# ECO-GUILT, PRO-ENVIRONMENTAL BEHAVIOR AND LOCUS OF CONTROL AMONG YOUNG ADULTS

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***Abstract:*** Eco-guilt has emerged as a significant emotional factor influencing how individuals respond to environmental challenges and engage in sustainable practices. The present study aimed to examine the relationship between eco-guilt, pro-environmental behavior, and locus of control among young adults. A sample of 261 participants, aged 18 to 25, took part in this correlational study. Data were collected via a Google Form that included demographic details, a consent form, the Eco-Guilt Questionnaire, the Pro-Environmental Behavior Scale, and Rotter's Locus of Control Scale. The results indicated a weak positive but non-significant relationship between eco-guilt and pro-environmental behavior ($r = .11$, $p = .068$), suggesting that the relationship wasn't significant. Eco-guilt showed a negligible non-significant relationship with locus of control ($r = –.02$, $p = .778$), while pro-environmental behavior and locus of control demonstrated a weak negative, non-significant association ($r = –.09$, $p = .129$). Overall, the findings revealed that eco-guilt, locus of control, and pro-environmental behavior were not strongly correlated within this sample.

***IndexTerms*** **- Eco-Guilt, Pro-Environmental Behavior, Locus of Control, Young Adults, Quantitative Research**

## INTRODUCTION

In the introductory chapter, we aim to prepare the groundwork for a thorough investigation of the chosen subject. This chapter will commence by identifying the fundamental aspects that will influence the study. Our focus will be on finding the relationship between eco-guilt, pro-environmental behavior, and locus of control.

### 1.1 Eco-guilt

The psychological aspects of environmental problems have drawn more attention from academics in recent years due to increased concerns about climate change, biodiversity loss, and unsustainable consumption practices. Eco-guilt has become one of the most important concepts among the emotional reactions people have when ecological deterioration occurs. The self-conscious, morally repugnant feeling that emerges when people believe that they, or humanity in general, are to blame for damaging the environment is known as eco-guilt (Ágoston et al., 2022). This feeling stems from the realization that one's behavior, inaction, or lifestyle decisions harm the environment and violate social or personal standards. Eco-guilt is positioned within the larger human–nature interaction and frequently involves both individual and collective elements, in contrast to general guilt, which is related to interpersonal moral violations (Nielsen, 2024).

According to research, eco-guilt has two functions in environmental psychology. It may serve as an incentive for pro-environmental behavior (PEB), on the one hand. Guilt often leads to reparative action, which motivates people to alter their conduct in ways that lessen harm or restore equilibrium, according to appraisal theories of emotion (Tracy & Robins, 2007). Meta-analytic proof backs up this idea: With medium-sized correlations across experimental and correlational research, Shipley and van Riper (2022) discovered that pro-environmental results were favorably correlated with both predicted and experienced guilt. Because people try to avoid the unpleasantness of moral self-reproach by acting in an environmentally responsible manner, anticipated guilt in particular seems to be a good indicator of behavioral intentions.

However, eco-guilt can also lead to detrimental psychological effects. Guilt can develop into chronic anguish or even "eco-paralysis," a condition in which a person's sense of helplessness prevents them from taking constructive action, when they feel unable to make a significant difference (Ágoston et al., 2022). Likewise, an over-reliance on guilt-inducing messaging in environmental campaigns might result in reactance, avoidance, or defensive reactions (Nielsen, 2024). Therefore, even while eco-guilt can promote sustainable lifestyles, it also contains risks if it isn't combined with tactics that increase efficacy or chances for meaningful engagement.

The creation of psychometric instruments like the Eco-Guilt Questionnaire (EGuiQ-11) has significantly improved the measuring of eco-guilt (Ágoston et al., 2022). This scale, which has now been cross-culturally modified, provides a proven method of evaluating eco-guilt as a unifactorial construct (Awad et al., 2025). In addition to quantitative methods, qualitative research has distinguished many forms of eco-guilt, such as existential guilt connected to the act of human existence, guilt over systemic problems, and guilt related to lifestyle choices (Nielsen, 2024). These results highlight the intricacy of eco-guilt and the various ways it can lead to both beneficial and detrimental effects.

#### 1.1.1 Theoretical framework on eco guilt

Eco-guilt can be placed within a number of psychological theories that describe how emotions arise, how they influence conduct, and how they interact with moral standards. Eco-guilt is a self-conscious moral emotion that represents people's assessments of their own actions in light of social norms and internalized environmental principles. The theoretical frameworks listed below offer a starting point for comprehending eco-guilt and how it influences pro-environmental behavior (PEB).

