THE INTERSECTION OF ENVIRONMENTAL LAW AND HUMAN PSYCHOLOGY: BEHAVIOURAL FACTORS INFLUENCING ENVIRONMENTAL POLICY COMPLIANCE

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Abstract

Environmental degradation has emerged as one of the most critical global challenge, with significant social, economic, and ecological implications. India is facing severe environmental issues and the compliance with environmental regulations often depends on behavioural drivers that go beyond mere legal frameworks. This paper explores how psychological factors influence individual and pro-environmental behaviour in the context of environmental policy compliance. This paper examines the existing legal framework in India, highlighting both its strengths and limitations in promoting environmental compliance. The studies comprised of researches where it was stated that the psychological dimensions of environmental attitude are complex and multifaceted. The influence of Social norms, community behaviours, peer behaviour, religious beliefs, and traditional practices can either encourage or hinder compliance with environmental laws. Additionally, moral values, particularly the sense of responsibility toward future generations and nature, have a significant impact on individuals' environmental behaviour. It was concluded that the findings underscore the need for a holistic approach that combines legal enforcement with behavioural interventions to address India's pressing environmental challenges. By integrating insights from psychology, the strategies may be drafted for improving compliance, such as promoting environmental education, leveraging social influence, and designing policies that align with psychological motivations.

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1. Introduction

In the recent past, the concern for battling climate change seems to have taken the center stage world over and rightfully so. A plenty of global conventions, treaties and conferences highlighting the significance of ensuring the health of our planet, bear evidence to the fact that the threat of climate change is real and needs to be dealt with collective effort. The largest democracy in the world, India, has been and continues to be an active participant in such endeavours. In order to uphold the spirit of the Indian Constitution along with meeting the international commitments, environment related legislation as The Wildlife (Protection) Act, 1972 and The National Green Tribunal Act, 2010 etc. have been enacted in India from time to time. However, the implementation of such laws has not been very efficient, with lack of citizen engagement being a major reason.¹

The gap between law and behaviour can be attributed to factors such as lack of public awareness, inadequate enforcement mechanisms, and psychological resistance to change. Even the Constitution of India provides provisions on the subject of environment protection. For instance, Article 51A(g) prescribes the Fundamental Duty of every citizen of India to protect and improve the Natural Environment and have compassion for all living creatures² and Article 48A states that "The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country"³. While India has a robust set of environmental laws, including the Air Act (1981), Water Act (1974), and the Environment Protection Act (1986), enforcement remains inconsistent.

Environmental degradation has emerged as one of the most critical global challenges, with significant social, economic, and ecological implications. In India, a country facing severe environmental issues such as Air and Water Pollution, Deforestation, and Waste Mismanagement, effective environmental law enforcement is paramount^{1, 20}. However, compliance with environmental regulations often depends on behavioural drivers that go beyond mere legal frameworks.

¹Jeshtha Angrish and Swastik Bhardwaj, "Formulation and Enforcement of Environmental Laws: Crucial Role of Psychology" 16 BSSS Journal of Social Work 141 (2024).

²The Constitution of India, art. 51A(g)

³The Constitution of India, art. 48A



Environmental law covers a wide range of topics, including waste management, biodiversity protection, air and water quality, and climate law whereas, Environmental psychology is a multidisciplinary social science that examines the relationship between human beings and our surroundings.

The intersection of Environmental Law and Psychology explores how Psychological factors influence individuals' and organizations' compliance with Environmental policies. Understanding these factors can help policymakers design laws that are more effective and promote sustainable behaviour.

Rio De Janeiro and the World Summit on Sustainable Development held in 2002 in Johannesburg etc. are just a few names in the long list of global conferences that have been instrumental in achieving a common understanding internationally regarding environmental issues4. India has always contributed with enthusiasm to every global call for climate action. When all the provisions of the Constitution of India were enforced on 26 January 1950, it did not have any provision directly concerning with the Protection of Environment. The credit for ushering a movement for the cause of environment in India can be traced to the United Nations Conference on Human Environment which was held at Stockholm in 1972. Consequently, provisions relating to Protection of Environment were introduced in the Constitution of India by the 42nd Amendment Act in 1976; thereby making it perhaps the first Constitution in the world which strived to save the degrading environment⁵.

