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Exploring the Relationship Between Social Identity, Connectedness to Nature, and Environmental Attitudes Among Young Adults (A Case of Young Adults in Higher Education Institutions in Ekiti State)

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ABSTRACT: This research explored the relationship between social identity, connectedness with nature, and environmental attitudes among young adults in higher education institutions in Ekiti State, Nigeria. A quantitative cross-sectional survey was conducted with 400 respondents aged 18-25 were selected through multistage stratified random sampling from universities, polytechnics, and colleges of education. Data were collected using standardized measures: the Social Identity Scale, the Connectedness to Nature Scale, and the Environmental Attitudes Inventory. Data were analyzed with SPSS, utilizing descriptive statistics, Pearson correlation, multiple regression, mediation, and moderation analyses. Results revealed a significant positive correlation between social identity and environmental attitudes ($r = .542, p < .01$), indicating that young adults with stronger group identities tend to hold more positive environmental views. Mediation analysis showed that connectedness to nature partially mediates this relationship (indirect effect $\beta = 0.18, 95\% \text{ CI } [0.11, 0.26]$), with emotional attachment to nature serving as a key pathway through which social belonging translates into environmental concern. Moderation tests indicated that gender significantly influences the strength of this relationship, with females exhibiting a stronger correlation between social identity and environmental attitudes ($\beta = 0.12, p = .017$). There was no significant moderating effect of residential background. Conclusion, social identity and connectedness with nature are vital predictors of environmental attitudes among young adults, with gender being a notable influencing factor. Based on these findings, it is recommended that environmental education programs and campus campaigns leverage social organizations such as student unions, clubs, and peer networks to promote pro-environmental norms.

KEYWORDS: Social Identity, Connectedness to Nature, Environmental Attitudes, Young Adults, Environmental Education, Ekiti State, Nigeria.

INTRODUCTION.

The escalating environmental crises of the 21st century — climate change, biodiversity loss, pollution, and widespread ecological degradation — have intensified scholarly and policy efforts to understand the psychological, social, and cultural factors that shape human attitudes and behaviours toward the natural environment (IPCC, 2023; UNEP, 2021). Among various demographic groups, young adults (aged 18–25) are particularly significant. This developmental stage known as emerging adulthood is characterized by identity exploration, cognitive maturation, and the formation of enduring values and worldviews (Arnett, 2000, 2015). Environmental attitudes and behaviours developed during this period are both highly malleable and predictive of long-term sustainable lifestyles (Balundè et al., 2020). In environmental psychology, growing attention has been paid to the role of affective and cognitive bonds with nature. Connectedness to nature — the extent to which individuals include nature in their self-concept (Mayer & Frantz, 2004) — and environmental identity — the salience of nature within one's self-definition (Clayton, 2003; Clayton et al., 2021) — have emerged as strong predictors of environmental concern and pro-environmental behaviour (Whitburn et al., 2020; Cleary et al., 2020). Simultaneously, Social Identity Theory (Tajfel & Turner, 1979) offers a complementary perspective, suggesting that identification with social groups shapes attitudes, norms, and behaviours through processes of in-group favouritism, norm internalization, and collective efficacy (Mackay et al., 2021; Schulte et al., 2020). Despite the established contributions of connectedness to nature and social identity to pro-environmental outcomes when studied separately, their interplay remains underexplored. Few studies have examined whether social identity influences connectedness to nature, whether connectedness to nature mediates the effect of group identification on environmental attitudes, or whether synergistic effects exist between the two constructs (Ali et al., 2022;

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Bankole & Adesina, 2024). This gap is especially pronounced among young adults, a population uniquely positioned to adopt or reject lifelong ecological responsibility through higher education, peer influence, and civic engagement (Molinario et al., 2020).

The present study addresses this critical intersection. By integrating social identity theory with the construct of connectedness to nature, it seeks to provide a more comprehensive understanding of the mechanisms underlying environmental attitudes in young adults. The findings hold both theoretical value, advancing multidimensional models of pro-environmental motivation and practical implications for designing effective environmental education, youth mobilization, and policy interventions.

LITERATURE REVIEW.

Social Identity and Environmental Behaviour.