1. Emotional Appraisal Theories

Emotions originate from people's cognitive assessments of events in connection to their objectives, values, and standards, according to appraisal theories (e.g., Lazarus, 1991). When people believe that their actions are inconsistent with environmental principles or that they are causing ecological harm, eco-guilt arises. Guilt is triggered by this evaluation, which encourages corrective behavior meant to restore moral equilibrium (Tracy & Robins, 2007). Eco-guilt, according to this perspective, serves as a moral regulator by indicating that one's choices or way of life are in opposition to individual or societal ecological norms.

2. Norm Activation Model (NAM)

Schwartz's (1977) Norm Activation Model provides a direct framework for linking eco-guilt to pro-environmental behavior. NAM posits that behavior is guided by personal moral norms, which are activated when individuals:

1. Recognize the consequences of their actions (awareness of consequences), and
2. Accept responsibility for those consequences (ascription of responsibility).

Eco-guilt represents the emotional response to norm violation once these two conditions are met. It functions as a motivational force to repair harm, thus promoting environmentally responsible actions such as recycling, reducing consumption, or supporting conservation policies.

3. Value-Belief-Norm (VBN) Theory

Stern's (2000) Value-Belief-Norm theory, which extends NAM, contends that environmental beliefs are shaped by values (such as biospheric, altruistic, and egoistic) and that these beliefs in turn affect how personal norms are activated. The emotive indication that rules have been broken is eco-guilt. At VBN, eco-guilt serves to uphold the ethical need to behave responsibly. Strong biospheric values, for example, may cause people to feel more eco-guilt when they don't take actions that preserve the environment, which in turn may lead to compensatory actions.

4. Self-Conscious Emotion Theory

Self-conscious emotion theory can also be used to frame eco-guilt (Tangney & Dearing, 2002). Guilt, shame, and pride are examples of self-conscious emotions that necessitate introspection and a comparison of one's behavior to internal or external norms. Guilt focuses on particular behaviors ("I did something bad") as opposed to shame, which addresses the self ("I am bad"). Because people believe that conduct, not identity, can be changed, eco-guilt is more likely than eco-shame to motivate reparative pro-environmental measures (Nielsen, 2024).

**1.2 Pro-Environmental Behaviour**

Human behaviour is causing unprecedented environmental problems, from the air and water pollution to climate change (Intergovernmental Panel on Climate Change, 2007; Millennium Ecosystem Assessment, 2005; Oskamp, 2000). Tackling these problems requires an understanding of the psychological factors that motivate people to show concern for, and take action on, environmental issues (Clayton & Myers, 2009; Gifford, 2008; Oskamp, 2000; Schmuck & Schultz, 2002; Stern, 1992). Environmental protection implies temporal concern, in which natural resources are preserved and secured for future generations. Even the most cited definition of sustainable development takes account of this temporal concern, stating that sustainable development should meet the needs of the present without compromising the needs of future generations. (Milfont et al., 2012a)

The past few years have seen an increase in studies examining the extent to which temporal concerns are associated with environmental engagement. In recent years, climate challenges have intensified, posing a threat to human existence and life. According to UN Climate Change News, in 2020 alone, climate shocks forced 30 million people to flee their homes. In 2021 alone, extreme weather caused about USD 120 billion in insured losses. With the prominence of various environmental problems, how to deal with these problems and improve environmental sustainability has attracted extensive attention. In essence, environmental problems stem from human behaviour. The change of behaviour is a necessary condition to improve the environmental situation. (Tian & Liu, 2022)

Pro-environmental behaviour can be defined as all possible actions aimed at avoiding harm to and/or safeguarding the environment (Steg and Vlek, 2009), either performed in public (e.g., participation in environmental movements) or private domains (e.g., recycling; Hadler and Haller, 2011). Pro-environmental behaviour plays an important role in decreasing the waste of natural resources, reducing the emission level of pollutants and weakening environmental damage, thus effectively dealing with environmental problems and protecting environmental sustainability. Therefore, the study of pro-environmental behaviour has become one of the fields with both research value and research prospects.

