



How Narcissism Threatens the Global Environment: The Relationship between Environmental Awareness and Non-Clinical Narcissism

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ABSTRACT

Major international agencies are making appeals to address the plethora of environmental issues that are now plaguing the world. One obstacle to a concerted global effort to prevent further environmental degradation is environmental awareness. And a lack of environmental awareness has been linked to non-clinical narcissism. This study attempted to verify this connection between environmental awareness and non-clinical narcissism. 97 first year college students from a private school in the Province of Rizal, Philippines volunteered to take part in this study. The Environmental Awareness Quiz for College Students, a researcher-made, 20-item, true or false quiz was used to measure the respondents' environmental awareness. The Narcissistic Personality Inventory 16-item version (NPI-16), was utilized to measure the respondents' level of non-clinical narcissism. Pearson r computation yielded an r value of -0.3014, which indicates a moderate negative relationship between environmental awareness and narcissism.

Key Words: Environmental Awareness, Global Warming, Climate Change, Pollution, Narcissism

INTRODUCTION

According to the United Nations Human Rights Office of the High Commissioner, the right to a healthy environment is ingrained in the 1972 Stockholm Declaration. 50 years after, human rights experts are making an urgent call to protect the present and future generations because of environmental injustices caused by pollution and toxic substances. Otherwise, unprotected communities will become what they refer to as human sacrifice zones.¹

Based on 2022 global climate reports, warmer-than-average situations were experienced across much of North America, southern and southeastern Asia, Africa and Greenland. The Arabian Peninsula, parts of northern South America, and northern Oceania were warmer than average. Record-high September temperatures were observed in north-central and southeastern China, the Mediterranean region, Indonesia and Papua New Guinea and parts of the western U.S. Sea surface temperatures were above average across the Gulf of Mexico, the Mediterranean Sea, parts of the eastern Indian oceans much of the northern, western, and southwestern Pacific and the northern and central Atlantic.²

As for biodiversity, a global report states that the population sizes of birds, reptiles, amphibians, mammals and fish underwent an average decline of 68% between 1970 and 2016. Population sizes in the Caribbean and Latin America have suffered the highest decline, at 94%, while globally, freshwater species have been excessively impacted, with an average decline of 84%.³

Deforestation of the Amazon has reached a new record in 2022, which has fueled concerns that the rainforest's role in sustaining the health of the planet may be damaged irreparably. Satellite images showed that over 3,980 square kilometers, an area five times the size of New York City, were deforested in the first six months of 2022. The rainforest has the vital role of absorbing the carbon dioxide from the air, which serves to counterbalance carbon emissions thereby slowing global warming.⁴

According to the World Health Organization (WHO), one of the major environmental problems of today is outdoor air pollution. WHO studies have shown that at least 4.2 million people die from air pollution worldwide annually.⁵

Experts assert that air pollution should not be seen merely as a local or national problem. Specific countries have attempted to lessen dangerous emissions. However, air pollutants travel vast distances and this air is shared by the whole world. The issue should no longer be seen as a blame game. The solution lies in global cooperation. Because the very air that keeps everyone alive is now making people sick as well.⁶

There is now a worldwide plastics crisis. Since the 1950s, 8.3 billion tons of plastics have been produced and 79% of that has polluted the environment. At present, no area on Earth is left uncontaminated by plastic pollution. Plastic pollution is now being produced at 368 million metric tons a year as of 2019. This demand for plastic is closely connected with human reliance on fossil fuels and the presence of petrochemical infrastructures.⁷

Scientists have found that the melting of the Greenland ice cap is inevitable due to the effect of fossil fuel emissions. Global warming will cause a minimum rise in sea level of 27 centimeters from the melting of Greenland's ice cap alone. The continued carbon emissions will undoubtedly have a similar effect on other ice caps in the world. Billions of people reside along coastal regions, making flooding due to rising sea levels one of the worst long-term impacts of the climate crisis.⁸

The preceding are just some of the major environmental issues that the world is facing. And because of the apparent urgency of such concerns, awareness of environmental problems has gained significant importance.