Social identity refers to that part of an individual's self-concept derived from perceived membership in social groups, along with the emotional and value significance attached to that membership (Tajfel & Turner, 1979). In environmental contexts, social identity influences behaviour through group norms, collective efficacy, social influence, and shared emotions (Mackay et al., 2021). When pro-environmental values are embedded in salient group norms, individuals are more likely to internalize and act upon them (Schulte et al., 2020). Empirical evidence shows that identification with environmentally conscious groups, whether organizational, religious, or community-based, strengthens sustainable practices and commitment (Ali et al., 2022; Krettenauer et al., 2024). Tools such as online Social Identity Mapping (Bentley et al., 2020) further highlight how mapping multiple, overlapping social identities can inform targeted interventions.

Connectedness to Nature.

Connectedness to nature reflects the degree to which individuals feel emotionally and cognitively intertwined with the natural world (Mayer & Frantz, 2004). Meta-analytic findings involving over 13,000 participants confirm a robust positive association with pro-environmental behaviour ($r = 0.42$), independent of age, gender, or geographic location (Whitburn et al., 2020). Childhood nature exposure significantly predicts adult connectedness (Cleary et al., 2020; DeVille et al., 2021; Shekari et al., 2024), while altruistic and biospheric values strengthen its link to sustainable action (Pereira & Forster, 2015). Experiential education and direct nature contact remain effective strategies for enhancing connectedness across age groups (Dale et al., 2020; Mann et al., 2022).

Environmental Attitudes.

Environmental attitudes comprise affective (emotional concern), cognitive (beliefs and knowledge), and conative/behavioural (intentions and actions) components (Milfont & Duckitt, 2010). Positive attitudes are shaped by connectedness to nature, environmental identity, and social group membership (Bankole & Adesina, 2024; Noor et al., 2024). Gender and urban–rural differences consistently moderate these attitudes, with women and rural residents often showing higher concern (Anderson & Krettenauer, 2021; Sierra-Barón et al., 2023).

Theoretical models such as the Theory of Planned Behaviour (Ajzen, 1991) and Value-Belief-Norm Theory (Stern et al., 1999) underscore the predictive power of attitudes on behavioural intentions.

Young Adults as a Critical Population.

Emerging adulthood (18–25 years) is a developmentally sensitive period marked by identity consolidation, increased autonomy, and openness to new values (Arnett, 2000, 2015). Young adults frequently display stronger environmental concern and activism than older cohorts (Bankole & Adesina, 2024; Sierra-Barón et al., 2023). However, life transitions, financial constraints, and conflicting peer norms can disrupt sustainable habits (Willis et al., 2020). Educational settings and nature-based programmes have proven effective in strengthening connectedness to nature and pro-environmental dispositions during this stage (Pirchio et al., 2021; Mann et al., 2022).

Identified Research Gap. Although connectedness to nature and social identity independently predict environmental attitudes and behaviour, their combined and interactive effects, particularly the potential mediating role of connectedness to nature, remain largely untested among young adults. Moreover, most existing research originates from Western, individualistic cultures, limiting generalizability to diverse global contexts. The current study addresses these gaps by proposing and testing an integrated model in which social identity influences environmental attitudes both directly and indirectly through connectedness to nature, while also examining demographic moderators.

Statement of the Problem

Although there is an increasing interest in the study of psychological determinants of environmental behaviour, there is still a big gap in the incorporation of social identity constructs into the context of environmental psychology. Although the impact of connectedness to nature (Mayer & Frantz, 2004; Whitburn et al., 2020) and environmental identity (Clayton et al., 2021) have been used as independent variables on pro-environmental attitudes and behaviours, there are limited studies that consider the role of social identity as an independent or mediating factor among young adults.

Furthermore, the association between social identity and environmental concern is most frequently considered without any consideration of the affective constructs, like nature connectedness. Such a disjointed methodology does not allow us to fully understand how group attachments and emotional attachments to nature are the interplay of which attitudes to the environment are formed. As an example, the question of whether young adults with strong identification with social groups that support environmental norms are more inclined to have a more profound emotional attachment to nature, and this, in turn, could cause an impact on their environmental beliefs and actions, is empirically unclear (Schulte et al., 2020; Bankole and Adesina, 2024).

Also, most of the available studies are based on Western, individualistic settings and might fail to capture the cultural, social, and demographic heterogeneities of young adults in developing countries. This restricts the external validity of research and development of culturally responsive

environmental education curriculum. The non-existence of integrated models and region-specific studies hinders our capacity to develop targeted interventions to capitalise on the social identity mechanisms and nature connectedness to enhance environmental stewardship in youth.

