

AGE COHORTS AS DETERMINANTS OF ENVIRONMENTAL CONCERNS: A STUDY OF THE TANGKHUL NAGAS

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Abstract

The study investigates the relationship between age and environmental awareness among the Tangkhul Nagas in Manipur, India. It emphasizes that environmental concerns are significantly correlated with age, suggesting that younger individuals exhibit greater ecological awareness compared to older generations. The research highlights the impact of generational experiences on environmental attitudes, indicating that the decline in environmental concern with age may be attributed to differing life experiences rather than age alone.

Keywords: Manipur, Environmental concerns, age, relationship, generational, experiences.

Introduction

There is a growing recognition that human actions are causing harm to the natural environment. According to polling statistics, a significant number of individuals worldwide consider environmental issues to be one of the most significant societal concerns of our day (Dunlap, 1991; Dunlap, Gallup, & Gallup, 1993)^{i,ii}. As a species, humans have significantly influenced the land, water, and air of the globe, surpassing the impact of other species. We have extensively altered the world to accommodate our comfort and perceived necessities, leveraging our exceptional technical prowess and agility. Through our actions, we have extensively utilized a significant number of the Earth's natural resources, displaced various species, and deposited the waste generated from our endeavors to enhance our way of life in various locations worldwide, including bodies of water such as pools, pits, seas, lakes, and rivers, as well as landfills on land, even on the most elevated mountains, and in the atmosphereⁱⁱⁱ. Furthermore, it is acknowledged that environmental issues are just in their initial stages, and their intensity is expected to escalate in the forthcoming years^{iv}.

As more and more people become environmentally conscious, a growing number of social scientists are investigating people's opinions on environmental issues through survey research, leading to the conclusion that Various factors, including as education, age, place of residence, political ideology, and others, have been found to be associated with different measures of environmental beliefs^v.

Research conducted by Zuschlag and Whitbourne in 1994^{vi} has revealed that the impact of an individual's birth group on their behaviour is more significant than the influence of their

education. Numerous other research has also consistently found that age is a significant determinant of the environmental attitudes (Arcury & Christianson, 1993; Honnold, 1984–85)^{vii,viii} of survey participants when considering their socioeconomic factors. Thus, Age is a crucial determinant of environmental attitudes, as younger individuals tend to be more ecologically aware. (Tran Cong Chinh, 2021)

The Tangkhul, similar to all tribal communities, possess a strong connection to the natural world. This is evident not just in their myths or folktales but also in their daily lifestyles. Tangkhul villages are typically densely populated and located atop hills, surrounded by dense forests. The village has traditionally served as the paramount political, social, economic, and religious entity, fostering profound spiritual, social, and cultural connections among its inhabitants. The village councils served as forest guardians and overseers, ensuring the proper management of village forests and other ecosystems for the conservation of natural resources. In addition, they would designate the specific location for huming cultivation each year. To facilitate the restoration of the land's fertility, the area would be left uncultivated and off-limits to locals for a minimum of four to five years.

Significant changes have occurred among the Tangkhul Nagas in various aspects such as economics, politics, social dynamics, and religion. The shift from a traditional to a modern way of life has been complex and challenging. As the people enthusiastically abandon their previous religious beliefs in favour of Christianity, their attitudes towards customs, cultural practices, and their perspectives on the natural world's guidance have also transformed. Christianity diverged from the majority of customs and traditions. The dynamics of the human-nature relationship have undergone transformation since the advent of Christian missionaries in the Tangkhul Naga highlands. Meanwhile, the pursuit of financial gain in the contemporary economy has led to the exploitation of the abundant resources in the land of Tangkhuls, driven by the desire for progress and enhanced material living standards. Ho-ram contends that due to their lack of awareness of the worth of their products and resources, they willingly relinquished all trade and commerce privileges to other groups. In the face of these difficulties, the Tangkhuls are grappling with the task of preserving the symbiotic connection between humans and nature that was once an integral aspect of their cultural heritage.^{ix}

Literature review

Van Liere and Dunlap (1980)^x demonstrated in a significant review that the coefficients for age exhibit considerable strength. The coefficients generally fall within the range of -.2 to -.4, indicating a moderate negative correlation between age and environmental concern. He suggested that elderly adults may have lesser levels of environmental concern compared to younger individuals because their actions are influenced by their desire to retain or alter their position within the prevailing social hierarchy.

