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# The Role of Social Psychology in Acquiring Proenvironmental Patterns of Living

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## ABSTRACT

Humans polluted the air, water and land of the planet to such an extent that they are always experiencing large-scale environmental crises. Environmental problems are ‘social issues’ because they are caused by human behavior. Social psychologists lead the way in helping people to acquire pro-environmental patterns of living. Although both environmental attitudes and behaviors, and their relationship are studied by social psychologists in the field, the emphasis of social psychologists is mostly on changing environment-related behavior in a positive direction and on strategies promoting pro-environmental behavior. In the environmental literature, there are a lot of theoretical and applied studies emphasizing the destructive effects of the environmental problems. The most usual environmental stressors in the literature are noise, climate changes, pollution, and crowd, and the results of environmental stress are generally found physical illnesses, diminished altruism, learned helplessness, and attentional problems. The most studied topics in the literature are litter behavior, energy conservation, recycling, water use, and car use. Furthermore, social psychologists have developed some more theoretical models (e.g., the models developed by Clayton, de Young, Kaplan) to promote pro-environmental behavior. What most social psychologists consider as a necessary step to promote environmentalism is the productive collaboration among different disciplines, i.e., a multi-disciplinary approach.

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The challenge of social psychology is to find ways to transform environmental concern into environmentally responsible behavior. The feeling of responsibility for the future generations is called 'vertical responsibility'. Social psychology has yet much to do in order to benefit the whole world. The scope of the present review is to emphasize the role of social psychology in helping to solve environmental problems. For this purpose, the most prominent and recent research, and theories in the field were examined.

**Keywords:** Pro-environmental Behavior, Social Psychology, Environmental Attitudes, Vertical Responsibility, Environmental Concern

## INTRODUCTION

Humans are continuously harming the environment thus, they are in great danger. They overuse, pollute, destroy the air they breathe, the water they use, and the land that sustains them. The air, water, and land of the planet are polluted to such an extent that humans are always experiencing large-scale environmental crises. Hence, the planet has been abused on an unprecedented scale.

Environmental problems are among the most daunting of social problems that humans face (Zelezny and Schultz, 2000). They are 'social issues' because they are caused by human behavior. Therefore, environmental problems are not only technical problems requiring solutions from the disciplines such as engineering, physics, and chemistry, but also social problems, i.e., social sciences have a crucial role in solving these problems, which can "all be reversed by human behavior" (Oskamp, 2000a, p. 501). Social psychology is one of these social sciences interested in 'reversing' these problems, i.e., in researching and in trying to solve them. İncedayı (2007) emphasized the importance of constructing buildings with natural techniques, less energy consumption, and renewable materials. In the 21<sup>st</sup> century, ecological architecture has three main aims: harmony with nature and sustainability, construction without discarding ecological principles, and designing taking art and human soul into account (Yılmaz, 2007). For instance, Wyoming University designed the building for Visual Arts after observing the interaction between the sun and interior design (EkoYapı Magazine, 2016); similarly, the Biological Sciences Research Building in Galway, Ireland has a design using a natural air conditioning system and adapted itself to the Irish climate.

The scope of the present review is to emphasize the role of social psychology in helping to solve environmental problems. How do social psychologists lead the way in helping people to acquire pro-environmental patterns of living? To answer this question, the most prominent and recent research, and theories in the field will be examined.

### **Environmental Concern, Attitudes and Behavior**

Social psychologists have a great interest in investigating ‘environmental concern’ because they consider it as a prerequisite for developing efficient environmental protection and for applying behavior modification programs (van der Pligt, 1996). In addition to the scales (e.g., “New Environmental Paradigm Scale”, “New Ecological Paradigm Scale”) measuring environmental attitudes, social psychologists examine mostly ‘environmental concern’ through the study of the attitude-behavior relationship. Social psychological literature pays a lot of attention to attitudes as primary determinants of behavior (Cassidy, 1997; van der Pligt, 1996). However, a lot of psychologists (e.g., Aitken et al., 1994; Kempton et al., 1992; Verplanken et al., 1994) find a gap or a weak relationship between environmental attitudes and behavior. For instance, a person may feel very strong about energy conservation, but unfortunately this attitude may not prevent him/her from wasting energy. So, although people have positive attitudes in behaving towards the environment, “unfortunately [they] do not translate their attitudes into behavior” (Cassidy, 1997, p. 206). Thoreau (2007), who accepted the nature as a kind of ‘religion’, stated that he learned everything that could be learned from life and besides to live consciously thanks to the nature.

The relationship between attitude and behavior can be strong or weak or modest. The fact that most findings are about modest relationships between environmental attitudes and behavior is not a pessimistic situation according to Cassidy (1997). He argues that there is a “cause for optimism that the behaviors we observe may not reflect attitudes” (p. 212). It means that even though people waste energy and abuse the environment, it is logical to believe that they may not feel positively about damaging the environment. It is about trying to find a positive meaning in the attitude-behavior discrepancy but of course, it would be better to have positive environmental attitudes as predictive of positive environmental behaviors. Positive environmental behaviors may become

the more accepted behaviors and so, related attitudes may change in line with those behaviors (Pandey, 1990) as well.

