

Religion and Environmental Values in America

Religion and Environmental Values in America

GREGORY E HITZHUSEN

*SOPHIE MANASTER, NATALIE PAX, MADELINE FOX, ETHAN ROSS,
LOGAN WILLIAMS, AND ROBERT RILEY*

THE OHIO STATE UNIVERSITY
COLUMBUS, OH



Religion and Environmental Values in America by Gregory E Hitzhusen is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/), except where otherwise noted.

Dedication

This book is dedicated to my family, especially my parents, grandparents and extended family who most shaped my own environmental values, and my wife and kids, who most influence them today; to Dr. Richard Baer, my dissertation advisor at Cornell University, whose pioneering thought about religion, ethics and the environment have had an enduring impact on my life and work; and to my students, who teach me most of all, and who keep my passion for this topic alive and growing.

Contents

About the Author	xi
About the Editors	xv
Letter to Reader	xx
Acknowledgements	xxiii
Explanation of Format (and call for peer review)	xxiv
 Chapter 1: The Basic Landscape of Religion and the Environment in America	
1.1 Newsflash: It's Not a Fight!	27
1.2 The Increasing Connection between Religion and Environment	31
1.3 A Timeline of Religious Environmental Developments	39
Bibliography	41
 Chapter 2: The Genesis of Eco-Theology -- Is Christianity to Blame for our "Ecologic Crisis"?	
2.1 A Nature Touched by Human Hands, and a Thesis Pulled Out by the Roots	45
2.2 The Genesis of Eco-Theology	48
2.3 Human-Divine-Land Relations in Genesis 2	55
2.4 Filling the Earth Without Overdoing it	57
2.5 A Covenant with All Creatures	63
Bibliography	67
 Chapter 3: Defining Our Terms and Direction	
3.1 Embracing Human Nature in Relation to "Nature": A Gardener's Ethic...and What are People For?	71
3.2 From the Garden to the Culture: More Food for Thought	75
3.3 Defining Our Core Concepts	77
Bibliography	81
Chapter 3 Discussion Questions	82
 Chapter 4: Some Points from Epistemology and Philosophy of Science To Help Us Think	
4.1 Preview	85
4.2 Returning to Terms	87
4.3 Comparing different perspectives	89
4.4 Similar Structures: Theory and Data in Science, Belief and Experience in Religion	92

4.5 What is knowledge?	94
4.6 A deeper dive into philosophy of science	97
Bibliography	99
Chapter 4 Discussion Questions	100
 Chapter 5: Spiritual Anthropologies and Sustainability	
5.1 From Epistemology to Anthropology	103
5.2 Niebuhr's Theological Anthropology: Finitude, Anxiety and Sin	105
5.3 A Buddhist Spiritual Anthropology: David Loy's Healing Ecology	109
Bibliography	115
Chapter 5 Discussion Questions	116
 Chapter 6: Spiritual Anthropologies II: Ecofeminism, Iris Murdoch, and Other Reflections on the Human Situation	
6.1 Feminist Views and Nature	119
6.2 Discrimination and Socialization	121
6.3 Toxic Masculinity and Other Deadly Pollutants	123
6.4 Western Roots of Aggression	124
6.5 Cultural Transformation Toward More Balanced Power Dynamics	125
6.6 Iris Murdoch's Neo-Platonist Views of Reality, Illusion, Love, Humility, and Unselfing	126
Bibliography	129
Chapter 6 Discussion Questions	130
 Chapter 7: Case Study: Wilderness and Creation Spirituality	
7.1 Wilderness and Creation Spirituality	133
7.2 Categories of Biblical Wilderness Theology	135
7.3 Values of Nature in Religious Wilderness Traditions	137
7.4 Applied Wilderness Spirituality: Inspiring National Parks and Environmentalism in America	139
Bibliography	141
Chapter 7 Discussion Questions	142
 Chapter 8: Case Study: Laudato Si	
8.1 Laudato Si	145
8.2 Looking Forward	148
Bibliography	149
Chapter 8 Discussion Questions	150

<u>Chapter 9: Case Study: Climate Change</u>	
9.1 Religion's Role in the Response to Climate Change	153
9.2 Faith and Skepticism: A Matter of Morality	158
Bibliography	162
Chapter 9 Discussion Questions	163
 <u>Chapter 10: Case Study: Animal Welfare and Food Ethics</u>	
10.1 A Sampler: Religious Food-Environment Events	167
10.2 Animal Ethics	170
10.3 Kashrut and Halal as Food Ethics Systems	175
Bibliography	179
Chapter 10 Discussion Questions	180
 <u>Chapter 11: Case Study: Environmental Virtue Ethics</u>	
11.1 Joseph Kupfer: Virtue and Happiness in Groundhog Day	183
11.2 Egoistic Hedonism, Meet Stanley Hauerwas	185
11.3 Religion and Phil	186
Bibliography	187
Chapter 11 Discussion Questions	188
 <u>Chapter 12: Case Study: Consumerism</u>	
12.1: Religion and Consumption in America	191
12.2: Religious perspectives on over-consumption in America	192
12.3: A Protestant Perspective: Life in All its Fullness: Christian Faith and the Dilemmas of Consumption, by Dr. Sondra Wheeler	194
12.4: A Catholic Perspective: The Good Life from a Catholic Perspective: The Problem of Consumption, by Msgr. Charles Murphy	195
12.5: A Jewish Perspective: "Sanctify Yourself Through What is Permitted to You": Jewish Perspectives on Limiting Consumption, by Rabbi Eliezer Diamond	196
12.6: A Black Church Perspective: Consumption from an African American Perspective, by Thomas Hoyt, Jr.	197
12.7: An Evangelical Perspective: Issues of Consumption, American Culture and Evangelical Faith, by Tom Sine	198
12.8: The Ongoing Challenge of Consumption in America	199
Chapter 12 Discussion Questions	200
 <u>Chapter 13: Eco-Justice: A Key Religious Environmental Focus</u>	
13.1: Justice as the Crucial Linking Dimension	203
13.2: Environmental Racism: Honoring Marginalized Voices	205
13.3: Moving Forward	207

<u>Chapter 13 Discussion Questions</u>	208
 <u>Student Chapters</u>	
<u>Embracing Mystery in the Search for Truth</u>	211
<u>Natalie Pax</u>	
<u>The Intellectual Martian Society of "Stranger in a Strange Land" by Robert Heinlein</u>	216
<u>Ethan Ross</u>	
<u>The Meaning of Music</u>	218
<u>Logan Williams</u>	
<u>President Carter's Environmental Roots</u>	229
<u>Robert Riley</u>	
<u>Groundhogs, Integral Ecology, and the Meaning of Life</u>	233
<u>Madeline Fox</u>	
 <u>Glossary</u>	 241

About the Author



Photo courtesy of Methodist Theological School in Ohio, used with permission.

Author's Frame:

The perspective of this book reflects its author in many ways, so while I have studied and been involved professionally and academically in faith-based environmental work since the late 1980s, and therefore have a reasonably informed view, I also find particular aspects of religious-environmental developments more important or interesting than others because of my own particular interests and background. I've never found a text book that quite covers what I teach in religion-environment, and over the years students and colleagues have encouraged me to write my own. So, with support from an Access to Learning (ALX) grant from OSU, I have finally done so.

As may already be clear, I think religion is important in the grand scheme of caring for the Earth, but I will say at the outset that despite teaching at The Ohio State University, I do not subscribe to “silver bullet” hopes that suggest that something like religion, or particular policies, or values, will be *The* key to solving environmental problems. In fact, I think that looking for any one thing to guide us or solve a large-scale social problem is foolish, and tends to result in shallow understanding. Environmental problems are complex. There will need to be many sorts of solutions and approaches. Religion is one of many things that I think are important in the mix, and that mix also includes science, policy, the arts and humanities, and people in general.

I think religion deserves particular attention because of its social importance, but more importantly, religion has often been either ignored or misunderstood within environmental thinking, and so there is some catching up to do to understand and engage with religion as a more helpful part of the mix. Given how consumptive (and wasteful) American culture tends to be per capita, it may be that religious and spiritual perspectives can help fill in a broader basis for environmental ethics than the secular environmental movement and government policies have been able to achieve so far. To be clear, I don't think that my approach to religion and the environment is the only or best one. The field of religion and ecology is complex, and involves diverse approaches. There are many excellent programs and statements and books already available, but the particular way I see the elements of religion-ecology dialogue connecting is what I hope to outline in this book, mostly as an aid to my teaching about religion and the environment. If the material I've woven together here is helpful to others beyond my students at OSU to understand the complex nexus of religion and the environment, then I am grateful.

