Divine Word International Journal of Management and Humanities 5(1)(2026) 2643-2667

Research in Management and Humanities

DWIJMH VOL. 5 NO. 1 (2026) ISSN: 2980-4817

Available online at www.dwijmh.org
Journal homepage: http://www.dwijmh.org
ORCID ID: https://orcid.org/0000-0001-6884-3504

Developing employees' green behavior by balancing both environmental attitudes: Ecocentrism and anthropocentrism

Damianus Abun: Professor, School of Business and Accountancy, Divine Word College of Laoag.
Fredolin P. Julian: Professor, School of Business and Accountancy, Divine Word College of Laoag.
Elita Bielza-Valdez: Professor, School of Business and Accountancy, Divine Word College of Vigan.
Theogenia Magallanes: President, Saint Benedict College of Northern Luzon, Philippines.
Jecel M. Mansueto: Faculty, Saint Benedict College of the Northern Luzon, Philippines.
Micah T. Sallong: Dean, Saint Benedict College of the Northern Luzon, Philippines.

ARTICLEINFO

Article history:
Received: December 01, 2025
Received in rev. form. January 15, 2026
Accepted: February 20, 2026
Published: March 17, 2026

Keywords: ***Environmental attitude, anthropocentric attitude, ecocentric attitude, human dominance over nature attitude, green behavior.***

JEL Classification: Q01

ABSTRACT

The study aimed to examine the influence of employees' environmental attitude on their green behavior. To deepen the study's theoretical foundations, the literature was reviewed. The study used a descriptive assessment and correlational research design. The study population comprised all employees of Divine Word College of Laoag. The questionnaires were used to gather the data. The study found that, overall, employees' attitudes toward the environment were high, and the same held true for green behavior. The correlation analysis found a significant relationship between environmental attitudes and employees' green behavior. Therefore, the study's hypothesis is accepted. The study also acknowledged its limitations due to the small sample size.

Introduction

It is undeniable that the climate is changing detrimentally due to environmental concerns and the degradation caused by human activities, commonly referred to as the "anthropogenic problem. Many studies have shown that human activities, such as resource exploitation, industrial processes, and land-use changes, exacerbate environmental degradation (Lerche & Glaesser, 2006; Bondyrev et al., 2015). Increased greenhouse gas emissions from sources such as burning fossil fuels and

* *Corresponding author. ORCID ID: 0000-0001-6884-3504*

deforestation are driving a rise in global temperatures, leading to a range of health problems from mild discomfort to severe and potentially fatal conditions (Keivabu, 2024; Kunda et al., 2024). Common illnesses associated with high temperatures include heat exhaustion, heatstroke, and dehydration. These conditions occur when the body's ability to regulate its temperature is overwhelmed. Extreme heat can also exacerbate existing medical conditions like cardiovascular disease, respiratory problems, and mental health issues (Hansen et al., 2013; Varickanickal & Newbold, 2021). According to the World Health Organization (2024), the number of people exposed to extreme heat across regions is growing exponentially, with approximately 85% of those affected being 65 and above. This is a global problem that needs to be addressed by everyone at all levels of society.

People have been discussing environmental problems and proposing solutions like planting more trees, recycling, and minimizing the use of fossil fuels, etc., but up to this time, the problem shows no signs of slowing down because of the scale of the issues, the complexity of the implementation, and the pace of change often overtake the efforts to address them. Individual actions, while important, may not be enough to counteract the large-scale impacts of industrialization and globalized consumption (Abbass et al., 2022, United Nations, n.d). Environmental problems are global issues that require global cooperation. Solutions at a regional, local, and institutional level may not be enough to address these interconnected challenges. However, waiting for a global initiative to solve environmental problems may be too late, as climate change is accelerating rapidly and could lead to irreversible damage (Awewomom et al., 2024; Shivanna, 2022). Individual and group initiative might help solve the environmental problem. Actions like reducing waste, conserving energy, and adopting sustainable practices can collectively create impact. Collective actions through community initiatives, social movements, and educational programs can amplify these efforts to address environmental problems at a large scale (Bennett et al., 2018; Ardoin et al, 2022).

Higher education institutions are invited to contribute to solving environmental problems in line with their role as knowledge creators. Problem solutions must be based on scientific research, including those for environmental problems (Hamadi et al., 2024; Filho et al., 2025). Recognizing the severity of the issues, numerous studies have been conducted to identify the causes and potential solutions. However, most studies address behavioral problems rather than mental or attitudinal issues. It is recognized that environmental problems are anthropogenic problems, human problems, and therefore, the mind or attitude must be addressed, not only the behavior. Addressing the underlying values and beliefs that drive harmful behavior is crucial for effective environmental solutions (Abun & Racoma, 2017; Burgos-Espinoza et al., 2024). Simply focusing on outward actions without considering the motivations or values behind them is insufficient for long-term positive change (Kopnina et al., 2018; Farani et al., 2019). Thus, the current study aims to address the environmental attitude gap that affects green behavior. It examines employees' mindsets in an educational context, focusing on their attitudes toward the environment and their behavior toward it. The results of the study will be used to develop a curriculum that incorporates environmental ethics.

The study is divided into several parts. The first section is the introduction, which provides background on the study. The second part is the literature review, which focuses on attitudes toward the environment and behavior. The third part presents the research methodology, including the research design, population, study locale, research procedures, research instruments, ethical procedures, and statistical treatment of data. The fourth aspect is the data presentation and analysis, and the fifth is the discussion and conclusion.

Literature review

Culture, attitude, and behavior

Anthropologists argue that human behavior reflects culture. Culture is not limited to visible traditions and customs; it also includes shared ways of thinking, feeling, and acting within a group. Cultural norms and values shape patterns of behavior, and by observing how people behave, we can better understand the cultural context that influences them (Thin, 2014; Durham, 1976; Salazar, 2022). In simple terms, behavior is a product of culture (Walsh, 2024). This explains why people from different cultural backgrounds behave differently. Culture shapes the mind by influencing how people think, what they value, and how they interact with others. It serves as a framework that guides perceptions, beliefs, values, and social norms through which individuals interpret the world (Taylor & Thoth, 2011; Bedford et al., 2008; Krys et al., 2016).

Donald (2002) emphasized that culture strongly influences how the brain functions and even affects brain development. She argued that while language has the most direct impact on brain structure, culture significantly shapes brain functioning. According to her, the social environment—such as social bonding, competition, and learning—affects brain function, but symbols have a unique role because they directly shape how the brain is wired during development. This process, which she calls *deep enculturation*, involves the formation of complex cognitive patterns that make new forms of thinking possible. In this way, culture creates functional brain systems that would not exist without it.

Donald's perspective aligns with the ideas of Geert Hofstede (1980a, 1983), as cited by Singelis and Brown (1995). Hofstede defined culture as the collective programming of the human mind that distinguishes one group from another. He explained that culture influences how people think, see the world, and behave. Cultural differences can therefore be observed through people's actions and their attitudes toward specific objects or situations.

Research also shows that culture influences ethical perceptions. Armstrong (1996) suggested that cultural dimensions such as uncertainty avoidance and individualism are linked to how people judge ethical issues. In other words, people from different cultures may view ethical situations differently (Vitell et al., 1993; Mumtaz, 2024). This supports the link between culture and ethical decision-making proposed by Hunt and Vitell (1986) in their general theory of marketing ethics. Cultural background shapes values and beliefs, which in turn influence ethical judgments. For example, while some people may view bribery as immoral, others may see it as acceptable or even beneficial, depending on their cultural context (Pitta et al., 1999).

From a functionalist perspective, culture is seen as part of an integrated social system that promotes organizational effectiveness and the well-being of its members (Adeniyi et al., 2024; Ramadhan et al., 2024). Functionalists define culture as the shared assumptions, beliefs, goals, knowledge, and values of a society (Trevino & Nelson, 1999). Similarly, Edward Burnett Tylor (1986), as cited by Racelis (2009), described culture as a complex whole that includes knowledge, belief, art, morals, law, customs, and other learned habits acquired as members of society. Culture represents powerful "ideal factors" that independently influence human behavior and events (Flamholtz & Randle, 2014). When individuals face ethical dilemmas, their cultural value systems shape how they perceive and respond to those situations (Drolet et al., 2022).

Overall, these theories show that culture strongly shapes how people think, perceive, and behave, including their attitudes, values, and beliefs (Garcia-Alexander et al., 2017). Another important influence on behavior is a person's core faith, which may be expressed through religion, philosophy, or personal belief systems (Abun, 2017). Religion remains a powerful social force because many people believe in a higher power (Abrams, 2023). Moral emotions such as shame, pride, and guilt also affect behavior, with shame and guilt playing particularly strong roles in guiding actions (Tangney, 2007; Spilka, 1996).
There is broad agreement that culture significantly influences human behavior. Culture can support human development, but it can also limit it (Osher et al., 2018; MacNeill, 2020). Many social problems stem from harmful attitudes and beliefs that are passed down through generations. Cultural beliefs, values, and practices are taught to children early in life and continue to influence their behavior as they grow. These deeply ingrained cultural patterns shape daily interactions with others and the environment, leading to behavioral differences across societies (Triandis, 1994). Triandis explained that culture influences attitudes, which in turn guide behavior. Attitudes represent positive or negative evaluations of people, objects, places, or events (Wyer, 1965), and they affect how individuals treat both others and the environment.