As it is, the Indian way of life is replete with the incredible values of our ancient civilization which is characterized by the concepts of 'Vasudhaiv Kutumbakam' and 'Dharti Mata'. Therefore, it is by virtue of our cultural ethos that we believe that 'The entire World is one Family' and 'Earth is our Mother'. This renders us better equipped to lead a lifestyle which is sustainable and in harmony with nature.

2. Constitution of India and Environment

The Constitution of India looks after the concerns regarding environment mainly through the following three articles:

Article 48A (Protection and Improvement of Environment and Safeguarding of Forests and Wild Life): It was incorporated by the

⁴L. Jianping, L. Minrong, et.al., "Global Environmental Issues and Human Wellbeing", in Li Jianping, Wang Jinnan, et.al. (eds.), Report on Global Environmental Competitiveness 3-21 (2013).

⁵ D.S. Senger, Environmental Law (PHI Learning Pvt. Ltd., New Delhi 2007).2 Supra note 2, art. 51A(g) 3 Supra note 2, art. 48A



Constitution (Forty-second amendment) Act, 1976 and states that the State shall endeavor to protect and improve the environment and to safeguard the forests and wild life of the country³.

Article 51A(g): It was also added by the Constitution (Forty-second amendment) Act, 1976. It places a Fundamental Duty on Indian citizens to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures².

Article 21 (Protection of Life and Personal Liberty): It states that no person shall be deprived of his Life or Personal Liberty except according to procedure established by law. It includes the 'Right to Life' which has unfolded in form of distinct facets over the course of various judgments. One such facet related to clean environment falls under the ambit of right to life which has been construed as "a life of dignity to be lived in a proper environment free from the dangers of diseases and infection".

Another dimension highlights the right to sustainable development referring to which the Court has held that "balance has to be maintained between environment protection and developmental activities which can be achieved by strictly following the principle of sustainable development".

3. Environmental Laws in India

This section presents a broad outline of some of the major laws pertaining to environment which are enforceable in India at present.

Wild Life (Protection) Act, 1972: The aim of this Act is to put a check on the declining population of wild animals and birds. It places prohibition on the poaching of specific wild animals and birds, with exceptions to be used for educational or scientific research purposes. In addition to this, it also covers the matters regarding designation of particular areas as national parks or sanctuaries⁷.

Forest (Conservation) Act, 1980: As the name suggests, the overall objective of this Act is to conserve forests. It is aimed at thwarting the ecological imbalance and deterioration of environment resulting from deforestation. It makes the prior approval from the central government mandatory for putting forestland to non-forest use⁸.

²Supra note 2, art. 51A(g)

³Supra note 2, art. 48A

⁶The Constitution of India, art. 21

⁷ The Wild Life (Protection) Act, 1972 (Act No. 53 of 1972)

⁸The Forest (Conservation) Act, 1980 (69 of 1980)



Environment (Protection) Act, 1986: The objectives of this Act are twofold. First being the initiation of proper actions for the protection and improvement of human environment as per the United Nations Conference on the Human Environment held at Stockholm in June, 1972; and second being to ensure the inhibition of hazards to human beings, other living creatures, plants and property. This Act defines the terms frequently used in the discourse about environmental concerns. For instance, the term 'environment' has been defined to include "water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property"9.

National Green Tribunal Act, 2010: Among developing nations, India is one of the forerunners in establishing a green court in the form of the National Green Tribunal (NGT). This innovative judicial mechanism acts as a special 'fast-track quasi-judicial' body for delivering prompt justice exclusively in cases involving environment¹⁰. The NGT is working towards halting the uninterrupted march toward industrialization in the post liberalization era of Indian economy. Though it is unlikely that NGT will be the ultimate solution for all environmental issues, it will undoubtedly prove to be a pioneer in providing novel forms of environmental dispute resolution¹¹.

In order to enforce environmental regulations and influence compliance behaviours, the court system is essential. To successfully encourage sustainable activities and safeguard natural resources, the court must have a thorough understanding of the psychological aspects that affect adherence to environmental policies. This summary examines the existing legal system, significant decisions, and the relationship between psychological factors and environmental law enforcement.

