especially among young adults who are acutely aware of global ecological crises. Although eco-anxiety has frequently been linked to psychological distress, studies have indicated that it may also encourage pro-environmental behavior. Furthermore, another significant factor affecting environmental actions is environmental identity, which signifies how much people believe they are connected to nature. There is a lack of research into the relations between these variables in the Indian setting.

This research analysed at the interconnections of eco-anxiety, environmental identity, and pro-environmental behaviour in young adults in India. A correlational research design was utilized, and data were gathered from 200 participants, in the age range of 18 and 25 years. Data was collected employing the Hogg Eco-Anxiety Scale (HEAS-13), the Revised Environmental Identity Scale, and the Pro-Environmental Behavior Scale. The study found that higher levels of eco-anxiety and a stronger environmental identity were significantly associated with greater participation in pro-environmental behaviors.

The results provided valuable insights into how emotional and identity-related factors influenced sustainable actions among Indian youth. The study contributed to the growing field of environmental psychology by offering a culturally relevant perspective on eco-anxiety and its behavioral implications. These findings could be used to inform mental health interventions, environmental awareness programs, and policy initiatives aimed at fostering pro-environmental behavior.

Keywords: *Eco-anxiety, environmental identity, pro-environmental behavior, young adults*

INTRODUCTION

Climate change has become as one of the paramount concerns of the 21st century, resulting in detrimental effects on mental health, such as anxiety regarding environmental degradation (Clayton and Karazsia, 2020; Clayton, 2020). The heightened frequency and intensity of extreme weather events attributable to climate change have been associated with significant mental health repercussions. Research indicates that exposure to natural disasters may increase the likelihood of PTSD, anxiety, depression, substance abuse, and domestic violence (Clayton, 2020; Morganstein and Ursano, 2020). The escalating fear, frequently referred to as eco-anxiety, signifies a profound

emotional reaction to ecological dangers (Showmiya and Kumar, 2024; Pihkala, 2020). Young adults, who are poised to experience long-term environmental effects, are especially susceptible to such concerns.

Eco-anxiety has been linked to individuals' environmental identity, which refers to how strongly people see themselves as part of nature and natural settings (Showmiya & Kumar, 2024). Those with a higher environmental identity are more likely to experience distress over environmental issues.

However, research suggests that eco-anxiety can motivate pro-environmental behavior—actions taken to reduce environmental harm (Mathers-Jones & Todd, 2023).

While numerous studies have investigated these connections in Western nations, there has been little research looking at this set of variables collectively, especially in India. Considering India's environmental issues, such as pollution and climate-induced disasters, it is important to comprehend how eco-anxiety, environmental identity, and pro-environmental behavior interact within this framework.

This study's objective is to fill the research gap by analyzing the relationships among these variables. Grasping these connections can offer insights into how the environmental worries of young adults lead to actions, ultimately aiding sustainability initiatives in India.

REVIEW OF LITERATURE

Eco - Anxiety and Pro- Environmental Behaviour

Anxiety towards the environment can be adopted as both an inspiration and impede efforts to protect our planet. When people feel eco-anxiety as worry about their individual effects, it typically motivates them to pursue eco-friendly practices. Nevertheless, when the anxiety becomes too intense, it may obstruct their capacity to take action. A research study by Hogg et al. (2024) investigated the different aspects of eco-anxiety and their influence on mental health and eco-friendly behaviors by utilizing both longitudinal and cross-sectional data from Australia. Their results indicated that although rumination and concern regarding individual impact promoted pro-environmental behaviors, emotional and behavioral signs of eco-anxiety correlated with diminished mental health. This underscores the complex interrelationships of eco-anxiety, mental health, and environmentally conscious actions.