Ecological Autobiography:

My students begin their study of religion and environmental values by detailing their own stories as a way to explore and express the values they already hold. I think this is an essential starting point for all of us.¹

For instance, I grew up with a number of environmental influences, starting with agriculture. My parents were raised on small family farms in northern Iowa, and I grew up on what I often call a 4-acre hobby farm on the outskirts of Columbus, Ohio, where the suburbs gave way to cornfields.² When I was young and money was tight, my folks estimate that we raised about 75% of the food we ate, and we relished the low percentage of “store-bought” food in our diet. My

1. This also parallels the story-telling of Michael Pollan in *Second Nature*, which will be discussed in chapter 3.
2. I've always said that the line where the suburbs ended and corn fields started was, literally, in my backyard, but that line has long since migrated about 20 miles further from the center of Columbus as the suburbs of Dublin, Worthington and Powell have become more developed.

mother practiced organic gardening before it was popular, and we regularly processed beans, corn, peas, and berries in long days of canning the fruits of our harvest. Most of our meat came from my maternal grandfather's farm, stored in our deep freeze in the basement. My brother and I had our own roadside farm stand, where we sold sweet corn, zucchini, tomatoes, and whatever else might be available. Several other families tended garden plots in our backyard, and contributed to our compost pile. We spent many hours working (and weeding!) in our gardens, and in the summer we'd visit my grandparents on the farm in Iowa, where my brother and I would walk the beans, scoop silage to feed cattle, and do whatever other farm chores my grandfather needed help with, for which he'd pay us a going wage.

By the time I was in middle school, my father helped my brother and I start a popcorn business. Using a 1950s Ford 8N tractor and a lot of hand labor, we developed a market for a white, hullless popcorn variety. Within a few years we outstripped the capacity of our 2.5 acre popcorn field, so we began to contract out the planting and harvest of the corn. Though my brother and I dreamed of putting Orville Redenbacher out of business, the shift to hands-off production left us less engaged, and combined with the rise of middle and high school activities, our interest and our business faded. Orville Redenbacher dodged a bullet, and we moved on to other adventures.

The other way my family lived close to the land (and also saved money) was by our choice of vacations. I can remember staying in a hotel only once or twice as a kid, an exotic deviation from our norm. Usually when traveling we either stayed with family or friends, or we camped. Camping trips were our preferred mode for keeping in touch with extended family. I had a great aunt and uncle who moved out to Oregon,³ and they introduced us to backpacking in the Mount Jefferson Wilderness when I was 6 years old. I was smitten with alpine beauty and mountain grandeur. These and other outdoor pursuits shifted my experiences from an early childhood in the garden to teenage years in the woods and mountains.

In addition to camping and backpacking, I did my fair share of fishing, working hard throughout high school to draw my dad back into a pastime he'd enjoyed as a kid. Like most of his peers, my dad grew up hunting and fishing, but after he finished graduate school, he never found time or interest to hunt, and I eventually lured him into re-developing some fishing traditions. I brought all of these interests with me to college, where I dove into the outdoor education community at Cornell University. My studies in ecology were a nice complement to my growing passion for outdoor education. I took courses at Cornell in Adirondack canoe camping, flatwater and whitewater canoeing, wilderness first aid, and outdoor leadership, and then became an instructor of canoeing, fishing, and outdoor leadership, while also guiding a freshman orientation trip for Cornell's Wilderness Reflections program. In the summers I worked for the National Wildlife Federation's Wildlife Camp programs in North Carolina and Colorado, teaching about backpacking, rock climbing, lakes and streams, fishing, first aid, and geology, and co-leading a leadership program for 12-13 year olds. Following college, I took a job with NWF's new Outdoor Ethics division to help create a program called NatureLink, which we designed to help connect families back to nature by learning to fish. I will expand on some of these points below; suffice it to say that by the time I finished and left college, I was fully immersed in outdoor and environmental pursuits, teaching, and ethics, but there were other important influences I should mention.

Beyond direct agricultural and outdoor influences, there are also stories and legacies that have shaped me. One example is the conservation ethic of my grandfather Ernie Hitzhusen. He retired off the farm in Iowa in the late 1960s and went into soil conservation. He was an avid birder, and spent many hours birdwatching with my grandmother. He worked for the better part of a decade to help establish the Cerro Gordo County Lime Creek Nature Center, the first nature center in the region. Previously, he'd been the subject of a documentary film called "A Way of Life" by John Deere and Company in 1968⁴, and that film was rediscovered (when it was nearly discarded from an archive box at John Deere Headquarters in Moline, IL) just prior to thanksgiving one year when I was about 9 years old, and became a favorite film to screen when our family gathered. My grandfather's philosophical quips from the film about life and farming and

3. My great uncle was a Forest Service volunteer and head of the ski patrol at Mt. Bachelor
4. Leading the camera crew was Caleb Deschanel, Emily and Zoey's dad, during his years as a cinematography student

conservation were memorialized in my mind; for example, the film concludes with his view that: “really we’re just tenants on the land. We have the use of this land, and if we take good care of it, it will live on for the next generation.”



An image and prayer request of the author's grandfather. Photo Credit: Fred Hitzhusen

My grandfather was a Methodist layman, and though he likely would not have cited Leviticus when calling humans tenants, his views generally followed from Judeo-Christian values. I also remember my parents telling me to “take only photographs, and leave only footprints” at times when we were hiking or backpacking. And closer to home, we’d regularly hike straight from our doorstep through the many acres of farm and field and forest owned by Ohio State across the road from our acreage on Godown road. Author Wendell Berry talks of the “creek he grew up in”, and without a doubt, mine was the stream in the middle of these fields and forests. As my grandpa Ernie might have said, with so many blessings around us in nature and the wide open, my cup overflowed.

My father was a professor of environmental economics at Ohio State, so I also grew up with lots of dinner-table conversation about sustainable development, and the connection between poverty, hunger, and environmental degradation. I also sat through my dad’s slideshows featuring examples of innovative community and economic solutions to resource scarcity around the world, and heard about his research on the economic and community impacts of acid mine tailings in Ohio coal mining areas. So it may be no surprise that with these sorts of influences, I was relatively environmentally minded. And when awareness of acid rain grew in the 1980s in Ohio, and I realized that the high sulphur coal that was being mined and burned in Ohio (and which supplied the electricity in my

house) was responsible for acid rain falling in the Adirondacks, it hit me at a gut level that there was something really wrong with the fact that my flicking on my light switch was contributing to the death of ecosystems in another part of the country. And so I developed a strong interest in ecology as I prepared to apply to college, hoping that by learning about ecology, I might be able to do something to help address ecological degradations around the world, and figuring that the discipline of ecology might also provide more opportunity to spend time outdoors.

I had a rewarding college experience, majoring in biological sciences with an ecology concentration at Cornell University. I was somewhat surprised, though, when my professors taught me that it was the Judeo-Christian heritage that I’d seen in action growing up that was the source of the world’s ecological crisis. My Methodist grandfather was the greatest conservationist I knew, but to hear my environmental science and ecology professors tell it, his value system was supposedly ecologically bankrupt. Some of my courses at Cornell allowed me to pursue this further – the first academic to teach a course in the US on environmental ethics, Dr. Richard Baer (who began teaching a New Testament environmental ethics seminar at Earlham College in 1966 as Chair of the Religion Department) had come to Cornell in the early 1970s and taken up teaching a course titled “Religion, Ethics, and the Environment” (NR407), and this course raised fundamental questions about the nature of religion and environmental ethics. Dr. Baer’s course is the ancestor of the course I teach at Ohio State, and as it turns out, laid the foundation for my career.

There is more to my story. After directing the NatureLink program at NWF, I followed a calling to graduate school, doing joint theology and ecology studies at Yale University at the Divinity School and School of Forestry and Environmental Studies. I worked for the National Religious Partnership for the Environment. I returned to Cornell to complete a PhD focusing on environmental education and ethics in North American faith communities. And I worked for a year as the Land Stewardship Specialist for the National Council of Churches Eco-Justice Programs before moving back to Ohio to become founding Executive Director of Ohio Interfaith Power and Light and to begin my teaching career at Ohio State. Many important and formative experiences occurred during these years, more than I have room to share here (I have added thanks to many of the people who influenced me during those years in the Acknowledgements section of this book). In the future, I hope to create an online archive of ecological autobiographies accessible to anyone willing to submit their own ecological autobiography to the collection. Further details of my own background will be

published there, with an invitation for readers to submit their own. In the meantime, I always enjoy sharing more stories in person. Stay tuned.