The Supreme Court of India's and other High Courts' landmark rulings have had a big influence on environmental legislation and compliance:

National Green Tribunal (NGT) Judgment on Art of Living Festival (2017): An environmental damage lawsuit involving the Art of Living Foundation's World Culture Festival in the Yamuna floodplains was heard by the NGT. The organization was fined by the tribunal, which also ruled it

⁹The Environment (Protection) Act, 1986 (29 of 1986)

¹⁰The National Green Tribunal Act, 2010 (Act No. 19 of 2010)

¹¹S. K. Patra and V. V. Krishna, "National Green Tribunal and Environmental Justice in India" 44(4) Indian Journal of Geo-Marine Science 445-453 (April, 2015)



responsible for harming the environment of the floodplain. In addition to the duties of event planners in minimizing environmental harm, the ruling emphasized the need of preserving riverine ecosystems¹². The function of the NGT in deciding issues involving environmental repair and damage was reaffirmed.

Narmada Bachao Andolan v. Union of India (2000): In this case, the Supreme Court of India considered the effects on the environment and displaced populations of the Sardar Sarovar Dam's construction on the Narmada River. By balancing environmental concerns with development demands, the Supreme Court permitted the building of the dam while highlighting the necessity of appropriate rehabilitation and environmental effect evaluations. The ruling emphasised the necessity of striking a balance between environmental preservation and developmental objectives, with sustainable development serving as a guiding concept¹³.

Union of India v. Vellore Citizens' Welfare Forum (1996): The Court ordered that any activity that could have a negative environmental impact must first have environmental clearance, acknowledging the significance of sustainable development. The decision underlined how important it is to follow environmental laws¹⁴.

Subhash Kumar v. State of Bihar (1991): The Supreme Court affirmed the judiciary's dedication to upholding adherence to environmental regulations safeguarding public health by ruling that the right to have clean water is a basic right under Article 21¹⁵.

M.C. Mehta v. Union of India (1987): The Supreme Court ruled that, in accordance with Article 21 of the Indian Constitution, the right to a healthy environment is a component of the right to life. This historic decision established a precedent for similar challenges in the future and emphasized the judiciary's responsibility in defending environmental rights¹⁶.

Recent Supreme Court decisions in India have focused on interpreting and applying environmental laws with a particular emphasis on protecting forest lands and eco-sensitive areas. Here are some key rulings from 2023:

¹²Manoj Mishra v. Delhi Development Authority, Application No. 65 of 2016, (M.A. No. 130 of 2016)

¹³Narmada Bachao Andolan v. Union of India, 2000 (10) SCC 664.

¹⁴Vellore Citizens Welfare Forum v. Union of India, 1996 (5) SCC 647

¹⁵Subhash Kumar v. State of Bihar, 1991 SCR (1) 5

¹⁶M. C. Mehta v. Union of India, (1987) 1 S.C.R. 819



Interim Order on the Forest Conservation Act, 2023: The Supreme Court issued an interim directive maintaining the broad definition of "forest" as per the landmark Judgement in T.N. Godavarman Thirumulpad Vs Union of India (1996) case¹⁷. This ruling requires the government to adhere to traditional interpretations, despite amendments made under the Forest Conservation Amendment Act, 2023. The court emphasized the continued protection of forests until a final judgment is made on challenges to the recent amendments18.

Eco-Sensitive Zones (ESZ) Ruling: In April 2023, the Supreme Court clarified its stance on mining activities near eco-sensitive zones. It upheld restrictions on mining within a 1 km radius of protected areas, to prevent environmental damage. This ruling followed up on its previous decisions, ensuring that activities harmful to wildlife and biodiversity are regulated even outside immediate boundaries of protected areas¹⁹.

These rulings highlight the Supreme Court's ongoing efforts²⁰²¹ to balance environmental conservation with developmental needs, ensuring that legislative changes do not undermine established environmental protections.

The importance of the court in influencing India's environmental policy, holding polluters responsible, and making sure that progress doesn't come at the expense of environmental damage is highlighted by these rulings taken together. For striking a balance between ecological protection and economic progress, they act as guiding models.

