



# Pro-environmental behaviour of college students in relation to Gender and Personality

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**ABSTRACT:** *Pro-environmental behaviour is any kind of human behaviour those are beneficial for the environment from ecological perspectives. In this study researcher made an attempt to find the relationship between pro-environmental behaviour and personality pattern. The relationship of environment friendly behaviour with respect to gender has also been studied. This survey research comprised a total number of 435 college students from four districts of West Bengal. The result shows that female students are more environment friendly with compare to their male counterpart in respect to behavioural outcome. The results also suggest that there is significant correlation with five broad factors of personality to pro-environmental behaviour. Extraversion, Agreeableness, Conscientiousness, and Openness factors of personality show significant positive correlation with pro-environmental behaviour. On the contrary neurotic factor or dimension of personality shows significant negative correlation with Pro-environmental behaviour.*

**Keywords:** Pro-environmental behaviour, Extraversion, Agreeableness,

Conscientiousness, Neuroticism, Openness.

**Introduction:** Environment is a broad concept encompassing the whole range of diverse surroundings in which we perceive, experience and react to events and changes. It concerns man's ability to adapt both physically and mentally to the continuing change in the environment.

Environment is not static. It is dynamic and changes occur even if there is no human interference. In its natural un-interference conditions, the environment of any region is in state of dynamic equilibrium. This is what is called the balance of nature. It is when human's in their greed or say ego to conquer nature for higher and still higher standard of life for the ever increasing population try to over exploit and interfere with nature that this equilibrium is disturbed and in most class to the detriment of all forms of life.

Various environmental problems pose a threat to sustainable environmental development, among which global warming, air pollution, water pollution, environmental noise and loss of biodiversity are important. Most of these problems are rooted in human behaviour. (DunNann Winter & Koger, 2004; Gardner and Stern 2002; Vlek & Steg, 2007). Thus the environmental problems can be

managed by changing the relevant human behaviour so as to reduce its environmental impacts.

Behaviour is anything a person or animal does that can be observed in some way (Morgan, T.C., King, A.R. et.al.1993). Environmental behaviour can broadly be defined as all types of behaviour that change the availability of materials or energy from the environment or alter the structure and dynamics of the ecosystems or biosphere (Stern, P.C., 2000). Pro-environmental behaviour refers to behaviour that harms the environment as little as possible, or even benefits the environment. Pro-environmental behaviour can also be termed as eco-friendly behaviour or environmentally friendly behaviour. We can broadly classify pro-environmental behaviour into two categories: the curtailment and efficient behaviour (Gardner & Stern, 1996, ). The curtailment behaviour brings about a change in routine. It refers to a change in recurring behaviour that can produce a reduction in consumption. For example switching off electric fans and electric bulbs when not in use, use of public transport for daily commute to workplace instead of using private car, recycling of newspapers and waste are some example of curtailing or reducing the impact of environmental damage. The efficiency behaviours on the other hand are one time actions that result in reduced consumption of natural resources. For example, residing close to the workplace and use of energy efficient appliances can lower the misuse of environment. The efficiency behaviour though may only occur once, have a large pro-environmental effect.

It is evident from the literature surveyed by the researcher that there is not sufficient study that probes the area of relationship between Big Five Factors of personality and Pro-environmental behaviour of students especially in Indian context. A few studies have been conducted on the area of gender and environmentalism, but the researcher thinks that it needs to be investigated more and in detail. So from these perspectives the researcher has selected the following topic for a survey research:

*“Pro-environmental behaviour of college students in relation to gender and Big Five Inventory (BFI) of personality”*

**Objectives:** The objectives of the paper are as follows:

- To compare the Pro-environmental behaviour of male and female students.
- To study the correlation between Big Five Inventory of personality dimensions (namely extraversion, agreeableness, conscientiousness, neuroticism, openness) and Pro-environmental behaviour scores.

**Hypotheses:** The researcher proposed the following hypotheses-

**H<sub>0.1</sub>:** The *male-students* and *female-students* do not differ significantly in the mean scores on Pro-Environmental Behaviour (PEB)

**H<sub>0.2</sub>:** There is no significant correlation between *Extraversion* dimension of Big Five Inventory of personality and Pro-Environmental Behaviour (PEB)

**H<sub>0.3</sub>:** There is no significant correlation between *Agreeableness* dimension of Big Five Inventory of personality and Pro-Environmental Behaviour (PEB).

**H<sub>0.4</sub>:** There is no significant correlation between *Conscientiousness* dimension of Big Five Inventory of personality and Pro-Environmental Behaviour (PEB).

**H<sub>0.5</sub>:** There is no significant correlation between *Neuroticism* dimension of Big Five Inventory of personality and Pro-Environmental Behaviour (PEB).

**H<sub>0.6</sub>:** There is no significant correlation between *Openness* dimension of Big Five Inventory of personality and Pro-Environmental Behaviour (PEB)

**Delimitation of the study:** The study was restricted to four districts of West Bengal only. These were Kolkata, South 24 Parganas, North 24 Parganas and Nadia.

**Methodology:** The present study was done through survey method. It followed the quantitative research methodology.

**Sample and sampling technique:** The number of total sample is 435, out of which male is 172 and female is 263. For selection of sample researcher considered four districts of West Bengal. Subsequently the selections of colleges were made following purposive sampling method.

