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The Role of Locus of Control in Pro Environmental Attitude and Behavior of Youth

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The purpose of the present study was to find out the role of locus of control in pro environmental attitude and behavior of youth. Sample of the study consisted of six hundred and ninety-two (N= 692) male and female adolescents, with age range 18-25 years and educational background of Intermediate, BS and Masters, from Peshawar Khyber Pakhtunkhwa. A self-constructed environmental attitude questionnaire, and a locus of control scale, was administered to the subjects selected through convenient sampling method. According to results moderate locus of control was found to be significant predictor of environment friendly attitude in youth. This research will help to focus on the ways to create awareness in youth by arranging workshops and recognizing people with moderate locus of control can help in a better way to promote environmental friendly attitude and behavior. Limitations of the study as well as implications for future research and practice were also discussed.

Keywords: pro-environmental attitude and behavior, youth and locus of control

Environmental deterioration is a great challenge for the mankind today (Dunlap & Marshall 2007).Some of the major present day environmental problems include climate change, loss of biodiversity, deforestation, shortage of natural resources, pollution and overpopulation (Oskamp, 2000).These environmental problems are posing serious hazards to human health and world's economy and their adverse effects are increasing day by day. Insufficiency of water is a common problem of many rural areas, most of the life threatening diseases are caused by water and air pollution. Floods and droughts increase as a result of changes in the climate, and people are required to move around due to such changes.

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Individual and combined human acts are considered mainly accountable for these perilous changes, and some of these changes are irreparable (Moran, 2010).

Pakistan is faced with many environmental problems. Ambient air quality in urban areas, increasing population, soil erosion, water shortage, marine pollution and insufficient waste management are some of its environmental problems (Asian Development bank [ADB], 2008; Pakistan Environmental Protection Agency [PEPA], 2005). Studies conducted on green consumerism by Pakistani researchers have started to come into view in international journals in last three to four years (e.g. Ahmad, Ali, Florentina, & Stancu, 2012; Ahmad, Shah, & Ahmad, 2010; Ali, Khan, Ahmed, Shahzad, 2011; Shaikh & Rahman, 2011; Subhani, Hasan, Osman, Rudhani, 2012).

Thus the research on environmental behavior has also sown its seeds in Pakistan. But there is still a need for more researches on environmental behaviors. It needs to be recognized, through quantitative and qualitative research, that what socio demographic factors persuade environment friendly behaviors. This understanding can be used in scheming programs and policies that promote environmental friendly behaviors and endorse responsible environmental citizenship in Pakistan (Martinsson & Lundqvist, 2010).

Attitudes consist of cognitive, emotional and affective elements, but environmental attitudes might be better explained as having conservation and consumption dimensions. Pro-environmental attitudes ascend and descend with contemporary events and fluctuate with age, gender, personality, socioeconomic status, urban-rural residence, politics, nation, education, experience, religion, values and environmental knowledge. Environmental education aims to improve environmental attitudes. The mass media have been both helpful and harmful in developing environment friendly attitudes (Gifford, 2012).

According to Kollmuss and Agyeman(2002) environment friendly behaviors are mindful actions which decrease the negative effects of human activities on the environment or which lead towards the betterment of environment.

Environmental psychology focuses on the series of multifaceted interactions between humans and their environment. Environment is of two types one is physical environment and the other is social environment. Social environment is made by people and physical environment is made by physical objects (Kollomus & Agyeman, 2002). Here we are

particularly referring to natural environment and the energy resources. Natural environment includes plants animals' humans and energy resources like water, air, etc

The relationship between environmental concerns and personality is a worthwhile domain to study but unfortunately we have a very little research in this area. In addition, only a few studies have ever tried to find out how knowledge or other factors like locus of control are related with environmental attitude and behavior. People with Internal locus of control are usually more inclined towards stronger pro-environmental behaviors (Ando, Ohnuma, Blöbaum, Matthies, & Sugiura, J. 2010). Locus of control is an idea regarding that if the consequences of our acts are dependent on our own behavior (internal locus of control) or on proceedings which are not in our control (external locus of control) (Rotter, 1966).

People with internal locus of control can be easily influenced to extend a caring behavior towards environment (McCarty &Shrum, 2001).

It is a common observation that in Pakistani society people show pro environmental attitudes but don't actually tries to improve or save environment by showing environment friendly behaviors or by trying to stop people from destroying the environment. The present study is designed to find out the impact of Empathy on pro environmental attitudes and behaviors of youth in Peshawar.

Objectives

- To study the role of locus of control in the youth's pro environmental attitude and behavior.
- To investigate the relation between satisfaction of the youth with their existing environment and locus of control.

