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Relationship between Connectedness to Nature and Pro-Environmental Behaviour of University students and Professional in India

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Abstract

Despite feeling responsible and concerned towards Nature and ecological crisis, young people are unable to inculcate adequate pro-environmental behaviour especially at civic level. Hence, this study explores the relationship between Connectedness to Nature and Pro-environmental behaviour of University Students and Professionals in India. Results indicate that University students are inclined towards participatory actions (r=0.227, p<=0.01) and professionals towards both participatory (r=0.243, p<=0.05) and leadership actions (r=0.265, p<=0.01) for protection and sustenance of environment.

Keywords– *Connectedness to Nature, Pro-Environmental Behaviour, Participatory Action, Leadership Action*

Introduction

Human beings' interaction with Nature traces back to evolution and researches suggest that predominately humans have been largely benefited with this interaction. Apart from being profited by tangible products and by-products of the Nature, humans have also been benefited psychologically with improved attentional abilities (Berman, 2009), enhanced well-being (Bowler et al, 2010) and greater restorative effects (Harting, 1991) due to more contact with Nature. Studies suggest that perception of discomfort is reduced along with increased pain tolerance in presence of plants (Lohr,2007; Lohr and Pearson-Mims,2000).

Despite feeling responsible and experiencing the benefits of Nature, people tend to over-use and exploit it out of greed which is leading to loss of biodiversity and dawn of ecological crisis. This can be attributed to the conflict between their short- term interests (individual) and long-term interests (collective) which demands limiting off egocentric inclinations over eco-centric or anthropocentric ones. (Nordlund and Gravill, 2003; Steg et al 2005; Samuelson, 1990). Despite the difference, some choose to behave more pro-environmentally whereas some do not. (Linda Steg and Judith I.M.de Groot 2012). This has

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led to insufficient stir among people regarding climate change and its consequences which currently demands citizen activism with 'grass-root' organization. (Rouser-Renouf, 2014). Hence, this study explores the relationship between connectedness to nature (CNS) and pro-environmental behaviour (PEB) of 212 university students and professionals of India.

Connectedness to Nature

Perrin et al (2009) have stated that Connectedness to Nature is a persons' belief and attitude regarding the connection and not just mere emotional connection. This concept was introduced by Schultz to study the relationship between an individual and the natural world from a psychological perspective. (Schultz Pw et al 2007). According to Schultz (Schultz Pw et al 2002), Connectedness to Nature is "*the extent to which an individual includes nature within his/her cognitive representation of self*".

Pro-Environmental Behaviour

Pro-environmental behaviours are defined as the "*intentional, effective actions that correspond to social and individual demands and that result in the preservation of the physical environment*" (Corral,V., 2010). It is also defined as voluntary intentional behaviour that results in the benefit of physical environment with greater sustainable development (Susan Alisat and Manuel Reimer, 2015). Meanwhile Stern (2000) defines environmentally important behaviour as, "degree to which it alters the obtainability of materials or energy from the environment or changes the structure and dynamics of ecosystem or biosphere itself.

Review of Literature

Studies suggest that Connectedness to Nature within an individual can determine and influence the occurrence of pro-environmental behaviour (Korpela and Ylen, 2009; Mayer FS et al 2009). In fact, those who scored high on connectedness with nature had developed more positive life attitude and involved in actions to protect and preserve Nature (Howell et al 2011).

Higher productivity, better social interactions, increased attention, reduced stress, violence and mental fatigue along with faster recovery from illness are few of the documented positive benefits of interaction with Nature and exposure to trees. (Ulrich,1984; Kuo and Sullvian, 2001; Lohr et al, 1996; Wells, 2000; Cimprich, 1993; Tennessen and Cimprich, 1995;) Feeling responsible towards Nature, internal locus of control, verbal commitment, knowledge and concern about issues are few important factors behind occurrence of pro-

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environmental Behaviour. (Hines, Hungerford and Tomera,1986; Bamberg and Moser, 2007; Cottrel,2003).

Multiple factors are responsible behind the exhibition of pro-environmental behaviour like demography, internal influences (emotions, attitude, values, motivation, priorities, locus of control and pro-environmental knowledge) and external (economic, social, cultural and institutional) influence (Kollmus and Agyeman 2002).

According to a study by Baumgartner (2019), individual differences were observed in cortical baseline activation of those who performed pro-environmental behaviour leading to more frequency of the behaviour. Meanwhile a study by Taylor (2009) suggests that a mere exposure to natural park for twenty minutes can also improve the attention abilities of ADHD population as well.

Rationale

Studies suggest that people feel emotionally attached towards Nature but perform insufficient pro-environmental behaviour, even if they do, it is at personal level not at civic or societal level. Thereby indicating gap between feeling for Nature and responsible behaviour towards protection and preservation of Nature especially at organisational level.

Methodology of study

Using quantitative approach, an attempt has been made to understand the relationship between Connectedness to Nature and Pro-Environmental Behaviour of Indian university students and professionals to gain knowledge about their engagement at personal and civic pro-environmental behaviour.

Objective- This study intends to explore the relationship between Connectedness to Nature and Pro-environmental Behaviour of university students and professionals.

Research Design – The present study was conducted on Exploratory Research Design.

Hypothesis –

1. There will be positive and significant relationship between Connectedness to Nature and Pro-Environmental Behaviour of University Students.
2. There will be significant and positive relationship between Connectedness to Nature and Pro-Environmental Behaviour of Professionals.

