

ENVIRONMENTAL ISSUES APPEAR DECEPTIVELY SIMPLE: science tells us what the problems are and how to solve them, and, for Christians, the Bible motivates us to care for creation. And yet, both in society in general as well as in the Christian church in particular, we cannot seem to agree on what to do regarding environmental issues. In this book, climate scientist Johnny Wei-Bing Lin argues that determining the content of environmental stewardship, far from being a straightforward exercise, is a difficult and complex endeavor. He sets forth a general taxonomy, drawing from worldviews, ethical theories, science epistemology, science-policy studies, politics, and economics, that can help us better understand what excellent creation care consists of and how to bridge the differences people have regarding environmental issues.

The Nature of ENVIRONMENTAL STEWARDSHIP

Understanding Creation Care Solutions to Environmental Problems

Johnny Wei-Bing Lin

“Dr. Lin wants peace between folks who are well-intentioned but unable to agree, be they Christians or not! Peace as we wrestle with science and Scripture over our stewardship of God’s beloved creation. Lin gives us well-considered ways to sift competing views and supposed facts. . . . This book comes from a master teacher and irenic fellow struggler. A very important synthesis of worldview-driven, informed arguments.”

—TERRY MORRISON

Director Emeritus, Faculty Ministry
InterVarsity Christian Fellowship/USA

“By carefully breaking ‘environmental stewardship’ down into its component parts, this book offers readers a framework to dialogue—instead of debate—the imperative of creation care. Grappling with the fact that today’s ecological and economic challenges cannot be contained by a simple ideology nor a single imagination, Lin guides us toward both a practical synthesis of collective human wisdom and a higher level of conscientiousness in protecting all that which God loves.”

—KALEB NYQUIST

Steering Committee Member
Young Evangelicals for Climate Action

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Environmental Stewardship

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THE NATURE OF ENVIRONMENTAL STEWARDSHIP
Understanding Creation Care Solutions to Environmental Problems

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In memory of the K.E.N. Association
When Earth-keeping was child-keeping

He turned to Reason and spoke.

“You can tell me, lady. Is there such a place as the Island in the West or is it only a feeling of my own mind?”

“I cannot tell you,” said she, “because you do not know.”

“But you know.”

“But I can tell you only what *you* know. I can bring things out of the dark part of your mind into the light part of it. But now you ask me what is not even in the dark of your mind.”

“Even if it were only a feeling in my own mind, would it be a bad feeling?”

“I have nothing to tell you of good and bad.”

— C. S. Lewis, *The Pilgrim's Regress*, 58 [emphasis in original]

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Preface

WHY THIS BOOK? A PERSONAL REASON

HAVING SPENT YEARS STUDYING and working in the geosciences and teaching an environmental ethics course, I have been involved with environmental issues for decades. Through that time, as I have observed how we talk about and engage with environmental issues, I have become increasingly puzzled by three questions. First, why do people disagree so much with regards to the content of environmental stewardship? Even people who share the same worldview, such as Christians who agree that God created the world and commanded human beings to care for it, nonetheless disagree as to the content of “creation care.” Second, why do people, when approaching environmental issues, tend to behave as if getting the science right (or, in the case of Christians, getting the Bible right too) automatically determines what course of action to take with regards to environmental problems? Is environmental stewardship really that simple? Are current environmental problems predominantly the result either of ignorance or willful sin? Finally, why in our disagreements over environmental issues do we seem to spend most of our time talking past each other instead of addressing the meat of our differences?

In my reading, I have witnessed too many discussions characterized by *ad hominem*, where one side accuses the other of ill will, whether with accusations of siding with a greedy, corporate cabal bent on destroying nature in pursuit of profit or with accusations of being misanthropic, tree-hugging, nature worshippers that see human beings as a virus ravaging the earth. In this book, we will see that there are schools of thought in the spectrum of environmental positions whose logical extremes lead to such conclusions but also that it is untrue that we must necessarily come to such conclusions. Even most people (though, admittedly, not all) who hold positions close to

an extreme do not actually believe the extreme. To generally assume that someone is motivated by either soul-ravaging greed or life-ravaging misanthropy is unfair, does not lead to productive dialogue, and makes compromise nearly impossible. (*Mea culpa*: I have been guilty myself of such pigeon-holing of others.)

This book is an attempt to answer the questions I posed earlier by providing a taxonomy of what goes into determining the content of environmental stewardship. In doing so, I also hope to provide a structure we can use in our debates over how to care for the environment. Such a structure can help us identify what we really disagree over, hidden points of agreement, and possible avenues for dialogue and compromise. This, I hope, can lead to a more faithful, fruitful, and robust suite of environmental stewardship activities.

WHAT THIS BOOK IS AND IS NOT

The main purpose of this book is to propose an analytical structure or taxonomy to aid in describing and weighing the different factors that affect the content of environmental stewardship. There are many excellent works on environmental stewardship and theology, ethics, science and policy, politics, and economics, but this book is relatively unique in that it aims to comprehensively (though certainly not exhaustively) address all the above topics. Much of what is in this book has been said before by others; my contribution is in trying to bring those ideas together in a unified framework and to bring to the notice of one disciplinary community pertinent contributions from another that might have been missed. (Note, because this book is synthetic, the chapters do not always work in a linear order; later chapters may presume knowledge not presented in earlier chapters. I provide a list of abbreviations in the front portion of this book and a glossary and index in the back of the book as aids.)

I do not claim to have read anywhere near everything in every field (philosophy, theology, biblical studies, religion, ethics, politics, economics, epistemology, science-technology studies, etc.) touched in this book and I make liberal use of secondary sources.¹ Thus, I am sure experts in any of

1. When sources I quote use a parenthetical citation system (such as the American Psychological Association's style), I generally leave out the parenthetical citations, as my focus is what the source I am using is saying (even if they are presenting work by or ideas from another source). Another way to think of it is that I treat parenthetical citations as if they were footnotes; when quoting a work that has footnotes, we usually do not include the footnote markers within the quotation. In some instances, I will mention in a footnote that the text I quoted had a parenthetical citation(s) that I removed.

the fields touched on by this book can provide robust critiques of my arguments, and I welcome such critiques. The value of this work, however, is not in the depth of its detail but in the intertwining strength of its synthesis. I believe what the framework I have set out lacks in particulars it makes up in its breadth. For the task of fostering dialogue and convergence is necessarily a task of synthesis. Without such a synthesis, it is difficult for me to see how we can collectively discern what should be the content of environmental stewardship.

This book is also relatively unique in that it seeks to speak to two audiences simultaneously; I hope that each will benefit from hearing arguments they may be unaccustomed to. Readers who are evangelical Christians may find the discussion about the philosophy of science and science-policy connections to be new; I have seldom encountered those topics addressed in works of Christian environmental ethics or eco-theology. Readers who are not evangelical Christians, subscribing to another religion or, in particular, to no religion at all, may find the discussion about worldviews (and the Christian worldview in particular) to offer new ways of analyzing environmental problems and proposed solutions. In secular discussions of environmental ethics, I have rarely seen worldview considerations addressed, even though the secular worldview is itself a worldview.

Lastly, in this book I try to critique arguments, not people, and present the arguments of others fairly. When I mention a person in a critique, it is to provide credit to meet the requirements of intellectual honesty, not to critique the person being mentioned. If I use a source in favor of an argument I am making, I am not saying that that source agrees with me. I endeavor to use all sources fairly and accurately according to the plain sense of the source's argument, but I do not claim that that source would make the conclusions I am making using their material and ideas. I also hope to present all arguments in a way that the proponents of those arguments would find to be fair presentations of their beliefs. In my mind, this is a minimum requirement of fairness and love towards those who hold those beliefs; it does not necessarily imply my agreement with those positions. I am sadly aware, however, of my own biases, temper, and weaknesses. To those who may feel my treatment of them or their arguments is unfair, I ask you for your forgiveness in advance.