Anthropogenic causes of environmental problems such as climate change have been widely acknowledged (Stern et al., 2016; Intergovernmental Panel on Climate Change [IPCC], 2018). Environmental problems could therefore be reduced if people acted more pro-environmentally. Many countries have already committed to taking measures to reduce climate change (European Commission, 2015), yet the efficiency of implementation and scale of these measures differs across countries (Intergovernmental Panel on Climate Change [IPCC], 2018). Such measures will be more effective if they address key antecedents of pro-environmental actions of citizens of these different countries (Steg and Gifford, 2017). To this end, the question is which factors are related to pro-environmental behaviour across different countries and cultures (Mancha and Yoder, 2015; Morren and Grinstein, 2016). Such knowledge is crucial for developing effective measures to promote pro-environmental behaviour in countries across the world (Steg et al., 2014a; Intergovernmental Panel on Climate Change [IPCC], 2018). Research shows that people's environmental considerations, such as biospheric values and environmental self-identity, are related to pro-environmental behaviour.(Balundė et al., 2019)

Values are an important antecedent of a variety of pro-environmental behaviours (Nordlund and Garvill, 2002; Abrahamse and Steg, 2013; Steg et al., 2014a, 2015). Four types of values are particularly important in explaining pro-environmental behaviour, namely biospheric values (caring about nature and environment protection), altruistic values (focusing on the well-being of others), egoistic values (safeguarding and promoting personal resources), and hedonic values (focusing on seeking pleasure and reducing effort) (Steg and De Groot, 2012; Steg et al., 2014b).(Balundė et al., 2019) Human behaviour in the environment is influenced by external factors (that means the environment of an individual) and internal factors (physical and mental aspects of an individual).

Factors influencing environmental behaviour are (i) external factors (ii) the personality of an individual (iii) the personal relationship of an individual to nature.

(i)External factors: Environmental studies, sociology, economy but also legal sciences, religious studies and other disciplines also deal with (among other things) the matter of how external conditions influence the environmental behaviour of the public. The external influences on environmental behaviour are possible to understand as an action of external factors which influence people's behaviour toward the environment. (ii) Personality of an individual: Personality factors influencing the environmental behaviour are influences of characteristic qualities, motivational characteristics (attitudes and values), abilities and mental moods of an individual to his behaviour to the environment. Personality factors often influence environmental behaviour without even being aware of it. (iii) Personal relationship of an individual with nature: The relationship between people and nature is the predicate of the so-called personal relationship to natural characteristics, it shows, what are people's attitudes to nature and the environment (environmental needs and attitudes) and what are their mental abilities in those attitudes. (Krajhanzl, n.d.)

Barriers to pro-environmental behaviour are the numerous factors that hinder individuals when they try to adjust their behaviours toward living more sustainable lifestyles. Generally, these barriers can be separated into psychological, social/cultural, financial and structural. Psychological barriers are considered internal, where an individual's knowledge, beliefs and thoughts affect their behaviour. Social and cultural barriers are contextual, where an individual's behaviour is affected by their surroundings (e.g., neighbourhood, town, city, etc.). Financial barriers are simply a lack of funds to move toward more sustainable behaviour (e.g., new technologies, and electric cars). Structural barriers are external and often impossible for an individual to control, such as lack of governmental action, or locality of residence that promotes car use as opposed to public transit.

### 1.3 Locus of Control

For almost fifty years, the idea of locus of control (LoC) has been a major topic in social psychology and personality studies. In the context of social learning theory, locus of control was first introduced by Julian B. Rotter in 1966. It describes a person's broad expectations regarding whether the results of life events are determined by their own actions or by outside factors like chance, luck, or influential people. This concept sheds light on how individuals view causation in their lives, which influences behavior, motivation, and psychological adaptation.

People who have an internal locus of control think that their skills, choices, and efforts are what ultimately determine results. On the other hand, people who have an external locus of control attribute results to external factors like fate, societal structures, or chance (Rotter, 1966). Despite its simplicity, this distinction has led to a large body of research that links locus of control to a variety of outcomes in well-being, employment, health, and education.

Although locus of control was first described by Rotter as a unidimensional continuum, the concept has since been improved upon. According to Levenson (1973), externality can be further broken down into two parts: "chance" and "powerful others." By using a multifaceted method, researchers can capture differences in how people explain outside effects and gain a more complex understanding of control beliefs. The Health Locus of Control measures were created concurrently by Wallston and Wallston (1978), who expanded the idea to domain-specific contexts including sickness prevention and treatment adherence. These advancements demonstrate how locus of control may be used as a situation-specific belief system as well as a general psychological orientation.

