Social Science Theory for Environmental Sustainability

A Practical Guide

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1

Introduction: Why would you want to read a book about social science theory?

1.1 Who should read this book?

A consultant needs to organize multiple stakeholders from different, competing organizations. An employee wants to start a company energy savings program. A small group of people wants to protect a nearby coral reef from overuse. A forest ranger wants to better engage the local public in planning for the future of a National Forest. A National Park superintendent wants to keep people out of a sensitive area. A town planner wants to devise better ways of leading people through contentious planning processes. A concerned citizen wants to bring people together to respond to threats posed by climate change. A graduate student needs theories to use in her research project. This book is for all these people.

Whether you are an environmental professional, a business person, a student, a politician, a scientist, a government employee, or simply an engaged citizen who wants to be better equipped to make sense of difficult problems and contribute to their solutions, this book is intended to serve as a reference and guide toward thoughtful action for people who want to have impact. It contains summaries of social science theories along with strategies and examples for how to apply them to solving environmental problems and promoting environmental sustainability.

1.2 What's the problem?

If you're interested in this book, I'm hopeful that you already care about environmental issues and recognize that all else depends on sustaining our planet's critical life support systems. We rely on a healthy natural environment for clean water, clean air, food, shelter, and virtually all the materials we need to have a chance to live reasonably comfortable and satisfying lives. Research tells us that healthy natural environments also provide powerful psychological and physical benefits to those who spend time in them, including enhanced short-term memory,

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restored mental energy, stress relief, improved concentration, sharper thinking and creativity, increased motivation, boosts to the immune system, enhanced self-esteem and improved overall mental and physical health.[1] We bask in the beauty of natural scenery for restoration, inspiration, and challenge. We take pride in beautiful natural places near our home, showing them off to visitors as if they were our own. Some travel halfway around the world for the opportunity to enjoy the wonders of a coral reef, a rainforest, a flowering alpine meadow, or a roaring waterfall. Without these places of respite, our lives would be less meaningful and less enjoyable. Without the services they provide, in terms of clean air, water, and food, we'd suffer from hunger and disease and eventually cease to exist. While these benefits might seem obvious to anyone motivated enough to pick up this book, you might be asking yourself, "Why is it so hard to protect them?" Why does it seem to be a constant fight to keep our water clean, our ecosystems intact, our cherished natural spaces unpolluted, and our global climate livable into the future?

1.3 Why learn about *social* science?

Whether we are concerned with ensuring clean air to breathe, promoting sustainable use of resources, protecting endangered species, conserving special places, or protecting water sources, environmental problems are people problems**,** and simple straightforward fixes rarely suffice. Even the most ingenious technical solutions must be accepted and adopted by governments, corporations, and citizens to be effective. Traditional means for mandating or coercing people's behavior are rarely effective (or fair) in the long-term. Moreover, we can't simply assume that excellent rational arguments or economic inducements can convert everyone into committed environmental stewards. We should all know from personal experience that people don't always (or even typically) act in their own best interests or based on sound knowledge or advice. If they did, any number of prior environmental initiatives might have already solved many of our problems. We would have either educated people out of all of their bad habits or simply paid (or taxed) them enough to act in ways that would create a more sustainable future. In reality, problem solving in the environmental realm is inevitably entangled with social values, conflicts, and inertia. No matter what technical solutions we develop, we must navigate the complexities of human behavior to activate their utility.

This is where social science becomes helpful. Without it, we are left to our own intuitions and biases about why a particular effort should work or not. It is all too common for us to be blind to our habitual ways of seeing the world around us, especially when it comes to understanding human behavior. It is easy to assume that others should act in predictable ways that make sense to us. When this doesn't

happen, we find ourselves baffled and frustrated. Relying solely on our intuitions (or what we already know) often leads us to the same dead ends. I have assembled this book to help us out of this trap—to provide access to a broader array of time-tested ways to understand human behavior.

Humans are complex creatures. Trying to understand our interactions, whether interpersonal, political, familial, communal, national, international, or otherwise, can be downright mind-boggling. Our life choices and behaviors do not result from simply weighing potential costs and benefits to choose the most beneficial path in each situation. For decades, social scientists have studied individuals, groups, and their interactions, seeking patterns in human behavior to help make sense of how people and societies function. Their work results in the development and refinement of theories, which aim to explain their observations.