Eco-anxiety is not solely an emotional reaction to the changing environment—it can influence behavior in significant ways. For some individuals, feelings of distress and urgency drive them to adopt sustainable behaviors as a means of regaining a sense of control. However, for others, severe eco-anxiety may lead to emotional exhaustion, making it harder for them to take meaningful action. Muthuchamy et al. (2024) conducted a narrative review to explore how eco-anxiety interacts with mental health and environmental action. Their findings emphasized the need for

more research to clarify eco-anxiety's role as both a potential motivator and a psychological challenge.

The dual role of eco-anxiety as a psychological burden and a catalyst for action—has been further reinforced by research. Pavani et al. (2023) studied the long-term impact of eco-anxiety on pro-environmental behavior, finding that individuals with greater degrees of eco-anxiety were more inclined to improve their environmental actions over time. Their study supports the idea that eco-anxiety is not solely a source of distress but can also serve as a driving force for behavioral change, prompting individuals to engage more actively in sustainability efforts.

Environmental Identity and Pro- Environmental Behaviour

Individuals' pro-environmental behaviors are significantly shaped by their environmental identity, affecting whether they view sustainability as an individual or a collective obligation. While personal identity serves as a powerful motivator for sustainable actions among individuals, collective identity holds greater significance in cultures that prioritize collectivism. Wang et al. (2024) investigated the effect of both individually and group-level environmental identities on pro-environmental actions in various cultural contexts. Their research, conducted with participants from the Netherlands and China, demonstrated that personal identity and individual biospheric values were strong predictors of pro-environmental behavior in both cultural environments. Nonetheless, group environmental identity assumed a more prominent role within collectivist cultures, despite its influence being less pronounced than that of personal identity.

Environmental identity reflects how individuals see themselves in relation to nature, shaping their willingness to engage in sustainable practices. Humans with a deep link to the environment are very much likely to adopt eco-friendly behaviors as an extension of their personal values rather than as a mere choice. Barón et al. (2023) looked at how well-being in both urban and rural populations was related to environmental identity and a sense of connection to nature. Their findings indicated that while rural individuals had a stronger environmental identity, psychological well-being and a sense of connection with nature were stronger predictors of pro-environmental behavior in urban settings.

The way environmental identity manifests in behavior can be influenced by its visibility. Some individuals actively engage in sustainable practices to express their environmental identity, while others may avoid pro-environmental behaviors if they do not identify with their social identity. Brick et al. (2017) studied how the public visibility of eco-friendly behaviors affects individuals' willingness to engage in sustainability efforts. Their findings revealed that people with strong environmental identities were more likely to adopt visible pro-environmental behaviors (“green to be seen”), whereas those who rejected environmentalism actively avoided such behaviors when observed (“brown to keep down”).

METHODS AND MEASURE

Objectives

1. To investigate the relationship between eco-anxiety and pro-environmental behavior among young adults.
2. To investigate the relationship between environmental identity and pro-environmental behavior.

Hypothesis

H₁: There will be a significant relationship between eco-anxiety and pro-environmental behavior among young adults.

H₂: There will be a significant relationship between environmental identity and pro-environmental behavior among young adults.

Research Design

The research employed a correlational research design to investigate the relationship between eco-anxiety, environmental identity, and pro-environmental behavior. The design permits the assessment of naturally occurring relationships among variables without experimental manipulation.

Participants

A total of 200 young adults, aged 18 to 25 years, were recruited using snowball sampling from various regions of India, representing a diverse range of educational institutions and workplaces. The recruitment process began with an initial set of participants who referred others from their networks, ensuring a diverse and representative sample while meeting the study's inclusion criteria. This approach facilitated the inclusion of individuals with varying backgrounds, enhancing the study's generalizability.

