

ANTHROPOMORPHIZING NATURE: THE CONSEQUENCES TOWARD CONSUMER'S GREEN BEHAVIOR AND GREEN PRODUCT ATTITUDE

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ABSTRACT

Anthropomorphism refers to the tendency to imbue the nonhuman objects with humanlike characteristics, intentions, and behavior. Humans have a tendency to give human psychological qualities (such as consciousness, and social emotions) in nature objects, such as volcanoes, trees and lakes. Following the various natural phenomena in Indonesia showed a tendency of people in anthropomorphizing nature. Deterioration of natural environment is a concern of the world today therefore the research about consumer's green behavior becomes important. This paper aims to describe the consumers' anthropomorphism toward nature, green behavior, and the consequences of anthropomorphizing nature towards green behavior and green product attitude. Our studies show that Indonesian consumers have moderate level of natural anthropomorphism, and fairly good green behavior. Consumers' anthropomorphizing nature has a positive effect on green behavior and attitude toward green product.

Keywords: anthropomorphism, green behavior, green product attitude

INTRODUCTION

In the increasingly competitive market situation, paying attention and contributing to the prevention of environmental problems become a value added to the product. Innovations related to the natural environment become an integral part of marketing strategy. The government or the companies develop the effort to build the Indonesian consumer awareness to the preservation of the environment. The patterns of consumers' consumption cause deterioration of the natural environment. In order to build the awareness and respond to consumers who are aware of this environmental sustainability, it needs to be an understanding of how the green consumer behavior and the factors those affect it. Concerns about the environment have become not only a public issue but also an important topic in academic research. This paper aims to describe the profile, and some aspects related to Indonesian consumer green behavior. We propose that the green consumer behavior is affected by individual differences, namely consumers' anthropomorphism of nature.

In the Indonesian community, the natural phenomenon is often accompanied by the development of the story, or myth which looks at things as "human-like" and not mere objects. Devastating eruption of Mount Merapi in 2010, for example, there is a stone which came from the eruption in Kepuharjo village, Cangkringan, Sleman, that is regarded if its shape resembles a human face. Local people call the rock faces, because on one of its sides looks of the eyes, nose, and mouth, like a human. Similar story accompanied the eruption of

Mount Kelud in 2014, when the volcanic ash clumps showed an image of a human-like face, some Indonesian people believe it to look like humans. Conservationists in the world often use the term "mother earth" for planet designation, an example that the world community was often anthropomorphizing nature.

The tendencies to attribute the objects that are not human have the characteristics, motivations, intentions, and emotions as humans are called anthropomorphism (Epley, Waytz & Cacioppo, 2007). Anthropomorphism exists within every human being, but with different levels. Natural objects such as mountains, sea, and trees are often anthropomorphized. Past research has shown that individuals' anthropomorphism has a positive correlation with green behavior (Waytz, Cacioppo & Epley, 2010). High and low anthropomorphism tendencies are influenced by social motivations that are indirectly influenced by the culture (Epley et al., 2007). Indonesian community anthropomorphizing nature is brought into the story from the ancestors and to become a phenomenon. This paper describes how Indonesian consumers today anthropomorphizing nature, and then linking with the green behavior.

Humans have a tendency to give human psychological qualities (such as consciousness, and social emotions) in nature and objects, such as mountains, trees, and lakes (Norenzayan, Hansen, & Cady, 2008). Nature was perceived to have supernatural powers and great spiritual value. Trees, mountains, rivers, and animals are respected and conceptualized as an agent of anthropomorphism, not because of its physical benefits. The volcano was anthropomorphized less than tree. Although there was no independent effect of religion on anthropomorphizing, there was a significant positive correlation between anthropomorphizing nature and belief in supernatural phenomena (Norenzayan et al., 2008).

Previous studies showed that individuals' anthropomorphism is associated with his behavior toward non-human objects (Waytz et al. 2010). The individual anthropomorphism would increase moral behavior, including behavior towards the natural environment (Waytz et al. 2010). According to Tam, Lee and Chao (2013), anthropomorphism is associated with the desire to cultivate connections with non-human objects when an object is created with human characteristics, and anthropomorphism will make people have a concern about that object. Then the message of environmental problems will increase environmental awareness, if it is made in the anthropomorphic style (Tam et al., 2013).