Hence, it is urgent to conduct empirical research to examine the relationship between social identity and nature connectedness that affect environmental attitudes among young adults.

Objectives of the Study

The broad objective of this study is to explore the relationship between social identity, connectedness to nature, and environmental attitudes among young adults. Specifically, the study seeks to:

- i. examine the relationship between social identity and environmental attitudes;
- ii. assess the mediating role of connectedness to nature in the relationship between social identity and environmental attitudes;
- iii. investigate whether demographic variables (e.g., gender, urban/rural background) moderate the identified relationships.

Significance of the Study

This research contributes to the study of environmental psychology and social psychology, both theoretical and practical. In theory, it further develops the discussion of incorporating the social identity theory with environmental concern, especially connectedness to nature and environmental attitudes. In this way, it fills one of the most urgent gaps in the literature and suggests a multidimensional conceptualization of the pro-environmental dispositions of young adults.

In practice, the research results of the study will be used in the creation of specific interventions and environmental education programmes to encourage ecological awareness and sustainable behaviour. The study can be used by institutions like universities, young groups of people, and policymakers to stimulate group-based environmental identity and emotional involvement with nature. Besides, in areas where environmental degradation is most pronounced, these approaches may play a decisive role in organising youth-led environmental mobilisation and activism.

Also, targeting young adults, who have been a segment of the population at the border between identity formation and citizenship, the study offers significant evidence to influence educational changes and community-wide education that appeals to youth as a social and emotional phenomenon.

MATERIALS & METHODS

Research Design

The research used a quantitative, cross-sectional survey design that was suitable to test the relationships between variables and determine the trends within a sample population at a particular time.

Participants for the Study

The sample population of this study was made up of 400 young adults aged between 18 to 25 years old who were sampled in tertiary institutions in Ekiti State, Nigeria. The sample was differentiated by the type of institution and academic discipline by taking students from universities, polytechnics, and colleges of education.

Measures

The structured questionnaire that was used in data collection in this study consisted of four sections, which measured the core variables of interest. Section A has obtained demographic data such as age, gender, type of institutions, and residential background (urban or rural). Part B used an adapted version of the Social Identity Scale to measure social identity, and it measured the extent to which individuals identified with, felt connected to, and valued their social groups. Section C measured connectedness to nature by using the Connectedness to Nature Scale, which assessed emotional and cognitive connections to the natural world. Section D measured environmental attitudes based on an adapted Environmental Attitudes Inventory, which measured affective, cognitive, and behavioural orientations to ecological issues. Sections B, C, and D were all rated on a five-point Likert scale (Strongly disagree 1; Strongly agree 5) that provided the opportunity to assess the constructs in a more nuanced manner. The scales were well validated in previous studies, and a pilot study was carried out to verify their reliability and internal consistency in the study population.

Procedures for Data Collection

A set of structured questionnaires was used to collect data among students in selected tertiary institutions, Ekiti State, Nigeria. This was carried out in both paper and online forms in order to reach more people.

Data Analysis

The information retrieved through the questionnaires was coded and fed into the Statistical Package of the Social Sciences (SPSS) to be analysed. The summarisation of the demographic characteristics of the participants was done using descriptive statistics, including frequencies, percentages, means, and standard deviations. The correlation analysis done by Pearson was aimed at testing the relationships between social identity, connection to nature, and environmental attitudes. The predictive role of social identity and connectedness to nature on environmental attitudes was analysed using multiple regression analysis. Indirect effects of connectedness to nature and the moderating effects of demographic variables were also tested by means of mediation and moderation analysis. The level of significance was determined as $p < 0.05$.

RESULTS

Hypothesis 1: There is a significant positive relationship between social identity and environmental attitudes among young adults.

Table 1: Pearson Correlation Coefficients

Variables	1. Social Identity	2. Environmental Attitudes
1. Social Identity	1.000	.542**
2. Environmental Attitudes	.542**	1.000

Note: $p < .01$ (2-tailed)

The results reveal a moderate positive and statistically significant correlation between social identity and environmental attitudes ($r = .542, p < .01$). This indicates that individuals who exhibit stronger identification with their social groups are more likely to hold favorable attitudes toward environmental issues. The strength of the relationship suggests that social belonging and group values may influence the formation or reinforcement of pro-environmental attitudes among young adults. Given the significance level ($p < .01$), we can be confident that this relationship is unlikely due to chance, thereby supporting the hypothesized link between social identity and environmental engagement.