About the Editors

This book would not have come together nearly so well without the help of two extraordinary student editors:



Madeline Fox

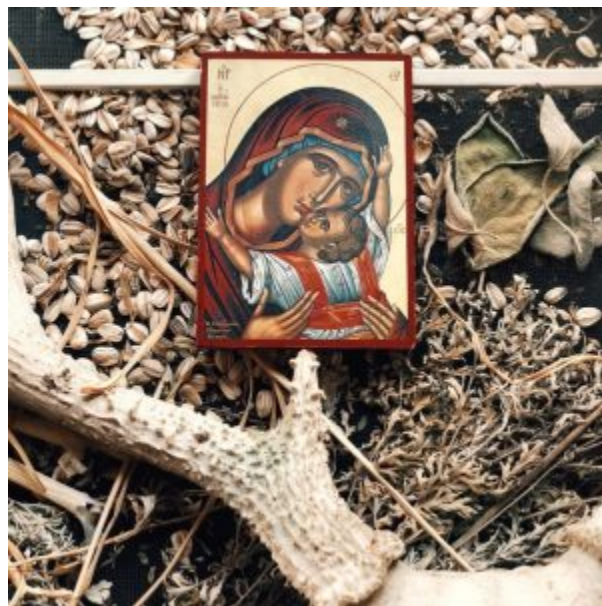
is a lover of wildlife, especially insects, spiders, and groundhogs. In her free time, she likes to write crime thrillers with an emphasis on ethical dilemmas. She is pursuing a degree in Environmental Policy & Decision Making at The Ohio State University with a minor in Entomology, and she intends to go to law school after graduation.



Leah Kessler

is a stage manager and environmentalist. She stage manages with the Department of Theatre while pursuing her degree in Environmental Policy and Decision Making with minors in Theatre and Spanish at The Ohio State University.

Letter to Reader



Theotokos in the Apothecary. Photo credit: Jacob Taylor

“Religion and the Environment” is an emerging field that has evolved significantly over the past 50 years. Today, evidence of environmental concern can be found across most religious denominations, and the roots of faith-based creation care draw from both ancient and contemporary traditions and teachings. Whether in Pope Francis’s 2015 environmental encyclical letter, *Laudato Si’*, or thousands of other denominational environmental statements and programs, or a growing appreciation for the spiritual value of nature and the importance of environmental justice, religious engagement in environmental sustainability continues to grow.

While the roots for this flowering of religious environmental attention were developing, however, the modern environmental movement has had a sometimes antagonistic relationship with religion, particularly in the United States. Though theologians had been responding to environmental concerns by the mid-1960s,¹ the environmental movement and the counter-cultural flavor of the late 60s and 1970s gave rise to persuasive suspicions about the environmental fitness of religion, particularly biblical religions (and of traditional moralities in general), in the United States. Many in the environmental movement would likely have blamed Christianity and the biblical notion of “dominion” as underlying what they perceived as a Western culture of environmental disregard, and while Eastern religions were often deemed environmentally friendly, environmentalists through the 1980s and into the 1990s rarely found common cause with the most socially influential religious communities in American life.

But the 1980s was also the time when American faith communities started to effectively network and connect their environmental concerns across denominational boundaries. In the early 1990s the [National Religious Partnership for the Environment](#) joined and helped link a growing body of religious environmental organizations, and the [American Academy of Religion formed a Religion and Ecology group](#) that catalyzed a growing literature of religion-environmental scholarship. By the late 90s and early 2000s, environmental organizations like the [National Wildlife Federation](#) and [Sierra Club](#) were waking up to the importance of faith communities as allies, and by the 2010s, several environmentally-

1. See chapter 1 for more details about the historical timeline of religion-environmental thinking in America.

focused scientific and professional societies (such as [Ecological Society of America](#) and the [Society for Conservation Biology](#)) had begun to develop initiatives to engage with faith communities and religious environmental thinking.

So it was little surprise that scientific and environmental leaders alike lauded the environmental encyclical of Pope Francis in 2015; here at The Ohio State University, we hosted [Cardinal Peter Turkson](#), then president of the Pontifical Council of Justice and Peace and a primary drafter of portions of the encyclical; [Turkson joined university President Michael Drake and now Provost Bruce McPheron](#) in front of a full audience in OSU's largest auditorium to discuss important values related to caring for our common home, the Earth. As of 2017, the [UN Environment](#) program has launched a sustainable development outreach program called the [Faith for Earth Initiative](#). Including religion as part of environmental dialogue has become much more mainstream in the 2010's than ever before.

So religion, which once often raised environmental suspicions in America, has now developed into a complexly engaged player in environmental conversations, and this online book seeks to characterize and chronicle some of those developments. The book is organized into three main sections: the first four chapters are designed to provide background and a framework for fruitfully examining questions related to religion and the environment in America; chapters 5-7 look at theological and spiritual anthropologies as a way of understanding how different religions view the role of the human being in relation to the rest of life; the remaining chapters provide a range of case studies that explore how faith communities are grappling with contemporary environmental and sustainability issues. By examining both the challenges and the potential of religious and spiritual influences on sustainability, these examples suggest how religion is playing a role in determining the sustainability of life on Earth, and point toward promising directions for those who seek to connect science, policy, communities, and values in the common goal of enhancing human well-being, peace, and planetary flourishing.

Acknowledgements

The Ohio State University's Affordable Learning Exchange (ALX) program provided grant support and a cohort of colleagues that made this book possible, and there are many people whose contribution was essential to writing this book. My students at Ohio State and Cornell to whom I've taught this material have been my most constant dialogue partners. Dr. Richard Baer was my dissertation advisor and teaching mentor at Cornell, and his own teaching is echoed in many parts of this book. Fellow Baer graduate students Dr's Jim Tantillo, Karl Johnson, and Jamie Skillen supported my early efforts to engage this material and continue to provide points of engagement. Rev. Dr. David Bartlett (1941-2017) was my advisor at Yale Divinity School and made my unique divinity-environment degree work there possible. Dr. Stephen Kellert (1943-2016) at the Yale School of Forestry and Environmental Studies greatly deepened my appreciation for environmental values during my masters work at Yale.

I'm also indebted professionally to Cheryl Riley, whose leadership in outdoor ethics at the National Wildlife Federation helped launch my career; Susan Johnson, whose NWF Wildlife Camp vision shaped my aspirations; Paul Gorman, whose inspired leadership blessed my work at the National Religious Partnership for the Environment (NRPE); Cassandra Carmichael, whose work with the National Council of Churches Eco-Justice Programs and NRPE has continued to inspire me; Mary Evelyn Tucker, whose gracious encouragement and collaboration has helped sustain my academic vision; Tim Van Meter, whose collegial company at various pubs has kept me afloat; and Jerry Bigham, Ron Hendrick, Jeff Sharp, and Brian Slater, whose support and guidance in the School of Environment and Natural Resources has made my religion-environment work at Ohio State possible.

Many other friends and colleagues inspired me by their teaching, writing, leadership, or just by being wonderful people who have encouraged me along the way: Clair Bullock, Bob Gates, Brian Lower, Cal DeWitt, Katharine Hayhoe, Terry Chapin, Jay Rundell, Kathy Dickson, Elaine Nogueira-Godsey, Melanie Harris, Steve Bouma-Prediger, Loren Wilkinson, Michal Smart, Eric Mason, Erick Olsen, David Perry, Gretel Van Wieren, Mike Schut, Joseph Lumbard, Fred Dobb, Nigel Savage, Dirk Slater, Larry Schweiger, Craig Tufts, Susie Greenstone, Seabird McKeon, Cheryl Dixon, Jon Wilkinson, Emily Rundell, Greg Graff, Kevin Schwartz, John Leinenweber, Richard Chiola, my CEHV and COMPAS colleagues Don Hubin, Piers Turner, Eric MacGilvray, Michael Neblo, Pam Salsberry and Dana Howard, Elena Irwin, Kate Bartter, David Hanselmann, Bruce McPherson, Carol Anelli, Linda Martin, David Wituszynski, Sara Ward, Meribah Mansfield, Rebecca Tollefson, Fr. Vinny McKiernan, Jerry Freewalt, Dan Misleh, Jason Cervenec, the Columbus Diocese Creation Care Team, Leanne Jablonski, Emma Earick, Howard Van Cleave, Terry Gustafson, Bryan Mark, the outstanding faculty of the School of Environment and Natural Resources, and surely many others: in one way or another you have all played an important part in shaping my work and teaching me by your excellent example.

There are also several folks who deserve the credit for directly helping me develop this online book. Mike Shiflet from OSU's Office of Distance Learning and eLearning woke me up to the possibility of an online book and provided ongoing assistance; SENR student Leah Kessler served as my first student editorial assistant, taking her outstanding understanding of course material from her time in class to help me organize the book material and begin crafting it for online form; Ella Weaver, SENR grad student and instructional assistant, provided generous advice and help in navigating Pressbooks and greatly improved the final edition; Sarah Walton, SENR PhD student and my outstanding Teaching Assistant during the final semester when the book took shape, who inspired me to continue exploring new approaches to this material; and SENR student Madeline Fox, who applied her editorial skills even while taking my class in order help bring the book to publishable form. And last but certainly not least, former students Natalie Pax, whose sub-chapter inaugurates the section of student chapters, and Sophie Manaster, who co-authored chapter 6, have my enduring admiration for becoming the first student authors whose work is part of this book. As of the autumn of 2019 as this book is being published, eight more students are working with me on finalizing additional sub-chapters that will be added to the book by early 2020.