Everyone has a tendency of anthropomorphism, but with different levels (Epley et al., 2007). Previous research also showed that the anthropomorphism is positively correlated with the moral behavior towards non-human object (Waytz et al., 2010). However, no previous studies examined Indonesian consumer's anthropomorphism and its connection to conservation behavior. Our research aims to get an overview of the Indonesian anthropomorphism of nature and green behavior. This paper describes how the Indonesian consumers anthropomorphized nature and daily green behavior. In the next section, we describe the effect of anthropomorphizing nature towards green behavior and green product attitude.

LITERATURE BACKGROUND

Anthropomorphizing Nature

In Kamus Besar Bahasa Indonesia (2001), anthropomorphism is defined as "the attribution of human characteristics on animals, plants, or inanimate objects". According to Guthrie (1995), the easiest way to understand the world is by using a model of the most familiar, namely ourselves. Thinking about something that looks like humans creates a feeling of familiar, and this familiarity makes it easier to understand (Guthrie, 1995). For each individual, the

knowledge of the human experience is really experienced directly, and then the knowledge is easier, more complete, and can quickly be used, than the other knowledge (Epley et al., 2007). Moreover according to Guthrie (1995), anthropomorphism creates a feeling of comfort. We are not comfortable with things that do not like us, it makes things become like us will make us feel comfortable.

The reasons of familiarity and comfort makes human in primitive era anthropomorphized nature (Guthrie, 1995). Primitive societies cannot distinguish their minds from the events in the external world, and therefore attribute their own thoughts and feelings on the world around them. Primitive people are imaginative and they communicate with signs. They attribute their emotions, motives, and behavior on nature. A contributor of analogy, Fontenelle, found analogies in classical mythology, where explanations of the unfamiliar are always copied from the familiar. He pointed storms, tides, and lightning as what people imagine there is a powerful agent such as a human behind this terrible event (Guthrie, 1995).



Figure 1 a. Human face on the tree (www.pinterest.com)



Figure 1 b. The sad (www.wesleying.org) and crying trees (www.thieunien.vn)

Similarly, according to Hume (Guthrie, 1995), humans are in the uncertainty of perception, which is a result of insecurity and inability to predict or control the environment. It makes human beings have always tried to understand the situation through the imagination. According to Hume, most people can only think about the unknown cause and confusing things in a general way, through the imagination. So then, people imagine themselves as objects in their environment. People want to understand the events around them, relying on an already recognized and known familiar, namely ourselves. The tendency of anthropomorphizing nature is often illustrated in the image of trees that have human characteristics, such as in Figure 1. People imagine that a tree has the physical characteristics resembling human (Figure 1a). A tree also has feelings, can be sad and even cries (figure 1b). This means that people have a tendency to attribute not only physical, but also psychological qualities to non-human objects. Past research showed that children moralizing tree through anthropomorphic interpretation when asked to tell about felled tree (Gebhard, Nevers, Billmann-Mahecha, 2004). The leaves of the tree were construed to be like human hair, the sap was like human blood. If someone cut the branches, the tree was hurt. Children interpret the tree as if it happens to their own body (Gebhard et al., 2004).

Anthropomorphism levels can vary, some people tend to be more anthropomorphizing objects than others, and some specific situations increase the tendency of anthropomorphism compared to other situations (Epley et al., 2007). Cultural variable is one of the variables that could reverse the level of anthropomorphism. Cultural influences through norms and ideology about how people relate to one another, and how people relate to the natural environment. In non-industrial cultures, people tend to be closer to the nature and people prefer to interact with and use living creatures that are not human. Individuals in non-industrial cultures tend to use independent representation of living things that are not human, and according to “the three-factor theory of anthropomorphism”, there is less anthropomorphizing the nonhuman agent, compared with individuals in the industrial culture (Epley et al., 2007). In contrast, people in modern cultures tend to interact with sophisticated mechanical equipment such as computers and cars which are less anthropomorphizing the nonhuman agent, compared with individuals in non-industrial cultures (Epley et al., 2007).