Environmental awareness does not only mean being informed about the environment, but also being familiar with sets of values, attitudes and skills for addressing environment related problems.⁹

A study conducted in Taiwan found that when it comes to marine environmental protection, university students possessed a highly positive attitude towards the marine environment.¹⁰

In a study done in Connecticut, USA, which involved an environmental education program for children, it was found to have a significant positive effect on students' awareness of environmental concepts and the local environment.¹¹

A study conducted in Turkey found that a smaller family size and a higher socioeconomic status yielded a more positive attitude towards the environment among student teachers.¹²

In China, a study was conducted about environmental awareness among university students. It found that the students were mindful of the gravity of environmental problems both in their country and the world. On the other hand, they are pessimistic about the future of the environment.¹³

In a study conducted among university students in Jordan, environmental awareness was found to increase linearly as they progressed from first year to fifth year in college. Older age was also found to influence environmental awareness.¹⁴

In Indonesia, a study found college students in general had positive environmental awareness. Gender difference among college students did not yield a difference in their level of environmental awareness. However, a difference was found in environmental practices when it comes to gender.¹⁵

In a study conducted among college students in Turkey, their environmental awareness was discovered to be lower than expected. It also found that environmental knowledge does not always influence awareness and behavioral intentions.¹⁶

The foregoing articles have established that there are ongoing educational programs to inform students about environmental concerns. However, it would appear that informing individuals may not be the only factor that influences attitudes toward the environment. Perhaps one factor that has not been fully investigated are attributes of the individual himself. A study has re-examined the role of a person's level of non-clinical narcissism that could lead to selfish, self-destructive consumption.¹⁷

In a study conducted on college students in Indonesia, it was established that narcissism was able to predict apathy towards the environment.¹⁸

In general, narcissism is closely tied to extreme self-focus, an inflated sense of self and a strong desire for recognition and praise. As a personality trait, narcissism can be overt, covert, antagonistic, communal, or malignant. As a trait, it should be distinguished from narcissism as a mental health condition. Understanding narcissism as a trait can provide a broader awareness of the thought processes, emotions and behavioral patterns that it produces.¹⁹

This study attempts to confirm the connection between narcissism and environmental awareness of an individual. For its respondents, the study also focused on college students because as a community, their behavior and willingness to adopt environmentally sound strategies will become a leading force for sustainable environment in urban areas.¹⁵ They are considered as the future decision-makers in society and have a high probability of becoming opinion-shapers in terms of the environment.¹⁰ Students, of higher institutions are the hope for future improvement of the environment, and for achieving environmental sustainability.⁹

The Environmental Awareness Quiz for College Students, a researcher-made, 20-item, true or false quiz was created based mainly on "*Top 25 brutal environmental concerns that you desperately need to know.*"²⁰

The Narcissistic Personality Inventory 40-item version (NPI-40) is known to be the most widely utilized personality measures for non-clinical levels of narcissism.²¹ To measure the respondents' non-clinical narcissism, the Narcissistic Personality Inventory 16-item version (NPI-16), was utilized, which closely parallels the NPI-40 relative to other personality measures and dependent variables and possesses notable face, internal, discriminant, and predictive validity.²²

Specifically, this study sought to address the following research questions:

1. What are the levels of environmental awareness of the respondents as measured by Environmental Awareness Quiz for College Students?
2. What are the levels of non-clinical narcissism of the respondents as measured by the NPI-16?
3. Is there a significant relationship between the respondents' environmental awareness and their non-clinical narcissism levels?

METHODOLOGY

97 volunteers who are first year college students in a private higher education institution in the Province of Rizal, Philippines were obtained as respondents for this study. 40 were female and 57 were male with a mean age of 19.35.

The Narcissistic Personality Inventory 16-item version (NPI-16), which uses the "multiradio" element to show two choices for each item²¹ was utilized to measure the respondents' level of non-clinical narcissism. The highest NPI-16 score that can be obtained is 16. The higher the score, the higher the level of non-clinical narcissism.

The Environmental Awareness Quiz for College Students, a researcher-made, 20-item, true or false quiz based mainly on the "*Top 25 brutal environmental concerns that you desperately need to know*,"²⁰ was used to measure the respondents' environmental awareness. The highest score that can be obtained in this quiz is 20 correct answers. The higher the score, the higher the level of environmental awareness.

A Google Forms online version of both these tests were administered on the respondents. Their informed consent was obtained but their identities were kept anonymous.