Method

Sample

Six hundred and ninety two (N=692) students from a public sector university participated in the study. Their ages ranged from 18 to 25 years with a mean of 20.86 and standard deviation of 1.822. In terms of gender, 377of the respondents were males and 315 were females. One hundred and seventy-four(n=174) were with intermediate and five hundred and eighteen (n=518) were students of BS/Masters. 319 subjects were from rural areas and three hundred and seventy-three (n=373) were from urban

areas. Sixty-five (n=65) respondents were from upper-class five hundred and seventy-three (n=573) from middle-class and fifty-four (n=54) were from lower-class. Convenient sampling method was used in data collection, the subjects included only those students who were willing and interested to participate in the study and fill the questionnaires.

Instruments

Environmental Attitude Questionnaire

A self-constructed environmental attitude questionnaire measuring attitude and behavior towards environment was used. It consisted of 18 items.10 items measured the attitude whereas 8 items measured the behavior towards environmental cleanliness and conservation. A four and five point likert scale was used for different items, for which the responses ranged either from 1-4 or from1-5 showing increasing level of agreement.

Locus of Control Scale

Nowicki& Strickland (1973) locus of control scale was used to measure the people's levels of internal, external and moderate locus of control. The scale uses a forced-choice format, asking subjects to select one of the two promises for every question. A high score will indicate external locus of control and a low score will indicate internal locus of control. Moderate score will indicate intermediate or moderate locus of control.

Procedure

Before initiating the formal research permission was taken from the the head of each department of the university. The subjects were contacted in groups. After establishing rapport and getting the informed consent, demographic information sheet, a self-constructed environmental attitude questionnaire and Locus of control scale (Nowicki& Strickland ,1973), were administered successively on a sample of 692 university students with the age range of 18-25 years. Respondents were requested to fill all these questionnaires honestly and completely. In case of any difficulty faced by the respondents in understanding of language or idea, they were helped accordingly.

Results

Table 1

Psychometric Properties of the Sub Scales of Environmental Attitude Questionnaire (N=692)

Scales	No. of items	Mean	SD	α	Range	
					Potential	Actual
ATEC	10	36.68	4.49	.74	10-42	19-42
BTEC	8	28.95	5.54	.77	8-40	10-40
ATW	4	6.38	2.62	.61	4-16	4-16
BTW	2	5.51	2.29	.67	2-10	2-10
AER	2	7.34	1.09	.55	2-8	2-8
BER	2	7.32	1.50	.50	2-9	2-9
ATE	3	9.12	1.96	.45	3-12	3-12
PIP	5	12.95	4.31	.76	5-23	5-23
FE	2	8.61	1.705	.697	2-10	2-10

Note: ATEC: Attitude Towards Environmental Cleanliness and Conservation, BTEC: Behavior Towards Environmental Cleanliness and Conservation, ATW: Attitude Towards Wild life, BTW: Behavior Towards Wild Life, AER: Attitude Towards Energy Resources, BER: Behavior Towards Energy Resources, ATE: Attitude Towards Environmental Rules, PIP: Perceived Institutional Performance, FE: Family Education.

Table 2

Mean Difference SD, t-value of Youth on Variables of Pro-Environmental Attitude and Behaviors on the Basis of Types of Locus of Control Attitude Towards Environment Sub Scales (N=692)

	Moderate Locus (n=315)		External Locus (n=377)				CI (95%)		Cohen's
Scales	M	SD	M	SD	t(690)	p	LL	UL	d
ATEC	38.37	3.61	36.45	4.56	3.63	.001	1.04	2.79	.47
BTEC	29.98	5.66	28.82	5.52	1.77	.07	-.16	2.48	.21
ATW	5.60	2.18	6.49	2.66	-2.85	.004	1.40	.35	.37

BTW	5.44	2.46	5.52	2.27	-.26	.78	-.64	.49	.03
AER	7.53	1.02	7.31	1.10	1.67	.09	-.02	.45	.02
BER	7.62	1.31	7.28	1.51	1.93	.05	.02	.65	.24
PIP	12.69	4.33	12.99	4.31	-.57	.56	-1.31	.72	.07
ATE	9.33	2.09	9.09	1.94	1.04	.29	-.24	.72	.12

Note: ATEC: Attitude Towards Environmental Cleanliness and Conservation, BTEC: Behavior Towards Environmental Cleanliness and Conservation, ATW: Attitude Towards Wild Life, BTW: Behavior Towards Wild Life, AER: Attitude Towards Energy Resources, BER: Behavior Towards Energy Resources, PIP: Perceived Institutional Performance, ATE: Attitude Towards Environmental Rules

Table 2 shows mean difference of subjects with Intermediate and external Locus of control on subscales of Environmental attitude scale. Subjects with moderate locus of control show significantly higher means on attitude towards environmental cleanliness and conservation and on behavior towards wild life whereas subjects with external locus of control show significantly higher means on attitude towards energy resources.