WHO THIS BOOK IS WRITTEN FOR

As mentioned earlier, this book is written using the language of the cultures of two audiences: evangelical Christians and those who are not evangelical

Christians (both those from a different religion as well as those claiming no religion at all). I started this book from musings about how the Christian church can better care for creation. As I continued to explore the issue, I found many of the ideas I was exploring applied to both those holding the Christian worldview and those who hold other worldviews. Additionally, it seemed to me that while I wanted to address specific issues Christians are wrestling with regarding creation care, I saw that the taxonomy I was creating would be useful to a broad audience, irrespective of what worldviews one held. Given the history of this book, I have sought to both engage the Christian worldview in particular detail while at the same time make my argument accessible to all.

I also want to provide a few clarifying points to help explain some of the wording and content choices I made for this book. To those in the Christian church: I write as a brother in Christ—He of whom we say “Salvation is found in no one else, for there is no other name under heaven given to mankind by which we must be saved”²—and it is my fervent hope that this book will help the various parts of the Body of Christ communicate with one another and aid us in fulfilling God’s creation care command. While I set out what I hope is a biblical way of understanding creation care, I also include non-Christian religious and non-religious worldviews. While Scripture is authoritative regarding all matters of life and faith, this does not mean that we cannot gain from comparing and contrasting other beliefs with our own creeds. That insight can help us better understand what Scripture teaches us about creation care, how to obey the creation care command, and how to communicate to those holding other worldviews the call given to us from Scripture.

To those who do not hold the Christian worldview: I hope you find that my argument respects and engages your perspectives and is useful to you as you seek to understand what excellent environmental stewardship looks like. I believe, however, that all readers, regardless of their religious (or secular) beliefs, will benefit from interaction with the Christian worldview. Despite the evangelical church being a relative newcomer to modern environmental discussions, Christianity has a rich philosophical and theological history that provides valuable tools to understanding environmental stewardship. In particular, Christian theological wrestling with the nature of paradox (found in the core of Christian faith in Jesus, who is both fully God and fully human), with the nature of the moral law, and with the nature of love offers help as we struggle with the complexities of environmental stewardship. (We will not be able to delve into these topics in any great detail in

2. Acts 4:12.

this book, but I encourage you to examine them. C. S. Lewis's *Mere Christianity* is a good place to start.) At the very least, Christianity asks us to consider the impact of worldviews—an understanding of what the world is—an impact secular thought often does not critically examine. One argument in this book is that *all* people have a worldview that influences their understanding of what environmental stewardship entails; by examining one worldview, Christianity, in depth, we may better understand how worldviews in general affect our understanding of environmental stewardship.

Because I am an evangelical Christian and am writing to multiple audiences, I will also refer to “environmental stewardship” using the term “creation care.” The two terms are essentially interchangeable, for the purposes of this book. When Christians talk of creation care, the term “creation” refers to the doctrine that God created the world and that the world is not self-existing. “Creation” does not refer to a particular mechanism by which God created the world. Thus, when I speak of creation care, I am not saying anything about whether God used an evolutionary mechanism or not in creating the various forms of life, just that God made it. Finally, I frame the question of creation care in the language of a command. Christians believe God commanded human beings to care for the Earth and so it is natural for Christians to speak of creation care in terms of obedience to that command and the command-giver. From a secular perspective, while the concepts are slightly different, the idea of categorical or moral imperative works similarly well (though without the sense of relationship with a loving God that underlies the Christian notion of obedience). Thus, wherever I discuss “following God’s command,” those who have secular beliefs might substitute “doing what is moral” or something similar.

HOW TO USE THIS BOOK

Because this book sets out a taxonomy for understanding environmental stewardship, one way of using this book is as a list of questions to ask of different ways of thinking about environmental stewardship. It could, perhaps, be used as a diagnostic checklist to help us understand proposed solutions and compare those solutions against alternatives. Such diagnosis can be done individually, in private study, or in dialogue with a small or large group of people.

Because of the breadth of this book, it could be used as an introduction to the topic of environmental ethics in general and Christian environmental ethics in particular. This book, however, is not written with the pacing and pedagogical scaffolding of a textbook. If you are brand-new to the topic, you

might want to start off with John Benson's *Environmental Ethics* or Steven Bouma-Prediger's *For the Beauty of the Earth*. Despite the wealth of good books on environmental ethics, both evangelical and non-evangelical, I am not aware of any single work that covers all the areas addressed in this book; the most prominent lacuna is epistemology of science and science-policy studies. Thus, this book may be a helpful companion to a textbook on environmental ethics.

This book might be fruitfully used as a reading in a small group or discussion group. Whenever considering a contentious topic, I find it often helpful to bounce ideas off of and engage in arguments with a group of friends. In particular, given the discussion in the last chapter on conflict resolution regarding creation care issues, the small discussion group format may provide a good venue in which to practice mutual listening and dialogue. I provide a few discussion questions suitable for individual and small group study at the end of each chapter.

As with nearly all books, I am sure I will need to make corrections and additions. I will post a list of *errata* and *addenda* at the book's website: see <http://nature.johnny-lin.com>. Other resources related to the book will also be available at that site.

ACKNOWLEDGMENTS

I am acutely aware of the debt I owe to family, friends, and colleagues who, over many years, generously nurtured many of the ideas I present in this book. We stand on the shoulders of giants, as Newton said, and my use of first person plural throughout the book reflects that debt. All shortcomings in this book, however, are my own, and the opinions expressed in this book should be considered solely those of the author.

Much of this book came from an environmental ethics course I co-taught at North Park University with Karl Clifton-Soderstrom and R. Boaz Johnson. I am grateful for their partnership and sharing of their knowledge and wisdom, as well as the contributions of all the students in our environmental ethics courses. Karl's outsized contribution to my thinking can be seen in the bibliography: no other single author has as many references. Additional faculty from the North Park Dialogue also taught me a great deal about ethics, philosophy, history, and theology: Ilsup Ahn, Greg Clark, David Koeller, and R. J. Snell.

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Portions of this book (in particular parts of chapters 7 and 8) were either previously published in or based upon work previously published in the *Covenant Quarterly*.³ Parts of this book were presented at talks at Wheaton College, the University of Chicago, and at the 2009, 2010, and 2014 Annual Meetings of the American Scientific Affiliation (ASA). The ASA is a network of Christians in science and is one of the best (though imperfect) places I know of that supports dialogue between people of differing views regarding faith and science issues (including environmental issues). More information on the organization is available at <http://www.asa3.org>.

To my children Timothy, James, and Christianne, and my wife Karen, I owe everything. Without their love, support, understanding, and patience, this book would have remained my mumblings over the dinner table. In particular, words cannot adequately express Karen's selflessness, love, and partnership with me. She is the "wife of noble character."⁴

Writing this book has been one of the hardest things I have ever done, and the experience has made me more aware of God's strengthening grace than I have known before. Which is not to say this book bears

3. Lin, "Role of Science."

4. Prov 31:10.

His imprimatur or approval in any way, but merely that I am grateful and amazed that He who sends the rain on the righteous and unrighteous⁵ and watches over every sparrow's fall⁶ would also watch over a graying Chinese-American man muddling about on a computer and, most of all, condescend to call that man a friend.⁷

Johnny Wei-Bing Lin

May 2015

Bellevue, Washington and Chicago, Illinois

5. Matt 5:45.

6. Matt 10:29.

7. John 15:15.

Abbreviations

ASA	American Scientific Affiliation
ATOC	Acoustic Thermometry of Ocean Climate experiment
CBA	Cost-benefit analysis
CFC	Chlorofluorocarbons
DDT	The pesticide dichlorodiphenyltrichloroethane
EEN	Evangelical Environmental Network
EPA	U.S. Environmental Protection Agency
FDA	U.S. Food and Drug Administration
GMO	Genetically modified organisms
ICBEMP	Interior Columbia Basin Ecosystem Management Project
IPCC	Intergovernmental Panel on Climate Change
NRC	National Research Council
NSB	National Science Board
SAP	Scientific Advisory Panel
SR-Neutral	Supporting Role-Science Neutral
SR-NN	Supporting Role-Science May Not Be Neutral
USDA	U.S. Department of Agriculture
WG1	Working Group One of the IPCC
WG2	Working Group Two of the IPCC
WG3	Working Group Three of the IPCC

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Introduction

A PARABLE

At the beginning of each chapter, we introduce each topic with the fictional story of a pastor, his church, and their engagement with the topic of creation care.¹ Stories convey ideas in ways direct argument or didactic writing cannot. Hopefully, our visits with Pastor Gabriel Lang and friends will give us additional grist for the mill as we consider the nature of environmental stewardship.