4. Psycho-Legal Perspectives

In many Indian communities, collective behaviour is often driven by what is perceived as socially acceptable or desirable. The intersection of environmental law and psychology explores how psychological factors influence individuals' and organizations' compliance with environmental policies. Understanding these factors can help policymakers design laws that are more effective and promote sustainable behaviour. Here are key psychological aspects that impact environmental policy compliance:

¹⁷T.N. Godavarman Thirumulkpad v. Union of India, 1997 AIR SCW 1263

¹⁸ Interim Order on the Forest Conservation Act, 2023

¹⁹Eco-Sensitive Zones (ESZ) Ruling, 2023

²⁰The Air (Prevention and Control of Pollution) Act, 1981 (Act No. 14 of 1981)

²¹The Water (Prevention and Control of Pollution) Act, 1974 (Act No. 06 of 1974)



Cognitive Biases and Decision-Making

It is observed that people tend to prefer maintaining their current habits over adopting new behaviours. This bias can make it difficult to encourage practices like recycling or reducing energy consumption. As the individuals often prioritize immediate rewards over long-term benefits, When the consequences of environmental harm (e.g., climate change) seem distant, people might not feel the urgency to comply with laws aimed at mitigating such issues²².

Perception of Risk

How individuals perceive environmental risks plays a crucial role in their compliance with regulations. If people view risks like air or water pollution as immediate threats to their health, they may be more likely to support or adhere to environmental regulations. Many people underestimate their susceptibility to environmental risks, which can lead to non-compliance with policies, such as ignoring waste disposal regulations.

Social Norms and Cultural Influences

People mostly look towards what behavioral pattern is prevalent in the society and their perceptions of what others do. If compliance with environmental regulations (e.g., using reusable bags) is seen as a norm within a community, others are more likely to follow. If certain actions or behaviours that are socially approved or disapproved, people do not intend to go against it. Policies that leverage social approval or disapproval can encourage people to adopt environmentally friendly behaviours. Different cultures may prioritize environmental conservation to varying degrees. In societies where communal well-being is valued, policies that highlight collective environmental benefits might gain better compliance.

Motivational Factors

Both Intrinsic and extrinsic motivation plays an important role when it comes to pro-environmental behavior. Intrinsic motivation involves engaging in behaviour because it is personally rewarding, while extrinsic motivation involves behaviour driven by external rewards like tax breaks or fines. Successful environmental

²²Jeshtha Angrish and Swastik Bhardwaj, "Formulation and Enforcement of Environmental Laws: Crucial Role of Psychology" BSSS Journal of Social Work 141-148 (2024), available at: https://doi.org/10.51767/jsw1613



policies often need a balance of both to sustain long-term compliance²³. If people believe that hey may make a difference through their actions (e.g., reducing personal carbon footprints), they are more likely to comply with policies. It been observed that education and awareness campaigns play a critical role in fostering this belief.

Environmental Attitudes and Values

Individuals with strong environmental values are more likely to support and comply with environmental regulations. This may include values related to the preservation of nature, sustainable development, and intergenerational equity. It is been seen that individuals with a strong belief in the consequences of environmental degradation and a sense of moral obligation (norm) to take action are more likely to comply with environmental policies and develop a pro-environmental attitude.

Psychological Reactance and Resistance to Regulation

When people perceive that their freedom is being threatened by strict regulations, they may become resistant and deliberately defy rules (e.g., illegal dumping or burning). Understanding this tendency can help policymakers frame regulations in ways that minimize perceived restrictions²⁴.

Framing policies positively (e.g., highlighting the benefits of compliance rather than focusing on penalties for non-compliance) can reduce reactance and improve adherence to laws.

Trust in Authorities

The level of trust that individuals have in government and regulatory bodies can significantly affect their willingness to comply with environmental policies. A high level of trust can lead to greater compliance, as people believe that regulations are in their best interest. If policies are perceived as fair and equitable, individuals are more likely to comply. Transparent communication about how regulations are formulated and enforced can improve perceptions of fairness.

²³H. Jiang, J.N. Kim, et.al., "The Impact of Perceptual and Situational Factors on Environmental Communication: A Study of Citizen Engagement in China" 13 Environmental Communication 582-602 (2019).

²⁴A. Keane, J.P. Jones, et.al., "The Sleeping Policeman: Understanding Issues of Enforcement and Compliance in Conservation" 11 Animal Conservation 75-82 (2008).



Heuristics and Simplification of Complex Information

Environmental issues often involve complex scientific data that can be difficult for the general public to understand. People tend to rely on heuristics (mental shortcuts) to make decisions. Effective communication strategies that simplify information can help increase compliance with regulations by making the desired actions more accessible.