Sociality motivation, according to Epley et al. (2007), affects the diversity of levels of anthropomorphism in various cultures, namely the need and desire for someone to make social connections with other human beings. In the absence or the lack of social relationships with other human beings, someone created a human agent of nonhuman agents through anthropomorphism to satisfy their need for social relationships (Epley et al., 2007). In an individualistic culture that is characterized by independence and personal freedom, people are more motivated to do anthropomorphism than collectivist cultures, that are more concerned with social relationships with others (Epley et al., 2007), as the effectance motivation, the motivation for someone to understand, control, and interact competently in environment. In the cultures with high uncertainty avoidance, people tend to look for structure, making events become clearer interpreted and were able to predict, so it is more likely to anthropomorphized.

Tam, Lee and Chao (2013) conducted a study of the text and images of natural objects created which have human characteristics (anthropomorphic). In their study, the news write nature as Mr., and the call of nature as "He" raises the feeling of being connected with nature and then have a significant effect on conservation behavior. Every human being has a need to socialize with others. According to Tam et al. (2013) when an entity or object is created to be anthropomorphic, the object becomes a source of social connection. Thus, the feeling of being connected with nature can be created if the natural objects are anthropomorphized (Tam et al, 2013). Our study aims to provide an illustration of the level of consumer anthropomorphism of nature.

Green Behavior

Laroche, Bergeron and Polonski (1991) revealed that green consumer behavior is ecologically conscious consumers' behavior that tries to protect the environment. Green consumers act in different ways to protect the environment e.g. recycling, checking that a package is made of recycled material, or purchasing green products. Laroche et al. (1991) made a conceptual framework where demographic factor such as age, gender, education, income, marital status; knowledge, values, behavior, and attitude, acts as variables influencing consumers' willingness to pay more for green product. Some previous study such as Chen and Chai (2010), Kaman Lee (2009), Straughan and Roberts (1999) also considered demographic factor that has an effect on green behavior. Ecological knowledge, natural environment orientation, and environmental concern in the research which was conducted by Mustafa (2007) significantly affect the behavioral attitude of green products purchasing. Then, these attitudes affect buying behavior with the purchase intention of green products as mediation. But Mustafa's research (2007) on Egypt's consumer, the relationship between the intention to buy green products and the actual behavior was weak, although consumers stated that they had concern for the environment and wanted to contribute to environmental protection but was not realized by purchasing behavior.

Past research on green behavior showed that consumer characteristic: the level of education, age, gender, and economic power of consumers showed different behavior of environmental concern. Consumers with higher education, adult aged, women, and higher income are more concerned about environmental issues (Gilg et al., 2005). However, the value of green that is conceived and embraced by consumers was not always positively correlated with their behavior (Young, Hwang, McDonald & Oates, 2010). Consumers who are concerned with environmental issues merely had a small fraction in a practiced of green product purchasing behavior (Young et al., 2010). This makes green products merely get a small market share. Depth qualitative research interviews conducted by Young et al. (2010) in the UK shows that being "green" is not straightforward, hectic lifestyles of consumers make green effort low. So according to them, the effort requires such incentives, put a green label such as label of energy levels, in order to attract consumers' concentration and encourage the green behavior.

The Consequences of Anthropomorphizing Nature

According to Waytz et al. (2010), anthropomorphism at least has the consequence such as the agent is not a human who has a conscious experience. Therefore, it should be treated as an agent that deserves care and attention. The agent can also serve as a source of normative social influence for individuals that perceives humanlike. Anthropomorphizing nature, according to Gebhard et al. (2003) allows individuals to act morally. We mean that the consumer anthropomorphism of nature would make consumers aware of that nature deserves care and attention. Suffering perceived by nature provides social influences on individuals who anthropomorphize them, making people have a social relationship with nature, affecting the emotions, understanding nature, and then protecting it.

Tam (2014) showed that the anthropomorphism of nature makes people feel more have the capacity for understanding and predicting the environment. Tam study (2014) was based on the factors that encourages motivation for anthropomorphism to control the environment (Epley et al., 2007). In people with the high desire of control, the anthropomorphic environmental message can improve the efficacy of the action, and then influence the conservation behavior (Tam, 2014). Similar with Ahn, Kim, and Aggarwal

(2013), anthropomorphism to social problems increases guilt feelings, and influence the money donation given by the participants.