Empirical studies have continuously shown how important locus of control is for behavior and psychological adjustment. For example, people with internal orientations typically report more psychological well-being, resilience, and self-esteem, whereas people with external orientations are more likely to experience stress, learned helplessness, and depressive symptoms (Lefcourt, 1982; Cheng et al., 2013). Internality has been associated with higher accomplishment motivation and academic success in academic settings, as internals are more inclined to believe that effort leads to performance (Findley & Cooper, 1983). In a similar vein, internals are more likely than externals to exhibit leadership potential, higher job satisfaction, and stronger problem-solving skills in professional settings (Ng, Sorensen, & Eby, 2006).

Another rich application area is the health sector. People who have an internal locus of control over their health are more likely to take charge of changing their lifestyle, follow treatment plans, and embrace preventative health practices (Wallston & Wallston, 1978). On the other hand, those who have an external orientation could put off getting medical help or rely too much on doctors and outside events, which can have a detrimental effect on health results. These results highlight how control attitudes influence proactive and flexible behaviors in a variety of spheres of life.

#### 1.3.1 Theories supporting Locus of Control

1. Social Learning Theory

Rotter's Social Learning Theory (SLT) provided the basic framework for developing the idea of locus of control. SLT holds that behavior is a combination of an individual's value placed on reinforcement and their expectation that a specific action would result in reward. According to Rotter (1966), locus of control is a broad expectation:

- Internal locus of control: people think that their own activities determine the results.
- External locus of control: people think that fate, chance, or influential people have an impact on results.

Therefore, by establishing a connection between cognitive expectancies and behavioral results, SLT offers the fundamental framework for LoC.

2. Attribution Theory

How people understand the reasons behind success and failure is explained by attribution theory. In attribution theory, the locus of control and the locus of causality dimension overlap:

- Results are attributed by internals to individual skill or effort.
- Externals ascribe results to outside factors like societal pressures or chance.
  According to Weiner's attribution model, causal attributions also affect feelings (such as pride and guilt) and ensuing motivation, which is similar to how LoC affects behavior and persistence.

3. Learned Helplessness Theory (Seligman, 1975)

This theory has been particularly influential in linking LoC with mental health outcomes. It suggests that repeated exposure to uncontrollable events results in a sense of powerlessness and passivity. Externals frequently exhibit patterns consistent with learned helplessness, believing they have little control over reinforcement, while internals perceive more personal control, protecting them from helplessness and depressive symptoms.

**NEED OF THE STUDY**

Environmental degradation highlights the importance of understanding the psychological drivers of sustainable behavior. While pro-environmental behavior (PEB) has been widely studied, much of the focus has been on eco-anxiety and environmental concern, leaving a gap in exploring the role of eco-guilt. As a moral emotion, eco-guilt may motivate corrective action, yet its influence on behavior remains underexplored, particularly in comparison to other emotional drivers such as pride or hope. Equally important is the role of locus of control, which determines whether individuals believe they can make a difference in addressing environmental issues. Its interaction with eco-guilt may either strengthen motivation for positive change or weaken it by fostering helplessness. Examining these constructs together provides a deeper understanding of the mechanisms that drive sustainable choices. This study is especially relevant to young adults, who are emerging as key agents of environmental change. Their attitudes, values, and behaviors will shape future ecological outcomes, making them an important demographic for focused research. By addressing the gap between emotional and cognitive factors influencing PEB, the study can inform the development of educational strategies, awareness campaigns, and policy interventions that foster long-term sustainable practices at both individual and community level.

**RESEARCH METHODOLOGY**

The methodology section outlines the plan and method that how the study is conducted. This includes Universe of the study, sample of the study, Data and Sources of Data, study's variables and analytical framework. The details are as follows;

**3.1Population and Sample**

The sample of the study comprised a total of 260 college students, carefully selected to provide a diverse representation of the student population. The sample displays 260 participants identifying as female 116 (44.4%) and 144 participants as male (55.6%). Participants' ages ranged from 18-25 years. A convenience sampling technique was employed to select participants. Convenience sampling involved recruiting participants based on their accessibility and willingness to participate. The domicile of the sample displays from urban (47.5%), semi-urban (16.9%), and rural (35.6%) areas. The socioeconomic status of the participants was upper class (12.3%), middle class (82%) and from lower class (5.7%). The sample exhibited rich diversity, encompassing a wide range of ethnicities and cultural backgrounds reflective of the multicultural nature of the university. The diversity included students from various ethnic groups, international backgrounds, and diverse cultural experiences. This multicultural composition provides a holistic perspective on the relationship between eco-guilt, pro-environmental behavior and locus of control.