Addressing social and environmental problems, therefore, requires more than policy changes. It also requires changes in attitudes, beliefs, and values. Deeply rooted cultural attitudes can contribute to environmental degradation and social injustice (Kopnina et al., 2018; Elsayed, 2024). Since attitudes and behaviors are products of culture, meaningful behavioral change often requires cultural change. This process can be difficult because people must reassess long-held beliefs and unlearn established patterns of behavior (Abun et al., 2019; Crano & Gardikiotis, 2015; Bouton & Woods, 2008). However, culture is not fixed. It can change when individuals and societies choose to reflect, adapt, and adopt new values and behaviors (Stephenson, 2023; Macklin, 2013; Walther, 2020).

Environmental problems, in particular, are widely considered anthropogenic, meaning they are caused by human attitudes and behaviors (Fang et al., 2022; Jiangping et al., 2014). These attitudes are often rooted in cultural and religious teachings. One commonly cited example is the Judeo-Christian interpretation of Genesis 1:27–31, which emphasizes human dominion

over nature. This belief has shaped worldviews for centuries and has been used by some capitalist perspectives to justify environmental exploitation (Bricker, 2009). Such views treat the environment primarily as a resource for human use, valuing it only for its usefulness rather than for its intrinsic worth.

Because environmental problems are rooted in culture and human thinking, they cannot be solved solely through laws and regulations. Effective solutions require changes in cultural beliefs, values, and perceptions about the environment. This involves introducing new ways of thinking that encourage respect for nature and replacing older views that promote exploitation (Abun & Racoma, 2017; Okyere-Manu et al., 2022).

Psychologists have long recognized that environmental degradation results from maladaptive human behavior. Maloney and Ward (1973) identified human behavior as a key cause of environmental problems, and Oskamp (2000) further argued that human actions have caused widespread and potentially irreversible environmental damage. He suggested that addressing these problems requires changing how people understand and relate to the environment, particularly by reshaping attitudes and behaviors toward more sustainable practices.

Environmental attitude

Environmental attitude refers to the set of beliefs and feelings that influence a person's intention to engage in activities or make decisions related to environmental issues (Schultz et al., 2004). Many studies have shown that environmental attitudes play an important role in shaping people's behavior toward the environment (Hines et al., 1987; Kaiser et al., 1999). Despite this, researchers do not fully agree on how environmental attitudes should be classified or measured.

Some scholars describe environmental attitude using two broad dimensions. According to Pierce and Lovrich (1980) and Poortinga et al. (2002), environmental attitudes range from being unconcerned to being highly concerned. Within this two-dimensional framework, attitudes are often viewed as either **anthropocentric**, meaning concern is centered on human needs and welfare, or **ecocentric**, meaning concern extends to all living things and nature itself. These scholars commonly used the scales developed by Thompson and Barton (1994) to measure such attitudes.

Other researchers propose a more detailed classification. Stern et al. (1994), drawing on value orientation theory, suggested three dimensions of environmental attitude: **egoistic concern** (focused on the self), **altruistic concern** (focused on other people), and **biospheric concern** (focused on the natural world). To measure these dimensions, Stern and colleagues relied on value items developed by Schwartz (1992).

The present study does not adopt either the two-dimensional or three-dimensional approaches discussed above. Instead, it uses the **Environmental Attitude Inventory (EAI)** developed by Milfont and Duckitt (2006). This instrument was designed to provide a more comprehensive and balanced understanding of environmental attitudes by integrating earlier models, including those of Thompson and Barton (1994) and Barton (1992). In their study on preservation and utilization, Milfont and Duckitt (2006) identified twelve categories of environmental attitudes, including enjoyment of nature, support for conservation policies, environmental activism, anthropocentric and ecocentric concerns, confidence in science and technology, perceptions of environmental threats, beliefs about altering nature, personal conservation behavior, views on human dominance over nature, and support for population growth policies.

Although Milfont and Duckitt (2006) did not explicitly distinguish between environmental attitudes and environmental behavior, earlier scholars such as Hines et al. (1986/1987) and Olsen (1981) emphasized that two types of attitudes are important in predicting ecological behavior: attitudes toward the environment and attitudes **toward ecological behavior**. Based on this distinction, the present study organizes the EAI into three related categories: attitude toward the environment, attitude toward ecological behavior, and behavior toward the environment. This classification reflects the idea that attitudes and behaviors are related but distinct, with attitudes generally preceding and influencing behavior.

Attitude can be defined as a person's thoughts or feelings about an object, or as a learned tendency to respond positively or negatively toward something (Eilam & Trop, 2012). From this perspective, attitude always has an object. A person's attitude may be favorable or unfavorable, positive or negative, depending on their beliefs and feelings. In this study, the environment

is treated as the object of attitude. However, the environment is complex and cannot be experienced as a single, unified whole. Instead, people form attitudes toward specific elements within it, such as trees, rivers, mountains, animals, or forests. As Heberlein (2012) explains, individuals do not experience "the environment" in its entirety but rather encounter distinct aspects of it, each of which may evoke different attitudes.

Attitudes consist of both cognitive components, such as beliefs and knowledge, and emotional components, such as feelings and evaluations. Because of this, attitudes include an evaluative element—judgments such as liking or disliking. At a deeper emotional level, this evaluation may be expressed as affect. Bern (1970) and Fishbein and Ajzen (1975) defined attitude as an evaluative judgment based on object-specific beliefs. In environmental research, attitude toward the environment is often discussed in terms of **environmental concern** (Fang et al., 2023; Hadler et al., 2021).

Environmental concern may be either anthropocentric or ecocentric. Anthropocentric concern reflects support for environmental protection based on its benefits to human welfare and well-being, while ecocentric concern reflects support based on the belief that nature has intrinsic value, independent of human use (Abun & Racoma, 2017). Ecocentric concern may also involve emotional responses, such as sadness, nostalgia, or a sense of loss, when the environment is damaged, rather than indifference or a lack of concern (Abun & Racoma, 2017; Schwartz et al., 2022).

Anthropocentric attitude

Centrism refers to a worldview in which a particular value or perspective is placed at the center of how people understand the world (Kopnina et al., 2018). In environmental anthropocentrism, humans are placed at the center, and nature is valued primarily for the material benefits it provides to people. From this perspective, nature is considered important only to the extent that it serves human needs and interests (Abun & Racoma, 2017). Human welfare becomes the primary concern, and everything else is expected to support it. As Goralnik and Nelson (2012) explain, this view assumes that humans are the most important beings on the planet.

An anthropocentric attitude suggests that humans possess greater intrinsic value than other species (Kopnina et al., 2018). As a result, natural resources and other living beings may be seen as objects to be used or exploited if they contribute to human benefit. This way of thinking can have serious consequences for the environment, including unsustainable practices and the extinction of nonhuman species. In this sense, anthropocentrism has been identified as a major driver of harm toward the nonhuman world.

Kortenkamp and Moore (2001) warned that how humans treat nature ultimately affects human well-being. They emphasized that anthropocentric attitudes require moral reflection because environmental degradation inevitably harms people as well. When the environment is viewed only in terms of its instrumental value, it encourages manipulative and exploitative behavior toward nature. For this reason, scholars argue that nature should also be recognized for its intrinsic value—that is, valued not only for what it provides to humans but for its own worth and right to exist (Abun & Racoma, 2017).

Human dominance over nature attitude

Culture strongly influences how people view and relate to nature. Different cultures hold varying beliefs about the relationship between humans and the natural world, which shape how nature is perceived, valued, and treated (Gibson, 2002; Forawi, 2015; Khaddour et al., 2017). One important cultural influence is religion. Religion is a system of beliefs, values, and practices that shapes individual worldviews, behaviors, and social structures (Belzen, 2018; Quintar, 2011).

In many societies influenced by Christianity, interpretations of the Bible have played a major role in shaping attitudes toward nature. A commonly cited passage is Genesis 1:26, which states, "Have dominion over the fish of the sea and the birds of the air and the cattle and over all the wild animals of the earth and over every creeping thing that creeps upon the earth" (Ives et al., 2022; Nash, 1990). Over time, this verse has often been misunderstood, with the term *dominion* interpreted as *domination*. This misinterpretation has led some people to justify human supremacy over nature and to support exploitative or manipulative treatment of the environment (Hiebert, 1996; Weldon, 2016).

However, scholars argue that this interpretation is incorrect. The biblical concept of dominion does not imply domination or exploitation. While the two terms are sometimes used interchangeably, they have very different meanings. *Dominion* refers to authority accompanied by responsibility, care, and stewardship, whereas *domination* emphasizes control through power, often involving oppression or exploitation (Nash, 1990; Fox, 1982; Brett & Hill, 2024). In the original context, the command to "subdue" the earth reflected the fragility of early human life, which faced constant threats from wild animals and harsh environments. Subduing was therefore meant to restrain what could cause harm, not to destroy or abuse nature.

The Hebrew understanding of dominion emphasizes responsibility, protection, and care rather than control or exploitation. It suggests that humans are entrusted with caring for the Earth as stewards rather than owners (Abun & Racoma, 2017; Henriksen, 2023). In ancient Israel, a ruler was expected to act like a shepherd—protecting, nurturing, and taking responsibility for those under their care. Leadership was not about tyranny but about justice, especially for the poor, widows, and orphans (Abun & Racoma, 2017). In this light, having dominion over creation means caring for and preserving God's creation, not exploiting it.

This interpretation becomes clearer when Genesis 1:26 is read alongside Genesis 2:15, which states that God placed humans in the Garden of Eden "to till it and to keep it." This passage highlights humanity's role as the land's caretaker and protector, responsible for ensuring that life continues to flourish rather than be depleted (Abun & Racoma, 2017; Henriksen, 2023).