Stephen L. Klineber (1980)^{xi} found that age and education are the only two demographic characteristics that consistently show a correlation with environmental concern, among the eight variables examined (gender, education, age, ethnicity, income, religion, etc.), across several metrics. It is evident that younger individuals with higher levels of education tend to show greater concern for environmental issues and demonstrate a stronger dedication to environmental conservation, regardless of how the dependent variable is assessed.

In his 1979 publication "Age and Environmental Concern," Frederick H. Buttel^{xii} explores the relationship between age and levels of concern for the environment. A Multivariate Analysis

has firmly established age as the primary socioeconomic factor influencing public environmental opinions, based on the data from the study and related research findings.

Tran Cong Chinh (2021)^{xiii} The study identified a correlation between gender and environmental concern. The regression models conducted in the study demonstrated a strong and statistically significant positive correlation between males and environmental concern. This implies that men are more inclined to be concerned about the condition of the environment compared to women. Additionally, it has been observed that younger individuals exhibit a higher level of environmental concern compared to older individuals.

Hypothesis

1. H1 Younger individuals exhibit greater concern for environmental degradation compared to older individuals.
 - H1a people in the 80s show similar environmental concerns to those in the 20s
2. H2 there is sig. correlation between age and environmental concern.

Methods

Participants

The significance of an individual's birth group has been discovered to have a greater impact on moulding the behaviour of the group (Zuschlag and Whitborune 1994)^{xiv}. Various demographic categories are employed to accurately quantify the size of a group and categorise its behaviour. (Marker, 2004; Collins, 2001; Duisenbekova, 2023)^{xv}

- *0-20 years-* The current stage of development of this entity is still in its early stages, but certain attributes are already becoming apparent. These include a high level of proficiency in technology, a strong awareness and concern for social and environmental issues, and a propensity for entrepreneurial endeavours. Additionally, in comparison to earlier generations, they are typically more outspoken, personally driven, and value oriented.
- *21-40 years-* An extremely gregarious cohort that utilises social media, mobile devices, and the internet to maintain communication with their acquaintances, relatives, and coworkers and exhibiting certain traits commonly found in individuals in the previous age group.
- *41-60 years-* were open to more freedom and the first to accept television and films. They have seen historic shifts and might be referred to be the original prophets of social and economic transformation.
- *61-80 years* Experienced the process of nation-building that occurred after India gained independence from British domination. The political, social, and economic transformations that occurred during this age had a significant impact on the perspectives and principles of this generation. Initially, their perspectives were conservative and adhered to the prevailing social norms of the time. Despite the fact that they may not possess the same level of technological proficiency as younger generations, they have embraced technology more rapidly as time has progressed.
- *81 years-* They appreciate hard effort, discipline, and tradition. Excellent workers, frugally, selflessly, and incredibly practical. Not much space was left over for "dreaming." They watch society's frenetic transformation with considerable disapproval since they have no experience with modern technologies. Hence, they were also known as traditionalists.

Research design

The sample was examined using a quantitative "after-the-fact" research design, or x post facto research design. The quasi-experimental-demonstrate a cause-and-effect link between a dependent and an independent variable- research technique known as "x post facto" looks at how an independent variable influences a dependent variable that was already present before the investigation.

Location

The study was done in Ukhrul district, one of the districts of Manipur. Ukhrul District is situated in the northern part of Manipur State. It is a hilly district known for its picturesque landscapes. The district is inhabited by the vibrant Tangkhul people, who are the predominant tribe. There is also a small population of other tribes, such as the Kuki.

Sampling and data collection

The study focused on the citizens of Ukhrul district as the target group. The sample was chosen from the four blocks of the Ukhrul district, with each block being represented by three to four villages. The age range of residents is from 0 to over 80 years old. Sample conducted using a random sample method.