What's that saying, again, Pastor Gabriel Lang thought to himself, *about where roads lead that are paved with good intentions?* When he decided to preach a few months ago on what the Bible had to say about creation care, he had thought it would be a way of helping his congregation wrestle with how to apply the Bible to their everyday lives regarding an issue of contemporary significance. What he didn't expect was the beehive of activity it would set off. To be sure, some of this activity was exactly what he had hoped for. People were engaging with one another, Scripture, and God in prayer and thinking about ways they could put their convictions into action. But in the mix, you would periodically hear mutterings of discord: remarks here about "those greedy businesses" or there about "those long-haired tree-huggers." Nothing usually came out of those *sotto voce* comments,

1. Daniel Taylor first gave us the idea of mixing fiction and non-fiction in this way (Taylor, *The Myth*).

but even worse, when a discussion actually did occur, Gabriel would see the two proverbial ships passing in the night. Instead of talking to one another, people seemed to talk past each other. It gave Gabriel a bad feeling; they reminded him of the minor earthquakes that come prior to the eruption of a volcano.

Which finally happened. It had started with Arnold Banks's suggestion at the monthly meeting of the church's creation care committee that the church leadership, on behalf of the church, sign a petition being circulated around town asking the Town Council to turn down the request of Acme Industries for a permit to expand its factory. "This expansion," Arnold explained, "would destroy the Franklin marshes, one of the last wetland areas that has remained unchanged since the pioneer days when the town was first settled." Clearly, Arnold continued, obedience to God's creation care command demanded the church align itself with the right side on this issue.

"But, Arnold," replied Ralph Lee, "that expansion will provide hundreds of jobs, and Acme has already set aside funds to purchase and restore a separate parcel of former wetland, nearly twice the size of the Franklin marshes. The environmental impact studies show that the ecological worth of the restored wetland area is much higher and will even provide increased flood protection for area businesses; their flood insurance rates may even decrease."

Ramona Anderson rolled her eyes. "Why is it always about money with you business owners, Ralph? Haven't you been listening to Pastor Gabriel's sermons? God cares about His creation, regardless of whether it makes us rich or not."

Ralph glared. "Ramona," he began, "yes, I have been listening to Pastor Gabriel." He paused. "I also want to take care of creation. But the problem with you tree-huggers is that business is always wrong and people are the cause of all our problems. Frankly," and here his brows furrowed, "I sometimes feel like you tree-huggers would be happier if human beings didn't exist at all."

The room grew quiet. People looked at their feet, shuffled papers, or checked their smartphones. Lourdes Garcia broke the silence. Like her geographical namesake, Lourdes had a heart for healing, and it didn't matter whether it was the healing of broken bones at her medical practice or the healing of frazzled relationships. "Ralph," she said, "I don't think Ramona meant that people have no legitimate needs, and Ramona, . . ."

"Lourdes," Ramona cut her off, "don't bother. It's high time people showed their true colors. The preponderance of the

science is clear, that we are hurting the environment, so the real question is: are we going to obey God or not? That's what it comes down to. And I'm sick and tired of people pretending they're following God's commands to be green when they're really following mammon . . .”

Ralph Lee pushed his chair from the table and walked out of the room. The people who remained heard his car door shut, engine start, and his car drive away. Everyone looked at Gabriel, but he didn't know what to say. Finally, he broke the silence: “Maybe we all need a little time to get our bearings. I'll email everyone to find a time for another meeting.” People nodded and politely left. Gabriel locked up the building and started turning off the remaining lights. As he reached the last switch, his eyes glanced at the “Save energy, save God's world” sticker next to the switch. *I guess we'll have to add some relationships to the list of things that need saving*, he ruefully thought, as he turned out the last light.

WHY THIS BOOK?

Over the last several decades, the global environmental movement has grown in ways few could have imagined just a century ago. People from all kinds of backgrounds—different ethnicities, religious beliefs, socioeconomic classes, etc.—have begun to wrestle deeply with environmental issues. In parallel, a movement has grown within the evangelical church that seeks to renew her calling to live as a steward of creation. Theologians, philosophers, scientists, and other Christian leaders have faithfully reminded us of the Scriptural foundation for such a mandate and have prophetically exhorted us to consider ways we might live differently, both personally and as a society, in order to better fulfill this mandate. In response, whether in the form of policy declarations, lobbying efforts, youth rallies, Bible studies, or churches and individuals carefully and consciously changing their lifestyles to support environmentally-friendlier options, Christians from all walks of life, all political stripes, and all throughout the nation have begun a grass-roots movement to obey God's call to us as stewards of creation. Yet for all the clear and compelling work that has been done regarding the importance of creation care to God and His church, comparatively little work has been done regarding how to translate those commands into obedience.

For many in the church, the idea of a difference between the two—that an understanding that God commands human stewardship of creation does not automatically tell us how we are to obey that command—seems

exceedingly strange. After all, when confronted by a command in Scripture, we should not respond, “Let me think more about what obedience means,” but, “Let’s do it!” When God commands us not to steal, we do not reply, “How do I go about obeying this command?” We just stop stealing. And given the clarity of Scripture regarding our responsibility as stewards, as well as the lessons from science regarding environmental problems and solutions, the idea of needing to translate command into obedience seems more than odd: it seems evasive. Why do we need more clarity in order to properly obey the environmental stewardship command?

Consider the following thought experiment.² Pretend there are two Earths, identical to each other except in the following way:

1. In the first Earth, which we will call the “Fossil Fuel” world, human-caused greenhouse gas emissions are projected to result in a 2.8 degrees Celsius increase in global mean temperature by 2100, with attendant effects on climate, extreme weather, ice sheet melting, species population impacts, etc.
2. In the second Earth, which we will call the “Solar Variability” world, changes in solar luminosity are projected to result in a 2.8 degrees Celsius increase in global mean temperature by 2100, with attendant effects on climate, extreme weather, ice sheet melting, species population impacts, etc.—the same effects as in the “Fossil Fuel” world.

In both worlds, the certainty of the science describing the mechanisms involved are the same. Assuming a Scriptural creation care mandate, what should be our response in each of the two worlds? Are our responses the same or different between the two? Why or why not?

One possible response is that our actions in the “Fossil Fuel” and the “Solar Variability” worlds should be different: In the “Fossil Fuel” world, because the problem is due to human activity, we should act by stopping the emission of greenhouse gases to prevent the warming, but in the “Solar Variability” world, we should not (or cannot), do anything because the problem is natural. But why should the nature of the cause of the problem (human or natural) make a difference in our response? In both worlds, regardless of the cause of the warming, the same warming, with the exact same consequences to both human and non-human creation, will occur. If the translation of stewardship commands into obedience is straightforward, then does not “care” for the environment demand responses in both cases to prevent the effects of global warming?

2. This thought experiment comes from Roger A. Pielke, Jr., a professor of environmental studies and a science-policy researcher at the University of Colorado at Boulder.

Of course, other responses are possible; the point here is not which response is correct. Rather, the point is this: If we conclude in the “Fossil Fuel” world the correct response is to do something, while in the “Solar Variability” world the correct response is to do nothing, we have translated the biblical commands into obedience not directly, but rather through a number of mediating assumptions about the meaning of creation care. For instance, we may have decided that the goal of creation care is to keep the Earth “natural” (where we have defined this as meaning “unaffected by people”), and thus mitigating actions in the “Solar Variability” world are wrong, while the opposite is true in the “Fossil Fuel” world. The same is true if we believe we should act in both the “Fossil Fuel” and “Solar Variability” worlds: We also *have not directly translated biblical commands into obedience*. Rather, we have used a number of mediating assumptions about the meaning of creation care. Examining the question of how to translate biblical commands into obedience, with respect to creation care, requires more than getting our theology right.