Another source of human dominance over nature comes from the belief that humans are fundamentally separate from and superior to animals. Because humans often view themselves as distinct from the animal world, they claim dominance over it. However, sociobiologists and primatologists have argued that humans are closely related to apes, sharing approximately 98% of their genetic makeup (Wilson, 1975). From a socio-evolutionary perspective, this connection suggests that human relationships with nature may be partly rooted in biological and evolutionary traits (Wright, 1994).

Despite this scientific evidence, many people reject the idea that humans are simply another animal species. Instead, humans are often placed above animals in a hierarchical order, reinforcing beliefs of superiority. Religious traditions, in particular, have frequently challenged evolutionary explanations that link humans closely to animals (Gibson, 2002). Within these traditions, humans are often viewed as *primus inter pares*—first among equals—created separately and assigned a special role in relation to nature, including dominion over the Earth.

This belief has reinforced the idea that humans occupy a privileged position over nature and other living beings. Animals, in contrast, are often associated with the wilderness and viewed as inferior or outside the realm of moral consideration (Abun & Racoma, 2017). Such perspectives contribute to dominant attitudes toward nature, which can legitimize exploitation rather than stewardship.

The term *ecocentrism* comes from the Greek words *oikos*, meaning "house" or "home," and *kentron*, meaning "center." In ecological and environmental studies, ecocentrism refers to a nature-centered worldview rather than a human-centered one, standing in contrast to anthropocentrism (Washington et al., 2017; Frantz et al., 2025). From this perspective, the well-being of ecosystems and all forms of life within them is given priority, even when this may conflict with immediate human interests.

Ecocentrism rejects the idea that humans are the sole bearers of intrinsic value. Instead, it holds that nonhuman beings and natural systems also possess intrinsic value, and that moral worth is shared across both human and nonhuman nature (Rowe, 1994). This view echoes Leopold's earlier arguments (1949), who emphasized that all species, including humans, are products of a long evolutionary process and are fundamentally interconnected. Recognizing this interconnectedness highlights the crucial role that nonhuman nature plays in sustaining human life. Without other living beings and healthy ecosystems, human survival would not be possible (Huttunen et al., 2024).

This interdependence is experienced in everyday life. As Spirkin (1975, 2016) observed, humans constantly feel nature's influence through the air they breathe, the water they drink, the food they eat, and the continuous flow of energy and information that sustains life. He argued that humans are inseparably connected to nature and cannot exist outside of it. This

view aligns with ecological perspectives that emphasize the interconnectedness of all living things within an ecosystem (Abun & Racoma, 2017).

A central concern of ecocentrism, therefore, is the moral value of each part of the ecosystem. When viewed through an ecocentric lens, moral consideration extends beyond humans to include other species and natural systems. This challenges the anthropocentric tendency to prioritize human life above all else. While anthropocentric thinking often leads people to instinctively value human lives over those of animals, ecocentrism recognizes that all living beings have moral relevance because they contribute to the functioning and balance of the ecosystem (Johansson, 2012).

Rather than ranking humans above nature, ecocentrism emphasizes mutual dependence. Humans rely on the environment for survival, and the environment depends on responsible human stewardship for its protection. From this perspective, humans are not masters of nature but participants within it, tasked with caring for the ecosystems that, in turn, sustain human life.

Understanding green behavior is essential before its environmental impact can be properly assessed. The term *green behavior* is often understood intuitively, yet much of the psychological and sociological literature has not offered a single, clear definition of it (Eilam & Trop, 2012). In the present study, green behavior is understood as any intentional action taken in response to environmental issues that the individual believes to be environmentally beneficial. Simply put, green behavior refers to how people act when responding to environmental problems (Hasebrook et al., 2022).

Green behavior involves deliberate actions aimed at protecting or improving the environment. These actions may be carried out by individuals, organizations, or communities and are intended to reduce negative environmental impacts. Such behaviors include a wide range of practices that promote sustainability and environmental protection, such as conserving resources, reducing waste, and supporting environmentally responsible initiatives (Ogiemwonyi, 2024).

The idea of anthropogenic global warming highlights the fact that human actions are the primary drivers of climate change. The causes of global warming do not lie outside humanity but are rooted in human behavior itself. Human beings are therefore the main actors responsible for environmental degradation (United Nations, 2025). As Jarreau (2014) emphasized, it is ultimately our everyday environmental behaviors that either worsen or help mitigate climate change. These behaviors are strongly influenced by people's values, attitudes, beliefs, and intentions, which together help predict how individuals respond to environmental issues (Brick et al., 2024).

This perspective underscores that addressing environmental problems—particularly global climate change—is not only a technological or policy challenge but fundamentally a behavioral one. Meaningful solutions require changes in how people think about and interact with the environment (Kurup et al., 2021). As noted by Jarreau (2014), citing Rosa and Dietz (2012), most greenhouse gas emissions are driven by the consumption of goods and services by individuals, households, and organizations, as well as by the production, transportation, and waste processes that support this consumption.

Given the urgency of today's environmental challenges, encouraging green behavior among individuals and communities has become more critical than ever. Promoting environmentally responsible actions can play a significant role in reducing environmental harm and supporting long-term sustainability.

Environmental movement activism

The environmental movement is a complex and multifaceted effort that brings together scientific, social, and political approaches to address environmental problems. It is not limited to scientific research or government policy; rather, it is a broad movement involving diverse actors working toward environmental protection and sustainability (Alam, 2022; Fang et al., 2023). Environmental organizations promote sustainable resource use and environmental stewardship by encouraging both policy reforms and individual behavior changes. While conservation—understood as the careful and responsible use of natural resources for future generations—remains important, the environmental movement also emphasizes the broader goal of ensuring a clean, safe, and aesthetically pleasing environment as part of a higher quality of life (Elliott, 2025; Encyclopedia.com, n.d.; Begum et al., 2022).

However, the success of the environmental movement depends heavily on support from both individuals and government institutions. Without public engagement and political backing, environmental initiatives are unlikely to achieve meaningful results. Financial resources are especially critical, as funding typically comes from private individuals, organizations, or government budgets (Abernethy et al., 2014). Montague (2012) and Quirico (2023) argued that the environmental movement has struggled, in part, because funding strategies prioritize top-down, elite-driven approaches while neglecting grassroots efforts. This imbalance weakens the movement's ability to create lasting change.

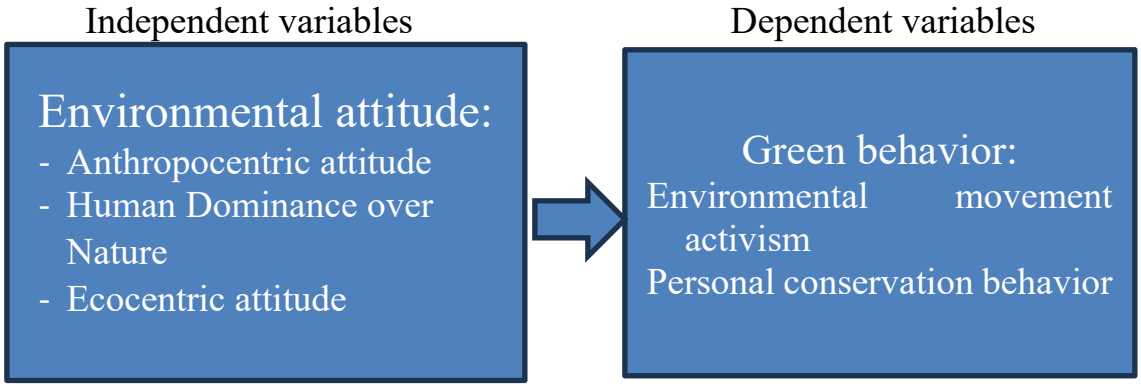
Effective social change rarely occurs through directives imposed from above. Instead, lasting and large-scale transformation is more likely to emerge from grassroots participation and community-level engagement (Roche, 2017). Strengthening local environmental initiatives and empowering communities, therefore, remain essential for the long-term success of the environmental movement.

Personal conservation behavior

Conservation behavior is becoming increasingly important as natural resources continue to decline and the climate warms (Baloch et al., 2022). By practicing conservation-oriented behaviors, people can help sustain the natural environment over the long term. There is growing recognition that human behavior plays a central role not only in creating environmental problems but also in addressing and resolving them. Meaningful progress can occur only when individuals understand the importance of the environment to human survival and recognize the serious threats that climate change poses to ecosystems and all living beings. In this context, education and effective communication are essential in fostering awareness and promoting a more sustainable future (Abun & Racoma, 2017; United Nations, n.d.; Giffort, 2002).

Human activities are widely acknowledged as major contributors to the degradation of wildlife and natural habitats. Protecting the planet's biodiversity, therefore, requires a clear understanding of which human actions harm the environment and its living organisms. It also involves developing and adopting sustainable practices and behaviors that support both human well-being and the natural world (Conservation Breeding Specialist Group, n.d.; Adla et al., 2022; Shivanna, 2022). Increasing awareness of how everyday behaviors affect the environment can encourage people to make more responsible choices and adopt conservation behaviors that help protect natural resources for present and future generations.

Conceptual framework



Source: EAI, Milfont & Duckitt (2005)

Figure 1: The conceptual framework explains the purpose of the study. It aims to investigate the impact of employees' environmental attitudes on their green behavior, specifically focusing on environmental movement activism and personal conservation practices.

Statement of the problems

The study aims to determine employees' dominant attitudes toward the environment and how these attitudes affect green behavior. It specifically intends to answer the following questions:

1. What is the level of environmental attitude of the employees in terms of:
   a. Anthropocentric attitude
   b. Human dominance over nature
   c. Ecocentric attitude?

