

THE PSYCHOLOGY OF SUSTAINABLE BEHAVIOR AND THE MANAGEMENT OF CHANGES REQUIRED FOR A HEALTHY ENVIRONMENT

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Abstract: This paper aims to explore the contribution of psychology to promoting sustainable behavior, highlighting both the barriers that hinder its implementation and the psychological and managerial solutions that can support a sustainable transition towards a healthy environment. Through an interdisciplinary approach to environmental issues, the paper emphasizes the importance of integrating psychological perspectives into decision-making processes and the development of sustainability strategies.

Keywords: management, sustainable behavior, ecological behavior, sustainability.

1. Introduction

In today's global context, marked by increasingly complex environmental challenges, sustainability has become a critical priority for societies, economies, and individuals. The climate crisis, depletion of natural resources, and ecosystem degradation underscore the need for profound changes in human behavior. These changes are not limited to public policies and technological innovations but directly involve how people perceive, understand, and respond to environmental issues.

Psychology, as a discipline that studies human behavior, plays a central role in understanding the mechanisms underlying the adoption of sustainable behaviors. By applying psychological theories and principles, it is possible to identify the barriers and motivations that influence ecological choices, as well as the strategies needed to encourage behavioral changes at both individual and collective levels.

"Sustainable behavior" refers to "individual and collective actions aimed at protecting and conserving natural resources to ensure the long-term viability of the environment." This behavior includes practices such as recycling, efficient use of energy and water, and reducing resource consumption.

According to *UNESCO*, sustainable behavior "involves adopting lifestyles that contribute to individual and social well-being while simultaneously reducing negative environmental impacts. This includes education for sustainable development, which aims to inspire and empower individuals to make informed and responsible choices."

The American Psychological Association defines sustainable behavior as "actions and practices that reduce individual and collective ecological footprints,

contributing to the conservation of natural resources and environmental protection for future generations." This encompasses practices such as responsible consumption, sustainable transportation, and efficient waste management.

Forum for the future describes sustainable behavior as "decisions and actions that support the long-term health of the environment, economy, and society. This behavior is driven by awareness of personal environmental impact and the desire to minimize negative effects through eco-friendly choices."

Ana Lanero Carrizo from the University of León emphasizes that, although an increasing number of consumers are educated and aware of major environmental issues, there is often a gap between their positive attitudes towards sustainability and their actual actions. This is known as the "attitude-behavior gap" in sustainability contexts. Lanero Carrizo suggests that education for sustainability and the promotion of responsible consumption can help bridge this gap.

Serena Mastria and collaborators from the University of Bologna explored the relationship between motivation and sustainable behavior. They found that the symbolic value associated with eco-friendly products or services can influence consumer preferences and behaviors. This perceived value is shaped by dispositional factors (individual characteristics and history) and contextual factors (specific to the product or the context in which the evaluation occurs).

Wilfried Leal Filho and his team have investigated design for sustainable behaviors, identifying barriers and facilitators in this field. They emphasize the importance of interconnected approaches that combine economic, environmental, and social well-being aspects to promote sustainable progress. This involves not only

designing products but also fostering education and policies that support eco-friendly behaviors.

Douglas BD and Brauer M reviewed the use of gamification to prevent climate change. They argue that game elements can motivate individuals to adopt more sustainable behaviors by increasing engagement and personal satisfaction with eco-friendly actions.

These perspectives highlight various strategies and challenges in promoting sustainable behavior, underscoring the importance of education, personal motivation, and intelligent design in achieving sustainability goals.

2. Literature Review

An essential aspect of promoting sustainable behavior is understanding the process of behavioral change. Psychology provides models and strategies that explain how individuals adopt and maintain new behaviors, especially in contexts requiring long-term commitment, such as sustainability.