Fig.1: Behaviour Influencers. Source: Center for Behaviour and the Environment-Rare

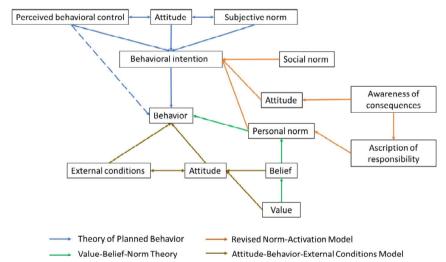


Fig. 2. Predictors of behavior based on four theoretical frameworks. Source: https://www.sciencedirect.com/science/article/pii/S2666765722001405

5. Discussion

Citizens are the agents of change. Combining the understanding of the psychological underpinnings of their individual and societal behavior related to environment, is must for any attempt at environmental behavior modification to succeed. Therefore, in our pursuit of environmental conservation through citizen engagement, learning about the determinants of individual and social



pro-environmental behavior can pave a way for constructive legal mandate on environment eliciting better public engagement. Application of various models of behavior change including the Health Belief Model²⁵, the Theory of Reasoned Action²⁶ and the Transtheoretical Model²⁷ can bring the desired effectiveness to environmental legislation. For instance, the Behavior Change Wheel Model proposed by Michie et al. in 2011, offers a behavior transformation framework called COM-B system. It comprises of three factors which form the core of the Behavior Change Wheel (BCW): capability, opportunity and motivation. This core is encircled by nine different intervention functions that are designed to address the weaknesses in the core. The intervention circle is further surrounded by the policy circle which consists of seven types of policy that may make these interventions possible²⁸.

Social norms and community behaviours also play a critical role. In many Indian communities, collective behaviour is often driven by what is perceived as socially acceptable or desirable. The influence of peer behaviour, religious beliefs, and traditional practices can either encourage or hinder compliance with environmental laws. Additionally, moral values, particularly the sense of responsibility toward future generations and nature, have a significant impact on individuals' environmental behaviour.

Given the immense challenge posed by climate change, adopting an interdisciplinary approach appears essential to avoid catastrophic outcomes. Addressing this crisis requires rapid and significant social transformations. Within this context, psychological research holds significant promise for enhancing climate change mitigation strategies. Greater attention needs to be given to two key aspects: understanding how human behaviors impact the environment and fostering collaboration across disciplines²⁹.

²⁵R.S. Zimmerman & D. Vernberg, "Models of preventive health behavior: comparison, critique, and meta-analysis", 4 Advances in Medical Sociology 45-67 (1994).

²⁶G.L. Callahan, "A meta-analysis of the Fishbein and Ajzen theory of reasoned action", Dissertation Abstracts 59 International Section A: Humanities and Social Sciences, 379 (1998).

²⁷J.O. Prochaska & W.F. Velicer, "The transtheoretical model of health behavior change" 12 American Journal of Health Promotion: AJHP, 38-48(1997).

²⁸ S. Michie, M.M. Van Stralen, et.al., "The Behaviour Change Wheel: A New Method for Characterising and Designing Behaviour Change Interventions" 6 Implementation Science 1-12 (2011).

²⁹K.S. Nielsen, S. Clayton, et al., "How Psychology Can Help Limit Climate Change" 76 American Psychologist 130 (2021).



Relying solely on legal frameworks for environmental conservation is insufficient. The solution lies in integrating knowledge from various disciplines to develop innovative approaches. A fresh perspective grounded in robust theoretical and practical foundations is urgently needed to overcome enforcement and compliance challenges²³.

The paper seeks to merge ideas from the fields of law and psychology to propose solutions that leverage psychological principles to enhance the enforcement of environmental laws. The aim is to establish a psycho-legal framework to address environmental issues, particularly the lack of citizen engagement, which undermines the effectiveness of environmental legislation. Key psychological domains relevant to this approach include: individual behavior, societal behavior, mental health, and effective communication in legislation.

Understanding what motivates individual behavior (such as values, attitudes, beliefs, identities, and motives as discussed above) is crucial for designing effective legal mandates for environmental conservation. Concepts such as environmental identity, pro-environmental values, and ecological worldviews can inform precise and impactful lawmaking.

Insights into societal dynamics provide a foundation for theories that can drive public behavior modification and civic engagement. Social psychology offers valuable tools for understanding collective behavior and fostering community-driven environmental action.