Although both environmental attitudes and behaviors, and their relationship are studied by social psychologists in the field, when it comes to the applied social psychology field, the emphasis of social psychologists is mostly on changing environment-related behavior and on strategies promoting pro-environmental behavior (van der Pligt, 1996). It is time to ask the following questions: How do social psychologists help to solve environmental problems? How do they help to change environmental behavior, i.e., stimulate environment-friendly behavior?

### **Social Psychological Theory and Research: Solution to The Environmental Problems**

There is a growing realization around the world that environmental abuse is a serious societal problem. Unfortunately, human beings may overuse natural resources for obtaining their individual or group short-term self-interest and they may discard the long-term common interest. This tendency is named as the ‘tragedy of the commons’ by Hardin (1968; as cited in Oskamp, 2000a). Since, humans may think only of themselves and their needs, this egoism may lead to great environmental abuse.

The concept of ‘environment’ covers both natural physical settings and social settings (De Young, 2013). Accordingly, the discipline of social psychology has a great interest in helping to solve environmental problems. This interest is not surprising because social psychology is concerned with humans who live in different environments. What social psychologists do is trying to change environment-related human behavior in the direction of pro-environmental behavior and thus, avoid the ‘tragedy of the commons’ (Oskamp, 2000a; van der Pligt, 1996). The study and research of social psychologists form a worldwide environmental social psychological movement. Social psychologists both “heighten awareness about environmental problems” and “change human behaviors to improve our sustainability” (Schultz and Zelezny, 1998, p. 541). Therefore, they try to develop successful environment protection and behavior modification programs at both local and global level, and they try to foster environment-friendly behavior (Stern, 1992; van der Pligt, 1996). How do they try to change environmental behavior? What are the studies that they conduct

to solve environmental problems? In the following section, the most prominent research in the literature will be examined.

### **Research: Changing Environmental Behavior**

The most usual environmental stressors in the literature are noise, climate changes, pollution and crowd (Ercan, 2021). Among the results of environmental stress are generally found physical illnesses, diminished altruism, learned helplessness, and attentional problems (Ercan, 2021). In the environmental literature, there are a lot of theoretical and applied studies emphasizing the destructive effects of the environmental problems, which are causing stress. For instance, one of these destructive effects is a concept called ‘environmental racism’: Generally, the poor strata of the society and the minorities are experiencing environmental problems (Macionis, 2012). This is a problem related to social inequalities.

Since the early 1970s, social psychologists have investigated ways to promote pro-environmental and conservation behavior (van der Pligt, 1996). The most studied topics in the literature are litter behavior, energy conservation, recycling, water use, and car use. Social psychologists have developed some more theoretical models (e.g., the models developed by Clayton, de Young, Kaplan) to promote pro-environmental behavior at its general meaning without focusing on specific topics, such as promoting litter behavior or promoting water use behavior. As a result of the contributions of all the research findings and recently developed models, the field becomes very rich.

The studies investigating how to induce anti-littering behavior (e.g., Bator, 1997; as cited in Bator and Cialdini, 2000; Cialdini et al., 1990; Reno et al., 1993) show that if the norms are manipulated and emphasized, it is possible to change behavior and to induce conformity. For instance, in a research aimed at inducing anti-littering behavior (Cialdini et al., 1990), the researchers manipulated the appearance of a parking lot as clean vs. littered. Their sample consisted of people coming to that parking lot. As a result of the observations, they found that when the parking lot was previously littered with fliers, most drivers followed suit. This social norm is called as ‘descriptive norm’ which specifies what most others do in a given setting. Another finding of the research- which Aronson (2018) finds very interesting- was that people were much less likely to litter when there was one piece of litter on the ground than when there was no

litter on the ground. The reason of this behavior was that when people saw one piece of litter, they remembered that littering was disapproved in the society. This social norm is called as 'injunctive norm' which specifies what most others approve or disapprove in the society. As it is apparent from this and other studies on littering behavior, the contribution of social psychology to environmental issues is very great: Social psychology demonstrates humans what to do if they want to induce anti-littering behavior.

Similar to the litter behavior, the studies investigating how to induce water consumption behavior, energy-conserving behavior, travel mode choice behavior, and recycling behavior show that the contribution of social psychology to the behavior change is very great. If norms are manipulated, people's positive prior commitments and agreements about an environmental issue are obtained, individuals are provided with incentives for target behavior, and if financial sanctions are applied, it is possible to change behavior in the direction of environment-friendly behavior (see Aronson, 2018).