Environmental challenges, although difficult, present a crucial opportunity for psychologists to leverage their expertise. By applying psychological theories, research methodologies, and intervention strategies, psychologists can explore the behaviors, tendencies, and capacities that play a key role in effectively addressing these issues. Despite significant advancements in relevant research, there is still considerable room for psychologists to expand their contributions and involvement in this field.

Psychology plays a crucial role in promoting sustainability by understanding and influencing human behaviors that contribute to environmental protection. This field offers valuable insights into how individuals' attitudes, motivations, and perceptions can be transformed to encourage more eco-friendly actions.

Understanding human behavior is essential for explaining why people adopt or avoid sustainable behaviors. The Theory of Planned Behavior, proposed by Ajzen (1991), suggests that behavioral intentions are influenced by attitudes, social norms, and perceived behavioral control. This theory is applicable in developing interventions to encourage eco-friendly actions such as recycling and energy conservation [1], [2].

Intrinsic motivations, such as personal satisfaction and moral beliefs, play a crucial role in sustaining sustainable behaviors. Studies have shown that individuals are more likely to adopt eco-friendly behaviors when these align with their personal values and provide positive emotional rewards. Additionally, negative emotions, such as guilt and fear of the consequences of climate change, can be powerful motivators for behavioral change [3].

Psychology offers tools and techniques to design interventions that promote sustainable behaviors. The use of real-time feedback and gamification to encourage

resource conservation and reduce energy consumption has proven effective. Eco-feedback, which informs users about their environmental impact, can stimulate positive changes in behavior [4].

One of the major challenges in promoting sustainability is the gap between attitudes and behaviors. Although many people hold positive attitudes toward sustainability, these do not always translate into concrete actions. Research suggests that this gap can be narrowed through educational approaches and awareness campaigns that emphasize the practical and immediate benefits of sustainable behaviors [2].

Social norms and peer pressure strongly influence individual behaviors. Social psychology examines how perceptions of what others are doing and what is considered acceptable within a community can motivate people to adopt sustainable practices. Interventions that highlight the eco-friendly behaviors of others and foster a culture of sustainability have proven highly effective [1].

Education plays a central role in driving long-term behavioral change. Educational programs that integrate sustainability principles and promote critical thinking and ecological responsibility can transform the attitudes and behaviors of students. These initiatives help shape a generation that is more aware and responsible toward the environment [3].

By integrating psychological knowledge into sustainability strategies and policies, we can develop more effective and lasting interventions to address environmental challenges and promote eco-friendly behavior among the population.

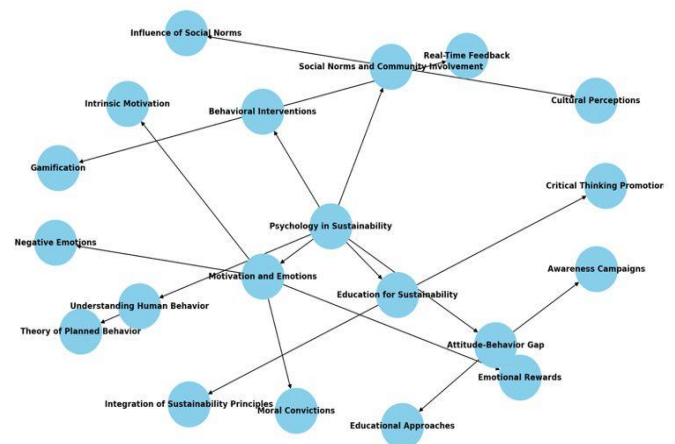


Fig. 1. Psychology in promoting sustainability

Understanding sustainable behavior is facilitated by several psychological theories that explain the motives and factors influencing the adoption of eco-friendly practices.

The Theory of planned behavior (TPB), proposed by Icek Ajzen in 1991, suggests that behavioral

intentions are the primary determinant of actual behavior. Intentions are influenced by three main factors: attitudes toward the behavior, subjective norms (social pressures), and perceived behavioral control (confidence in the ability to perform the desired behavior). In the context of sustainability, this theory can explain why people adopt eco-friendly behaviors based on their attitudes toward environmental protection, social influence, and their perception of their ability to contribute to reducing negative environmental impacts [5].