**3.2 Data and Sources of Data**

Participants were required to be aged between 18 and 25 years. Provide informed consent and possess sufficient English language proficiency. Individuals were excluded if they were not part of young adult population.

**3.3 Theoretical framework**

A combination of cognitive, motivational, and personality theories can explain the relationship between eco-guilt, pro-environmental behaviour, and locus of control among young adults. According to Festinger's Cognitive Dissonance Theory (1957), individuals experience psychological discomfort when their environmental values conflict with their actions, and this dissonance may manifest as eco-guilt, which then motivates corrective behaviours such as energy conservation or recycling to restore internal consistency. Guilt-based motivation theory further suggests that eco-guilt functions as a prosocial moral emotion that encourages reparative action when individuals feel personally responsible for environmental harm. Whether this guilt translates into pro-environmental behaviour depends greatly on Rotter's Locus of Control Theory (1966): young adults with an internal locus of control are more likely to believe their actions have a meaningful impact, allowing eco-guilt to facilitate environmentally responsible behaviour, whereas those with an external locus of control may experience guilt but feel powerless to act, reducing behavioural engagement. Self-Determination Theory (Deci & Ryan, 2000) also complements this explanation by emphasising that personal agency and internal motivation strengthen long-term pro-environmental engagement. Thus, through emotional (eco-guilt), cognitive-motivational (behavioural control and responsibility), and personality (locus of control) pathways, young adults' feelings of ecological guilt influence their likelihood of engaging in pro-environmental behaviour.

**3.4Statistical tools and econometric models**

The Statistical analyses of the study were performed using the SPSS IBM 26. Firstly, the descriptive statistics of sociodemographic details were examined and tabulated. Then, a normality test was performed using Kolmogorov-Smirnov tests revealing that the data was not normally distributed. Hence, Spearman Rank Correlation Coefficient will be used to determine the relationship between eco-guilt, locus of control, and pro-environmental behavior among young adults.

**3.4.1 Descriptive Statistics**

The present study comprises a total of 260 participants. The sociodemographic information about the samples (n = 260) showed that participants were aged between 18 and 25 years, with the largest group being 21 years old (22.8%), followed by 25 years (19.9%) and 22 years (18.4%). In terms of gender, 145 participants (56%) were male and 116 (44%) were female, indicating a slightly higher male representation. Regarding domicile, 124 participants (46.4%) were from urban areas, 93 (34.8%) from rural areas, and 44 (16.5%) from sub-urban regions, showing a predominance of urban respondents. The majority were unmarried (183; 68.5%), while 78 (29.2%) were married. Concerning socio-economic status, most participants belonged to the middle class (214; 80.1%), with fewer from the upper (32; 12.0%) and lower (15; 5.6%) classes. Overall, the sample primarily consisted of 21-year-old, unmarried, urban, middle-class males.

## IV. RESULTS AND DISCUSSION

### 4.1 Results of Descriptive Statics of Study Variables

Table 4.1: Descriptive Statics

| Variables | | N | % | Mean ± SD |
|---|---|---|---|---|
| Age | 18 | 17 | 6.51 | |
| | 19 | 8 | 3.07 | |
| | 20 | 19 | 7.28 | |
| | 21 | 61 | 23.37 | 22.19 ± 2.03 |
| | 22 | 49 | 18.77 | |
| | 23 | 28 | 10.73 | |
| | 24 | 26 | 9.96 | |
| | 25 | 53 | 20.31 | |
| Gender | Male | 145 | 56 | |
| | Female | 116 | 44 | |
| Domicile | Urban | 124 | 46.4 | |
| | Sub-Urban | 44 | 16.5 | |
| | Rural | 93 | 34.8 | |
| Marital Status | Married | 78 | 29.2 | |
| | Unmarried | 183 | 68.5 | |
| Socio Economic Status | Upper | 32 | 12.0 | |
| | Middle | 214 | 80.1 | |
| | Lower | 15 | 5.6 | |

Table 4.1 provides sociodemographic information about the samples (n = 161) the results showed that participants were aged between 18 and 25 years, with the largest group being 21 years old (22.8%), followed by 25 years (19.9%) and 22 years (18.4%). In terms of gender, 145 participants (56%) were male and 116 (44%) were female, indicating a slightly higher male representation. Regarding domicile, 124 participants (46.4%) were from urban areas, 93 (34.8%) from rural areas, and 44 (16.5%) from sub-urban regions, showing a predominance of urban respondents. The majority were unmarried (183; 68.5%), while 78 (29.2%) were married. Concerning socio-economic status, most participants belonged to the middle class (214; 80.1%), with fewer from the upper (32; 12.0%) and lower (15; 5.6%) classes. Overall, the sample primarily consisted of 21-year-old, unmarried, urban, middle-class males.