If it takes more than faithful exegesis in order to determine how we are to obey God as stewards of creation, we might expect different groups of evangelical environmentalists, while agreeing on the imperative of creation care, to advocate very different prescriptions for that care. In fact, we see just such a dynamic in current evangelical approaches towards creation care, with various Christian environmental organizations emphasizing different practices of creation care: some emphasize the importance of living a life of simplicity, others focus on worship, others on social justice, while still others focus on the connection with mission work.

These differences, however, can encompass more than emphasis in a response. Consider two of the major evangelical declarations regarding creation care:³ On the Care of Creation: An Evangelical Declaration on the Care of Creation⁴ (“Evangelical Declaration”) and The Cornwall Declaration on Environmental Stewardship⁵ (“Cornwall Declaration”). Both declarations prominently proclaim a conviction of God as Creator and nature as His good handiwork: The Evangelical Declaration affirms, “The cosmos, in all its beauty, wildness, and life-giving bounty, is the work of our personal

3. By “evangelical,” we mean declarations that have attracted support from notable evangelical leaders; the declarations themselves may or may not have been authored exclusively by evangelicals. The Cornwall Declaration, for instance, is an interfaith document, but includes prominent evangelical leaders such as James Dobson, Bill Bright, and Charles Colson, as signatories.

4. EEN, “Evangelical Declaration.”

5. Cornwall Alliance, “Cornwall Declaration.”

and loving Creator,”⁶ while the Cornwall Declaration teaches, “The earth, and with it all the cosmos, reveals its Creator’s wisdom and is sustained and governed by His power and lovingkindness.”⁷

This similarity in core convictions regarding the relationship of nature to its Creator, as we might expect, is coupled with some similarity in the goals of the two declarations. And yet, we find their goals are far from identical, and that the two declarations even have substantial differences in their understandings of what constitutes environmental degradation. For instance, the Evangelical Declaration, on the one hand, claims:

These degradations of creation can be summed up as 1) land degradation; 2) deforestation; 3) species extinction; 4) water degradation; 5) global toxification; 6) the alteration of atmosphere; 7) human and cultural degradation.⁸

while the Cornwall Declaration claims:

While some environmental concerns are well founded and serious, others are without foundation or greatly exaggerated. . . . Some unfounded or undue concerns include fears of destructive man-made global warming, overpopulation, and rampant species loss.⁹

Agreement regarding the biblical understanding of the nature of creation, its connection to its Creator, and even the imperative of creation care, appears an insufficient condition for agreement regarding the nature of environmental problems or their solution.

Of course, there are many reasons why such differences exist, some creditable and others not. The absence of consensus regarding how to obey God’s command to care for creation is also not necessarily undesirable; we should be grateful that the multi-faceted nature of God’s gifts to the church would also find a multi-faceted expression in the fulfillment of creation care. The presence of such differences, however, provides an additional clue to us regarding the nature of the command to steward the environment. Through following this, and other clues like it, in this book we aim to unpack how the creation care command differs from other commands, explain how the process of translating command into obedience is more difficult than is usually appreciated, and make a modest contribution to understanding what it means to obey the command to be stewards of creation.

6. EEN, “Evangelical Declaration.”

7. Cornwall Alliance, “Cornwall Declaration.”

8. EEN, “Evangelical Declaration.”

9. Cornwall Alliance, “Cornwall Declaration.”

WHAT WE NEED TO KNOW TO TRANSLATE COMMAND INTO OBEDIENCE

For any command or request, we can identify three issues or questions that need to be addressed in order for us to fully understand how to obey that command. These “criteria for obedience” are the importance, goals, and practice of the command. By “importance,” we mean there has to be an understanding of the imperative of the command. The importance of a command tells us how to weigh it with respect to other commands and priorities. All commands require such an evaluation: even commands from God do not necessarily have equal weight in all circumstances. Jesus, after all, tells us there is a “greatest” commandment¹⁰ and that the other of God’s commands “hang on”¹¹ the first two commandments. And, in his criticism of the legalism of Israel’s leaders, Jesus says, “Woe to you, teachers of the law and Pharisees, you hypocrites! You give a tenth of your spices—mint, dill and cumin. But you have neglected the more important matters of the law—justice, mercy and faithfulness. You should have practiced the latter, without neglecting the former.”¹² In doing so, Jesus reinforces the obligation we have to obey everything God commands us while at the same time pointing out not all parts of the Law have the same importance.

Motivation for the command, the type and scope of the command, the value of the command, and the value of obeying the command are some of the issues to consider when evaluating a command’s importance. In some cases—such as in Jesus’s answer to the man who asked what was the greatest commandment—we are explicitly told the importance of a command. In other cases, understanding the importance of the command requires the appropriate use of wisdom, reason, love, intuition, and other means of judgment. As an example of such a means of judgment, consider a schema proposed by philosopher Charles Taylor. Taylor notes that there are two kinds of “evaluations” we make of desires, what he terms “strong” and “weak” evaluations.¹³ In the latter, the depth of evaluation is superficial—we are interested merely in outcomes—while in the former, the worth of the desires is judged.¹⁴ Strong evaluations thus are deeper, possess a richer language of articulation, and are of greater life import.¹⁵ Commands requir-

10. Matt 22:37–38.

11. Matt 22:40.

12. Matt 23:23.

13. Taylor, “What Is Human Agency?” 16.

14. Ibid.

15. Ibid., 16–27.

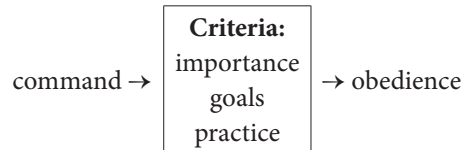
ing strong evaluations to understand and obey would, in this schema, have greater worth and thus importance than commands requiring only weak evaluations to understand and obey.

The “goals” of the command describe what will result from following the command and in doing so clarifies the purpose of the practice. The goals represent what we are aiming to accomplish in following the command. Often, the range of possible goals for a command is broader than the range of rationales for the importance of a command. We can define multiple goals for a command, none of which are mutually exclusive. The goals of a command might be some sort of environmental state but could also be an outcome for a single individual (e.g., becoming a certain kind of person), group of individuals, or for a community or society as a whole. Goals also do not have to be material: emotional, ethical, and spiritual outcomes are also possible goals for following a command.

How do the goals of a command differ from the importance of a command? On one level, the two are certainly related: one reason a command may be important is that the goals of the command are compelling or important. Or, for some commands, the only goal of the command may merely be that the command is obeyed. But in many, if not most, situations, it is useful for us to separate the two criteria. As we will see later in this book, the range of determinants of the goals criterion is often broader than the range of determinants of the importance criterion. In addition, the kinds of concerns addressed by the determinants of each criterion often differs: the importance criterion is often mainly concerned with questions of meaning and purpose while the goals criterion is often more open to incorporating pragmatic concerns.

Finally, “practice” refers to the actual actions that implement the command. As in the case with the goals criterion, there is a wide range of possible practices. Practices may be individual or corporate. Practices can be physical or material activities, but practices can also be mental, emotional, or spiritual activities. While public policies (e.g., laws, regulations) are one form of practices, they are by no means the predominant form. Practices unrelated to policymaking—say, the everyday activity of an individual person or the combined activity of a club or group—are often the main practices through which we obey a command.

In sum, “importance” tells us why we should follow the command, “goals” tells us what that following the command will result in, and “practice” tells us how we will put that command into effect. Thus, the model of translating command into obedience is:



We can define two kinds of commands based on the kind of clarity a command has regarding the criteria for obedience of that command. When the criteria for obedience are clear, a command leads directly to obedience. By clarity, we mean either the answers for the criteria are clear or that it is clear that more detailed analysis, description, or understanding of the criteria is unneeded for obedience. When there is such clarity, we call such obedience “simple obedience.” (Note that the adjective “simple” does not refer to whether the command is or is not easy to obey but rather that the connection between command and obedience is direct and clear.) When the command lacks this clarity, obedience requires thoughtful and detailed analysis of the three criteria for obedience. We call this kind of obedience “considered obedience.”