Finally, I also would not appreciate many aspects of the complex world of religion and the environment without the input, questions, example, instruction, and friendship of many people of faith – friends, family, and strangers alike – who have engaged with me throughout my life. To these peers and fellow travelers, I offer my gratitude, and I welcome your ongoing feedback about how this book can better engage all those who need to be part of the conversation about caring for our common home.

Explanation of Format (and call for peer review)

The book is organized into three main sections: the first four chapters are designed to provide background and a framework for fruitfully examining questions related to religion and the environment in America¹; chapters 5-7 look at theological and spiritual anthropologies as a way of considering how different religions view the role of the human being in relation to the rest of life; the remaining chapters provide a range of case studies that explore how faith communities are grappling with contemporary environmental and sustainability issues.

Each chapter includes footnotes and various hyperlinks to related material, as well as a bibliography of sources. A set of questions for reflection are included at the end of most chapters, which can be used for discussion sections.

Invitation for [Peer Review](#):

This first edition of the book has been written primarily as a text book for my Ohio State *Religion and Environmental Values in America* students, and regular student feedback has played (and will continue to play) an important role in shaping the text. However, the book may also be useful to adult study groups and faith communities interested in exploring these topics.

From 2019 to Spring of 2021, I would be deeply grateful for feedback from readers whose interest is to make use of this book within their community as a study resource. For instance, an adult study group within a congregation could select various combinations of the chapters to read and discuss over the course of anywhere from 4 to 12 weeks. All of us seeking to be more faithful caretakers of creation are peers in that work, and I would love to receive suggestions about how this material can be more useful or engaging for your community. If you develop activities or additional questions for discussion, or find complementary material or media that can enrich a community's use of this book, I would be pleased to incorporate your suggestions and improvements into the second edition of the book, which will be completed in the autumn of 2021. At the same time, this first edition of the book assumes a sort of ongoing in-class dialogue that I have with my students, so I am also hoping that readers from beyond Ohio State will let me know where revisions might be needed to help this material connect better with readers far and wide.

As Pope Francis said in his encyclical *Laudato Si'*, the work of caring for our common home needs a conversation that includes everyone, and calls for a solidarity and a diversity of many minds and bodies working together to reconcile ourselves to one another, to the Earth and all creatures, and to our creator. As a reader or contributor, thank you for adding your thought and care to the dialogue of which this book is a part.

You can submit peer review comments [here](#).

1. Notably, both religion and the environment can be tricky topics to discuss in America, and both topics, unfortunately, can trigger reactions typical of liberal-conservative "culture wars" that draw on social and political polarizations in American culture that can derail just about any conversation and render it useless for learning...so these chapters are aimed at setting a level and reasonable playing field to avoid pitfalls and antagonisms that tend to discourage fruitful discussion.

CHAPTER 1: THE BASIC LANDSCAPE OF RELIGION AND THE ENVIRONMENT IN AMERICA

My intent in this chapter is to provide a general sketch, a brief but reliable overview of the basic landscape of Religion and the Environment in America from 30,000 feet. Much of that landscape is highlighted in [Hitzhusen and Tucker \(2013\)](#), which was an overview prepared for the Ecological Society of America's journal *Frontiers in Ecology and Environment*. What I want to share here is more detail about the background and context of that overview.



Spoiler alert: it looks a lot more like this than you might expect. "Our Lady of Perpetual Help Creation Care Council member Pat Sarosi gives a parishioner one of over 30 seedling trees handed out on Earth Day 2019." Photo credit: Sister Nancy Miller OSF

1.1 Newsflash: It's Not a Fight!

Two things stick out in my mind as I recall my own studies of how religion and environmental concerns relate in America. Given how powerful the media has become in shaping the way people think about issues and that controversial and sensational stories get more attention than “daily life” stories, it might be no surprise that many of us continue to see religion and science or religion and the environment as in potential conflict. There has been a belief among American environmental thinkers – a belief I once shared – that religion is a significantly anti-environmental force, and echoes of that dying belief still reverberate. Even if the truth is that religion is mostly a force for environmental good in America, we are likely to notice a lot more reporting about the few examples of conflict that exist. One example comes from newspaper articles. When I worked for the National Religious Partnership for the Environment (NRPE) during my masters program at Yale, one project I oversaw was a cataloguing of news articles about religion and the environment. At the time, when paper newspapers were still prominent in the mid-late 1990s, Lexis Nexis and other digital means of retrieving news were just beginning to ascend. Organizations that wanted to keep track of news reports still employed news clipping services. NRPE subscribed to two news clipping services, and every week we received envelopes filled with all of the news clips from around the country that week that had anything to do with religion and the environment. These services covered all of the large market newspapers, but also small market local papers in 50 states. Part of my job was to read all of those articles and enter them into a database of news clips.¹

By the end of 1998, the database had accumulated over 1,800 articles covering the period of 1992-1998. I had entered over 800 of those articles myself, reading them and categorizing them in the database according to their content – I noted which denominations they talked about, what environmental issues they covered, the basic tone they portrayed (negative, positive, ambiguous, etc.), and I kept track of which organizations, like NRPE, were being mentioned in the news. I would later return to further analyze these data during my doctoral work, but while there were other interesting things that emerged, the most striking fact was how many of the 1,800 articles reported from a negative or antagonistic frame.

Before commenting on this, it's worth recognizing that something that shows up in newspapers 1,800 times in seven years is not what you would call a popular phenomenon. When electronic/online searching began to be an option for news articles around this time, a search for “religion and environment” for a particular year might yield 300-400 hits, while articles about “Britney Spears” would tally 50,000, so it's surely safe to say that 1,800 articles during this span suggests that not that many Americans were reading about religion and the environment, even if papers like the LA Times, New York Times, Washington Post, or other big market papers were running articles (indeed, when I ask my students at Ohio State whether anyone has ever heard of the National Religious Partnership for the Environment, usually only one or two raise their hands).² What's more, search terms for this topic are wide ranging: words like earth, spirit, faith, ecology, planet, prayer, and nature might all be used in preference to “religion and environment,” making it tedious to track down all the relevant stories. Regardless of these data management challenges, examining all the articles that could be found in a reasonably wide-sweeping search at least provided a sense of the extent to which religion-environment news was being reported, and gave me a clue about *how* the topic was being reported.

I predicted that a fair percent of the articles would pick up on the tensions between religion and science and would include comments about the negative impacts religion has on the environment that I had been taught about in my undergraduate ecology studies at Cornell, and that I'd also encountered in my environmental and theology graduate studies at Yale. So the question was, how many of the 1,800 articles would mention or focus on these negative influences? 1500? 300? 1000? 700? Take a moment to make your own guess. If you had access to nearly every article in the country that reported on religion and the environment from 1992-1998, how many – out of 1,800 – would you think had a negative

1. For those who have only ever known “cut” and “paste” as electronic drop-down menu items, when I say news “clips” here, I mean actual articles that were clipped with scissors out of actual, hard copy newspapers, and pasted onto a sheet for photocopying.
2. Media attention would later increase: in 2002, when several US faith communities joined together to visit the big-three automakers in Detroit to lobby for more efficient and less polluting auto standards, evangelical Christians involved in the campaign surfaced the catch phrase “What Would Jesus Drive,” and that campaign alone scored over 1,800 media hits in a short period of time, equalling the total number of media reports about religion and environment in the preceding 8-10 years.

frame? The answer, to my complete surprise, was 12. Only a dozen articles reported any sort of negative perspective. Half of those were articles from a particular storyline in California, where some reporters concerned about nature worship (a not uncommon concern of conservative Christians) wrote about some pagan groups that were practicing in California. The other half dozen negative articles involved a sprinkling of skeptical commentary from authors who thought that religions (and maybe particularly Christians) should not be getting so carried away with “environmentalism.” Other than these 12 (only 0.67% of the total!), all of the rest of the articles were reporting on stories of how local or national faith communities were engaging with environmental concerns, creating environmental curricula, challenging environmental problems, calling for environmental protection, or bringing hope to the environmental movement.



Ohio Interfaith Power and Light Co-Founder Sr. Paula Gonzalez, otherwise known as “the Solar Nun,” was a positive force for environmental change for decades, working as a biology teacher at St. Joseph’s College in Cincinnati, collaborating with her fellow Sisters of Charity, and giving over 1,800 invited talks about creation care. Photo courtesy of Ohio Interfaith Power and Light.

I didn’t imagine that news coverage was a perfect proxy for reality (indeed not!), but I was still amazed that the idea of religion having a negative influence on environmental concerns was almost entirely absent from the news, and the standard story seemed to be essentially the opposite.