The relationship between anthropomorphism and moral concerns is demonstrated in the way that people look at nature. As an example of a culture that anthropomorphizing nature, Guatemala Itza Maya society more closely follows ecologically sustainable practices than other groups who inhabit in the same area (Atran & Medin, 2008). The study conducted by Waytz et al. (2010) showed that anthropomorphism may predict individual nature concern. They used Individual Differences in Anthropomorphism Questionnaire (IDAQ) as an anthropomorphism measuring tool, and then measured the environmental concerns. The results show that anthropomorphism may predict the moral concerns to the non-human agents in nature. According to Waytz et al. (2010), promoting the anthropomorphism of nature can be an effective way to raise awareness of environmental issues such as global warming, air pollution and water pollution.

Anthropomorphizing non-human object is triggered by a need to be able to master that non-human objects (Epley, Waytz, Akalis & Cacioppo, 2008a, 2008b; Waytz, Morewedge, Epley, Monteleone, Cacioppo, 2010). Humans have a tendency to want to control natural environment. Kim and McGill (2011) saw the effect of anthropomorphism on consumer behavior using effectance motivation factor that desires for control. According to Kim and McGill (2011), consumers' perceptions of the risks of a product may be affected by anthropomorphism; anthropomorphic effect is moderated by social power. Anthropomorphism increases liking to interact, in this case playing with anthropomorphic objects, perceptions of risk then affects the desire to play with anthropomorphic non-human objects. Consumers are anthropomorphizing nature to meet their needs of mastering natural environment which later pushed them to act morally toward nature, including having a positive attitude towards environmental friendly products. Our study contributes to the field of green consumer behavior in marketing, particularly considering the effect of anthropomorphism of nature as the individual differences which we thought affect the green consumer behavior.

METHOD

We conducted a survey to achieve the objectives of this study. The questionnaire for this study was administered to a convenience sample of 185 consumers, and a total of 165 completed the questionnaire (a response rate of 89%). The respondents were 79 male and 86 female, aged 17-60 years: <20 years (28.5%), 20-29 years (37%), 30-39 years (11.5%), 40-49 years (13.9%), and ≥50 years (9.1%). Education background: high school (72.1%), S1 (13.3%), S2 (12.1%), and S3 (2.4%). Occupation: Student (64.2%), civil servants (4.8%), entrepreneurs (5.5%), and private employees (25.5%).

Anthropomorphism instrument was adapted from a scale of Individual Differences in Anthropomorphism Questionnaire (IDAQ) developed by Waytz, Cacioppo & Epley (2010). Stimulus IDAQ items are in the form of animals (fish, insects, cats, dogs), natural objects (mountains, clouds, oceans, trees), and technological equipment (cars, computers, robots). In accordance with the aim to determine the anthropomorphism of nature, this study only used natural objects stimulus. 13 items of nature anthropomorphism ($\alpha = 0.872$) includes natural objects: volcanoes, clouds, trees, oceans, rivers, wind, and forests. Natural anthropomorphism indicators measured include emotion, intention, consciousness, will, and mind. Examples of such nature anthropomorphism items are volcanoes had the will, the sea has a consciousness, the tree has a sense, and the wind has ambition. All items used the scale of 1 (not at all noticeable) to 6 (very real). IDAQ score was obtained by averaging the 13 items.

We measured Green behavior using a scale adapted from Gilg, Barr, and Ford (2005); Schuwerk and Lekoff-Hagius (1995), which consists of 16 items ($\alpha = 0.764$), including: I turn off the water tap while wearing laundry soap hand, I turn off the lights when the room is not in use, I reuse the paper that is still blank, I reuse disposed plastic bags. Green product attitude instrument was adapted from Mostafa (2007), which consisted of three items ($\alpha = 0.845$), including: purchasing green product is a good idea, I support the idea of replacing products with green products, and I support the purchase of green products. All items used 6-point Likert scale: strongly disagree/ strongly disagree.

The analysis was done in two phases. First, to analyze the consumer's anthropomorphism of nature, we conducted a descriptive analysis of the mean and differences test using t-test and oneway-Anova. Second, to determine the effects of anthropomorphizing nature towards green product attitude and green behavior, we used regression analysis.

RESULTS AND DISCUSSION

Consumer's Anthropomorphism of Nature.

This study aims to provide an illustration of the level of consumer anthropomorphism of nature. Respondents' anthropomorphism of nature was not high, but was at moderate levels ($M = 3.5291$ $SD = 0.87906$). We conducted a difference test with a value of 3 (Table 1), to ensure that the rate of anthropomorphism was not low. The results showed that anthropomorphism of nature were significant differences with a value of 3 ($t = 7.732$ $p = 0.000$).