The earlier example of “do not steal” is a simple obedience command. In terms of importance, the command is required and context independent. In terms of goals, there may be any number of goals—character development, social peace, love of neighbor, etc.—but because of the non-negotiable importance of the command, perfect clarity in goals is unneeded for obedience to be possible.¹⁶ Finally, the practice of the command is also clear: do not take that which you do not own.

The creation care command lacks such simple clarity: The importance, goals, and practice are multi-faceted and complex, and understanding how to obey God’s stewardship command requires detailed examination of the three criteria for obedience. Questions regarding the importance of creation care include: Is it central to the fabric of God’s purposes, or peripheral, and in what way? If it is central, how does this command compare to other central commands? Questions addressing the goals of creation care include: What is the purpose of creation care? Is it to minimize human influence, or to shape nature in a certain way? Finally, in examining what creation care practices will accomplish those goals, questions we might ask include: what frameworks and tools can we use to ascertain which practices will best accomplish those goals? Are the practices primarily individual or cultural and societal too? What are the roles of economics and government, if any?

16. If the criterion of importance tells us the command is a non-negotiable duty, clarity in goals usually does not matter for obedience to be possible.

Again, because God has commanded us to care for creation, the question in addressing these criteria is not whether we should care for creation—that is non-negotiable—but what that care should look like.

While each of these three criteria are in some ways independent of each other—for instance, we can engage in a practice as part of obeying a command without necessarily believing in the command’s importance (outside of it being commanded of us) or understanding the purposes of obeying the command—a healthy or proper response to the command, rather than a misguided, legalistic, etc., response, requires we rightly understand all three criteria collectively. Usually, we go through these three criteria in order, starting with understanding the importance of the command, then the goals, and finally deriving the practices that fit those goals. Sometimes, however, we may address these criteria out of order. For instance, when practice comes first, and our thinking changes in response to our actions, sociologists call this “praxis.” Still, order is not as important as the fact that all three criteria are addressed.

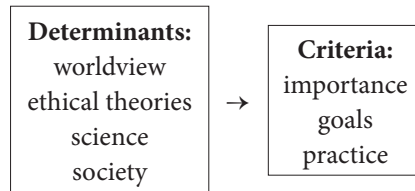
In our discussion thus far, it may seem that understanding the three criteria for obedience is an entirely analytic or rational endeavor. While reason is important, it is not the only means to knowledge and understanding. Other ways of knowing exist (e.g., intuition) and those ways of knowing can also contribute to our understanding of the three criteria. Even subjective phenomena such as love, compassion, and aesthetic apprehension can be ways of knowing about a subject and have a place in our understanding of the three criteria. What kinds of knowing exist, how these different kinds of knowing interact with one another, and what are the strengths and weaknesses of each kind of knowing, will be (at least implicitly) addressed later in this book. For now, suffice it to say that as we make a detailed effort to understand the three criteria, we may use more than one way of knowing.

If importance, goals, and practice are the three criteria for obedience to a biblical command for creation care, what influences determine these three criteria? For the case of creation care, there are four such categories that determine the criteria for obedience: worldview, ethical theories, science, and society. We will call these four categories the “determinants” of the criteria for obedience:

Determinants:

worldview — nature of reality
ethical theories — value of nature and weighing values
science — knowledge about nature and connecting to policy
society — politics and economics

These determinants are not necessarily mutually exclusive and can affect one another. Combinations from these four determinants together address each of the three criteria, with some categories providing more or less to a given criteria. Schematically, this can be given as:



The term “worldview” commonly refers to a person’s understanding of the ultimate nature of reality.¹⁷ Many such worldviews are religious in nature (e.g., Christian, Buddhist, Muslim), but some are non-religious (e.g., nihilist, postmodern).¹⁸ In this book, we use worldview in a narrower, more literal sense: what do we see when we view the world, especially the natural world? What is the world? Some worldviews would answer “something sacred,” while other worldviews may see the natural world as primarily a source of raw materials. Still others see the world primarily in an aesthetic sense, perhaps as the canvas of a Master painter. Whatever our understanding, a worldview provides the foundation upon which our decisions of how to treat nature are based. This is not to say worldviews are completely determinant: We may act inconsistently with our worldview—for instance, we may say we believe God created the world but then treat His creation with disrespect—but the inconsistency highlights the foundational nature of worldviews, for eventually the cognitive dissonance will be resolved one way or the other, either by a change in practice or by a change in worldview.

Ethical theories provide the bridge between worldviews and practice. If worldviews tell us *what* nature is, ethical theories help us understand the *value* of nature: both what has value and how to weigh different values against one another. Put another way, worldviews specify the ontology of nature (i.e., the essence of the existence of nature) while ethical theories tell us the moral standing of that nature. Ontology and ethics are, of course, closely related. For instance, someone who considers nature to be created by God as an artist creates a work of art may be expected to feel a sense of responsibility to care for nature as a gift, in the same way we might care for

17. James Sire provides a definition of “worldview” in this sense: “a commitment, a fundamental orientation of the heart . . . [one holds] about the basic constitution of reality, and that provides the foundation on which we live and move and have our being” (Sire, *The Universe Next Door*, 17).

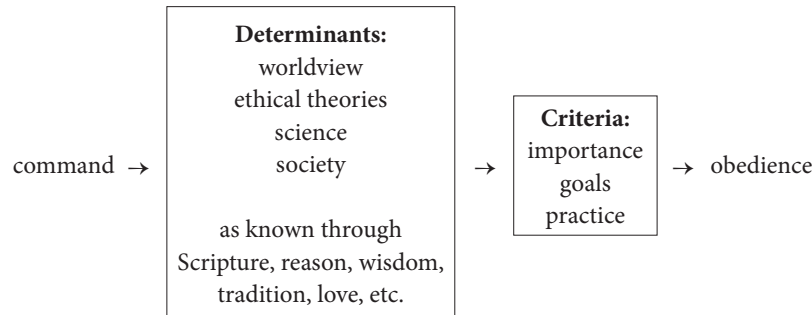
18. Ibid., Contents.

a portrait given to us by a painter. Such a valuing of nature, however, would differ from a valuing of nature as having intrinsic value or a good of its own.

Most of the work by evangelical Christians regarding creation care has focused on wrestling with worldviews and ethical theories. Comparatively little work has addressed the role of science in determining the content of creation care or the roles of political and economic systems in narrowing policy choice. Consideration of science often begins and ends with getting the science “right.” For some, this results from a belief that once biblical exegesis has established the importance of creation care, science automatically prescribes the practice of creation care. Since science does so automatically, there is no need to analyze how science acts as a determinant for the criteria for obedience.

Science and society, however, play crucial roles as determinants for the criteria for obedience. In the case of science, proper creation care requires understanding the strengths and limits of scientific knowledge (e.g., its epistemology), as well as the ways science and policy can connect with each other. In the case of society, the way communities are organized and allocate power and responsibility (politics) and goods and money (economics) profoundly impact what creation care looks like. Creation care is conducted not only by individuals but also by communities: private and public, for profit and non-profit, free associations and state actors. As such, how the polity is organized affects which creation care practices work and which do not. And, because creation care logically affects creation, which in turn nearly always impacts the production and distribution of economic goods, an analysis of the proper system of economics is needed to help determine proper creation care practices.

What sources of knowledge can we bring to bear in fleshing out these four determinants? Scripture, as always, provides the authoritative understanding for all questions of faith and practice, including our worldview, ethical theories, and understanding of science and society; in chapter 3, we examine what Scripture says about these topics. But as we saw earlier in our thought experiment, Scripture provides only a partial answer to issues surrounding creation care, and so we expect other ways of accessing truth (e.g., reason, wisdom, tradition, love, etc.) may also help shape our worldview, ethical theories, science, and society. Thus, in this book we will look at the parts of the following picture of all the areas that make up considered obedience with respect to creation care:



We can think of these determinants of the criteria for obedience in the following way: Our worldviews tell us, “what is nature,” while ethical theories tell us, “what is the value of nature” and what ways are there to weigh those values against one another. Our understanding of science includes both the status of scientific knowledge and how science combines with ethics and other determinants to form policy. Our beliefs about the political and economic foundations for society further determine acceptable solutions. These determinants can each influence each of the criteria for obedience alone or in tandem with other determinants. In some cases, certain determinants tend to be related to specific criteria. For instance, worldviews and ethical theories, because of their foundational nature, usually address the importance of creation care commands more than science and society do. On the other hand, all four determinants contribute to the practice criteria. Ultimately, however, all four determinants are needed to evaluate the criteria for obedience.