Data collection was conducted using the methods of observation, interviews, and questionnaire completion. Observations were conducted to ascertain the prevailing conditions at the study site. The interview instrument consists of a series of questions. A survey was administered to the local populace in order to gauge their level of environmental consciousness. A Likert scale with five possible responses was utilised in the survey tool; the scores ranged from 1 (strongly disagree) to 5 (strongly agree). In total, there were five possible outcomes.

Findings and results**Descriptive statistics and t- test**

Table 1

Sample details

Gender	Total	percent	Age	Total	Percent	Occupation	Total	Percent
Male	240	60.3	0-20 yrs	12	3	Cultivator	136	34.2
female	158	39.7	21-40 yrs	224	56.3	Teacher	72	18.1
			41-60 yrs	98	24.6	Self-employed	44	11.1
			61-80 yrs	56	14.1	Student	32	8.0
			>81 yrs	8	2.0	Others	114	28.6

The whole sample comprised 39.7% females (n=158) and 60.3% males (n=240). 56% of the respondents were within the age range of 21-40, while only 2% were in the category of individuals older than 81. Among the respondents, farmers comprised the largest occupational group, accounting for 34.2%, while students were the smallest group, representing only 8%.

Determination of the Significance of Differences in Mean Score for Environmental concerns.

Table 2

Environmental concerns

<i>Age</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Occupation</i>	<i>Mean</i>	<i>Std. Deviation</i>
0-20	4.59	.539	Cultivator	4.21	.603
21-40	4.38	.534	Teacher	4.25	.533
41-60	4.27	.461	Self-employed	4.47	.299
61-80	4.15	.500	Student	4.50	.417
>81	4.39	.680	Others	4.42	.465
Total	4.33	.522		4.33	.522

Table 2 displays means and standard deviations for all study variables according to respondent age and occupation. The descriptive statistics for environmental concerns indicate that the total mean score is 4.33, with a standard deviation of 0.522. Among the different age groups, those aged 0-20 and students exhibit the highest level of environmental concern compared to others in the group. This demonstrates that the respondents hold a firm view of environmental events, particularly those pertaining to biodiversity and its constituents.

Table 3

Independent t- test

					Lavene's test for Equality of Variances		t- test for Equality of Means						
Sl.No	Group	N	Mean	SD	F	Sig.	t	df	Sig (2-tailed)	Mean difference	Std. Error Difference	95% confidence interval of the Difference	
												Lower	Higher
1	0-20	12	4.59	.539	.002	.966	1.330	234	.185	.211	.158	-.101	.523
	21-40	224	4.38	.534									
2	0-20	12	4.59	.539	.025	.876	2.217	108	.029	.318	.144	.034	.603
	41-60	98	4.27	.461									
3	0-20	12	4.59	.539	.211	.647	2.742	66	.008	.442	.161	.120	.763
	61-80	56	4.15	.500									
4	0-20	12	4.59	.539	.745	.400	.747	18	.465	.204	.273	-.369	.777
	>81	8	4.39	.680									

The Independent *t*-test was utilised to determine if there were any disparities in the average scores among the various age groups and occupations. To achieve this objective, the sample was categorized based on the independent variable. The independent samples *t*-test, also known as the

independent t-test, is used to examine the level of ENVIRONMENTAL concerns (EC) amongst different age groups.

The study revealed that the various groups exhibited varying levels of significance in relation to different age groups. Specifically, groups listed under Sl.No 1 and 4 did not display any significant differences ($t(df) = .185$ and $.465$, $p > 0.05$) in the scores. The mean scores of the age group 0-20 ($M = 4.59$, $SD = 0.539$) were slightly higher than the mean scores of the age groups 21-40 and >81 ($M = 4.38$ & 4.39 , $SD = 0.534$ & $.680$). The magnitude of the differences in the means (mean difference = 0.211 and 0.204) was not statistically significant. Therefore, it can be concluded that both age groups in Sl.No 1 & 4 exhibited a somewhat comparable level of variation in their environmental concerns. Therefore, it has been demonstrated that H1 and H1a are valid.