Climate change has profound psychological impacts, with phenomena like eco-anxiety and climate distress gaining recognition. Vulnerable populations, especially those with pre-existing mental health conditions, are at greater risk. To address these challenges, mental health policies must integrate climate change considerations, emphasizing cross-sectoral and community-based efforts³⁰ Highlighting the link between environmental issues and psychological well-being can inspire greater citizen participation in conservation efforts.

Effective communication is critical at every stage of environmental legislation of formulation and implementation of the policies. Psychological insights can shape laws that resonate with behavioral drivers. Engaging stakeholders (citizens, organizations, and governments) through transparent communication can lead to policies that address core environmental issues. For instance, addressing the interconnected nature of behaviors, culture, technology, economy, and

²³Supra note 23

³⁰World Health Organization, "Mental Health and Climate Change: Policy Brief" (2022



policy can help craft messages targeting behavior change clusters rather than isolated actions²⁹.

Clear, impactful communication is essential for executing and disseminating policies. Environmental education, awareness campaigns, and tailored communication strategies may enhance outreach. Incorporating feedback mechanisms further refines these efforts. Citizens' communication acts, such as sharing and seeking information, directly boost environmental participation 29,30,31

The gap between law and behaviour can be attributed to factors such as lack of public awareness, inadequate enforcement mechanisms, and psychological resistance to change³⁴. While India has a robust set of environmental laws, including The Wildlife (Protection) Act, 1972, Air Act (1981), Water Act (1974), the Environment Protection Act (1986), etc., still the enforcement remains inconsistent.

The importance of the court in influencing India's environmental policy, holding polluters responsible, and making sure that progress doesn't come at the expense of environmental damage is highlighted by these rulings taken together. For striking a balance between ecological protection and economic progress, they act as guiding models.

6. Conclusion and Suggestions

The following observations and suggestions were made after the analysis:

- People tend to prefer maintaining their current habits over adopting new behaviours. This bias can make it difficult to encourage practices like recycling or reducing energy consumption³².
- Individuals often prioritize immediate rewards over long-term benefits. When the consequences of environmental harm (e.g., climate change) seem distant, people might not feel the urgency to comply with laws aimed at mitigating such issues.

²⁹Supra note 29

³⁰Supra note 30

³¹S.C. Moser, "Communicating Adaptation to Climate Change: A Review of the Literature on Barriers to Engagement" 20(4) Global Environmental Change 540-548 (2010).

³²O. Renn, T. Webler & P. Wiedemann, "Fairness and Competence in Citizen Participation: Evaluating Models for Environmental Discourse" Fairness and Competence in Citizen Participation, Springer (1995)



- Many people underestimate their susceptibility to environmental risks, which can lead to non-compliance with policies, such as ignoring waste disposal regulations³³.
- If compliance with environmental regulations (e.g., using reusable bags) is seen as a norm within a community, others are more likely to follow the same.

Integrating psychology into environmental law and policy provides valuable insights into human behaviour, which can help shape more effective and sustainable environmental regulations. By considering factors like cognitive biases, social norms, and motivational drivers, policymakers can design strategies that foster greater compliance, leading to better environmental outcomes.

Policies that leverage social approval or disapproval can encourage people to adopt environmentally friendly behaviours³⁴. Different cultures may prioritize environmental conservation to varying degrees. In societies where communal well-being is valued, policies that highlight collective environmental benefits might gain better compliance³⁵.

Risk perception, cognitive biases, social norms, place attachment, ecoanxiety, climate justice and moral values are to be addressed which modifying the behaviour patterns of communities towards environment. In the Indian context, these psychological aspects are further shaped by socio-economic disparities, educational levels, and other socio-demographics in line with environmental laws.

³³M. C. Nisbet & D. A. Scheufele, "What is Next for Science Communication? Promising Directions and Lingering Distractions "96 *American Journal of Botany* (10), 1767-1778 (2009).

³⁴E. W. Maibach & A. Leiserowitz, "America's Global Warming Beliefs and Attitudes in 2004" 69 *Public Opinion Quarterly* (3), 416-432 (2005)

³⁵P. W. Schultz & L. Zelezny, "Values as Predictors of Environmental Attitudes: Evidence for Consistency Across 14 Countries "30 *Journal of Cross-Cultural Psychology*, 30(4),545-570 (1999).