Hypothesis 2: Connectedness to nature significantly mediates the relationship between social identity and environmental attitudes.

Table 2: Mediation Effect Summary

Path	Coeff. (β)	SE	t	p	95% CI
a (Social Identity $\rightarrow$ Connectedness to Nature)	0.47	0.05	9.40	<.001	[0.37, 0.57]
b (Connectedness to Nature $\rightarrow$ Environmental Attitudes)	0.39	0.06	6.50	<.001	[0.27, 0.51]
c' (Direct Effect)	0.29	0.07	4.14	<.001	[0.15, 0.43]
a*b (Indirect Effect)	0.18	0.04	-	-	[0.11, 0.26]

PROCESS Macro – Model 4 (Bootstrap = 5,000 samples, 95% CI)

The results in Table 2 reveal that connectedness to nature partially mediates the relationship between social identity and environmental attitudes. The significant direct effect ($\beta = 0.29, p < .001$) alongside a significant indirect effect ($a*b = 0.18, 95\% \text{ CI } [0.11, 0.26]$) indicates that individuals with stronger social identities are more likely to develop a deeper emotional connection to nature, which in turn enhances their pro-environmental attitudes. This suggests that social identity influences environmental concern both directly and indirectly through the pathway of nature connectedness, underscoring the role of group affiliation in shaping environmental values.

Hypothesis 3: Do demographic variables moderate the relationship between the independent variables and environmental attitudes?

Table 3: Moderation Effect

Predictor	β	SE	T	p	95% CI
Social Identity	0.35	0.08	4.38	<.001	[0.19, 0.51]
Gender (Male = 0, Female = 1)	0.21	0.07	3.00	.003	[0.07, 0.35]
Interaction (SI $\times$ Gender)	0.12	0.05	2.40	.017	[0.02, 0.22]

The findings in Table 3 indicate that gender significantly moderates the relationship between social identity and environmental attitudes. The interaction term ($\beta = 0.12, p = .017$) is statistically significant, suggesting that the positive influence of social identity on environmental attitudes is more pronounced among females than males. While both social identity ($\beta = 0.35, p < .001$) and gender ($\beta = 0.21, p = .003$) independently predict environmental attitudes, the interaction effect confirms that females with strong social identity tend to exhibit greater concern for the environment compared to their male counterparts.

DISCUSSION

The results of this investigation offer support to the role that social identity and nature connectedness play in shaping the environmental attitude of young adults in tertiary institutions, which agrees with the trends elicited in the literature reviewed. The initial important result was that social identity was significantly positively related to environmental attitudes in respondents. This substantiates the claim by Fritzsche, Cohrs, Kessler, and Bauer (2010) who had stated that environmentalism may also be collectivism, which is a type of collective action and is fueled by the processes of social identity. To them, people have a higher tendency to engage in environmentally sustainable attitudes and practices when they feel that such practices fit within the norms and values of the social groups they identify with. On the same note, Fielding and Hornsey (2016) discovered that the expectations of significant in-groups tend to influence their environmentally related attitudes, so that social identification promotes pro-environmental orientations. In this study,

this result suggests that the higher the level of affiliation that the Nigerian youths have with peer groups, campus communities, or other religious affiliations that promote environmental values, the higher they are likely to internalise and express positive environmental attitudes.

The second key result of this research paper stated that the concept of connectedness to nature plays an important role in mediating the association between social identity and environmental attitude. This mediation indicates that social identity, per se, is not necessarily a direct cause of the strong environmental attitudes except when combined with the development of heightened feelings of connection to the natural environment. This is in line with the results of Mayer and Frantz (2004), who confirmed that those who are emotionally and cognitively engaged with nature are the ones who would show more stable pro-environmental attitudes. Moreover, Tam (2013) presented empirical data that linked connectedness to nature to being a psychological process whereby social variables, including identity, are transferred to the thinking and acting in an environmentally friendly manner. Consistent with these views, this paper shows that young adults who build a strong social identity in a group that believes in ecological awareness will be better placed to feel part of nature, and this will increase their interest and dedication to environmental problems.