### **Theoretical Models: Changing Environmental Behavior**

The theoretical models concern with global issues, and they focus on how to promote pro-environmental behavior at a general level. So, these general models do not focus on specific topics such as how to promote anti-litter behavior or how to promote water conservation behavior. They are not applied research models in themselves, but they are developed more on a theoretical level by using social psychological tools. However, they may lead to new application areas.

One of these theoretical models is the 'Reasonable Person Model' suggested by Kaplan (2000). This model integrates evolutionary, cognitive and motivational aspects which concern human life. So, this model offers an evolutionary-cognitive-motivational approach to understand human nature and it uses insights from cognitive science and human evolution. According to this model, it may be easier to promote environmentally responsible behavior if human nature and circumstances that foster motivation are recognized.

De Young (2000) developed another motivational strategy called 'intrinsic satisfaction', which is personal, internal contentment that engaging in pro-environmental behaviors, such as balanced consumption. Another idea was developed by Clayton (2000). She advanced the idea of 'environmental justice',

which covers the responsibility to future generations and the rights of the environment. According to Clayton (2000), this idea emerges as “the most highly rated consideration in resolving environmental conflicts” (p. 459); similarly, Schultz (2000) argues that the ‘self-concept’ of an individual and the extent to which he/she perceives himself/herself as an integral part of the environment are very important to determine his/her attitudes towards the environment. Cassidy (1997) emphasizes the relevance of social identity in gaining an environmental perspective.

In summary, according to these theoreticians, it should be firstly recognized the nature of humans, and if their cognitive processes, motivations, moral feelings and emotions are stimulated, environment-friendly behavior may be promoted. There is much more to be done if it is thought that humans have abused the planet on an unimaginable scale.

### **Conclusion: Contributions and Future Directions of Social Psychological Research**

Social psychologists concern with the environmental social issues such as litter behavior, water use behavior, energy conservation, car use behavior, and recycling behavior. They try to find some ways to promote environment-friendly behavior. In this way, they emphasize what is necessary to apply for environmentalism. Overall, in the studies included in the present review, they show that social norms and social information, prior commitment (especially public commitment), financial costs and incentives, (vivid) communication, agreements, training programs and education are very effective for promoting pro-environmental behavior. With these findings, it is possible to say that if all these factors are manipulated and applied, behavior may be changed in the direction of a more positive approach to environmental issues.

In addition to these studies, social psychologists developed some theoretical models concerning with global issues and focusing on how to promote pro-environmental behavior at a general level. They dig the origin of human nature and try to understand it in order to promote environmentalism. In further studies, these theoretical models can be applied in promoting pro-environmental behavior.

What most social psychologists (e.g., McKenzie-Mohr, 2000; Stern, 2000) consider as a further and necessary step to promote environmentalism is the

productive collaboration among different disciplines such as social, health, community and clinical psychology, sociology, political science, geography, anthropology, and engineering. This kind of a multi-disciplinary approach, within which social psychology can make a useful contribution, is necessary for a future development in order to fully understand, predict, and change for environment-friendly and responsible behavior. When different disciplines bring their own points of view and when researchers from different disciplines collaborate, the environmental problems can be easily solved (van der Pligt, 1996).

Actively, social psychologists set up scientific agencies and organizations (e.g., the U.S. Environmental Protection Agency, the Environmental Design Research Association) and they publish journals (e.g., *Environment and Behavior*, the *Journal of Environmental Psychology*) and handbooks (e.g., the *Handbook of Environmental Psychology* by Stokols and Altman). These organizations and publications are very effective for changing environmentally destructive behavior. They should also serve to educate lay people for positive environmental behavior. In this way, in addition to psychologists and other scientists, lay people may also gather their emotional, material, and informational forces to form social networks and units of social support to solve and/or avoid environmental problems. In summary, social psychologists should act as 'pro-environmental educators' in order to promote environment-friendly behavior. Oskamp (2000b) is one of these educators and he argues that "to create a sustainable world, we need everybody's participation" (p. 388). Governments and political leaders should also work for these pro-environmental goals; in addition, funding agencies should fund research. McKenzie-Mohr (2000) suggests that psychologists should try to influence funding agencies such as the U.S. Environmental Protection Agency and Environment Canada to support environment-friendly behavior.

Everybody can do a lot of things: buying fuel-efficient cars, recycling thoroughly, using mass transportation, and so on. In this effort, social psychology is the 'moderator': It should moderate and organize the collaboration with other scientists, politicians, and lay people because it understands better the human-environment interaction. Furthermore, it should unite applied research and theory to show the ways leading to pro-environmentalism. So, it should



find further ways to solve environmental problems and then apply them.

In short, the challenge of social psychology is to find ways to transform environmental concern into environmentally responsible behavior. In this challenge, as Winter (2000) argues, it is necessary to gain momentum to avoid a future environmental disaster because humans have abused the Earth to a great degree. The feeling of responsibility for the future generations is called ‘vertical responsibility’ (Ercan, 2021). Social psychology has yet much to do in order to benefit the whole world, to benefit our children and our grandchildren.

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