Table 1. One-Sample Test of Anthropomorphism of Nature

	Test Value = 3				95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Anthropomorphism	7.732	164	.000	.52914	.3940	.6643

There was significant differences anthropomorphism of nature among male, and female respondents ($t = 2.557$ $p = 0.011$; $M_{\text{male}} = 3.3496$ $SD = 0.92708$; $M_{\text{female}} = 3.6941$ $SD = 0.80297$). Female anthropomorphism of nature was higher than male. However, previous studies had not discussed gender differences in anthropomorphism; therefore it is necessary to further explore why it is.

If categorized by age (Table 2), among respondents age group of 20s, 30s, 40s, and above 50 years old, anthropomorphism of nature also had no significant differences ($F = 0.222$ $p = 0.926$). This result is not surprising, given that our respondents can be categorized as adult. Anthropomorphism will be different on the children's age category where children are confused with the observed object and themselves in addition of their limited accumulation of human knowledge. (Epley et al., 2007).

Table 2. Description of Anthropomorphism of the Nature by Gender and Age

	<i>Mean</i>	<i>Standard Deviation (SD)</i>
Male	3.3496	0.92708
Female	3.6941	0.80297
Age		
<20	3.5499	0.75828
20-29	3.5372	0.89580
30-39	3.5020	1.21447
40-49	3.6087	0.88982
>=50	3.3436	0.73026

The item with the highest mean was the item "tree has mind, like a human" ($M = 4.6970$). The tree moves like a human ($M = 4.1636$). These results indicate that the most anthropomorphized natural objects were trees. Respondents also believe that the movement of objects of nature (wind) showed emotions ($M = 3.6545$) (Table 3).

Table 3. Natural Object and Indicator of Anthropomorphism

Natural object - indicator	<i>Mean</i>	<i>Standard Deviation</i>
Volcano - intention	3.0909	1.36961
Volcano - will	3.3455	1.37776
Clouds – human face	3.2182	1.22012
Tree - consciousness	3.0848	1.49146
Ocean - consciousness	3.3212	1.35695
River – intention	3.4788	1.37303
Tree - move	4.1636	1.29864
Tree - mind	4.6970	1.21185
Nature - emotion	3.0424	1.42432
Wind - emotion	3.6545	1.40840
Forest - intention	3.6061	1.37352
Volcano - will	3.6182	1.43762
Volcano - emotion	3.5576	1.53953

Green Behavior

The following are descriptive analysis regarding green behavior in our study. With a scale of 1 to 6, green behavior is at a fairly high level ($M = 4.7305$ $SD = 0.56798$). Green behavior of female respondents ($M = 4.8262$ $SD = .54982$) were higher than male ($M = 4.6262$ $SD = .57251$), and the difference was significant ($t = -2288$ $p = 0.023$) (Table 4).

From the side of age (Table 4), there were significant differences of green behavior among the different age groups ($F = 2,675$ $p = 0.034$). Post Hoc tests - multiple comparisons shows that green behavior under respondents' 20 years age group did not differ significantly with respondents aged above 50 years old ($p > 0.05$). Differences are mainly green behavior among the age group under 20 with other age groups ($p < 0.05$). While between the age groups 20-29, 30-39, 40-49, and over 50, there were no significant differences ($p > 0.05$).

This means that green behavior among respondents aged 20-50 years are the same, and higher than green behavior under the age of 20 years. Although only slightly lower than that of the other age groups, the results indicate the necessity of education of natural environment to the age group less than 20 years, as consumers will contribute to the environment in the future.