Correlation between environmental concerns and age

In order to have a more precise understanding of the relationship between age and environmental concerns, a Pearson correlation analysis was conducted. The resulting findings are presented below.

Table 4

<i>Correlations between environmental concerns and age</i>			
		age	concerns
Age	Pearson	1	-.155**
	Correlation		
	Sig. (2-tailed)		.002
	N	398	398
Concerns	Pearson	-.155**	1
	Correlation		
	Sig. (2-tailed)	.002	
	N	398	398

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation coefficient between environmental concerns and age has been shown to be -0.155 , which is statistically significant at the 0.01 level. The value of r above demonstrates a negative association between environmental concerns, age, and social values. Hence, the strong link between two variables implies that environmental concern is contingent on age, specifically, environmental concerns diminish with increasing age, with younger individuals exhibiting greater concerns towards environmental issues than older individuals. Therefore, the proof of H2 is established.

Discussions and Conclusion

The primary objective of this study was to examine how individuals in different age groups responded to environmental topics, to what degree their concerns varied from one another and the reasons behind the varied responses.

The age group- environmental concern relationship

Upon examining the correlation in table 4, it is evident that there is a negative correlation between environmental concerns and age. This means that Overall, younger individuals exhibited a greater level of care for the environment compared to older individuals. This result aligns with the majority of research on environmental concerns, indicating that younger individuals express higher levels of environmental concern compared to older individuals (Arcury& Christianson, 1993; Honnold, 1984–85, Buttel, 1987; Van Liere and Dunlap, 1980). Given the assumption that young adults have more significant interest in environmental matters than older ones, it is necessary to contemplate the enduring nature and possible repercussions of this situation. Many researchers who study youth politics have noted that movements focused on young people are frequently susceptible to instability and vulnerability (Flacks, 1971)^{xvi}. Hornback (1974) suggests that the process of ageing and the associated obligations are likely to reduce the youthful enthusiasm for their original goal. This phenomenon can be elucidated by using the research undertaken by Arnett (2000)^{xvii}, which posits that emerging adulthood is seen as the period of deliberate choice, as it presents the most potential for exploring one's identity in the domains of romantic relationships, employment, and personal beliefs. During this period, individuals undergo the process of acquiring the essential attributes required for achieving independence, establishing serious and dedicated partnerships, taking on more mature roles and obligations, and acquiring the necessary education and training that forms the basis for their future professional endeavours^{xviii}.

The sustained exposure to information regarding environmental degradation through news media or mandatory environmental courses in Indian educational institutions during and from the 1990s may have contributed to the emergence of a "youth movement" characterized by heightened awareness and concern for environmental issues. A similar pattern may have been observed in the circumstances in Ukhrul. Since the liberalization of India's economy, advancements in technology, the internet, and social media platforms like Facebook, YouTube, vlogs, and Twitter have made knowledge more readily available to individuals, particularly the younger generation. With organizations such as the Tangkhulkatamnao Long and Tangkhul Mayar Ngala Long beginning to focus on the environment insisting it is time to reevaluate the Naga people's traditional customs as a more eco- friendly, sustainable way of life^{xix}.

Prior to the advent of the missionaries in the 1920s, the economic, social, cultural, and religious activities in the Tangkhul region were centered around nature and deeply interconnected with their way of life and culture. Perhaps, this is because the inhabitants of that era placed a premium on tradition, were very disciplined, and worked very hard since they relied on the natural world for their survival. As is evident in those born in the 1920s (table 2, Sl.No. 4) specifically those who are currently in their 80s and above. They have demonstrated a significant level of care for the environment, which is comparable to that of individuals in the younger age groups (0-20 and 40s). The correlation between age and environmental concerns seen in table 4 and the independent t-test analysis, which is presented in Table 3, which shows that the impact of old age on environmental concerns does not diminish suggests that the association between age and environmental behaviour among the Tangkhuls is more likely due to generational experiences (known as a cohort effect) rather than simply being a result of age

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