2. What is the green behavior of the employees in terms of:
   a. Environmental movement activism
   b. Personal conservation behavior

3. Is there a relationship between environmental attitude and green behavior?

Hypothesis

Studies have indicated the positive correlation between environmental attitude and green behavior (Burgos-Espinoza et al., 2024; Hadler et al., 2022; Abun et al., 2021). Thus, the current study aims to examine the influence of environmental attitude, along with the three dimensions: anthropocentric attitude, human dominance over nature, and ecocentric attitude, on the green behavior of employees, specifically environmental movement activism and personal conservation behavior.

Scope and delimitation of the study

The study limits its scope of investigation to three dimensions of environmental attitude: anthropocentric and exocentric attitudes; human dominance over nature; and their impacts on green behavior, environmental movement activism, and personal conservation behavior. The population is limited to the Divine Word College of Laoag.

Research methodology

This section presents the research design, data-gathering instruments, population and study locale, data-gathering procedures, and statistical analysis.

Research design

In line with the current study, descriptive assessment and descriptive correlational methods were deployed. The study assessed employees' environmental attitudes and green behaviors and examined their correlation. This study aimed to determine whether employees' environmental attitudes influence their green behavior.

Locale of the study

The study was conducted at the Divine Word College of Laoag.

Population

The study's population comprised all employees of the Divine Word College of Laoag. Total enumeration was conducted based on the researcher's judgment to meet the study's objective.

Data gathering instruments

The study utilized questionnaires. The questionnaires were adapted from the Environmental Attitudes Inventory (EAI; Milfont & Duckitt, 2005). From the EAI, the researcher selected the inventories related to the current study.

The questionnaires consisted of two parts. The first part involved measuring attitudes toward the environment, which were categorized as anthropocentric, human dominance over nature, and exocentric. The second part measured environmental behavior. This part comp**rises** two indicators: environmental movement activism and personal conservation behaviors.

Data gathering procedures

During the data-gathering phase, the researcher formally requested permission from the college president to administer questionnaires on campus. The researcher personally met with the president and relevant employees to explain the purpose of the study and to request their participation.

The distribution and collection of the questionnaires were coordinated by the president's representative in collaboration with the researcher, with the assistance of faculty members and employees from the three colleges.

Statistical treatment of data

Consistent with the study's descriptive research approach, descriptive statistics were used to measure the weighted mean and its correlations. Since the study assessed not only the levels of environmental attitudes and behaviors but also their correlation, it employed analysis of variance (ANOVA). The following ranges of values with their descriptive interpretation will be used:

Statistical range	descriptive	interpretation
4.21-5.00	*Strongly Agree (SA)*	*Very High (VH)*
3.41-4.20	*Agree (A)*	*High (H)*
2.61-3.	*Somewhat agree*	*Moderate (M)*
1.81-2.60	*Disagree (D)*	*Low (L)*
1.00-1.80	*Strongly Disagree (SD)*	*Very Low (VL)*

Data presentation and analysis

The study aims to determine employees' dominant attitudes toward the environment and their effect on green behavior. It specifically intends to answer the following questions:

Problem 1: What is the level of environmental attitude of the employees in terms of:

- ***d. Anthropocentric attitude***
- ***e. Human dominance over nature***
- ***f. Ecocentric attitude?***

Table 1. Level of environmental attitude of the employees (n=200)

	Environmental attitude of employees	Weighted Mean	Descriptive Interpretation
A.	**Anthropocentric attitude**		
1.	One of the best things about recycling is that it saves money for other human needs	4.38	A/H
2.	The worst thing about the loss of the rainforest is that it will restrict the development of new medicines	3.70	A/H
3.	One of the most important reasons to keep lakes and rivers clean is so that people have a place to enjoy water sports	3.78	A/H
4.	Nature is important because of what it can contribute to the pleasure and welfare of humans	4.33	SA/VH
5.	The thing that concerns me most about deforestation is that there will not be enough lumber for future generations	4.04	A/H
6.	We would protect the environment for the well-being of animals and the well-being of humans	4.69	SA/VH

7.	A healthy planet is significant for human happiness and human reproduction	4.64	SA/VH
8.	Conservation is important for improving the quality of life and people's standard of living	4.42	SA/VH
9.	We need to keep rivers and lakes clean to protect the environment and living creatures in them, and consequently contribute to human welfare.	4.74	SA/VH
10.	We should protect the environment because people's lives are dependent on it.	4.42	SA/VH
	Composite Mean	**4.31**	**SA/VH**
B.	**Human dominance over nature**		
1.	Humans were meant to rule over the rest of nature	3.65	A/H
2.	Human beings were created or evolved to dominate the rest of nature	3.72	A/H
3.	Plants and animals have no more rights than humans to exist	2.26	D/L
4.	Plants and animals exist primarily to be used by humans	3.24	SWA/M
5.	Humans are playing a more important role in preserving the ecosystem compared to animals	3.76	A/H
6.	Humans are no more important than other living things	2.64	D/L
7.	Nature exists primarily for human use.	3.38	SWA/M
8.	Humans should control nature in all its forms and manifestations	3.34	SWA/M
9.	I do believe humans were created or evolved to dominate the rest of nature	3.40	SWA/M
10.	Humans are more important than any other species	2.78	SWA/M
	Composite Mean	**3.22**	**SWA/M**
C.	**Ecocentric attitude**		
1.	The idea that nature is valuable for its own sake is naïve and wrong	3.11	SWA/M
2.	It makes me sad to see natural environments destroyed	4.46	SA/VH
3.	Nature is valuable for its own sake.	4.28	SA/VH
4.	One of the worst things about overpopulation is that many natural areas are being destroyed	3.84	A/H
5.	Protecting the environment is an important issue.	4.60	SA/VH
6.	Despite our special abilities, humans are still subject to the laws of nature	4.30	SA/VH
7.	It makes me sad to see forests cleared for agriculture	4.10	A/H
8.	It makes me sad to see the natural environment destroyed.	4.60	SA/VH
9.	Nature is valuable for its own sake.	4.33	SA/VH
10.	I do not get upset at the idea of forests being cleared for agriculture	2.66	SWA/M
	Composite Mean	**4.03**	**A/H**
	OVERALL MEAN	**3.85**	**A/H**

Source: *EAI, Milfont & Duckitt (2005*)

Legend:

Range of Mean Values	Descriptive Interpretation
4.21 - 5.00	*Strongly agree/Very High (SA/VH)*
3.41 - 4.20	*Agree/High (A/H)*
2.61 - 3.40	*Somewhat agree/Moderate (SWA/M)*

1.81 - 2.60 *Disagree/Low(D/L)*

1.00- 1.80 *Strongly Disagree/Very Low (SD/VL)*

Based on the data presented in the table, the employees' overall environmental attitude—across anthropocentric, ecocentric, and human dominance over nature attitudes—had a composite mean of 3.85, which is interpreted as high/agree. This indicates that, in general, employees demonstrate a relatively high level of environmental concern. Their attitudes are neither extremely high nor low but lean clearly toward agreement with pro-environmental views.

When the dimensions are examined individually, the results show that the anthropocentric attitude received the highest mean score (M = 4.31), which is interpreted as very high. This is followed by an ecocentric attitude, which obtained a composite mean of 4.03, interpreted as high. In contrast, the human dominance over nature attitude recorded the lowest mean score (M = 3.22), interpreted as moderate or somewhat agree.

These results suggest that the most dominant environmental attitude among employees is anthropocentric. This implies that employees are primarily motivated to engage in green behavior out of concern for human welfare, both present and future. In this view, environmental degradation is seen as a direct threat to human quality of life, and protecting the environment is equated with protecting human well-being. An anthropocentric perspective holds that humans are the most important beings and that nature exists mainly to serve human interests. Accordingly, only humans are considered to have intrinsic value, while nature and other living beings are valued instrumentally, based on their usefulness to humans (Thompson & Barton, 1994; Kopnina et al., 2018; Miklos, 2014).

The findings also show that an ecocentric attitude is the second most prominent environmental orientation among employees. This suggests that, beyond concern for human welfare, employees also recognize the intrinsic value of nature. From this perspective, the environment deserves protection not only because it benefits humans but because it has value in itself. Ecocentrism emphasizes the protection of ecosystems as a whole and views humans as one component of a larger, interconnected web of life (Chang et al., 2024; Abun, 2021; Rulke et al., 2020).

Finally, the results indicate that human dominance over nature is the least endorsed attitude among employees. The moderate level of agreement (M = 3.22) suggests that while employees do not strongly support the idea of absolute human superiority over nature, they still hold this belief to some extent. This implies that employees continue to view humans as having some authority or power over the natural environment. Their moderate agreement with this dimension reinforces the predominance of an anthropocentric outlook, where environmental protection is still largely justified by its importance to human welfare.