A ROADMAP FOR THE REST OF THIS BOOK

In this final section of the chapter, we provide a preview or “roadmap” of the rest of the book. In this roadmap, we first list the topics and content of each subsequent chapter of the book and describe the approach we will take. Roadmaps, however, in addition to describing the path ahead can also describe pitfalls along the road. Thus, after our summary of the book, we address some possible concerns readers may have about our approach and method. We close with comments regarding our hopes for the reader.

In the subsequent chapters, we examine each of the determinants laid out in this introductory chapter. In chapter 2, we summarize some of the most prominent worldviews, their understanding of creation, and their relationship to environmental stewardship. Though other more comprehensive

treatments exist, in chapter 3 we review the Scriptural understanding of creation care and summarize what Scripture can and cannot tell us about the importance criterion. In chapter 4, we examine different ethical theories used to understand environmental goods and how these assumptions relate to the imperatives from Scripture. Science—its meaning, authority, and relationships to policy—is considered in chapter 5. Chapter 6 broadly describes how various political and economic theories impact the content of environmental stewardship. Each of the chapters examining the determinants of the criteria for obedience (chapters 2–6) follows a similar outline, examining: what is the nature of the determinant, what does the determinant tell us and not tell us about the criteria for obedience, and how does our understanding of the determinant ultimately impact our understanding of the content of creation care. In chapter 7, we focus on the practice of environmental stewardship, examining the range of responses and some considerations when selecting amongst possible responses. In chapter 8, we outline the goals and process for synthesizing the determinants of the criteria for obedience.

Our approach in this book can be characterized as “synthesis through dialogue.” This book is, first and foremost, a work of synthesis. This can be a synthesis of principle (that is, a synthesis regarding theories of environmental stewardship) as well as a synthesis regarding an issue (that is, a synthesis regarding a specific environmental problem). Regardless of the scope of the synthesis, we are convinced that one major difficulty in crafting excellent creation care solutions is the lack of synthesis through dialogue, both intellectually (since different disciplines are often siloed from one another) as well as personally (with people, instead, often talking past one another). When it comes to environmental issues, there is no lack of verbiage or polemic, but genuine dialogue, which is truly open to considering and possibly incorporating alternative viewpoints, is more lacking.

Synthesis through dialogue requires we consider multiple viewpoints. As a result, we consider a broad range of determinants and tap into a rich history of work in theology, ethics, epistemology, politics, economics, and science-policy studies. In addition, within each sub-topic, we examine a full range of positions possible for a given topic. Thus, for many of the determinants, we will describe a spectrum of positions that are reasonably consistent with the creation care command. As we do so, however, we will avoid claiming one view along the spectrum is “right” while others are wrong. Instead, we will focus on clarifying the assumptions that go into each position, the strengths and weaknesses of the position, enumerate the kinds of questions we might ask to judge which position (or positions) are better than others, and describe how these positions influence what we conclude about the three criteria for obedience.

The motivation for our study, as well as its analytical structure, may lead to a number of concerns. Before beginning the meat of our argument, we address three of those concerns. First, the argument that Scripture often does not fully dictate the content of creation care (or, in the secular context, that deontological categorical imperatives do not fully dictate the activities of environmental stewardship), may seem as if we are denigrating Scriptural authority, God's concern with His creation, or the duty to live responsibly. Many (if not most) treatments of environmental ethics begin with some sort of foundational theme or principle and from that theme directly derive personal and public policy responses. The approach we are advocating, it seems, overthrows this methodology for an academic version of "Stone Soup": a little bit from this discipline, a little bit from that discipline, throw it all into a pot, and *voilà*, we have the content of creation care. But, it starts with nothing more than a stone: there is no unifying theme or principle.

In reply, we argue that while the idea of directly deriving the content of creation care from a foundational belief is attractive, for many environmental problems, this is neither feasible nor advisable. As we examine each of the determinants, we will build upon the motivating arguments of this introductory chapter and find additional reasons why for many environmental problems, we need to exercise considered, not simple obedience. Additionally, in saying that we often cannot directly derive the content of creation care from a foundational belief, we are not saying foundational beliefs have no role in considered obedience. In the subsequent chapters, we will consider a variety of foundational beliefs and find they have much to say about environmental stewardship. Nonetheless, what foundational beliefs say and how they say it falls short of the enabling of simple obedience that many assume foundational beliefs make possible.

A second concern about our methodology is the suspicion that the model of human action we are using to understand environmental stewardship—with its large number of determinants of the criteria for obedience—is too complex to be successfully used. Is it possible to bring so many disciplines in fruitful dialogue with one another? Can we reach any kind of answer or synthesis of so many topics? Will this book merely ask a lot of questions without providing an answer? If so, is the real purpose of the book to argue that we cannot figure out one "right" understanding of the content of creation care, and thus environmental stewardship is ultimately a pragmatic endeavor?

In reply, we argue that because environmental stewardship involves so many facets of human endeavor, we cannot ascertain what excellent environmental stewardship entails without examining all the determinants of the criteria for obedience. Whether we can successfully synthesize these

disparate fields, we admit, is an open question. While we believe our attempt in this book at synthesis does contribute something to our understanding of the nature of environmental stewardship, we concede that many questions remain unanswered. We see this work as a first step towards a broad synthesis, a work that proposes a taxonomy that can be used in further work in synthesis and one that prepares the ground for more fruitful dialogue. The entire endeavor of analyzing what environmental stewardship looks like in the modern world, we suggest, is itself quite young: much of the work done in the field has been done in the mid- to latter half of the twentieth century. While much scholarship has been done, much more remains to be done. To use an analogy with the history of mechanics, with regards to environmental stewardship, we have, perhaps, moved past an Aristotelian mechanics to a mechanics informed by Galileo and Kepler, but we have not yet arrived at a Newtonian mechanics, much less one that includes Maxwell's unified electromagnetic field theory, Einstein's general and special relativity, and quantum phenomena. Thus, if our attempts at synthesis fall short, this does not mean such a synthesis is not possible or that the only alternative is pragmatism. It is premature to make such definitive conclusions.

Third, our strategy of considering a range of options for each determinant, and our reluctance to claim one option in that range as "correct," may lead some readers to conclude the ultimate message of this book is that it does not really matter what we believe regarding creation care as any position is legitimate. In reply, we argue that the absence of a clear "position" in this book with regards to a number of the determinants does not mean that we believe all positions are equivalent nor that we do not have our own deeply held positions. However, because the goal of this book is to set out a taxonomy for understanding creation care, and to do so in a way that enables dialogue, the use of polemics would be fatal to the entire enterprise. Dialogue requires the views of all sides to be presented as accurately and winsomely as would be presented by those who hold those views.

That being said, implicit in our argument for a synthesis that covers all the determinants of the criteria for obedience is the contention (or, at least, the suggestion) that some aspects of the determinants and criteria for obedience regarding environmental stewardship are underdetermined. This does not mean everything is relative: there is truth and we can know at least some of that truth. But being underdetermined means that there are limits as to what of the truth we can know as well as limits as to the status of the truth we do know.¹⁹ Being underdetermined also can mean that we may

19. In mathematics, an underdetermined system of equations is one where the number of equations is less than the number of unknowns. Being underdetermined does not mean the equations have no solution or that we can say nothing about a solution

understand some aspects of the truth about a determinant in some situations while in others it may be less clear. For instance, in chapter 5, regarding science, we will find different views of the epistemology of science lead to different views of its authority and, thus, different views of how science interacts with policymaking. This spectrum of views regarding the latter exists, partly, because the problem of demarcation (of determining what is and is not science) has not been convincingly solved,²⁰ and partly because for some kinds of environmental problems, science interacts with policy in one way while for other kinds of environmental problems, science interacts with policy in another way. In this book, we examine some of the reasons for this, but it is beyond the scope of this book to do so exhaustively. Our analysis, however, suggests that the role of science in environmental stewardship is more complex than is commonly appreciated.