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Sample- Data was collected through incidental sampling of 212 people comprising of 152 university students and 60 professionals belonging to diverse backgrounds like engineers, doctors, psychologists, lawyers, counsellors etc with age range from 18 to 35.

Data Collection – Data collection was done through online platform using google forms

Operational Definition- In the current study:

Connectedness to Nature are the scores inferred from the connectedness to nature scale which is developed by Mayer and Frantz (2004).

Pro-environmental Behaviour are the scores on the Environmental Action Scale (EAAS) which is developed by Susan Alisat and Manuel Reimer (2015).

Tools-

- **Connectedness to Nature Scale –** developed by Mayer and Frantz (2004), is a 14 item, unidimensional scale used for measuring the affective or emotional connection with nature; having a Cronbach s' $\alpha = 0.848$.
- **Environment Action Scale-** devised by Susan Alisat and Manuel Reimer in 2015, is an 18-item scale which focuses on measuring societal level engagement of pro-environmental behaviour to bring about a collective impact ranging from low level **participation** to highly evolved **leadership** actions having a Coefficient α 0.92 and Item-total correlation ranging between 0.43 – 0.80.

Results

Table 1- Correlation between the variables-Connectedness to Nature and Environment Action Scale score of University Students and Professionals

Correlations					
Group of			***Connectedness to Nature***	***Pro-Environmental Behaviour***	
				Participatory action	***Leadership action***
University Students	***Connectedness to Nature***	Pearson Correlation	1	**.227****	-.058
		Sig. (2-tailed)		.001	.413
		N	212	212	212
	Participatory action	Pearson Correlation	.227**	1	.703**
		Sig. (2-tailed)	.001		.000

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		N	203	214	214
	Leadership action	Pearson Correlation	-.058	.703**	1
		Sig. (2-tailed)	.413	.000	
		N	203	214	214
Professionals	***Connectedness to Nature***	Pearson Correlation	1	**.243***	**.265****
		Sig. (2-tailed)		.012	.006
		N	107	105	105
	Participatory action	Pearson Correlation	.243*	1	.766**
		Sig. (2-tailed)	.012		.000
		N	105	106	106
	Leadership action	Pearson Correlation	.265**	.766**	1
		Sig. (2-tailed)	.006	.000	
		N	105	106	106
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

Discussion

The study intends to explore relationship between Connectedness to Nature and Pro-Environmental Behaviour (Participatory and Leadership Actions) of University students and professionals in India.

From table 1 it is inferred that:

- There is a weak positive correlation between Connectedness to Nature and Participatory actions of University Students in India ($r = 0.227$, $p<=0.01$).
- There is a weak positive correlation between Connectedness to Nature and participatory actions of Indian Professionals ($r = 0.243$, $p<=0.05$).
- There is a weak positive correlation between Connectedness to Nature and Leadership Actions of Indian Professionals ($r = 0.265$, $p<=0.01$).

University Students

It indicates that university students are comfortable in performing **participatory actions** ($r= 0.227$, $p<=0.01$)for protection of environment like by responding to items like - ", "Educated

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myself about the environmental issues" , "Participating in nature conservation event like planting trees", "Talked to others about environmental issues" ,"Participated in an educational event related to environmental concerns", "Use online tools to raise awareness about the environmental issues" on the Environment Action Scale.

Since the students are not primary earning members of household hence, they may prefer to participate and gain knowledge about the environmental issues and the education system should focus more on developing awareness, knowledge and concern towards Nature. Practice of student participation model for achieving campus sustainability can become a life-long knowledge and healthy habit for student's future work and homeplace thereby contributing to sustainability of planet and its resources (Wing-Kin Wu, 2015). A study in United States by Keselman et al (2013) suggests initiatives like environmental health resources for students and teachers, collaborating with teachers for school outreach, building activities and lesson plans etc to educate children can eventually help gain social activism to combat ecological crisis.

Professionals

The professionals have displayed positive correlation with both **participatory** ($r=0.243$ $p<=0.05$) and **leadership** ($r=0.265, p<=0.01$) actions which includes actions like- "Financially supported a cause" and "spent time working with a group / organization that deals with the connection of the environment to other societal issues such as justice or poverty." This indicates that people do realise the impending environmental crisis and are willing to serve their part in it. This scale has helped assessing actions on a continuous dimension ranging from less intense citizenship behaviour to very involved political leadership actions (Alisat and Manuel 2015).

However, Stern et al (1999) states that the difference between those who engage in a leadership role and those who are involved in a supportive or participatory role is 'fuzzy' because people often move back and forth in these roles (Snow et al. 1986) as they depict different level of engagements under same dimension of environmental action.

A country like India, with maximum agrarian occupation (58%) including cultivators (land owners) and labourers (Saiyed and Tewari, 2004) can exhibit innate feelings of responsibility, concern and connectedness towards Nature because their livelihood depends on it directly or indirectly. As explained by Bechtel et al 1999, citizens who belong to traditional societies have been found to concurrently hold ecological and utilitarian outlook towards environmental issues that inclines to echo a holistic orientation of human-environment relationship in which

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the limitation between utilitarianism and biocentrism has been blurred to create a synergistic outlook more agreeable with local socio-cultural values. (Van et al. 2006).

Further study is required to understand the effect of connectedness to nature on various pro-environmental behaviour.

Conclusion

It is concluded that Connectedness to Nature is positively related to pro-environmental behaviour among university students and professionals in India where former tend to perform participatory actions and latter perform both participatory and leadership actions for the conservation and sustenance of Nature. These are small steps for giant leap in future and there is need to gain more momentum at societal level to fight off ecological crisis and bring back balance in Nature.

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