Problem 2: What is the green behavior of the employees in terms of:

- ***a. Environmental movement activism***
- ***b. Personal conservation behavior***

Table 2. Green behavior of the employees (n= 200)

	Green behavior of the employees	Weighted mean	Descriptive interpretation
A.	**Environmental movement activism**		
1.	If I receive extra income, I plan to donate some of it to an environmental organization.	3.94	A/H
2.	I would like to join and actively participate in an environmentalist group	4.00	A/H
3.	I do not think I would help to raise funds for environmental protection	2.95	SWA/M
4.	I would not get involved in an environmentalist organization	2.57	SWA/M
5.	Environmental protection costs a lot of money. I am prepared to help out with fundraising	3.66	A/H

6.	I would not want to donate money to support an environmentalist cause	3.01	SWA/M
7.	I would not go out of my way to help recycling campaigns.	2.52	D/L
8.	I often try to persuade others of the importance of the environment.	4.24	SA/VH
9.	I would like to support an environmental organization	4.44	SA/VH
10.	I would never try to persuade others that environmental protection is important	3.70	A/H
	Composite Mean	**3.50**	**A/H**
B.	**Personal conversation behavior**		
1.	I have to save water or other natural resources because they are limited in nature	4.09	A/H
2.	I make sure that during the rainy season, the air-conditioner in my room is not switched on too high	4.16	A/H
3.	In my daily life, I am just interested in trying to conserve water and/or power	4.06	A/H
4.	Whenever possible, I take a short shower to conserve water	4.07	A/H
5.	I always switch the light off when I am not using it.	4.24	SA/VH
6.	I drive whenever it suits me, even if it does pollute the atmosphere.	3.16	SWA/M
7.	In my daily life, I try to conserve water and power.	4.24	SA/VH
8.	I make an effort to conserve natural resources.	4.32	SA/VH
9.	Whenever possible, I try to save natural resources	4.35	SA/VH
10.	Even if public transportation were more efficient than it is, I would prefer to drive my car	3.26	SWA/M
	Composite Mean	**4.00**	**A/H**
	OVERALL MEAN	**3.75**	**A/H**

Source: *EAI, Milfont & Duckitt (2005*)

The employees' green behavior—measured by environmental movement activism and personal conservation behavior—had an overall mean score of 3.75, which is interpreted as high. This indicates that, in general, employees demonstrate a strong level of engagement in environmentally responsible actions.

When examined separately, both dimensions fall within the same high level of agreement. Environmental movement activism recorded a mean score of 3.50, while personal conservation behavior obtained a higher mean score of 4.00. These results suggest that employees express support for environmental protection at both the collective and individual levels.

At the group level, employees agree to support green policies and participate in environmental activities and initiatives. At the personal level, they report engaging in everyday green practices such as recycling, reducing waste, choosing eco-friendly products, conserving water and energy, and using public transportation. These behaviors reflect conscious efforts to reduce environmental harm and promote sustainability.

Overall, the findings indicate that green behavior among employees is well established. Such behavior represents intentional actions aimed at protecting the environment and maintaining ecological balance, which are essential for long-term sustainability (Ogiemwonyi & Jan, 2023; Wu et al., 2024; Ogiemwonyi, 2024).

Problem 3: Is there a relationship between environmental attitude and green behavior?

A. Environmental attitude and environmental movement activism

The multiple regression analysis done to predict the employees' green behavior on environment movement activism from their environmental attitude in terms of anthropocentric attitude, human dominance over nature, and ecocentric attitude revealed that the three factors taken together significantly predicted the employees' environmental movement activism behavior, F (3, 196) = 62.40, $p < .01$, with 48.80 percent overlap between the three predictor variables and the outcome variable employees' environmental movement activism.

These findings imply that the differences observed in employees' environmental movement activism are attributable to the combined effects of their anthropocentric attitudes, human dominance over nature, and ecocentric attitudes.

Moreover, when anthropocentric attitude, human dominance over nature, and exocentric attitude were considered separately toward their influence on the environmental movement activism of the employees, each of them could significantly predict the outcome variable wherein anthropocentric attitude $B = -.219$, $p < .01$, human dominance $B = .346$, $p < .01$, and ecocentric attitude $B = .560$, $p < .01$, 1.074 quantified the Y-intercept of the regression equation.

These findings indicate that variations in employees' environmental movement activism are attributed to differences in their anthropocentric attitudes, human dominance over nature, and ecocentric attitudes.

Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.699[a]	.488	.481	.50624

a. Predictors: (Constant), Ecocentric Attitude, Human Dominance, Anthropocentric Attitude

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.973	3	15.991	62.40	.000[b]
	Residual	50.231	196	.256		
	Total	98.204	199			

a. Dependent Variable: Environmental Movement Activism

b. Predictors: (Constant), Ecocentric Attitude, Human Dominance, Anthropocentric Attitude

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.074	.372		2.890	.004
	Anthropocentric Attitude	-.219	.084	-.150	-2.624	.009
	Human Dominance	.346	.037	.500	9.344	.000
	Ecocentric Attitude	.560	.082	.403	6.810	.000

a. Dependent Variable: Environmental Movement Activism

A. Environmental attitude and personal conservation behavior

The combined effects of the predictor variables, anthropocentric attitude, human dominance over nature, and ecocentric attitude, on the outcome variable, personal conservation behavior of the employees, were determined using multiple linear regression analysis.

The three predictor variables, considered together, significantly predicted employees' personal conservation behavior, F(3, 196) = 49.983, $p < .01$, with 43.30 percent of the variance explained by the predictors.

These results indicate that the observed differences in employees' personal conservation behavior are due to the combined effects of variations in the predictor variables (anthropocentric attitude, human dominance over nature, and ecocentric-ecocentric attitude).

However, when the predictor variables were considered separately, anthropocentric attitude (slope = .285, $p < .01$) and ecocentric-ecocentric attitude (slope = .520, $p < .01$), quantified by the Y-intercept of the regression equation, were the only variables that could predict employees' personal conservation behavior.

These findings indicate that differences in employees' anthropocentric and ecocentric attitudes, when treated separately, would result in variations in their personal conservation behavior. However, the employees' human dominance factor failed to predict their personal conservation behavior.

Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.658[a]	.433	.425	.40109

a. Predictors: (Constant), Ecocentric Attitude, Human Dominance, Anthropocentric Attitude

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.123	3	8.041	49.983	.000[b]
	Residual	31.531	196	.161		
	Total	55.654	199			

a. Dependent Variable: Personal Conservation Behavior

b. Predictors: (Constant), Ecocentric Attitude, Human Dominance, Anthropocentric Attitude

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.611	.294		2.077	.039
	Anthropocentric Attitude	.285	.066	.260	4.305	.000
	Human Dominance	.016	.029	.031	.544	.587
	Ecocentric Attitude	.520	.065	.497	7.986	.000

a. Dependent Variable: Personal Conservation Behavior

Results and discussion

This study examined the influence of employees' environmental attitudes on their green behavior. The findings show that employees demonstrate a very high anthropocentric attitude and a high ecocentric attitude, while their attitude toward human dominance over nature is only moderate. In terms of green behavior, employees showed a moderate level of environmental movement activism (3.50) and a high level of personal conservation behavior (4.00).

Correlation analysis using analysis of variance (ANOVA) revealed that environmental attitude—across its three dimensions—is significantly related to employees' green behavior. This result suggests that strengthening employees' environmental attitudes can effectively enhance their engagement in green behavior. In other words, positive attitudes toward the environment are an important foundation for environmentally responsible actions.

The significant relationship between environmental attitude and green behavior indicates that employees who hold favorable environmental attitudes are more likely to practice environmentally friendly behaviors in the workplace. These behaviors include reducing energy consumption, recycling materials, and minimizing waste (Sabbir & Taufique, 2021; Akbaba et al., 2025; Afshar Jahanshahi et al., 2025). This finding highlights the importance of targeting attitudes when promoting sustainability initiatives within organizations.

At the organizational level, green behavior can be encouraged by fostering positive environmental attitudes through environmental education, training programs, and awareness campaigns. Providing incentives and recognition for employees who demonstrate green behavior can further reinforce these practices (Dilmi et al., 2025; Sara Kanwal et al., 2024). At the leadership level, managers play a crucial role by modeling environmentally responsible behavior and clearly communicating the importance of sustainability. Creating a workplace culture that values environmental responsibility encourages employees to actively participate in green initiatives. Such an integrated approach supports employees' abilities, motivation, and opportunities to engage in sustainable practices (Ahmad et al., 2023; Sarwar et al., 2025; Ababneh, 2020).

The findings of this study support both the Theory of Planned Behavior and Self-Determination Theory. According to the Theory of Planned Behavior, attitude is a key predictor of behavioral intention, which in turn influences actual behavior, including green behavior (Ajzen, 1991). Similarly, Self-Determination Theory emphasizes that autonomy, competence, and relatedness enhance intrinsic motivation, leading individuals to engage voluntarily in environmentally responsible actions (Deci & Ryan, 1985).

Overall, the results suggest that management should implement policies that promote environmental knowledge, support green initiatives, and encourage employee participation in environmental activities. By strengthening environmental attitudes and providing supportive organizational and leadership structures, organizations can effectively promote sustainable behavior among employees.

Conclusion

The study aimed to examine the impact of employees' environmental attitudes on their green behavior in the workplace. The findings show that, overall, employees' environmental attitudes were rated high. Among the three dimensions, anthropocentric attitude received the highest mean score (4.31), followed by ecocentric attitude (4.03), while human dominance over nature attitude obtained a moderate mean score (3.22). These results indicate that the dominant environmental orientation among employees is anthropocentric, followed by an ecocentric perspective.

In terms of green behavior, employees demonstrated a high overall level of engagement (M = 3.75). Correlation analysis revealed a significant relationship between environmental attitudes and employees' green behavior, indicating that employees with more positive environmental attitudes are more likely to engage in environmentally responsible actions in the workplace. Based on these findings, the study's hypothesis is accepted.

Despite these contributions, the study has certain limitations. The respondents were limited to employees of Divine Word College of Laoag, which may affect the results' generalizability. The findings may differ if the study were conducted across a larger sample or in different organizational settings. Therefore, future research is encouraged to include more organizations and a broader population to provide a more comprehensive understanding of the relationship between environmental attitudes and green behavior.