Taken more broadly, we find that some aspects of environmental stewardship, in general, are also underdetermined. Rather than science (or Scripture, politics, etc.) automatically prescribing the practice of creation care, the contribution of the determinants is sometimes difficult to fully describe. This, however, neither denies truth nor the possibility of action. The philosopher and theologian Blaise Pascal has said:

One must know when it is right to doubt, to affirm, to submit. Anyone who does otherwise does not understand the force of reason. Some men run counter to these three principles, either affirming that everything can be proved, because they know nothing about proof, or doubting everything, because they do not know when to submit, or always submitting, because they do not know when judgement [sic] is called for.²¹

The underdetermined nature of environmental stewardship does not mean that there are no moral absolutes regarding environmental stewardship. It does mean that the path from principles to practice is often incredibly complex and multi-faceted, not simple, and requires the highest levels of creativity to bring together many different fields of study—with different kinds of authority and expertise and different limitations in the kinds of knowledge provided—into an uneasy and unfamiliar dialogue with one another.

As far as we are aware, there are relatively few works that have sought to bring the breadth of topics considered by this book into dialogue with one another within a common framework.²² By examining how each of

but merely that there is not enough information to determine a unique solution.

20. Hutchinson, “Warfare and Wedlock,” 93.

21. Pascal, *Pensées*, 53–54 [Fragment 170].

22. Geographer Janel Curry’s “social framework of analysis” regarding Christians

the determinants each inform each of the criteria for obedience, we hope to create such a taxonomy in the hopes that this kind of framework and the dialogue it supports can help us think more clearly and precisely about environmental stewardship. Along the way, we will find that the call to not only faithful stewardship but also excellent stewardship of creation is much more difficult than is commonly appreciated, and that the seeming simplicity behind the mandate to care for creation has within it pitfalls and snares that can harm creation and lead to a misguided conviction of biblical (or scientific, etc.) warrant for a given policy. We hope this book will help point the way towards some alternatives.

DISCUSSION QUESTIONS

1. The author argues that the Bible, while authoritative for all matters of faith and life, does not directly prescribe much of the *content* of creation care. What do you think of this argument? What are its strengths? Weaknesses? Why?
2. Is the distinction between the content of creation care and other aspects of creation care (e.g., motivation) a useful distinction to make? What pitfalls are possible for us to fall in if we make such a distinction? In what ways is that distinction helpful?
3. The author suggests proper obedience to God's commands requires clarity in three criteria: importance, goals, and practice. Can we obey without clarity in these criteria? Why or why not? Would you add or subtract any of these criteria? Why?
4. The author draws a distinction between determinants and criteria for obedience. Does such a distinction or taxonomy seem valid? Why or why not? In what ways might such a distinction be useful in trying to understand the nature of creation care?
5. What additional determinants would you subtract from the list the author provides? Why? Are there other determinants the author did not include that you would argue are vital if we are to understand the nature of creation care? Why?

and climate change, which integrates views on eschatology, how humans, nature, and God relate to one another, and models of responsibility of social change, is one attempt at a broad understanding of factors that affect one's understanding of climate change. (Curry, "Social Framework")

2

If You Could See What I See

WORLDVIEWS

A PARABLE, CONTINUED

Gabriel had been friends with Rob Lane since their undergraduate days in the aeronautical and astronautical engineering program at Titan University. While making wind tunnel measurements together, they found out they both loved engineering, shared three-quarters of their last name, and grew up playing tennis. For a few years after graduation, the two had drifted apart a little. Rob moved across the country to work at a defense contractor on the nation's next-generation fighter aircraft while Gabriel headed off to seminary to study Greek, Hebrew, and theology. But they had reconnected a decade later when both had moved to the same city, and their friendship became even deeper in the months following as Gabriel walked with Rob in his grief at the untimely death of Rob's mother. Rob was as good-hearted and loyal a friend as one could wish for, and Gabriel was grateful for the return of this friendship.

When Gabriel pulled up to the tennis court, Rob was already out hitting a few balls against the backboard. After joining him for a few minutes, Gabriel and Rob sat down on a bench together to adjust their rackets and wait for the pair who were finishing up a game on the court Rob had reserved.

"How're things going, Gabriel?" asked Rob. "Is your congregation treating you well?"

Gabriel paused. "Things are well overall," replied Gabriel, "but, well, we just had a big blow-up last week and I'm not sure what to do about it. I'm not even sure how I ought to think about it." And Gabriel explained his sermon series on creation care and the meeting of the church's creation care committee. Rob looked thoughtful.

"And what puzzles me the most," Gabriel finished, "is that I know both parties on the committee want to care for the environment and share the Christian worldview. Why, then, would their disagreement be so strong?"

"Well, Gabriel," replied Rob, "you know that I'm an atheist and don't have a worldview, and while I respect your faith, I don't share your beliefs." Gabriel nodded. Rob continued, "From my viewpoint, religious worldviews may be important when it comes to ethics and morals, but when it comes to environmental policy, what matters is what the science says."

"Thanks, Rob," replied Gabriel. "but at the risk of making our conversation end up like one of those late nights in the dorm philosophizing over pizza"—at this Gabriel's eyes glinted and Rob smiled back—"let me push you a bit. What do you mean that you don't have a worldview? Doesn't an atheistic materialism claim that matter in motion is all the universe is? Wouldn't that understanding of what is nature have an effect on your views on how to care for nature?"

Rob looked thoughtful again. "I suppose so, Gabriel," Rob said, "but if the universe is merely matter, to me that makes it all the clearer that science tells me how I should treat the environment. After all, science is the study of matter, and if the universe is matter, doesn't that make science the best way of discovering how that matter behaves and, by extension, should be cared for?" The players who had been on the court had just passed Gabriel and Rob on the bench, and Gabriel and Rob picked up their rackets and bags.

As they walked onto the court, Gabriel replied, "Yes, that makes sense, Rob, but if, hypothetically speaking, the world is more than mere matter in motion, then science wouldn't be enough to tell you how to care for the world, right?" Gabriel picked out a tennis ball and hit it over to Rob.

Rob chuckled as he returned the ball. "Hypothetically speaking, I suppose so," Rob said. "But if science isn't enough to tell us how to care for the environment," he continued, "what is?" The ball hit the pavement to Gabriel's backhand, just beyond his

reach. “Nice return, hypothetically speaking,” said Gabriel, and both of them laughed.

INTRODUCTION

As we noted in chapter 1, the term “worldview” commonly refers to “a commitment, a fundamental orientation of the heart . . . [one holds] about the basic constitution of reality, and that provides the foundation on which we live and move and have our being.”¹ With regards to the environment, however, we can narrow our definition of a worldview to be the description of the part of reality we consider “the environment” or “nature.” Put another way, in this more limited sense, a worldview—which may be religious or non-religious—literally means “what you see when you see the world.” Do you see a universe of inanimate matter (quarks, electrons, etc.) in meaningless motion? Or a land inhabited by wood gods and water goddesses? Or an aesthetic paradise that draws human beings into awe and wonder? Or the handiwork of a loving and eternal God unconstrained by space and time? Or as something else? What *is* “nature” and the “natural”?²

Regardless of the kind of worldview one holds, we can use a common schema from the comparative study of religions to define five basic questions regarding the environment that worldviews address: reality, origin, condition, solution, destiny. In a lecture on world religions and the environment, theologian R. Boaz Johnson describes these five questions in the following way:³

1. Reality: What do we mean by reality and is there such a thing as an ultimate reality?
2. Origin: What is the origin of the universe and human beings?
3. Condition: What is the condition of the environment and humanity? Is the universe healthy or unhealthy?
4. Solution: What solutions exist for human and environmental problems?
5. Destiny: Where is humanity and the universe heading? Is there a destination or only the journey?