RESULTS

The following tables show the data obtained and the statistical treatments applied on them to address the study's research questions.

Table 1: Mean and Standard Deviation of the Scores obtained with the Environmental Awareness Questionnaire for College Students

N	97
Mean	12.495
Standard Deviation	4.33

Table 2: Environmental Awareness Quiz for College Students: Number of Respondents Correctly Answering Each Item

Items answerable by True or False	Number of respondents who answered correctly
1. There is more air pollution that comes from volcanic eruptions than from various gases released by businesses and manufacturing plants and burning of fossil fuels.	59
2. Waste from industrial and agricultural activities can be safely disposed of in the ocean, since the salt in the ocean neutralizes the waste.	79
3. Recycling is done with biodegradable items.	37
4. Climate change is a natural occurrence just like the Ice Age.	37
5. Solar energy, wind energy, hydro energy, tidal energy, geothermal energy are examples of non-renewable energy sources.	63
6. Deforestation and logging help increase the production of new oxygen for the world.	90
7. Genetic engineering of crops is a healthy way of creating more food and in less time.	41
8. Mercury can be found in fish, which when eaten may harm the brain and the heart. Mercury in fish is caused by humans polluting the water.	30
9. Biodiversity, which is the different kinds of life in an area, is threatened by the destruction of natural animal habitats due to deforestation, pollution, and global warming.	89
10. The consumerist world creates waste such as plastics, which are biodegradable anyway and should be dumped into the ocean.	79
11. The ozone layer is a layer of protection around the planet from the sun. Chlorofluorocarbons (CFCs) help increase and sustain the ozone layer.	43
12. Mining is okay since what is mined from inside the Earth is safe for the Earth.	80
13. Radioactive waste is not a major environmental concern since it comes from nuclear power plants that provide cheaper electricity for millions of people worldwide.	76
14. The disappearance of endangered species happens because of Darwin's natural selection.	60
15. Modern-day agriculture techniques make use of pesticides and fertilizers, which seep into the ground and stay there and is therefore helpful to plants and crops in the long term.	35
16. Instead of creating landfills for garbage allowing the waste to just stay there, garbage should be incinerated which is healthier for the air and people.	69
17. Medical waste comes from hospitals, nursing homes, dental clinics, which can include needles, syringes, gloves, tubes, blades, blood, body parts should be disposed the same way as ordinary garbage.	71
18. Acid rain happens when the weather naturally produces acidic clouds.	48
19. The amount of greenhouse gases that an individual produces is called carbon finger print.	45
20. When a ship transporting oil accidentally spills oil into the ocean, because the oil is a natural product of the Earth it is safe for marine life.	81

Table 3: Environmental Awareness Quiz for College Students: Scale of Interpretation and Frequency of Respondents

Interpretation	Range	Number of Respondents
Low	0-6	11
Moderate	7-13	41
High	14-20	45

Table 4: Mean, Median and Standard Deviation of the Scores obtained with NPI-16

N	97
Mean	3.918
Median	4
Standard Deviation	2.379

Table 5: NPI-16 Responses per Item

Item	Statements from which to choose per item	Number of responses
1	I am apt to show off if I get the chance (<i>response consistent with narcissism</i>)	27
	I try not to be a show off	70
2	I am an extraordinary person (<i>response consistent with narcissism</i>)	42
	I am much like everybody else	55
3	I insist upon getting the respect that is due me (<i>response consistent with narcissism</i>)	24
	I usually get the respect that I deserve	73
4	I like to be the center of attention (<i>response consistent with narcissism</i>)	11
	I prefer to blend in with the crowd	86
5	I really like to be the center of attention (<i>response consistent with narcissism</i>)	15
	It makes me uncomfortable to be the center of attention	82
6	Being an authority doesn't mean that much to me	63
	People always seem to recognize my authority (<i>response consistent with narcissism</i>)	34
7	I am more capable than other people (<i>response consistent with narcissism</i>)	9
	There is a lot that I can learn from other people	88
8	Everybody likes to hear my stories (<i>response consistent with narcissism</i>)	9
	Sometimes I tell good stories	88
9	Sometimes I am not sure of what I am doing	87
	I always know what I am doing (<i>response consistent with narcissism</i>)	10
10	People sometimes believe what I tell them	63
	I can make anybody believe anything I want them to (<i>response consistent with narcissism</i>)	34
11	I don't like it when I find myself manipulating people	73
	I find it easy to manipulate people (<i>response consistent with narcissism</i>)	24
12	I am no better or worse than most people	77
	I think I am a special person (<i>response consistent with narcissism</i>)	20
13	I like to do things for other people	70
	I expect a great deal from other people (<i>response consistent with narcissism</i>)	27
14	I know that I am good because everybody keeps telling me so (<i>response consistent with narcissism</i>)	23
	When people compliment me, I sometimes get embarrassed	74
15	I don't mind following orders	68
	I like having authority over people (<i>response consistent with narcissism</i>)	29
16	I hope I am going to be successful	55
	I am going to be a great person (<i>response consistent with narcissism</i>)	42