***Authors' contribution*: Conceptualization: D.A., F. P.J. Data gathering: E.B.V., J.M.M., M.T.S. Data analysis: D.A., F.P.J., T.M., E.B.V.**

***Ethical review statement*:** The study ensured compliance with ethical standards.

***Conflict of interest*:** The authors declare no conflict of interest.

***Funding*:** The study was funded by the authors.

References

Ababneh, O. M. A. (2021). How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes. *Journal of Environmental Planning and Management*, *64*(7), 1204–1226. https://doi.org/10.1080/09640568.2020.1814708

Abbass, K., Qasim, M.Z., & Song, H. (2022). A review of the global climate change impacts, adaptation, and sustainable mitigation measures. *Environ Science and Pollution Research, 29*, 42539–42559. https://doi.org/10.1007/s11356-022-19718-6

Abernethy, K.E., Bodin, O. P., Olsson, Z. H. & Schwarz, A. (2014). Two steps forward, two steps back: The role of innovation in transforming towards community-based marine resource management in Solomon Islands. *Global Environmental Change, 28*, 309–321. https://doi.org/10.1016/j.gloenvcha.2014.07.008.

Abrams, Z. (2023). Can religion and spirituality have a place in therapy? Experts say yes. *American Psychological Association, 54*(8).

Abun, D. & Racoma, A. (2017). Environmental Attitude and Environmental Behavior of Catholic Colleges' Employees in Ilocos Sur, Philippines. *Texila International Journal of Academic Research, 4* (1), 23–52. https://doi.org/10.21522/tijar.2014.04.01.art003

Abun, D. (2017). Measuring Environmental Attitude and Environmental Behavior of Senior High School Students of Divine Word Colleges in Region I, Philippines. *EPH-International Journal of Education Research, 1*(2).

Abun, D., Luna, K.,Magallanes, T.,Encarnacion, M.J., & Mansueto, J. M. (2021). Determining the dominant cognitive attitude toward the environment among the employees and their intention to adopt ecological behaviour. *Technium Social Sciences Journal, 20*, 81-99. Available at SSRN: https://ssrn.com/abstract=3863120

Abun, D. (2021). Environmental Attitude and Environmental Behavior of Catholic Colleges' Employees in Ilocos Sur, Philippines. *SSRN Electronic Journal.* https://doi.org/10.2139/ssrn.3807856

Adeniyi, I.S., Al Hamad, N.M., & Adewusi, O.E. (2024). Organizational culture and leadership development: A human resources review of trends and best practices. *Magna Scientia Advanced Research, 10*(1), 243-255. https://doi.org/ 10.30574/msarr.2024.10.1.0025

Adla, K., Dejan, K., Neira, D. & Dragana,S. (2022). *Degradation of ecosystems and loss of ecosystem services.* Academic Press. https://doi.org/10.1016/B978-0-12-822794-7.00008-3.

Afshar Jahanshahi, A., Maghsoudi, T., & Shafighi, N. (2020). Employees' environmentally responsible behavior: the critical role of environmental justice perception. *Sustainability: Science, Practice and Policy*, *17*(1), 1–14. https://doi.org/10.1080/15487733.2020.1820701

Ahmad, J., Mamun, A.A., Masukujjaman, M., Makhbul, Z.K.M. & Mohd Ali, K.A. (2023). Modeling the workplace pro-environmental behavior through green human resource management and organizational culture: Evidence from an emerging economy. *Heliyon, 9*(9), e19134. https://doi.org/10.1016/j.heliyon.2023.e19134.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T.

Akbaba, M., Kara, E., Özel, G., Yakut, E., Avcı, M., & Çetinel, M. H. (2025). Green Organizational identity and employees' green behaviour: The mediating role of environmental commitment in tourism enterprises. *Sustainability*, *17*(7), 2837. https://doi.org/10.3390/su17072837

Alam, M. (2022). Participatory culture and digital environmentalism. In: Baikady, R., Sajid, S., Nadesan, V., Przeperski, J., Rezaul, I., Gao, J. (eds) *The Palgrave Handbook of Global Social Change.* Palgrave Macmillan. https://doi.org/10.1007/978-3-030-87624-1_49-1

Armstrong, W. R. (1996). The relationship between culture and perception of ethical problems in international marketing. *Journal of Business Ethics, Volume: 15*(11), 1199–1208.

Ardoin, N.M., Bowers, A.W. & Wheaton, M (2022). Leveraging collective action and environmental literacy to address complex sustainability challenges. *Ambio, 52*, 30–44. https://doi.org/10.1007/s13280-022-01764-6

Awewomom, J., Dzeble, F., & Takyi, Y.D. (2024). Addressing global environmental pollution using environmental control techniques: a focus on environmental policy and preventive environmental management. *Discover Environment, 2(*8). https://doi.org/10.1007/s44274-024-00033-5

Baloch, Q.B., Shah, S.N., & Iqbal, N. (2022). Impact of tourism development upon environmental sustainability: a suggested framework for sustainable ecotourism. *Environmental Science and Pollution Research, 30*, 5917–5930 https://doi.org/10.1007/s11356-022-22496-w

Bedford, N., Fallon, S., & McAdam, M. (2008). *Lonely Planet—Destination Poland*. LPP

Begum, A., Liu, J., Qayum, H., & Mamdouh, A. (2022). Environmental and moral education for effective environmentalism: An ideological and philosophical approach. *International journal of environmental research and public health*, *19*(23), 15549. https://doi.org/10.3390/ijerph192315549

Belzen, J.A. (2018). What, why, and how? Meta-reflections on cultural psychological approaches to the scientific study of phenomena called religious. *Integrative psychological and behavioral science. 53,* 158–187. https://doi.org/10.1007/s12124-018-9427-9

Bennett, N.J., Whitty, T.S., & Finkbeiner, E. (2018). Environmental Stewardship: A Conceptual Review and Analytical Framework. *Environmental Management, 61*, 597–614. https://doi.org/10.1007/s00267-017-0993-2

Bem, D.J. (1970). *Beliefs, attitudes, and human affairs*. Brooks/Cole

Bouton, M.E., & Woods, A.M. (2008). Extinction: Behavioral mechanisms and their implications. *Learning and Memory: A Comprehensive Reference,1*(1).

Bricker, K. W. (2009). *Ten commandments for the environment*. Paulines Publishing House

Brett, A.D.J. & Hill, B. (2024). Documenting domination: From the doctrine of Christian discovery to dominion theology. *Religions, 15*(2). https://doi.org/10.3390/rel15121493

Brick, C., Kristian S. Nielsen, S. B., Henn, L., Kimberly S. W., Lange, F., Hanss, D., Jan, M., Bauer, A. Al., Maien, S.M., Sachisthal, S., Johnsen, A.K. & Cologna, V. (2024). Current research practices on pro-environmental behavior: A survey of environmental psychologists. *Journal of Environmental Psychology, 97*, 102375. https://doi.org/10.1016/j.jenvp.2024.102375

Burgos-Espinoza, I.I., García-Alcaraz, J.L., & Gil-López, A.J. (2024). Effect of environmental knowledge on pro-environmental attitudes and behaviors: a comparative analysis between engineering students and professionals in Ciudad Juárez (Mexico). *Journal of Environmental Studies and Science, 15*(2). https://doi.org/10.1007/s13412-024-00991-5

Chang, K.F., Cheng-T. L. & Bin, Y.Q. (2024). Harmony with nature: Disentanglement of the influence of ecological perception and adaptation on sustainable development and circular economy goals in the country. *Heliyon, 10*(4), e26034. https://doi.org/10.1016/j.heliyon.2024.e26034.

Crano, W. D. & Gardikiotis, A. (2015). *Attitude Formation and Change*. In International Encyclopedia of the Social & Behavioral Sciences (Second Edition). Elsevier, 169–174. https://doi.org/10.1016/B978-0-08-097086-8.24004-X.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior.* Springer Science & Business Media. https://doi.org/10.1007/978-1-4899-2271-7

Dietz, T., et al. (2012). Environmentally efficient well-being: Is there a Kuznets Curve? *Applied Geography, 32,* 21-28. https://doi.org/10.1016/j.apgeog.2010.10.011

Dilmi, K. A., Sannasgala, S., Weerarathna, R., Rathnayake, N., Pitipanaarachchi, S. M., Dushmanthi, N., & Rajapakse, V. (2025). How effective are incentives in driving green behavior? Analyzing monetary and non-monetary incentives in the hospitality industry. *Cogent Business & Management*, *12*(1). https://doi.org/10.1080/23311975.2025.2524043

Donald, M. (2002). *A mind so rare: The evolution of human consciousness*. W.W. Norton & Company, Inc.

Drolet, M.J., Rose-Derouin, E., & Leblanc, J.C. (2022). Ethical issues in research: Perceptions of researchers, research ethics board members, and research ethics experts. *Journal of Academic Ethics, 21,* 269–292. https://doi.org/10.1007/s10805-022-09455-3

Durham, W.H. The adaptive significance of cultural behavior. *Human Ecology, 4*, 89–121. https://doi.org/10.1007/BF01531215

Eilam, E. & Trop, T. (2012). Environmental Attitudes and Environmental Behavior—Which is the Horse and Which is the Cart? *Sustainability, 4*(9), 2210–2246. https://doi.org/10.3390/su4092210

Elliott, L. (2025). *History of the environmental movement*. Britanica. https://www.britannica.com

Encyclopedia.com. (n.d). Environmental Movement. Retrieved from http://www.encyclopedia.com/earth-and-environment/ecology-and-environmentalism/environmental-studies/environmental-movement

Fang, W.T., Hassan, A., & LePage, B.A. (2022). Environmental ethics: Modelling for values and choices. In: *The living environmental education*. Springer. https://doi.org/10.1007/978-981-19-4234-1_6

Flamholtz, E. G., & Randle, Y. (2014). Implications of organizational life cycles for corporate culture and climate. In B. Schneider & K. M. Barbera (Eds.), *The Oxford Handbook of Organizational Climate and Culture* (pp. 235–256). Oxford University Press.