Table 4. Description of the Green Behavior by Gender, Age, Education, and Occupation

	<i>Mean</i>	<i>Standard Deviation (SD)</i>	<i>t / F(sig)</i>
Gender			
Male	4.6262	0.57251	$t = -2.288$
Female	4.8262	0.54982	$p = 0.023$
Age			
<20	4.5241	0.56685	$F = 2.675$
20-29	4.7524	0.56017	$p = 0.034$
30-39	4.8892	0.54722	
40-49	4.9016	0.52973	
>=50	4.8246	0.56183	
Last Education			
SMA	4.6701	0.59062	
S1	4.8038	0.50722	$F = 2.091$
S2	4.9289	0.44994	$p = 0.103$
S3	5.1316	0.41331	
Occupation			
Student	4.6430	0.58423	
Civil servant	4.9145	0.43487	$F = 2.613$
Entrepreneur	4.7544	0.52434	$p = 0.053$
Private employee	4.9110	0.52005	

Based on the last education (Table 4): High school / S1 / S2 / S3, green behavior did not differ significantly ($F = 2.091$ $p = 0.103$). Based on the occupation: students, civil servants, entrepreneurs, or private employees, there are no significant differences of green behavior ($F = 2.613$ $p = 0.053$). Similarly, there are no significant differences of green behavior based on amount of spending per month ($F = 0.550$ $p = 0.738$).

Survey results show that respondents care about the environment (Table 5). Respondent perform environmentally conscious daily habits, such as turning off the water tap, turning off the lamp, turning off the air conditioning, while they are not in use (Mean > 5). Nevertheless the attention to recycling is rather low. Items including separating garbage from recyclable material, buying a product from a material that can be recycled, and recycling newspapers, each has a mean below 4. Whereas green behavior that requires greater effort such as buying things made from durable material, saving the use of plastic bags, using public transport, were at a moderate level.

Table 5. Descriptive Statistics of Green Behavior

Green Behavior	Mean	Std. Deviation
I care about the environment	5.0909	.69684
Environmental conditions affect the quality of my life	5.2970	.63653
I'm trying to protect the environment	4.9818	.70255
My actions have an impact on the environment	5.1455	.75105
I support the efforts of environmental conservation	5.0364	.80313
I turned off the water while washing hands with soap	4.8303	1.20276
I turned off the water while brushing my teeth	5.1212	1.04641
I turn off the lights when the room is not in use	5.1515	.93448
I turn off the air conditioning when the room is not in use	5.1697	.99158
I reuse empty paper	5.0545	1.01365
I reuse discarded plastic bags	4.9576	1.08959
I separate garbage from recyclable material	3.8485	1.10766
I buy a product from a material that can be recycled	3.8424	1.01183
I recycle newspapers	3.4727	1.17683
I chose to use public transport instead of private vehicles	4.2667	1.37545
I buy things made from durable material	4.9515	1.00490
I avoid buying products that only disposable	4.7030	1.13279
I save the use of plastic bags	4.8909	1.02421
When shopping, I carry my shopping bag	4.0667	1.43192

In contrast to previous studies conducted by Chen and Chai (2010) in Malaysia where the results show that there were no differences between gender in environmental attitude and green product attitude, our result indicated that female consumers' green behavior was higher than male. This result supports Kaman Lee (2009) study in Hong Kong and Gilg et al. (2005) that showed that female's environmental attitude is higher than male. Female's environmental concern, perceived seriousness of environmental problems, perceived environmental responsibility, peer influence and green purchasing behavior were higher than male (Kaman Lee, 2009). In past research on green attitude considering the gender roles, some researchers argued that female has a more consistent attitude in the green movement than male. The theoretical justification for this comes from Eagly (1987, in Straughan & Roberts, 1999), which states that women should more carefully consider the impact of their actions on others; it is influenced by differences in gender roles in social life. Straughan & Roberts (1999) found that gender had significant effect on ecologically-conscious consumer behavior.

Attitude toward Green Product

In contrast with the previous research where attitude toward green product was included in green behavior, we deliberately separate it in order to give it focus. Our study indicated that overall respondents' attitude toward green product was high ($M = 5.1657$ $SD = 0.73494$). According to respondents, purchasing environmentally friendly products is a good idea. They

support the idea of replacing products with green products, and they support the purchase of green products.

Differences between male and female were not significant ($t = -0.795$ $p = 0.428$; $M_{\text{male}} = 5.1181$ $SD = .70819$; $M_{\text{female}} = 5.2093$ $SD = .76020$). Similarly if the respondents are classified by age, there were no significant differences of attitude toward green product among the age groups of <20, 20-29, 30-39, 40-49, and over 50 years old ($F = 0.465$ $p = 0.761$). Likewise if the respondent is classified based on the last education: High school / S1 / S2 / S3, green product attitude did not differ significantly ($F = 1.061$ $p = 0.367$). Highlights of our results were consumers' daily green behavior was not the same as their attitude towards green products. Gender and age distinguish the daily green behavior, but not in green product attitude. But in our research, we did not explore whether there was a correlation between both of them.