Another theme that stuck out to me in my studies was the result of the most comprehensive set of conferences ever organized to address religion and ecology. Mary Evelyn Tucker and John Grim organized a series of 10 conferences at Harvard through the Forum on World Religions that focused on major religious traditions and “ecology”. From 1996 to 1998, these conferences invited and convened many of the main scholars that could be identified who were studying different religious traditions and ecology or environmental concerns around the world. The [10-volume series](#) that resulted from Harvard Press provides the proceedings of those conferences, which sought to answer the question of how the world’s main religious traditions are impacting human-ecosystem interactions. Here too, I thought the proceedings would characterize the dynamics I would expect from my ecological education – that eastern and indigenous religions have an environmentally friendly impact, and that western religions are ambiguous or problematic for environmental ethics. But Tucker and others offered the following summary of the results of the conferences: yes, there are some cases where religion can reinforce negative attitudes toward the environment, but the overwhelming conclusion of this scholarship was that the world’s main religious traditions contain deep and powerful resources to provide a basis for environmental care.

Bit by bit, discoveries like these started to shift my thinking. I had to admit that my own expectations and impressions of religion and the environment might have been somewhat negatively skewed against the facts, and I think that hasn't been uncommon for many people engaged in religious environmental work. As clear signals began to emerge through the 1990s that religions might be a significant force for environmental good, the notion many of us began to favor was that if religions were starting to take on environmental interests, they were doing so by overturning or changing previously anti-environmental views; but, with each piece of history I uncovered, I began to question whether this notion too was based on evidence or opinion.³

3. It's not clear to me that religion has ever, on whole, been particularly anti-environmental, at least not any more than its surrounding culture, and as I'll detail in chapter 2, increasing evidence shows that, if anything, religion is more likely to be helping than harming the environmental cause.

1.2 The Increasing Connection between Religion and Environment

A couple of years into my doctoral work, as I discovered more and more evidence that religious perspectives on the environment weren't as negative as my professors seemed to think, I found myself in passing conversation with a faculty member at Cornell in the natural sciences. When he heard about my area of study he asked me, "Correct me if I'm wrong, but isn't Judeo-Christian tradition the *source* of our exploitative attitudes towards nature?" I couldn't adequately respond given the brief nature of the conversation (I wanted to say, "well, you probably are mostly wrong, but how long do you have to talk about it, because it's not easy to see!"). To some extent, the first two chapters of this book are a more complete response to that question.

Given the tendency for negative expectations to linger regarding religion and the environment¹, I think it's important to try to set aside personal expectations, and take a fresh look at what seems to be going on. Anyone who already dislikes or mistrusts religion, for instance, may have a very hard time taking an objective look at the evidence, just as someone who strongly promotes religion might also see most of this dialogue from an only pro-religion frame. I think it's helpful to look at various indicators of the trajectory of religious-environmental thinking, scholarship, and programming. It seems wise to suspend judgement about how we think religion operates in the environmental sphere until we have a better sense of the landscape of religious-environmental activity.

Let's keep in mind the basic religious landscape of the United States. [The Pew Research Center Religion and Public Life's Religious Landscape Study](#) (2014) shows that:

- >70% of Americans self-identify as Christians
- 6% are members of non-Christian faiths
- 7% are members of no religion in particular, but still feel that religion is important
- 9% are members of nothing in particular and feel that religion is not important
- 7% are agnostic or atheist

Religion continues to have a significant presence and influence in America.²

One indicator of how much religion has been pro- or anti-environmental in American culture is seen in the news clips database studies I noted above. Through the 1990s in America, as awareness of the public was just starting to dawn on the topic, almost all religion-environment news centered around how religion was supporting environmentally protective views. Further study is needed of this period, but I think it is no accident that by the end of the 1990s when a broad coalition of religious

1. In the mid-2010s some colleagues and I conducted a survey of members of the Ecological Society of America (ESA) to gather feedback from ESA members about doing ecology outreach in faith communities. Responses were gained anonymously through a survey monkey instrument, and only a single email was sent to the ESA membership to announce the survey. More than 700 ESA members replied, and when the survey opened, I checked the survey monkey results page to see what kind of responses were coming in. A significant number of the quickest responses were very negative. In retrospect, they seemed like knee-jerk reactions, and they commonly said something like "religion has no part in ecological science" or "religion is irrational." Seeing these initial replies, I began to worry that any opportunity to do outreach to faith communities through ESA might never get off the ground. But these early negative replies soon gave way to a mix of affirming and even highly positive responses. When the survey was closed and I'd analyzed and categorized the responses, I coded 23 responses as being highly negative like some of those first responses; at the same time, I coded exactly 23 responses as being "boosterish," saying things like "hooray! I've been waiting for ESA to do something like this forever!" and "it's about time ESA began to wake up to the ecological potential of religion." The vast majority of responses, however, were not nearly so dramatic – more than 70% of respondents simply indicated that they thought outreach to faith communities was fine and probably a good idea. One take-home message from these responses is that the more extreme views (both highly negative and highly positive) tend to be loudly proclaimed, but only represent a small percentage of total views.
2. These numbers are somewhat akin to world religion numbers, too: 33% Christian, 23% Muslim, 14% Hindu, 11% other religions, 7% Buddhist, 10% non-religious, and 2% atheist, according to 2012 CIA Factbook.

organizations had emerged to support environmental protections (particularly in regards to climate change)³, counter-messaging emerged using religious language to oppose carbon legislation. This counter-effort included a coalition of religious figures, not representing any denomination, but gathered together by a free market economics think tank with funding from fossil fuel interests. It is likely a testimony to the growing impact of faith-based climate advocacy in the 1990s that this counter-trend emerged; I would note that the advocate coalition grew out of faith communities, and the opposition grew out of fossil-fuel funded think tanks to oppose climate legislation. The former seems to be an example of faith communities putting their faith into action, the latter an example of special interests trying to use religion to protect corporate profits. So I suspect that if someone were to do a content analysis of news clips from the 1990s to the present, they might find a different balance of positive and negative frames, as this industry-sponsored counter current has grown.⁴

One other interesting observation emerged from the news clips data. I re-examined the 1,800 articles from 1992-1998 to see whether they were articles that came from a news wire service and made "national" news (such as when a faith-based environmental group like NRPE held a big event that got lots of attention), or whether an article was just an example of local writers reporting about something environmental that a congregation was doing. Interestingly, while the majority of news hits in the early 1990s followed from news wire reports around the founding and early initiatives of the NRPE, as the decade went on, the ratio of local to national news stories got larger and larger, until by the late 1990s, the majority of stories were coming from local examples and had nothing to do with the programs of NRPE or any other faith based environmental organization.⁵

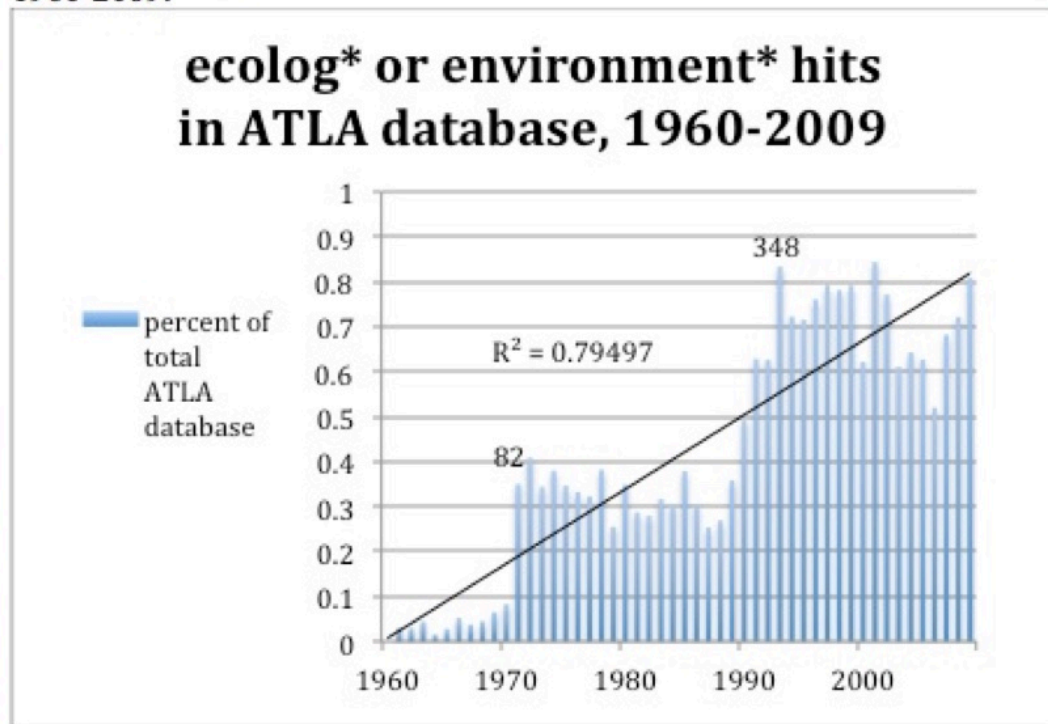
Recognizing that media trends might be fickle, I decided to look at more reliable indicators of the extent to which religious environmental thinking was developing in American faith communities. Librarians at Yale suggested I explore the [American Theological Library Association \(ATLA\)](#) database of theological literature. I wondered just