Fox, M.W. (1982). The slippery semantics of a word: Dominion. *International Journal for the Study of Animal Problems, 3*(3).

Elsayed, W. (2024). Building a better society: The vital role of family's social values in creating a culture of giving in young Children's minds. *Heliyon, 10*(7), e29208. https://doi.org/10.1016/j.heliyon.2024.e29208.

Fang, W., Hassan, A., LePage, B.A. (2023). Environmental literacy. In: *The living environmental education*. Springer. https://doi.org/10.1007/978-981-19-4234-1_4

Farani, Y. A., Mohammadi, Y. & Ghahremani, F. (2019). Modeling farmers' responsible environmental attitude and behaviour: a case from Iran. *Environmental Science and Pollution Research, 26*, 28146–28161. https://doi.org/10.1007/s11356-019-06040-x

Filho, L. W., Sigahi, T., & Anholon, R. (2025). Promoting sustainable development via stakeholder engagement in higher education. *Environmental Science Europe, 37*(64). https://doi.org/10.1186/s12302-025-01101-0

Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research.* Addison Publishing Company.

Forawi, S. A. (2015). Professional development for science teachers is needed in the United Arab Emirates. In N. Mansour & S. Al-Shamrani (Eds.) *Science Education in the Arab Gulf States* (pp. 49–68). Sense

Frantz, P., Rego, F., & Barbas, S. (2025). Ecocentrism vs. anthropocentrism: To the core of the dilemma to overcome it. *The Linacre Quarterly*, 00243639251339844. Advance online publication. https://doi.org/10.1177/00243639251339844

Garcia-Alexander, G., Woo, H., & Carlson, M.J. (2017). *Culture. In: Social foundations of behavior for the health sciences*. Springer. https://doi.org/10.1007/978-3-319-64950-4_5

Gibson, K. R. (2002). Customs and cultures in animals and humans: Neurobiological and evolutionary considerations. *Anthropological Theory 2*(3), 323–339.

Gifford, R. (2002). *Environmental psychology: Principles and practice*. Optimal Books.

Gifford, R., & Sussman, R. (2012). Environmental attitudes. In S. D. Clayton (Ed.), *The Oxford Handbook of Environmental and Conservation Psychology* (pp. 65–80). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199733026.013.0004

Goralnik, L. & Nelson, M.P. (2012). Anthropocentrism. In *the Encyclopedia of Applied Ethics*. Elsevier

Hadler, M., Klösch, B., Schwarzinger, S., Schweighart, M., Wardana, R., & Bird, D.N. (2022). Measuring environmental attitudes and behaviors. In: *Surveying climate-relevant behavior*. Palgrave Macmillan. https://doi.org/10.1007/978-3-030-85796-7_2

Hamadi, M., Imtinan, U. & Namisango, F. (2024). Sustainability education in information systems' curricula: A conceptual research framework. *Education and Information Technologies, 29,* 14769–14787. https://doi.org/10.1007/s10639-023-12409-w

Hansen A, Bi P, Saniotis A, Nitschke M, Benson J, Tan Y, Smyth V, Wilson L, Han G-S. (2013). *Extreme heat and climate change: Adaptation in culturally and linguistically diverse (CALD) communities.* National Climate Change Adaptation Research Facility, Gold Coast, Australia. Retrieved from https://www.nccarf.edu.au/publications/extreme-heat-adaptation-cald.

Hasebrook, J. P., Michalak, L., Wessels, A., Koenig, S., Spierling, S., & Kirmsse, S. (2022). Green behavior: Factors influencing behavioral intention and actual environmental behavior of employees in the financial service Sector. *Sustainability*, *14*(17), 10814. https://doi.org/10.3390/su141710814

Henriksen, J.O. (2023). *Theological anthropology in the Anthropocene: Reconsidering human agency and its limits*. Springer

Hiebert, T. (1996). Rethinking dominion theology. Direction: A Mennonite Brethren Forum, 25(2), 16-25.

Hines, J. M., Hungerford, H. R., & Tomera, A. N. (1987). Analysis and synthesis of research on responsible environmental behavior: A meta-analysis. *Journal of Environmental Education, 18*(2), 1–8.

Hofstede, G. (1980a). *Culture's Consequences: International Differences in Work-Related Values*, Sage.

Hofstede, G. (1983). Dimensions of national culture in fifty countries and three regions, in J.B. Deregowski, S. Dziurawiec and R.C. Annis (eds.), *Explications in cross-cultural psychology*. Swets and Zeitlinger.

Hunt, S. D., & Vitell, S. (1986). A general theory of marketing ethics. *Journal of Macromarketing*, *6*(1), 5–16.

Huttunen, R., Heikkinen, H.L.T. (2024). Whose well-being? Deep-ecological and posthuman perspectives on 'world worth living in'. In: Reimer, K.E., Kaukko, M., Windsor, S., Kemmis, S., Mahon, K. (eds*) Living well in a world worth living in for all*. Springer. https://doi.org/10.1007/978-981-97-1848-1_3

Ives, C.D., Buys, C., & Ogunbode, C. (2022). Activating faith: pro-environmental responses to a Christian text on sustainability. *Sustainability Science, 18*, 877–890. https://doi.org/10.1007/s11625-022-01197-w

Jarreau, B. (2014). *The psychology of environmental behavior that you are ignoring in your writing*. Lab Bench Psychology. http://www.scilogs.com/from_the_lab_bench/the-psychology-of-environmental-behavior-that-youre-ignoring-in-your-writing/.

Jianping, L., Minrong, L., Jinnan, W., Jianjian, L., Hongwen, S., & Maoxing, H. (2014). Global environmental issues and human well-being. In: Jianping, L., Minrong, L., Jinnan, W., Jianjian, L., Hongwen, S., Maoxing, H. (eds) *Report on global environmental competitiveness* (2013). Springer. https://doi.org/10.1007/978-3-642-54678-5_1

Johansson, U. (2012). *Toward a bio-centric attitude in environmental education*. DIVA Portal. https://www.diva.portal.org/

Kaiser, F. G., Wölfing, S., & Fuhler, U. (1999). Environmental attitude and ecological behaviour. *Journal of Environmental Psychology, 19*, 1-19

Keivabu, C.R.(2024). Temperature and school absences: evidence from England. *Population and Environment, 46***(**6). https://doi.org/10.1007/s11111-024-00448-5

Khaddour, R., Al-Amoush, S., & Eilks, I. (2017). The curriculum emphasis in grade-10 chemistry textbooks from seven cross-regional Arab countries. *Chemistry Education Research and Practice, 18*, 375–385.

Kopnina, H., Washington, H., & Taylor, B. (2018). Anthropocentrism: More than just a misunderstood problem. *Journal of Agricultural and Environmental Ethics, 31*, 109–127. https://doi.org/10.1007/s10806-018-9711-1

Kortenkamp, V. K. & Moore, F. C. (2001). Ecocentrism and anthropocentrism: Moral reasoning about ecological common dilemmas. *Journal of Environmental Psychology (2001)* 21, 000^000

Krys, K., -Melanie Vauclair, C., & Capaldi, C.A. (2016). Be careful where you smile: Culture shapes judgments of the intelligence and honesty of smiling individuals. *Journal of Nonverbal Behavior, 40*, 101–116. https://doi.org/10.1007/s10919-015-0226-4

Kunda, J.J., Gosling, S.N. & Foody, G.M. (2024). The effects of extreme heat on human health in tropical Africa. *International Journal of Biometeorology, 68*, 1015–1033. https://doi.org/10.1007/s00484-024-02650-4

Kurup, P.M., Levinson, R. & Li, X. (2021). Informed decision regarding global warming and climate change among high school students in the United Kingdom. *Canadian Journal of Science, Mathematics and Technology Education, 21*, 166–185. https://doi.org/10.1007/s42330-020-00123-5

Leopold, A. (1949). The land ethic. In *A Sand County Almanac*. Oxford University Press

Lerche, I. & Glaesser, W. (2006). *Natural and anthropogenic environmental problems*. Springer.

Macklin, R. (2014). Respect for cultural diversity and pluralism. In: ten Have, H., Gordijn, B. (eds) *Handbook of global bioethics.* Springer. https://doi.org/10.1007/978-94-007-2512-6_7

MacNeill, T. (2020). Culture in critical development theory. In: *Indigenous cultures and sustainable development in Latin Americ*a. Palgrave Macmillan. https://doi.org/10.1007/978-3-030-37023-7_5

Maloney, M. P., & Ward, M. P. (1973). Ecology: Let us hear it from the people – An objective scale for measurement of ecological attitudes and knowledge. *American Psychologist, 28*, 583–586.