### 4.2 Test for Normality

Table 4.2: Kolmogrov Smirnov Test for Normality

| | Statistic | df | Sig. |
|---|---|---|---|
| Eco-Guilt | .059 | 261 | .026 |
| Pro-Environmental Behaviour | .065 | 261 | .010 |
| Locus of Control | .095 | 261 | .000 |

Table 4.2 provides Kolmogorov–Smirnov test for normality was conducted for the study variables: Eco-Guilt (EG), Pro-Environmental Behavior (PE), and Locus of Control (LC). The results indicated that EG (D = .059, p = .026), PE (D = .065, p = .010), and LC (D = .095, p = .000) all had significance values below .05, suggesting that the distributions of these variables deviate from normality. Hence, the data are not normally distributed, and non-parametric statistical tests were considered more appropriate for subsequent analyses.

### 4.3 Correlation between eco guilt, pro-environmental behavior, and locus of control

Table 4.3: Spearman Rank Correlation Coefficient between eco guilt, pro-environmental behavior, and locus of control

| | Pro-Environmental Behaviour | Locus of Control |
|---|---|---|
| Eco-Guilt | **.121* (.05)** | 0.004 (.947) |
| Locus of Control | -0.09 (.148) | - |

Table 4.3 provides the Spearman Rank Correlation Coefficient conducted to examine the relationship between eco-guilt, pro-environmental behavior and locus of control.

**Discussion**

The analysis showed a small, positive association between the two variables eco-guilt and pro-environmental behavior which has statistical significance, ($r$ = .121, $p$ = .05). This suggests that while higher levels of eco-guilt may slightly motivate individuals to adopt environmentally responsible actions, the effect is weak. Prior research has emphasized guilt as a moral emotion capable of encouraging reparative behaviors toward the environment (Shipley & van Riper, 2021; Ferguson & Branscombe, 2010). The significant but weak result observed in this study may imply that eco-guilt alone does not strongly drive behavioral engagement among young adults, and that other psychosocial factors—such as environmental knowledge, social norms, or intrinsic motivation—could play a more central role (Bissing-Olson, Fielding, & Iyer, 2013).

The correlation between eco-guilt and locus of control was negligible and nonsignificant, $r_{(261)} = –.004$, $p = .947$. This indicates that individuals' locus of control was not meaningfully associated with their experience of eco-guilt. This very weak and non-significant relationship suggests that individuals' beliefs about whether outcomes are determined by personal agency (internal locus) or external forces (external locus) do not substantially influence the experience of eco-guilt. The finding contrasts with theoretical assumptions that locus of control may shape emotional responses to environmental problems (Rotter, 1966; Hanss & Böhm, 2010). A possible explanation is that eco-guilt functions as an affective moral response, less dependent on perceived control and more influenced by value systems and cultural contexts. In fact, some research suggests that cultural orientation moderates the strength of the link between locus of control and pro-environmental concern, with weaker effects in collectivistic societies compared to individualistic ones (Tam & Chan, 2017).

The relationship between pro-environmental behavior and locus of control was small and negative, but also nonsignificant, $r = –.09$, $p = .148$. This finding suggests that locus of control was not a significant predictor of pro-environmental behavior in this sample.

The present study explored the relationships among eco-guilt, pro-environmental behavior, and locus of control. The findings indicated a small positive but non-significant correlation between eco-guilt and pro-environmental behavior. Contrary to expectations, individuals with a stronger internal locus of control were not significantly more likely to engage in pro-environmental behavior. This finding diverges from earlier studies that highlighted internal locus of control as an important predictor of environmental action, with individuals who feel empowered demonstrating greater willingness to adopt sustainable practices (Hines, Hungerford, & Tomera, 1987; Fielding & Head, 2012). The absence of a significant association in this study suggests that external factors such as social influence, institutional barriers, or situational opportunities may override the role of personal control beliefs in shaping environmental behaviors among young adults. Taken together, these findings highlight the complexity of environmental engagement, indicating that eco-guilt and locus of control may not independently predict behavior but could interact with broader contextual and motivational factors.

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