3. Remember that in the late 1990's, climate change became a very hot topic, as those years became the hottest years on record, with Vice President Al Gore becoming well-known for promoting new carbon regulations aimed at addressing global warming; additionally, the Kyoto Protocol was signed in 1997.
4. Two peer reviewed studies examined this particular issue: [Institutionalizing delay: foundation funding and the creation of U.S. climate change counter-movement organizations](#) and [The organisation of denial: Conservative think tanks and environmental scepticism](#). A recent popular expose also examines these trends in the news and opinion site, [Splinter – How Fossil Fuel Money Made Climate Change Denial the Word of God](#).
5. Two impressions I gleaned from this discovery: perhaps NRPE generated interest in religion and the environment, somewhat like Earth Day generated interest in the environment more generally; once that interest was kindled, reporters began to notice and write about religious environmental events and actions that were already going on. It is also possible that the interest sparked by NRPE caused more religious environmental activity, which subsequently was noted in the media.

how much attention was being given to environmental and ecological matters in the theological literature, so I searched, year by year, from 1960 to 2010, for any articles with “ecology” (or “ecological,” etc) or “environment” (or “environmental,” etc) in the title.⁶ After updating that study in the early 2010s, here were the results⁷:

6. I assumed that not all articles with these words in their titles would actually be about the natural world - they might discuss the “ecology of grace,” for example, or an “environment for safe counseling,” but by and large, the use of these words in the theological literature usually signals an environmentally relevant work, and it’s not clear that we should expect the proportion of exceptions to vary much over time, so the trend line is probably fairly reliable. Also note: the resulting graph is reported as a “percent of total ATLA database” (mainly because the total number of sources searched by the database changes frequently, so the number of hits on any given day might change, but the number of hits as a proportion of the overall database will be more stable), and the scale on the left side of the graph indicates that this literature, though growing, still represents only roughly 1% of the theological literature. However, this seems to be a significant amount: by comparison, running the same search in 2018 (when the database has expanded greatly) yields 3,601 ecology or environment hits for the year 1993 (compared to the high point of 348 hits in 1993 when this analysis was done in 2013). Clearly many more sources have become electronically searchable now than in the past. But by comparison, proportionally, searching for “love” in this database in 2018 (or loving, etc, by using the wildcard “*” after “lov”) yields only 314 hits; “grace” yields 155; “faith” yields 882; “God” yields 1,506, and “theolog*” yields 3,914, so it appears that hits for ecology or environment greatly exceed that for other key theological topics, and are comparable in number to those for “theology” itself!
7. Taken from free access journal article: <https://esajournals.onlinelibrary.wiley.com/doi/10.1890/120322>

Figure 1: Fifty Years of Environment and Ecology Titles in the Theological Literature, 1960-2009:



Increase in percent of total sources in the American Theological Library Association (ATLA) database over a 50 year span, based on a title field keyword search for “**ecolog* or environment***”. Significant increases in the literature were seen after Earth Day in 1970 (peak of 82 articles in 1971) and after the formation of the National Religious Partnership for the Environment and the Religion and Ecology Group of the American Academy of Religion in the early 1990s (348 articles in 1993).

Two things immediately stick out: the trend in environmental theology literature is increasing over time, and there have been two quantum leaps in the literature, one around 1970, the other around 1990. To add some historical perspective, Dr. Richard Baer recalls trying to publish theological articles about the environment in the 1960s, when Baer and others were founding the Faith, Man, Nature⁸ study group through the National Council of Churches. Ethics and theology journals were hesitant to publish on the topic because, as Baer and his colleagues were told, the “environment” wasn’t a serious ethical subject. At that time (the mid- to late 1960s), issues like civil rights and the Vietnam War dominated ethical commentary, and environmental concerns were famously characterized as only the worry of birding clubs and “little old ladies in tennis shoes.”⁹ Baer contends that Earth Day in 1970 changed that, because it caused a huge shift in interest toward environmental issues, at which point publications about the environment multiplied significantly across many fields (not just in theology).

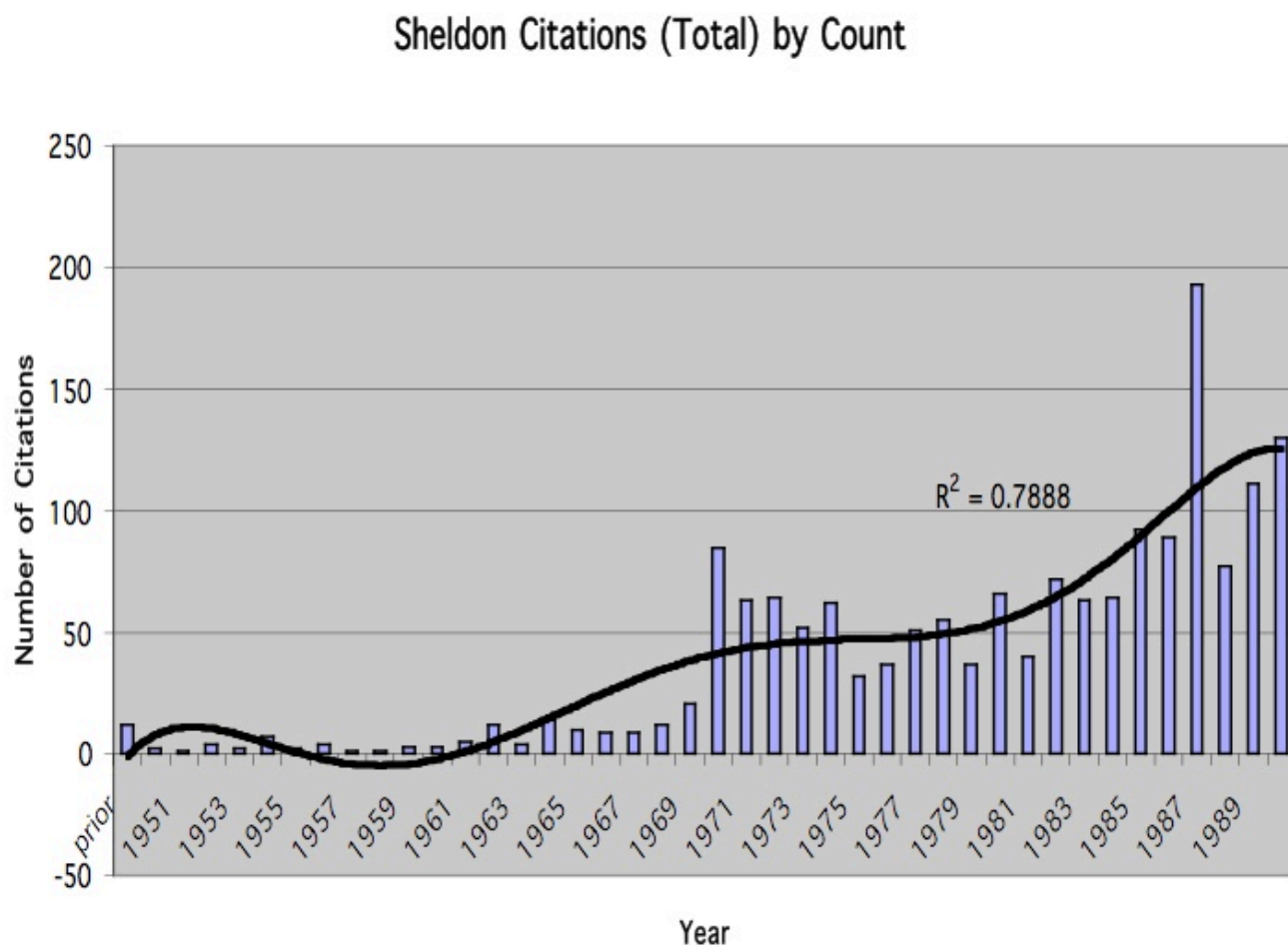
Baer remembers that a focus on the justice dimensions of environmental issues also helped open up theological attention – once it became clear that environmental degradations had disproportionately harmful effects on the poor and vulnerable, the existing social justice programs of faith communities began to engage the issue and tapped into deep and long-term structures and traditions of working for positive social change. This likely partly explains why the mainstream Catholic and Protestant arms

8. For a record of some of the work of the Faith, Man, Nature group, see: <https://catalogue.nla.gov.au/Record/1141688>

9. Generally this tag was applied to Audubon Club members, who were early conservation champions; more locally, women organizers who helped create the Nature Center at Shaker Lakes near Cleveland, OH, also attracted this label when they were gathering community support to stop a highway development to establish the nature center.

of the NRPE (the [Eco-Justice Program](#) of the United States Conference of Catholic Bishops (now complemented by the [Catholic Climate Covenant](#)) and the National Council of Churches Eco-Justice programs (now represented by [Creation Justice Ministries](#)) have long operated under an Eco-Justice banner.¹⁰