Miklos, A. (2014). Environmental attitudes and ecological anthropocentrism: a new challenge in environmental higher education. *Journal of Education, Culture and Society, 1*. https://doi.org/ 10.15503/jecs20141-28-40

Milfont, L. T. & Duckitt. J. (2006). Preservation and utilization: Understanding the structure of environmental attitudes. *Medio Ambiente y Comportamiento Humano, 7*(1), 29-50

Montague, P. (2012). Why is the environmental movement not winning? Retrieved from http://www.huffingtonpost.com/peter-montague/green-initiatives_b_1301418.html

Mumtaz, S., Carmichael, J., & Weiss, M. (2024). Ethical use of artificial intelligence-based tools in higher education: Are future business leaders ready? *Education and Information Technologies, 30*, 7293–7319. https://doi.org/10.1007/s10639-024-13099-8

Nash, R. (1990). Adam's place in nature: Respect or domination? *Journal of Agricultural Ethics, 3*, 102–113. https://doi.org/10.1007/BF02014609

Ogiemwonyi, O. & Jan, M.T. (2023). The correlative influence of consumer ethical beliefs, environmental ethics, and moral obligation on green consumption behavior. *Resources, Conservation & Recycling Advances, 19*, 200171. https://doi.org/10.1016/j.rcradv.2023.200171

Okyere-Manu, B., Morgan, S.N. & Nwosimiri, O. (2022). Cultural, ethical, and religious perspectives on environmental preservation. *Best Practice & Research Clinical Obstetrics & Gynecology, 85,* 94–104.https://doi.org/10.1016/j.bpobgyn.2022.09.004.

Osher, D., Cantor, P., Berg, J., Steyer, L., & Rose, T. (2018). Drivers of human development: How relationships and context shape learning and development[1]. *Applied Developmental Science*, *24*(1), 6–36. https://doi.org/10.1080/10888691.2017.1398650

Pierce, J. C., & Lovrich, N. P. (1980). Belief systems concerning the environment: The general public, attentive publics, and state legislators. *Political Behavior, 2*, 259-286.

Pitta, D.A., Fung, H.G. & Isberg, S. (1999). Ethical issues across culture: Managing differing perspectives of China and the USA. *Journal of Consumer Marketing, 16*(3), 240256.

Poortinga, W., S.L., & Vlek, C. (2002). Environmental risk concerns and preferences for energy-saving measures. *Environment and Behavior, 34*, 455–478.

Quintar, B. (2011). Religion. In: Goldstein, S., Naglieri, J.A. (eds) *Encyclopedia of child behavior and development.* Springer. https://doi.org/10.1007/978-0-387-79061-9_2404

Quirico, M. (2023). The environmental movement between institutionalization and conflict. In: Hill, H., Pinto, A.B. (eds) *Social movements in 1980s Sweden. Palgrave* Macmillan. https://doi.org/10.1007/978-3-031-27370-4_6

Racelis, A. R. (2009). *Relationship between employee perceptions of corporate ethics and organizational culture: An exploratory study.* College of Business Administration, University of the Philippines, Philippines.

Ramadhan, M.Y., Hidaya, A.M. & Nugroho, H. (2024). The influence of organizational culture on performance and employee satisfaction at Telkom University. *American Journal of Multidisciplinary Research & Development (AJMRD), 6*(8), 39–50.

Roche, S. Listening to the grass roots: Bottom-up approaches to lifelong learning. *International Review of Education, 63*, 145–152. https://doi.org/10.1007/s11159-017-9634-5

Rowe, S. J. (1994). Ecocentrism: the chord that harmonizes humans and Earth. *The Trumpeter 11*(2), 106–107.

Rülke, J., Rieckmann, M., Nzau, J. M., & Teucher, M. (2020). How ecocentrism and anthropocentrism influence human–environment relationships in a Kenyan biodiversity hotspot. *Sustainability*, *12*(19), 8213. https://doi.org/10.3390/su12198213

Sabbir, M. & Taufique, K.R. (2021). Sustainable employee green behavior in the workplace: Integrating cognitive and non-cognitive factors in corporate environmental policy. *Business Strategy and the Environment, 31*(1).

Salazar, C. The cross-cultural study of mind and behaviour: a word of caution. *Review of Philosophy and Psychology, 14,* 497–514. https://doi.org/10.1007/s13164-022-00627-z

Sara Kanwal, A., Wu, M., Bhatti, S.M. & Ali, M.H. (2024). Corporate social responsibility: A Driver for green organizational climate and workplace pro-environmental behavior. *Heliyon, 10*(19), e38987. https://doi.org/10.1016/j.heliyon.2024.e38987.

Sarwar, U., Baig, W., Rahi, S., & Sattar, S. (2025). Fostering green behavior in the workplace: The role of ethical climate, motivation states, and environmental knowledge. *Sustainability*, *17*(9), 4083. https://doi.org/10.3390/su17094083

Schultz, P. W., Shriver, C., Tabanico, J. J., & Khazian, A. M. (2004). Implicit connections with nature. *Journal of Environmental Psychology, 24*, 31–42.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in experimental social psychology, 25*, 1–65). Academic Press. https://doi.org/10.1016/S0065-2601(08)60281-6

Schwartz, S.E.O., Benoit, L., Clayton, S. *et al.* Climate change anxiety and mental health: Environmental activism as buffer. *Current Psychology, 42,* 16708–16721. https://doi.org/10.1007/s12144-022-02735-6

Shivanna, K.R. (2022). Climate change and its impact on biodiversity and human welfare. *Proceedings of the Indian National Science Academy, 88*, 160–171. https://doi.org/10.1007/s43538-022-00073-6

Singelis, T. M., & Brown, W. J. (1995). Culture, self, and collectivist communication: Linking culture to individual behavior. *Human Communication Research, 21*(3), 354–389. https://doi.org/10.1111/j.1468-2958.1995.tb00351.x

Spilka, B., & McIntosh, D. N. (1996). *The psychology of religion*. Westview Press.

Spirkin, A. (2016). Man in the realm of nature, in dialectical materialism. Retrieved from https://www.marxists.org/reference/archive/spirkin/works/dialectical-materialism/ch05-s03.html

Spirkin, A. (1975). Dialectical materialism. In: Blakeley, T.J. (eds) *Themes in Soviet Marxist philosophy.* Springer. https://doi.org/10.1007/978-94-010-1873-9_2

Stephenson, J. (2023). Using the cultures framework for research. In: *Culture and sustainability*. Palgrave Macmillan. https://doi.org/10.1007/978-3-031-25515-1_8

Stern, P. C., Dietz, T., Kalof, L., & Guagnano, G. A. (1994). Values, beliefs, and proenvironmental action: Attitude formation toward emergent attitude objects. *Journal of Applied Social Psychology, 25*, 1611–1636.

Thompson, S.C.G. & Barton, M.A. (1994). Ecocentric and anthropocentric attitudes toward the environment. *Journal of Environmental Psychology, 14*(2), 149–157. https://doi.org/10.1016/S0272-4944(05)80168–9.

Tylor, E.B. (1986). *Primitive culture: research into the development of mythology, philosophy, religion, art, and custom*. Retrieved from http://www.oocities.org/mravikiran/culsoc.html

Taylor, M.J., & Thoth, C.A. (2011). Cultural transmission. In: Goldstein, S., Naglieri, J.A. (eds) *Encyclopedia of child behavior and development*. Springer. https://doi.org/10.1007/978-0-387-79061-9_755

Thin, N. (2014). Anthropology. In: Michalos, A.C. (eds) *Encyclopedia of quality of life and well-being research*. Springer. https://doi.org/10.1007/978-94-007-0753-5_94

Thompson, S. C. G., & Barton, M. A. (1994). Ecocentric and anthropocentric attitudes toward the environment. *Journal of Environmental Psychology, 14*, 149–157.

Treviño, L. K., & Nelson, K. A. (2021). *Managing business ethics: Straight talk about how to do it right*. John Wiley & Sons.

Triandis, H. C. (1994). *Culture and social behavior*. McGraw-Hill Book Company

United Nations. (2025). Climate change. Retrieved from https://www.un.org

Varickanickal, J., & Newbold, K. B. (2021). Extreme heat events and health vulnerabilities among immigrant and newcomer populations. *Environmental health review*, *64*(2), 28–34.

Vitell, S. J., Nwachukwu, S. L., & Barnes, J. H. (1993). The effects of culture on ethical decision-making: An application of Hofstede's typology. *Journal of Business Ethics*, *12*, 753–760.

Walsh, E. (2024). Exploring human behavior through the lens of cultural studies: A sociological perspective. *Case Reports, 17*(119).

Walther, C.C. Perspectives – Social Change from the Inside Out. From Fixation to Foundation. From Competition to Change. *International Journal of Community Well-Being, 6*, 43–62. https://doi.org/10.1007/s42413-020-00084-5

Washington, H., Taylor, B., Kopnina, H., Cryer, P., & Piccolo, J. J. (2017). Why is ecocentrism the key pathway to sustainability? *The Ecological Citizen, 1*, 35–41.

Weldon, N. O. (2016). A biblical hermeneutic for dominion: Domination vs stewardship. *Obsculta 9*(1), 73–81. https://digitalcommons.csbsju.edu/obsculta/vol9/iss1/7.

Wilson, E.O. (1975). *Man: From sociobiology to sociology in sociobiology*. Harvard University Press

World Health Organization (WHO) (2024). *Health and heat*. World Health Organization. Retrieved from https://www.who.int/. Accessed, July 22, 2025

Wright, R. (1994). *The moral animal: why we are the way we are: The new Science of evolutionary psychology*—Vintage Books.

Wu, J., Ahmad, S.F., Jaweria, Y. A. Al-Razgan, A.M., Awwad, E.M., Ahmad Y.A. & Ayassrah, B.A. (2024). Investigating the role of green behavior and perceived benefits in shaping green car buying behavior with environmental awareness as a moderator. *Heliyon, 10*(9), e30098. https://doi.org/10.1016/j.heliyon.2024.e30098.

Wyer, R. S. J. (1965). Effect of child-rearing attitudes and behavior on children's responses to hypothetical social situations. *Journal of Personality and Social Psychology*, *2*(4), 480-486