Table 3

Frequency Distribution of Satisfaction of Youth with their Environment and the Type of Locus of Control (N=692)

Groups	Satisfied n=233	Not Satisfied n=459	Odds Ratio	$\chi 2$	p
External locus	18(7.7%)	63(13.7%)	1.900		
Moderate Locus	215(92.3%)	396(86.3%)		5.38	.02

Note: df=1

Table 3 shows cross tab between different types of locus of control in subjects and the level of their satisfaction towards environment. The result shows that the youth satisfied with their surrounding environment are7.7% whereas 92.3% are with moderate locus of control. In case of non-satisfied youth with external locus of control are 13.7% and 86.3% are with moderate locus of control. So reported findings show that table is statistically significant at <.05 level.

Discussion

Present study was aimed at determining the role of Locus of Control in pro environmental attitude and the subsequent behavior of youth. Further it aimed at providing with intervention strategies which can be helpful in promoting such attitudes and behaviors.

In this section, the results are thoroughly discussed, and each research question is separately addressed. Meanings and significance of all the findings are also discussed accordingly. A conclusion is made at the end along with addressing limitations and giving recommendations for certain intervention strategies and future research.

There are many research studies focusing on the environmental concerns in people of other countries and the factors affecting this concern. This research however investigated that which level of locus of control plays a significant role in promoting pro environmental attitude as well as behavior in Pakistani youth.

Results showed that there was not a single subject with internal locus of control present in the sample of N=692. The remaining two groups however show significant differences in their attitude towards environmental cleanliness and conservation, attitude towards energy resources and behavior towards wild life. People with moderate locus of control had a significantly better attitude towards environmental cleanliness and conservation and behavior towards wild life, whereas people with external locus of control have a significantly better attitude towards energy resources.

Fielding and Head (2011) investigated determinants of young Australians' pro-environmental attitudes and behaviors. Internal locus of control in young people was found to be significantly related with environment friendly attitude and behavior. These findings are in coherence with the present study to some extent. A similar trait-like control concept is self-efficacy. A sense of self-efficacy facilitates recycling behavior in mainland China (Tang, Chen, & Luo, 2011) and in Spain (Tabernero & Hern´andez, 2011) and electricity conservation among Danish consumers (Thøgersen & Grønhøj, 2010),

Environment is an integral part of healthy body and mind. It is therefore recommended that policy makers must pay special attention to environmental protection and cleanliness need to create an environment friendly attitude and behavior through encouraging research in this area of Psychology which would be very helpful in developing guidelines for public education and waste management programs. People with external

and moderate locus of control can be better educated regarding environmental issues and can be made to educate others also.

Summary and Conclusion

Pro-environmental attitude and behavior is a worthwhile area to be studied. Present research focused on the role of Locus of Control in determining pro environmental attitude and behavior in youth. A self-constructed environmental attitude questionnaire and Locus of control scale (Nowicki& Strickland ,1973), were administered successively on a sample of 692 university students with the age range of 18-25 years.

Results showed that subjects with moderate locus of control had a significantly better attitude towards environmental cleanliness and conservation, energy resources and a better behavior towards wild life whereas subjects with external locus of control had only a significantly better attitude towards energy resources.

Limitations and Recommendations

Few limitations were found while conducting the present study. The possible limitation of the study concerns the convenient sampling method and generalizability of the findings. Although the sample size of N=692 seems to be large but as it was selected only from public sector university of Peshawar. Thus it might not be an adequate representative of the whole population of the province specifically and of the country generally. Same research is needed to be carried out in the other cities of Pakistan in order to have better generalizability of findings. Similarly, it would also be more appealing to perform a comparative study of the present population with those with other age groups especially children, adults and elderly.

The study was purposely restricted to measuring specific factors in relation to environmental attitude and behavior. There were few other variables that had been already found in research to be related to pro environmental attitude and behavior and that were not examined in the current study. It is recommended for future researchers to perform researches on some other dimensions for developing an accurate and better understanding of pro environmental attitude and behavior.

Another possible limitation lies in the fact that the environmental attitude questionnaire was a self-constructed questionnaire and was not properly standardized or validated against a well standardized measure of

environmental attitude. Chronbach alpha reliability was .83 for the questionnaire with a sample of (N=692) was satisfactory. Still it needs proper standardization for use in future research or other such studies.

Furthermore, the face validity of environmental attitude questionnaire may have caused respondents to follow the response style of social desirability. Some participants might have tried to present themselves in a good light. It is therefore recommended that the use of subtle items can help to control such behaviors in future. It would be needed to carry out studies with the above given modifications in order to get more valid, useful and diverse results.

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