The Effect of Anthropomorphism of the Nature toward Green Behavior

Our study on 165 respondents shows that the anthropomorphism of nature had a significant effect on green behavior ($F = 30.951$ $p = 0.000$) (Table 6). Although the respondents' anthropomorphism of nature is not too high ($M = 3.5291$ $SD = 0.87906$), but nevertheless, it has an effect on green behavior.

Table 6. The Effect of Anthropomorphism of the Nature toward Green Behavior

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.399 ^a	.160	.154	.52229

a. Predictors: (Constant), Nature Anthropomorphism

ANOVA ^a					
Model		Sum of Squares	df	Mean Square	F
1	Regression	8.443	1	8.443	30.951
	Residual	44.464	163	.273	
	Total	52.907	164		

a. Dependent Variable: Green Behavior

b. Predictors: (Constant), Nature Anthropomorphism

These results show that consumers, who have a tendency to anthropomorphize nature, have a positive green behavior. As in previous studies, anthropomorphizing nature object creates a sense of connection with nature and the relationship with nature encourages the action to protect nature (Tam et al., 2013). Anthropomorphizing natural objects treated them as an agent that deserves care and attention (Waytz et al., 2010).

The Effect of Anthropomorphism of the Nature toward Green Product Attitude

Our study shows that the anthropomorphism of nature had a significant effect on green product attitude ($F = 15.093$ $p = 0.000$) (Table 7). Although natural anthropomorphism

respondents were not too high ($M = 3.5291$ $SD = 0.87906$), but nevertheless it had an effect on the green product attitude. These results show that consumers, who have a tendency to anthropomorphize nature, have a positive attitude towards green product.

Table 7. The Effect of Anthropomorphism of the Nature toward Green Product Attitude

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.291 ^a	.085	.079	.70527

a. Predictors: (Constant), Nature Anthropomorphism

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.507	1	7.507	15.093	.000 ^b
	Residual	81.076	163	.497		
	Total	88.583	164			

a. Dependent Variable: Green Product Attitude

b. Predictors: (Constant), Nature Anthropomorphism

Anthropomorphism involves attributing human-like mental states to non-human agents, and then it predicts the extent to which people respect and care to non-human agent interests (Waytz et al., 2010). Further, Waytz et al. (2010) considered the effect of anthropomorphism on the concern for the environment. Our study indicated that anthropomorphizing nature predicted environmental concern, in this case green behavior and attitude toward green product.

CONCLUSIONS AND FUTURE RESEARCH

As the phenomenon that Indonesian people have a tendency anthropomorphizing nature, our study showed that these tendencies do exist. Indonesian people are anthropomorphizing mountains, sea, trees, and other natural objects, more than just seeing a human face on the tree, but also feeling that the trees, wind, and sea have emotions. Our survey results show that respondents' anthropomorphism of nature is in moderate level; female anthropomorphism of nature was higher than male, but there is no difference among age group. Respondents stated that they are concerned for the environment. Their daily green behaviors have been pretty good, indicated by the habits of turning off the lights, tap water, and air conditioner. However, green actions that require greater effort such as sorting waste and recycling material still needs to be improved. Further, anthropomorphizing nature affects green behavior and green products attitude. This means that the more consumers anthropomorphizing nature, the higher their green behavior and attitude toward green product.

An interesting result of this study is that the female anthropomorphism of nature was higher than male, as well as green behavior of female respondents was higher than male. In Indonesia, shopping goods of daily needs are usually done by female. Then if marketers want to encourage female consumers to buy green products, the campaign using anthropomorphic

objects can be used as an alternative. Anthropomorphic elements can also be used by marketers in a campaign to encourage green behavior of female consumers, such as carrying shopping bags from home, reducing the use of plastic bags, separating household waste from items that can be recycled, and so forth.

Future research could utilize natural anthropomorphizing tendency to create anthropomorphic natural objects, and examine its effect on green behavior. Research would be based on the theory of anthropomorphism to provide ideas for the government and marketers on how to encourage green behavior in order to save the earth. Anthropomorphic natural objects are expected to lead to anthropomorphism, which in turn will encourage consumers to be concerned for the environment and have a green behavior.

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