1. Sire, *The Universe Next Door*, 17.

2. In an essay on genetic engineering and the food industry, philosopher Mark Sagoff provides a concise summary of the different senses of the term “natural” (Sagoff, “Genetic Engineering,” 5).

3. Johnson, “Crisis.”

To that extent, we can define an environmental worldview as a foundational way of seeing the world that answers these five questions. Not all worldviews purposely address all of these questions, though the most comprehensive ones do. All five aspects of a worldview impact our view of creation care, for these five aspects tell us what we think nature *is*, in its most foundational sense.

In this chapter, we will explore how environmental worldviews affect the criteria for obedience. Some readers, however, may wonder about the value of considering this determinant. Christian readers may wonder how considering non-Christian worldviews will help them better understand the nature of a biblically-based creation care. Secular readers may feel that worldviews are matters of religion and wonder how examining such worldviews will help them understand excellent environmental stewardship. As the chapter progresses, we will find that understanding worldviews in general will help anyone—regardless of your worldview—in understanding the motivations behind different positions on environmental stewardship. Everyone, religious or not, has a worldview: we all understand the world as being *something*. As such, there are religious as well as secular worldviews, all of which can affect one's understanding of environmental stewardship. An analysis of worldviews not our own can also provide useful contrasts to help us better understand our own worldviews and their impact on questions of environmental stewardship. Finally, understanding worldviews different than our own can help us identify possible common ground on which to build agreement as well as clarify the true nature of disagreements.

In our discussion of worldviews, we will consider the range of worldviews, what worldviews cannot and can provide, and the impact of worldviews on each of the criteria (importance, goals, and practice). We will find worldviews to have an important though limited effect on the criteria, particularly on the importance of environmental stewardship. What we find in this chapter to be true of worldviews in general will set-up our more detailed discussion of the biblical worldview in chapter 3.

THE RANGE OF WORLDVIEWS

While the number of worldviews is probably uncountable, we describe six major environmental worldviews that span most of the range in worldviews and give a good sense of both what worldviews entail as well as what kind of influence worldviews provide with regards to environmental stewardship.⁴ Of these six, four are religious and two are non-religious worldviews. Below,

4. Clifton-Soderstrom, "Summary."

we provide a description of these six worldviews. Our description will be a broad-brushed summary of the worldviews and will gloss over the spectrum of differences within each worldview. In our description, we do not provide a point-by-point answer to each of the five questions Johnson enumerates above. Nonetheless, the description shows what kinds of answers the worldview provides to Johnson's questions and how those answers are intertwined with the worldview's picture of reality.

The Christian Worldview

In the Christian worldview, nature is neither self-existing nor self-caused. Rather, all of reality, both physical and non-physical, is the result of the free creation of a good and loving God.⁵ God is not far away from His creation but is instead immanent and sustains His creation. Yet, at the same time, God is entirely transcendent and "other" than what He has made. Because God creates and sustains creation, the creation is best understood through worshipping the Creator and the order, beauty, and fruitfulness that God has given it.

Although the creation is fallen from the perfection it once had, it still has a number of purposes and roles, and a destiny of redemption. It is a testimony of God's glory and providence. It provides resources for the use of human beings, but creation is also humanity's charge. We are to care for and steward creation; nature is a garden that humanity is to tend. That tenure will, one day, culminate in a joyous reunion of heaven and earth when God recreates and restores creation to what it was meant to be. (In the next chapter, we will provide a more detailed description of a biblical understanding of nature.)

The Buddhist Worldview

A Buddhist worldview understands existence as the primary constituent of reality. Existence is not atomic—individual identity between persons and objects has no ultimate ontological reality—but rather is holistic,

5. Writer Joe Carter notes that Christians have traditionally understood creation as being not merely physical and material but also non-physical and non-material (Carter, "Should Christians"). He argues that often when we use the term "supernatural," we seem to suggest all of creation is physical and material; angels, however, are created but non-physical, and there are natural entities such as ethics and aesthetics that are not reducible to physical manifestations (*ibid.*). This is also discussed in chapter 3.

interconnected, and relational.⁶ Because of ego and the cravings of self, existence is full of suffering.⁷ The destruction of desire, self-mastery, and increased sensitivity to the Buddha-nature frees us from suffering and enables us to achieve enlightenment, where we are fully one with the reality of existence because we are free from the deception of thinking our egos are substantial. Note that nature also inhabits the ontological reality of existence.⁸ In addition to that ultimate reality, however, nature also provides a sacred context in which humanity moves towards enlightenment.⁹

The Confucian Worldview

The Confucian conception of reality is also holistic, with an understanding of the self that is connected with the cosmos.¹⁰ This holism, however, is not as monistic as the Buddhist worldview: the operative metaphor relating humanity and nature in Confucian thought is the notion of humanity as an elder brother to the cosmos.¹¹ In that sense, right apprehension of reality involves recognizing we are kin with all that is part of the cosmos. Just as filial piety is the correct attitude in human families, this should also be our attitude to the cosmos.

As a result, humanity finds nature and the world to be its spiritual and physical home, rather than some other heavenly realm or some future perfected world. We find our place in the current world and we are to live in harmony with nature and tend and cultivate the harmony that is present within nature.¹²

The Taoist Worldview

The Taoist worldview, like Buddhism, sees reality in holistic terms, characterized by interrelatedness and continuity. This cosmos has no creator and there is nothing besides the universe. Like Buddhism, Taoism also sees humanity as best understanding reality when it destroys desires and

6. Gross, "Buddhist Environmental Ethic," 337–38; Swearer, "Principles and Poetry," 229–30.

7. Kinsley, *Ecology and Religion*, 84–85; Swearer, "Principles and Poetry," 226.

8. Swearer, "Principles and Poetry," 230.

9. Regarding the ideas in this paragraph, see also Kinsley, *Ecology and Religion*, 84–98.

10. Snyder, "Chinese Traditions," 108.

11. Kinsley, *Ecology and Religion*, 77–78.

12. *Ibid.*, 78–79.

a self-centered view. The focus of human relationship with nature in this holism, however, is characterized by harmony with the rhythms of nature. Taoism sees nature as humanity's spiritual home whose patterns guide our development. Living in harmony with nature requires us to practice *wu-wei*, or "letting be": the operative metaphor for this practice is that of swimming with, rather than against, the flow of a river.¹³ *Wu-wei* tells us to creatively cohere with nature, rather than resist nature.¹⁴

The Enlightenment Worldview

The Enlightenment worldview (a secular, non-religious worldview) sees reality as merely material, lacking any teleology or end, and operating impersonally by universal law.¹⁵ (Note that here we use "Enlightenment" as a label for a popular, contemporary worldview that is descended from strands of thought held by some thinkers in the historical Enlightenment. In actuality, Enlightenment-era thinkers were not necessarily secular or materialist.) The best way to know reality is through the objectivity and rationality of mathematical and scientific inquiry. Nature is thus seen primarily as a resource for human use and to enable human progress, and the relationship of humanity with nature is that of a user or investigator of natural resources and phenomena.¹⁶

The Romantic Worldview

While the Romantic worldview, like the Enlightenment worldview, can also be secular and non-religious,¹⁷ the Romantic worldview rejects the idea that the natural world can be reduced to "matter in motion." Instead, nature is seen as organic, shot through with beauty and sacredness; nature is an artistic masterpiece. As a result, reality is best apprehended through the fine arts (e.g., poetry, painting, etc.) and immediate experience. The relation of nature to humanity is that of a sublime garden through which we come to know both ourselves and any supernatural realm. Thus, our fundamental role with respect to nature is that of an appreciator.

13. Kinsley, *Ecology and Religion*, 79.

14. Snyder, "Chinese Traditions," 114.

15. Koeller, "Newton"; Kinsley, *Ecology and Religion*, 125–40.

16. Bouma-Prediger, *Beauty of the Earth*, 84; Kinsley, *Ecology and Religion*, 133–35.

17. While Romanticism is not necessarily religious, there are religious versions of Romanticism and religious worldviews that have incorporated major tenets of Romanticism.