The second jump in the literature, around 1990, is likely the result of several relatively concurrent developments in the field. I also graphed the citations catalogued in Joseph Sheldon's bibliographic study, *Rediscovery of Creation: A Bibliographic Study of the Church's Response to the Environmental Crisis* (1992), from 1950-1990, shown here:



Sheldon's study of the literature also shows the jump in 1970 and a rising trend through the 1980s with a particular spike in 1987 that isn't shown in the ATLA graph. One explanation for this spike in 1987 is the "unpublished" literature that came out of the [North American Conference on Christianity and Ecology \(NACCE\)](#), which convened in 1986. The NACCE drew together several hundred of the scholars and organizers who were doing faith-based environmental work at the time and who subsequently published summaries of their presentations that Sheldon's bibliography would have included but wouldn't be searchable in ATLA. 1986 was also the year that the [Alliance for Religions and Conservation](#) got its start following a gathering of religious leaders in Assisi, Italy (St. Francis' home) convened by the [World Wildlife Federation](#). Both of these events were

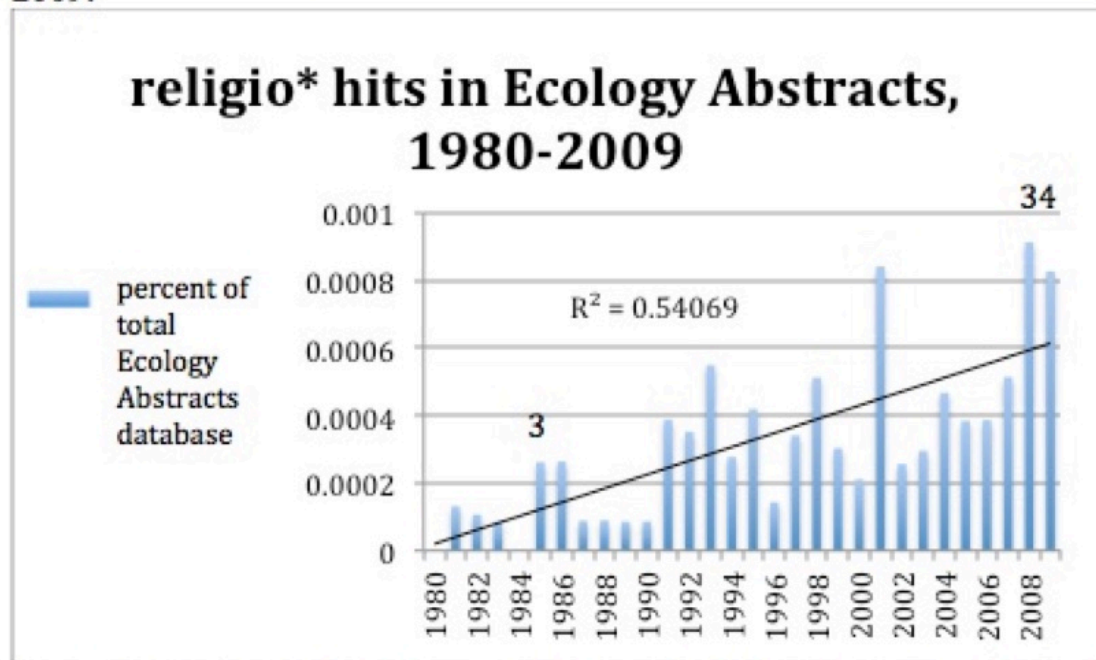
10. Some of that history (1983-2009) is detailed here: <http://www.creationjustice.org/history.html>. By contrast, evangelical churches have tended to emphasize "stewardship" and individual responsibility more than "justice," though to be clear, evangelical attention to environmental justice issues has increased - a good example is the NAE-sponsored study "Loving the Least of These". The most famous religious contribution to study of environmental justice was the study: *Toxic Wastes and Race* (1987), commissioned by the United Church of Christ.

influential for Paul Gorman, the founder of the [National Religious Partnership for the Environment](#), and its precursor organization, the [Joint Appeal by Science and Religion for the Environment](#), which saw the evidence of this budding growth of environmental scholarship, organization, and concern among faith communities, and worked on making connections between and across denominations in the U.S. Another significant influence at this time was the formation of the Religion and Ecology Group of the [American Academy of Religion](#), which encouraged the contributions of religious scholars. Undoubtedly, some combination of these and other influences accounts for the jump in the literature around 1990.

Unlike the news clips database that I'd worked on at NRPE, I did not attempt a content analysis of the ever-expanding eco-theology literature, but one of my criteria for applying to graduate programs in religion and ecology in the early 1990s (before any official such programs existed) had been to search the library catalogs of those universities, to see how many titles they carried that would be relevant to religion and ecology. Yale's libraries were significantly better stocked than any other place I considered (only Harvard had comparable holdings), and so I was fortunate to have a lot of this literature at my fingertips. I spent hours, days, and weeks in the stacks of the Yale libraries browsing as much of this literature as I could, and while I did not quantify my impressions in any systematic way, I saw a similar pattern to that I'd uncovered in the news clips database – this literature overwhelmingly consisted of books and articles focused on how theology reinforces environmental ethics themes, and I almost never came across literature that indicated a negative stance toward the environment.¹¹

 If the theological literature has been growing steadily in its environmental interests since the 1960s, what about the inclusion of religious topics in the ecological literature? Perhaps predictably, that literature is also increasing, but only started to emerge significantly in the 1980s¹²:

Figure 2: Thirty Years of Publications Related to Religion in Ecology Abstracts, 1980-2009:



Increase in percent of total sources in Ecology Abstracts database over a 30 year span, based on a keyword search for “religio*”. No abstracts were found prior to 1981; the greatest number of hits is 34 in 2008.

11. Eventually, I would identify a tiny sub-genre of what I'd call “anti-environmental” theology texts; there were then only a handful of those, and almost all were sponsored by a free market economics think tank that receives funding from fossil fuel interests, which I've mentioned above and will address further in Chapter 9 on climate change.
12. Taken from free access article: <https://esajournals.onlinelibrary.wiley.com/doi/10.1890/120322>

In large part, the articles that have begun to emerge in the ecological literature focus on habitat studies of church-owned land (some of the only forests remaining in Ethiopia, for instance, are known as “[church forests](#)” that were protected from cutting because they were on church property), or on how particular religious traditions or rituals or customs might have a local ecological impact in some part of the world.¹³

13. A recent National Geographic article about Ethiopia's church forests can be found here:

<https://www.nationalgeographic.com/environment/2019/01/ethiopian-church-forest-conservation-biodiversity/>; a related Nature article is here: <https://www.nature.com/immersive/d41586-019-00275-x/index.html>; this attention to church forests in Ethiopia may have led to a recent Ethiopian reforestation effort, touted as the largest tree-planting effort in the world, with 350 million trees reportedly planted in one day, a Guinness world record:

<https://www.nytimes.com/2019/07/30/world/africa/ethiopia-tree-planting-deforestation.html>; some other articles on related topics include: <http://www.tandfonline.com/doi/abs/10.1080/14639940802556529?src=recsys&journalCode=rcbh20> ; <http://science.sciencemag.org/content/338/6108/740.1> ; <http://science.sciencemag.org/content/338/6114/1537.2>

1.3 A Timeline of Religious Environmental Developments

These bibliographic studies give some sense of how religion-ecology interests have developed over the last 50 years, but another way to survey that development is to examine a historical timeline of significant events during that same span. One such timeline, centered on the impact of the National Religious Partnership for the Environment, is found [here](#) (scroll to the end of the article to see a timeline that runs from 1990-2015).

As indicated above, there was already some theological literature focused on the environment in the 1950s and 1960s. Many people date the rise of the modern environmental movement to the publication of Rachel Carson's *Silent Spring* (1962), and there is no doubt that religious concerns for the environment were also piqued at that time.¹ Prior to that, however, there are other precedents. One of the most significant examples of religiously influenced conservation success comes from the history of the development of the National Parks in the U.S. I will note some of this background in more detail in chapter 7, pointing to the work of historian Mark Stoll, who has chronicled the ways that progressive era thinking drew significantly on religious themes, specifically employing imagery of the Edenic qualities of wilderness lands to support the formation of national parks. Liberty Hyde Bailey's *The Holy Earth* (1915) also had a powerful influence on society and future writers on the topic of religion and the environment. 1923 saw the formation of the [National Catholic Rural Life Conference \(NCRLC\)](#), which has a legacy of environmentally relevant work, including contributing to the development of Rural Life Sundays and Soil Stewardship Sundays, which became established just before the Dust Bowl crisis – as a result, Soil Stewardship Sundays has been called the longest-standing faith based conservation program in America. In 1939, the USDA's [Walter Lowdermilk](#) visited the Holy Land and was struck by the scene of soil erosion and environmental degradation he witnessed there. In a radio broadcast and later publication, Lowdermilk proposed that if Moses were to see the Holy Land now, he would have convinced God to add an 11th commandment along the lines of: "thou shalt not despoil the earth."