"Your assumptions are your windows on the world. Scrub them off every once in a while, or the light won't come in." – Isaac Asimov

1.4 What are theories good for?

Put simply, useful theories provide explanations about how or why something happens in different situations. In the social sciences, these theories explain peoples' behavior and thus illuminate strategies for influencing that behavior. The theories contained in this book comprise a small portion of those available to people working on environmental and sustainability-related challenges. They represent some of the most useful and supported that I and others have found over careers of researching and practicing the work of environmental conservation, natural resource management, and sustainability. I have intentionally simplified most of them. In some cases, I present a synthesis of multiple inter-related theories, rather than a singular pre-existing one. My goal in this book is not to trace the history of the theories provided, nor to faithfully reproduce every individual theory that might be relevant to a specific problem. I provide endnotes and references for further reading for those interested in those endeavors. Rather, my hope is that my presentation will clearly convey how the theories in this book might apply directly to contemporary problems you might be facing and how to use them to enhance environmental sustainability efforts.

1.5 How to make best use of this book

While it is every author's hope that his or her audience will read every word on every page, this book is intended to be practical for busy people. I've organized it so those who wish to read the book from cover to cover should benefit from doing

so (and hopefully enjoy the experience). Meanwhile, those who prefer to use it as a general, or just-in-time, reference in times of need should also find the book easy to navigate for specific goals. To this end, I have created a table that readers can use to find what they may be looking for (Table 3.1). The table should help you to easily locate appropriate theories based on your own specific problems and contexts. The final chapter (Chapter 10) provides another means for selecting specific theories based on the degree of conflict present within the social context (see Figure 10.1). Some early readers of the book have also recommended reading any one of the vignettes in Chapter 9 as a first step to understanding how to turn theories into real world strategies.

My goal is that this book will serve as a field guide, of sorts, for busy people looking for alternative ways to tackle meaningful challenges in their work. My greatest hope is that it finds a regular place in your backpack or on the corner of your desk, and it grows worn, weary, and creased over time. Much like a birder who turns to a field guide when she sees a new bird or hears a new song, you can turn to this book whenever you hit a snag in your work, when people's behavior just isn't making sense to you, or when you need a fresh perspective on a stubborn problem.

I've divided the contents into three primary parts. Part I provides an overview of some of the most basic challenges of working with people, summarizing some of our most common cognitive biases and limitations. I intend for this chapter to serve as a baseline from which to consider a variety of approaches to understanding and influencing human behavior. Part II is creatively titled, "The Theories." This second section presents concise summaries of thirty explanatory theories (in a few cases syntheses of multiple theories) with general guidance on the types of situations in which each theory might be most (or least) useful and on how to use it. Part III, entitled, "Putting the Theories to Use," contains a series of vignettes demonstrating the theories in practice. The vignettes are designed with two purposes in mind. First, they provide examples of how one might use the theories to solve real world problems. Second, they reveal the power of considering multiple theories, rather than relying on a single favorite or any pre-conceived notions we might have about the people with whom we interact. Part III concludes with a synthesis of key principles and their potential applications to solving environmental problems.

Maintaining an adaptive mindset

I urge readers to approach this book with what I'll refer to as an "adaptive mindset." An adaptive mindset has three chief characteristics: (1) an eagerness to experiment and to learn, (2) a recognition of the value of multiple viewpoints, and

(3) a willingness to question underlying assumptions.[2] An adaptive mindset thus promotes two key qualities that I believe to be of utmost importance to modern-day problem solving. The first is a strong sense of ***humility*** as we grapple with questions that are not only difficult to answer, but also constantly changing. The second is a sense of ***compassion*** as we do this work together and do our best to understand different ways of seeing the world. These two elements, humility and compassion, open the door to asking the most difficult questions, considering the widest range of potential solutions, learning from failures, and being measured and thoughtful about the consequences of our actions.

With this as a jumping off point, the theories in this book should not be considered simple formulas for problem solving. The complexities and idiosyncrasies of people and contexts ensure that even the best social science theories will not apply in every circumstance. Rather, they provide multiple lenses for making sense of a situation and formulating potential courses of action. No one theory may be ideally suited for any single problem. Rather, considering multiple theories, sometimes in combination, will often illuminate new solutions that might have otherwise remained hidden.

1.6 A note to graduate students

I think you will find this book a fruitful guide to locating useful theory for any study related to the human dimensions of sustainability, conservation, or any form of environmental management. I'd be pleased if graduate students came to use this book as a short cut in this sense. However, I wish to add a word of cautionary advice. This book provides only a glimpse of each theory and its associated body of empirical research. If you plan to employ any of these theories in a research study of your own, you'll need to read far beyond the summaries I provide here. I offer some key references along with each theory only as a starting place. I wish you well on your (hopefully) long journey of discovery.