**Tools:** The following research tools were used in the present study for data collection. The tools were selected by applying yardsticks of relevance, appropriateness, reliability, validity and suitability. Brief descriptions of the tools are given herewith.

Pro-Environmental  
Behaviour (PEB) scale  
Big Five Inventory of  
Personality (BFI)

**Statistical techniques:** Descriptive statistics like mean and standard deviation were applied and the inferential statistics like t-test and Pearson's product moment correlation were performed.

**Data Analysis:** At first Kolmogorov-Smirnov Test was performed to verify whether the scores of BFI and PEB are normally distributed or not. Both the data are nearly normally distributed, hence parametric test is applicable for statistical interpretation.

Test Variable	Gender	N	Mean		SD		
PEB	Male students	172	54.39		10.18		
	Female students	263	57.12		8.98		
	<b>Levene's Test for Group Homogeneity</b>		<b>t-test</b>				
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	SE <sub>D</sub>
	1.426	0.233	<b>2.937*</b>	433	0.003	2.73	0.929

\*Sig. at 0.01 level.

**Table 2:** T-Test between male students and female students

	PEB Vs.				
	E	A	C	N	O
<b>Pearson Correlation</b>	0.17**	0.30**	0.43**	- 0.29**	0.11*
<b>Sig. (2-tailed)</b>	0.00	0.00	0.00	0.00	0.02
<b>N</b>	435	435	435	435	435

\*Sig. at 0.05 level, \*\*Sig. at 0.01 level.

[E=Extraversion, A= Agreeableness, C= Conscientiousness, N= Neuroticism, O= Openness]

**Table 3:** Correlation with five factors of personality to Pro-Environmental Behaviour.

**Findings of the study:** So from the data analysis all the null hypotheses

rejected. The findings of the study can be summarized as follows:

- The *male-students* and *female-students* differ significantly in the mean scores on Pro-Environmental Behaviour (PEB).

Female students found more pro-environmental than male.

- It was found that there is significant positive correlation between **Extraversion** dimension of Big Five Inventory of personality and Pro-Environmental Behaviour (PEB).
- It was found that there is significant positive correlation between **Agreeableness** dimension of Big Five Inventory of personality and Pro-Environmental Behaviour (PEB).
- It was found that there is significant positive correlation between **Conscientiousness** dimension of Big Five Inventory of personality and Pro-Environmental Behaviour (PEB).
- It was found that there is significant negative correlation between **Neuroticism** dimension of Big Five Inventory of personality and Pro-Environmental Behaviour (PEB).
- It was found that there is significant positive correlation between **Openness** dimension of Big Five Inventory of personality and Pro-Environmental Behaviour (PEB).

### **Discussion:**

Our findings of significant difference of pro-environmental behaviour in favour of female students in

this present study is consistent with previous researches (Davidson &Freudenberg 1996) and Hirsh J.B. (2010). Eco-feminists claim that females(women) are able to understand relationships in nature better than males (men) by virtue of their role of life-givers and their experience of unification with nature as “ an oppressed party in the patriarchal hierarchy of God-man-woman nature”. But so far, the literature review is concerned, the present researcher thinks that there is too little empirical evidences to firmly state that women are more eco-friendly than men. Because Hines et.al (1986/1987) find no correlation between gender and environmental behaviour in their meta-analysis of studies from the period 1971 to 1986, and five studies examined by Schultz, Oskamp, and Maineri (1995) also fails to show a relationship between gender and recycling behaviour.

The significant positive correlation between PEB and Agreeableness and between PEB and Openness in our findings also matches with the research findings of Hirsh, J.B., & Dolderman, D. (2007) in their paper *Personality predictors of consumerism and environmentalism: a preliminary study*. In fact these findings are consistent with the theoretical model that relate pro-environmental attitudes to higher levels of empathy and self transcendence (Schultz, 2000 & Schultz & Zelezny, 1999), which appear to be related to agreeableness and Openness respectively. Persons who are more empathic and less

self focused appear more likely to develop a personal connection with nature which in turn predicts their pro-environmental attitudes (Bragg, 1996). The findings of significant positive co-relation between extraversion and PEB is also interesting, actually high scores in extraversion dimension indicates more assertive, talkative and thus pro-social. Thus there exists a connection between Extraversion dimension and PEB. Regarding the relationship between Conscientiousness and PEB, the researcher did not find any consistent study, but low Conscientiousness predicts the likelihood of engaging in risky behaviours such as smoking, substance abuse and poor diet and exercise habits (Bogg & Roberts, 2004, Hampson, Andrew, Barckley, Lichenstein & Trull & Sher, 1994). So the positive correlation between Conscientiousness and PEB may be due to the reason that participants who scored high in Conscientiousness might have also score high in Human health management dimension of PEB. Neuroticism is sometimes called emotional instability. According to Eysenck's (1967) theory of personality, neuroticism is interlinked with low tolerance for stressor assertive stimuli. In fact high score in neuroticism dimension indicates nervousness, anxiety prone, depression etc. The findings of negative correlation between neuroticism and PEB indicates nervous and anxiety prone people cannot perform pro-environmental behaviour consistently. This findings also

correlates with the findings of Hirsh and Dolderman (2007), where in their research they also found a negative ( $r = -.09$ ) correlation between Environmentalism and Neuroticism.

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