Measures

- **Demographic Questionnaire:** Includes questions such as age, gender, health status, emotional status, etc.
- **Hogg's Eco-Anxiety Questionnaire-** The Hogg Eco-Anxiety Scale was created by Hogg, Stanley, O'Brien, Watsford, and Walker in 2021. It evaluates the psychological distress that is associated the environment changes and how it affects mental health and pro-environmental behavior. The scale is utilized to assess eco-anxiety through four dimensions: Affective Symptoms, Behavioral Symptoms, Rumination, and Personal Impact Anxiety. It has high reliability (Cronbach's alpha 0. 80–0. 90) and good construct validity, showing strong correlations with anxiety, depression, and pro-environmental behaviors.
- **Revised Environmental Identity Scale (EID),** Originally created by Clayton (2003) and subsequently enhanced by Clayton et al. (2021) for cross-cultural validation, a measure that evaluates how much people believe they are connected to the natural world. It adheres to a one-dimensional structure evaluated through a Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), with increasing scores marking a robust environmental identity. The test

exhibits high reliability (Cronbach's $\alpha \approx 0.85-0.90$) and demonstrates good validity, showing a strong correlation with ecological concern and sustainable behaviors.

- The Pro-Environmental Behavior (PEB) Scale - was developed by Larson, Stedman, Cooper, and Decker (2015) to assess individuals' engagement in environmentally responsible actions. It has a multi-dimensional structure covering Conservation, Environmental Citizenship, Land Stewardship, and Social Environmentalism. The scale follows a Likert format (e.g., 1 = Never to 5 = Always), with higher scores indicating stronger pro-environmental behavior. It has showed good reliability (Cronbach's $\alpha \approx 0.80-0.90$) and strong validity, correlating well with environmental attitudes and identity.

Procedure

A pilot test was undertaken with a limited number of volunteers to assess the questionnaire's precision, significance, and comprehensiveness. The pilot study's feedback was used to improve the questionnaire before it was distributed widely. The final survey was then disseminated to the target population, young adults, using online platforms such as social media and email. Participants completed the survey via Google Forms, ensuring accessibility and ease of participation. The data collection process followed ethical guidelines, with informed consent obtained from all respondents before participation. Following the collection of responses, the data was examined for the direction and intensity of correlations between pro-environmental behavior, environmental identity, and eco-anxiety using Pearson's correlation coefficient.

Statistical technique

This research was carried out with the help of Pearson's Product Moment Correlation.

RESULTS

H1: There will be a significant relationship between eco-anxiety and pro-environmental behavior among young adults.

The research examined the link between eco-anxiety and pro-environmental behavior among young adults, suggesting that concern about environmental issues may drive individuals to engage in sustainable actions. Eco-anxiety, which is characterized as distress related to environmental decline, can act as a catalyst, encouraging actions such as minimizing waste, preserving resources, and engaging in environmental advocacy. However, the impact of this motivation relies on individuals feeling empowered to make a difference.

A correlation analysis found a moderate positive relationship ($r = 0.51$) between eco-anxiety and pro-environmental behavior, indicating as eco-anxiety increases, so does engagement in sustainable actions. However, this connection is not absolute—some individuals may translate their distress into action, while others may feel overwhelmed and disengage. To strengthen this link, interventions that help individuals cope with eco-anxiety in a constructive manner, such as environmental education and activism, could be beneficial.

Variables	Sample Size (N)	Correlation Coefficient (r)	p-value	Significance
Eco-Anxiety & Pro-Environmental Behavior	200	0.51	p < 0.01	Statistically Significant

Table 1: Correlation Between Eco-Anxiety & Pro-Environmental Behavior

Eco-anxiety and pro-environmental behavior share a motivational connection, where heightened concern about environmental issues can push individuals toward sustainability efforts. Young adults who experience eco-anxiety often feel an urgent need to address climate change and environmental threats, leading them to adopt behaviors that reduce their ecological footprint. This could include using fewer plastic products, conserving natural resources, or advocating for policies that protect the environment. However, the extent to which eco-anxiety results in meaningful action depends on self-efficacy—an individual’s conviction that their behavior can have an impact. Without this confidence, eco-anxiety may lead to inaction or distress rather than change. Initiatives that transform eco-anxiety into constructive action, such as community engagement and environmental awareness programs, can enhance this relationship while mitigating feelings of helplessness

H2: There will be a significant relationship between environmental identity and pro-environmental behavior among young adults.