The Self-determination theory (SDT), developed by Deci and Ryan, focuses on human motivation and the factors that contribute to intrinsic and extrinsic motivation. This theory identifies three basic psychological needs: autonomy, competence, and relatedness. Individuals are more likely to adopt sustainable behaviors if these behaviors fulfill their needs for autonomy (the freedom to choose actions), competence (a sense of effectiveness), and relatedness (a feeling of connection with others and the environment) [6].

The Cognitive dissonance theory, proposed by Leon Festinger, suggests that people experience discomfort when holding contradictory beliefs or behaviors. To reduce this discomfort, they are motivated to change one of the beliefs or behaviors to align them. In the context of sustainable behavior, individuals who become aware of the negative impact of their actions on the environment may experience cognitive dissonance and be motivated to adopt more eco-friendly behaviors to alleviate this discomfort. [7].

The Social norms theory, developed by Cialdini RB and Trost DL (1998), focuses on the influence of social norms on individual behavior. Descriptive norms (what others do) and injunctive norms (what others should do) can strongly influence sustainable behavior. For instance, if someone observes that most of their peers recycle or use public transportation, they are more likely to adopt these behaviors to conform to social norms. [8].

The Value-belief-norm Theory (VBN), developed by Stern and Dietz, suggests that a person's core values influence their environmental beliefs, which in turn shape personal norms and environmental behaviors. Altruistic and ecocentric values are particularly important in promoting sustainable behaviors. This model highlights the importance of education and awareness in shifting individuals' core values and beliefs to encourage sustainable practices. [9].

The Transtheoretical model of change (Prochaska and DiClemente, 1983) describes behavioral change as a multi-stage process:

Precontemplation - the individual is unaware of the problem caused by unsustainable behavior (e.g., excessive resource use).

Contemplation - the individual becomes aware and begins reflecting on the need for change.

Preparation - planning actions to adopt sustainable behaviors (e.g., recycling or reducing consumption).

Action - implementing the planned changes.

Maintenance - integrating new behaviors into daily routines.

Relapse (if it occurs) - a temporary return to old behaviors, offering an opportunity to restart the process.

This model can guide sustainability interventions by identifying each person's stage and applying appropriate strategies to support progress. For instance, during the contemplation stage, awareness campaigns can emphasize the impact of behaviors on the environment.

These theories provide a solid theoretical foundation for understanding and influencing sustainable behaviors, enabling the development of more effective interventions and policies to promote sustainability.

3. Conclusions

Promoting sustainable behavior represents a major challenge but also a crucial opportunity to ensure a healthier and more balanced future for current and future generations. Psychology offers valuable tools for understanding and influencing human behaviors, helping to bridge the gap between pro-sustainability attitudes and effective actions.

Adopting an integrated model that includes education, personal motivation, and technological solutions can facilitate the necessary changes at both individual and collective levels. In this context, the role of psychologists becomes essential, as they have the ability to design effective interventions, support decision-making processes, and identify barriers that hinder progress.

By implementing the discussed theories and strategies, such as the Transtheoretical Model of Change, Self-Determination Theory, or the use of gamification, we can foster greater commitment to sustainability. Additionally, social norms and intrinsic motivations can be leveraged to build a culture of sustainability, where eco-friendly behaviors become a natural part of everyday life.

While significant progress has been made, there remains considerable room for additional research and interventions. Interdisciplinary collaboration among psychologists, ecologists, economists, and policymakers is essential to develop holistic solutions that address the complexity of environmental challenges.

Ultimately, sustainable behavior is not just an individual responsibility but also a collective commitment that requires a concerted effort to transform attitudes, policies, and practices in favor of a healthy and sustainable environment.

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