Table 6: NPI-16 Frequency Distribution of Scores

Score	Number of respondents
0	4
1	13
2	12
3	18

4 (<i>Median</i>)	13
5	13
6	9
7	7
8	6
9	1
10	-
11	-
12	1
13	-
14	-
15	-
16	-
<i>Total</i>	97

Table 7: Relationship Between Respondents' Environmental Awareness and Their Narcissism

Pearson r computation	
X Values $\sum = 380$ Mean = 3.918 $\sum(X - Mx)^2 = SSx = 543.34$	X and Y Combined N = 97 $\sum(X - Mx)(Y - My) = -298.041$
Y Values $\sum = 1212$ Mean = 12.495 $\sum(Y - My)^2 = SSy = 1800.247$	R Calculation $r = \frac{\sum((X - My)(Y - Mx))}{\sqrt{(SSx)(SSy)}}$ $r = -298.041 / \sqrt{(543.34)(1800.247)} = -0.3014$
r = -0.3014 which indicates a moderate negative relationship	

DISCUSSION

Based on Table 1, from a total perfect score of 20 that can be gained from the Environmental Awareness Quiz for College Students, a mean score of 12.495 was obtained by all 97 respondents with a standard deviation of 4.33. Table 2 shows the 20 items of the Environmental Awareness Quiz for College Students that may be answered with true or false. The number of respondents who got each item correctly is indicated. It can be observed that some items yielded many who answered correctly, while there are items that yielded only a few. The level of difficulty of each item can therefore be inferred based on the number of respondents who gave correct answers.

Table 3 further shows that out of the 97 respondents, 11 got low scores, 41 got average scores while 45 got high scores. The computed mean of 12.495 would therefore indicate that the respondents possess moderate environmental awareness.

In Table 4, it can be observed that from a highest non-clinical narcissism score of 16 that can be gained from the NPI-16, a mean score of 3.918 and a median of 4 was obtained by all 97 respondents with a standard deviation of 2.379. Table 5 shows the 16 items of the NPI-16. It further shows the number of respondents who chose each of the two statements for each item. In each item, one choice is considered consistent with non-clinical narcissism.

Table 6 shows the frequency distribution of the NPI-16 scores obtained by the respondents. 37 respondents obtained an NPI-16 score higher than the median, while 47 obtained an NPI-16 score lower than the median. It can be inferred that majority of the respondents have non-clinical narcissism lower than their median.

Table 7 indicates the Pearson r computation for the respondents' scores obtained in the Environmental Awareness Quiz for College Students and their NPI-16 scores. An r value of -0.3014 was obtained, which indicates a moderate negative relationship.²³

CONCLUSIONS

Based on the aforementioned, it can be concluded that the respondents possess a moderate level of environmental awareness. Aside from the NPI-16 mean score of 3.918 being far below the highest score of 16, most of the respondents have non-clinical narcissism lower than their median score.

The Pearson r value of -0.3014 in Table 7, indicates that there is a moderate inverse correlation between environmental awareness and narcissism. It means that as the respondent's narcissism increases, his environmental awareness moderately decreases, and vice versa. This result is consistent with the finding of a study that narcissism predicts apathy towards the environment.¹⁸

Since non-clinical narcissism has been shown to promote low environmental awareness, one study suggests that social situations be created in order for individuals with high non-clinical narcissism to show off their environmental awareness. In this manner, such people might be motivated to act in a more environmentally friendly way.²⁴

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