This hypothesis suggests that individuals who strongly identify with nature and perceive environmental protection as part of their personal values are better inclined to engage in sustainable behaviors. A strong environmental identity fosters intrinsic motivation, encouraging actions such as using eco-friendly products, conserving energy and water, and participating in environmental advocacy. Strengthening environmental identity in young adults could be an important strategy for promoting sustainable behaviors.

The stud identified a significant positive correlation (r = 0. 92) between environmental identity and pro-environmental behavior, suggesting a direct and strong connection. In contrast to eco-anxiety, which stems from distress, environmental identity is based on a profound sense of belonging and personal accountability, rendering it a more dependable predictor of sustainable actions.

Variables	Sample Size (N)	Correlation Coefficient (r)	p-value	Significance
Environmental Identity & Pro-Environmental Behavior	200	0.92	p < 0.001	Highly Significant

<p>Table 2: Correlation Between Environmental Identity & Pro-Environmental Behavior</p>
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Environmental identity acts as a powerful internal motivator, as individuals who strongly associate with nature tend to view environmental protection as an essential aspect of their values and lifestyle. This sense of responsibility makes eco-friendly behaviors a natural and consistent part of daily life. Unlike eco-anxiety, which can sometimes lead to distress and inaction, environmental identity promotes a proactive and positive approach to sustainability. Strengthening environmental identity through education, immersive experiences in nature, and community-based environmental initiatives can be an effective strategy for encouraging long-term commitment to sustainable behaviors among young adults.

DISCUSSION

Climate change and the deterioration of the environment have resulted in increasing eco-anxiety, especially among young people who are highly aware of worldwide ecological challenges. While eco-anxiety is frequently associated with mental distress, it can also act as a catalyst for environmentally friendly actions.

The study showed a moderate positive correlation ($r = 0.51$, $p < 0.01$) between eco-anxiety and pro-environmental behavior, indicating that concern about environmental issues can drive sustainable actions. However, extreme eco-anxiety may lead to emotional exhaustion and disengagement. A strong positive correlation ($r = 0.92$, $p < 0.001$) was found between environmental identity and pro-environmental behavior, showing that those having a strong environmental identity are more inclined to take sustainable actions. Strengthening environmental identity through education and community programs can enhance long-term engagement. Addressing eco-anxiety through resilience-building strategies can ensure that distress translates into constructive action.

Strengthening environmental identity through education and immersive nature experiences can encourage long-term pro-environmental behavior. These results can be utilized in environmental education initiatives, mental health strategies, and policy development to encourage sustainable practices. This study can assist in crafting environmental education initiatives, mental health strategies, and sustainability efforts that convert eco-anxiety into positive action.

Future research should explore how cultural and social factors influence these relationships and examine intervention strategies that balance eco-anxiety management with sustainability promotion. Expanding the study to different age groups and regions can provide deeper insights into fostering pro-environmental engagement.

CONCLUSION

As climate concerns rise, understanding the psychological factors that drive sustainable behavior is crucial for fostering lasting environmental engagement. As climate concerns escalate, eco-anxiety is driving emotional responses, while environmental identity shapes how individuals perceive their connection to nature.

This research investigates the links of eco-anxiety, environmental identity, and pro-environmental behavior among young adults in India. It emphasizes how psychological aspects affect pro-environmental behavior, offering insights into the emotional and identity-related incentives for sustainable actions.

Eco-anxiety was identified as a catalyst for pro-environmental behavior, although excessive distress could impede action. Environmental identity was recognized as a more robust and consistent predictor of pro-environmental behavior. Enhancing environmental identity through education and community projects can promote lasting pro-environmental behavior. Future studies should examine targeted interventions to harmonize psychological well-being with pro-environmental behavior.

Acknowledgement

We truly appreciate all the young adults who took part in this study, offering their precious time and perspectives. Their input was crucial in comprehending the association between eco-anxiety, environmental identity, and pro-environmental behavior.

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