Also, the researchers discovered that gender acts as a key moderator of the connection between social identity and environmental attitude, as female respondents exhibited a more significant relationship between the two factors. This substantiates the study by Zelezny, Chua, and Aldrich (2000), who discovered that women always highlight greater rates of environmental concern as compared to men, a fact that has been credited to gendered socialisation, empathy, and pro-social values. What this finding alludes to is that whereas group identification is effective with all youths, it is especially useful with female students in strengthening environmentally positive attitudes. This supports the thesis that it is possible that some gender-sensitive measures are required in the development of environmental campaigns and education to capitalise on these differences in responsiveness.

The discovery of residential background to have no significant moderating impact on the relationships of the study variables, however, is contrary to some expectations. Although the literature used in Chapter Two speculates that urban dwellers might experience a higher exposure to environmental problems because they have access to media and infrastructure development, the fact that the effects were not significant in the present study may be attributed to the homogenising effect of the tertiary education system. The Nigerian higher education setting will experience a small background-based difference in environmental attitudes as both rural and urban students will be exposed to environmental knowledge, values, and campaigns through the institution, thereby levelling the differences between the two backgrounds.

To conclude, the results of this study are highly consistent with the empirical studies that have been considered. They verify that social identity is a positive predictor of environmental attitudes, and such a relationship is mediated by a connection to nature. Additionally, they emphasise the role of gender as a moderating variable, and they postulate that residential background might be a less important predictor in the setting of higher education. These observations highlight the importance of group-based identity and emotional connection with nature as some of the major drivers of sustainable environmental attitudes in young adults.

CONCLUSION

The paper finds that social identity and connectedness to nature are the major predictors of environmental attitudes in young adults. Individual environmental attitudes can be affected by strong affiliation with the peer group or institutional groups that espouse pro-environmental values. This power is more efficient, though, when people feel emotionally and psychologically attached to the natural environment as well. Moreover, the factor of gender is influencing it, as females tend to apply group-based values to environmental concern more than males. These results underscore the fact that social and affective aspects should be incorporated in the environmental education and advocacy programmes of the youth.

The research confirms that environmentally responsible behaviour among Nigerian youths cannot only be achieved through the enhancement of knowledge but also through reinforcing the identity-based relationships and emotional connections with nature. It indicates that intervention procedures that strengthen group norms and produce immersive natural experiences can be especially helpful in forming positive environmental attitudes.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are proposed:

- i. Environmental programs on campuses and within communities should leverage existing social structures such as student unions, religious groups, and clubs to disseminate pro-environmental norms and behaviors.
- ii. Schools and universities should promote activities that allow students to engage with nature, such as tree planting, environmental fieldwork, and nature excursions. This can strengthen emotional connectedness to nature, thereby deepening environmental concern.
- iii. Environmental campaigns should recognize the stronger environmental attitudes observed among females and involve them as peer educators, campaign leaders, and role models in sustainability efforts.
- iv. Curriculum developers should embed identity-based and experiential learning models in environmental education to ensure that knowledge is complemented by value-based and emotional engagement.
- v. Future studies should investigate how social identity and connectedness to nature evolve over time and whether sustained exposure to nature influences long-term environmental behavior.

Limitations of the Study

This research has its limitations. To begin with, its cross-sectional survey design does not allow one to draw causal conclusions about the relationships between social identity, connectedness to nature, and environmental attitudes because the data only reflect one point in time. Second, the use of self-reported questionnaires is likely to have caused social desirability bias, whereby respondents exaggerated their pro-environmental attitudes. Third, the sample comprised young adults studying at tertiary institutions in Ekiti State, and this could limit the generalisation of results to other youth groups not

in tertiary institutions and other parts of Nigeria. Along with that, the researchers concentrated on the gender and residential background as the moderating factors (not including socioeconomic status, religiosity, or cultural affiliations), and it is possible that all other factors could have influenced the findings. Lastly, although standardised tools were used, cultural differences peculiar to the Nigerian setting were not necessarily well represented, which restricted the range of interpretation.

Declaration of Conflicting Interests

The author(s) declare that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this study. No financial, personal, or professional relationships exist that could be construed as influencing the design, conduct, or reporting of the research.

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Ethical Approval and Informed Consent.

This study does not involve human participants, animals, sensitive personal data, or any experimental procedures requiring ethical review. Consequently, formal ethical approval from an institutional review board or ethics committee was not required, and informed consent procedures are not applicable.

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