Though the various wars of the 20th century would monopolize a lot of the energy, resources, and political and moral attention of America and other nations, moral and religious attention to nature did continue to emerge. [A Christian Ministry in the National Parks](#) began in the 1950s, and in 1953, Eric Charles Rust published *Nature and Man in Biblical Thought*, which described "man" as the guardian of paradise, given responsibility for the natural world. The 1950s and 1960s also saw the emergence of one of the earliest significant eco-theologians, Joseph Sittler, whose 1961 eco-theology "Called to Unity" address to the [World Council of Churches](#) has been likened by some to be the shot heard by no one around the world – it seems Sittler was considerably ahead of his time, but a growing range of theological concern for environmental issues was soon to blossom. 1963 saw the creation of the Faith-Man-Nature (FMN) group, which grew out of the [National Council of Churches](#) Faculty Christian Fellowship, Research Group on Theology and Conservation. FMN lasted until 1974 and was a significant precursor to much subsequent thought about religion and the environment, hosting conferences of theologians around the country, and publishing a series of articles and books. FMN member H. Paul Santmire was the first to focus a Harvard dissertation on the topic in 1966, the same year that Dr. Richard Baer (FMN Secretary) taught the first known course in environmental ethics in America, a new testament seminar at Earlham College.

Lynn White's famous speech and article (see chapter 2) would follow in 1966 and 1967, sparking a tidal wave of attention – much of it now negative – toward religion and the environment. But even as environmental thinkers increasingly focused blame on Christianity, a veritable litany of religious environmental organizations and milestones were established: Thomas Berry's [Riverdale Center of Religious Research](#) (1970), Alfred North Whitehead's process theology legacy and the roots of ecofeminist theory (1970s), Dennis Kuby's Ministry of Ecology in Berkeley (1973-1981), Eco-Justice Project and Network (EJPN) at Cornell (source of Eco-Justice Themes and Eco-Justice Quarterly newsletters (1974)), [Appalachian Bishops Pastoral Letter: This Land is Home to Me](#) (1975), World Council of Churches Nairobi: Just Participatory Sustainable Society (1975), the [Au Sable Institute](#) (1979), the 11th Commandment Fellowship (1979), [Sister Miriam Therese MacGillis's Genesis Farm](#) (1980), [Center for Theology and the Natural Sciences](#) (1981), World Council of Churches Vancouver: Justice, Peace, and the Integrity of Creation (1983), [A Rocha](#) (1983), National Council of Churches Eco-Justice Working Group (1983/1986), Alliance of Religions and Conservation (1986), North American Conference on Christianity and Ecology and the journal *Firmament* (replaced in 1991 by *Earthkeeping News*; 1986), Friends Committee on Unity with Nature (1987), Environmental Ministries of Southern California (1988), [Environmental Justice Office of the Presbyterian Church](#) (USA) (1988), North American Coalition on Religion and Ecology (1989), [Joint Appeal by Religion and Science for the Environment](#) (1990), Religion and Ecology Committee of the American Academy of Religion (1990), [Theological Education to Meet the Environmental Challenge](#) (1992), [Earth Ministry](#) (1992), [The Regeneration Project](#) (1992), The National Religious Partnership for the Environment, including [Evangelical Environmental Network](#), [Coalition on the Environment and Jewish Life](#), [National Council of Churches Eco-Justice Program](#), and the United States Conference of Catholic Bishops Eco-Justice Project (1992/1993), [Presbyterians for Earth Care](#) (1995), Harvard Series of Conferences on Religion and Ecology (1996-1998), [Episcopal Power and Light](#) (1997), [Religious Campaign for Forest Conservation](#) (1998), *Restoring Eden* (2001)...and the list goes on and on. In addition to these organizations and events, religious denominations across the spectrum have generated hundreds of official environmental policy statements dating back to the 1970s.²



An interactive or media element has been excluded from this version of the text. You can view it online here:

<https://ohiostate.pressbooks.pub/enr3470/?p=30>

1. Members of the Faith, Man, Nature group, for instance, were influenced by the release of *Silent Spring*.
2. Mark Ellingsen's book on church social movements documents several hundred such statements: <https://www.amazon.com/Cutting-Edge-Churches-Social-Issues/dp/0802807100>.

All of these events and organizations have played a part in shaping the landscape of religion and environmental concerns today. With the publication and reaction to Pope Francis' environmental encyclical letter, it's now common for people to have heard of faith-based environmental views, but increasingly in the 2000s and 2010s, examples of faith-based environmental work proliferated. Profiles and success stories are catalogued on many websites.³

Suffice it to say that by now, an incredibly diverse array of religious environmental programs and teachings and legacies are woven throughout the American religious and cultural landscape. Despite this legacy, some amount of skepticism lingers about the usefulness of religion for environmental stewardship. The next chapter focuses on the most influential and enduring such skepticism in some detail. But the message is clear from scientific and environmental leaders: religion is now a critical part of the landscape of earth stewardship, and scientists and environmental professionals alike have focused increasing attention on understanding and collaborating effectively with faith communities. Most of the rest of this book tends to that effort.



Indianola Presbyterian Church Intergenerational Neighborhood Clean-up Day. Photo credit: Ann Hitzhusen

3. Some examples include: <http://www.nrpe.org/stewardship-stories.html> ; <http://www.interfaithpowerandlight.org/about/success-stories-2/>; For a brief tour of some examples I think are illustrative, Ohio State students can look on Canvas for a short powerpoint describing a range of engagements and initiatives across many denominations.

Bibliography

- Brulle, R. J. (2014). Institutionalizing delay: Foundation funding and the creation of U.S. climate change counter-movement organizations. *Climatic Change*, 122(4), 681-694. doi:10.1007/s10584-013-1018-7
- Ellingsen, M. (1993). *The Cutting Edge: How Churches Speak on Social Issues*. Geneva: WCC Publications; Grand Rapids, MI: William B. Eerdmans Publishing Co.
- Hitzhusen, G. E., & Tucker, M. E. (2013). The potential of religion for Earth Stewardship. *Frontiers in Ecology and the Environment*, 11(7), 368-376. doi:10.1890/120322
- Jacques, P. J., Dunlap, R. E., & Freeman, M. (2008). The organization of denial: Conservative think tanks and environmental scepticism, *Environmental Politics*, 17(3), 349-385, doi: 10.1080/09644010802055576
- O'Connor, B. (2017, August 8). How Fossil Fuel Money Made Climate Change Denial the Word of God. Retrieved January 15, 2018, from <https://splinternews.com/how-fossil-fuel-money-made-climate-denial-the-word-of-g-1797466298>
- Pew Research Center. (2015, May 11). Religion in America: U.S. Religious Data, Demographics and Statistics. Retrieved May 18, 2019, from <https://www.pewforum.org/religious-landscape-study/>
- Sheldon, J. K. (1992). *Recovery of creation: A bibliographical study of the church's response to the environmental crisis*. Metuchen, NJ: Scarecrow Press.

CHAPTER 2: THE GENESIS OF ECO-THEOLOGY -- IS CHRISTIANITY TO BLAME FOR OUR “ECOLOGIC CRISIS”?

In a book that explores the burgeoning influence of faith-based environmental values, the question in the title of this chapter may seem odd. But before moving ahead to various themes and essential expressions of faith-based environmental work, this chapter delves into the most famous argument so far in the history of religion and environment studies, the Lynn White Thesis, which Lynn White, Jr, a historian at UCLA, published in 1967 in the journal *Science*. For decades, this thesis held sway in most conversations related to religion and ecology; in the 1970s, 1980s, and 1990s, most major works on the topic would refer to Lynn White, and probably in their introduction or framing. In that sense, I am not breaking with tradition; though the field of religion and environment has moved beyond the Lynn White Thesis, its echoes still reverberate, and any informed discussion of this topic will benefit from understanding the arguments (and shortcomings) of White's thesis.

2.1 A Nature Touched by Human Hands, and a Thesis Pulled Out by the Roots

There is a tradition in American nature writing, drawing on the precedent of transcendentalists like Thoreau and Emerson, to wax poetic about a beautiful nature scene in the introduction of a chapter or book.

Stephen Budiansky in [Nature's Keepers](#) plays on this tradition by pillorying it as he begins his first chapter, "Good Poetry, Bad Science":

If this were a conventional nature book in the mode of Thoreau and his countless latter-day imitators, I should begin by describing the walk I took early this morning across field and wood. How I rejoiced in the cry of the Canada geese overhead and the flash of the white tail of a fleeting deer; how the crackling of the frosted grass beneath my feet as I crossed a hollow by the wood put me in mind of the family of wild turkeys I had seen there early in the fall; how my spirit, indeed my every pore, was open to the sweet beneficence of Nature's society unfettered by the artifices of man. No worldly thoughts could intrude upon so perfect a reverie – unless it were that ever so slightly nagging doubt that even such unassailable testimony to my earnestness, sensitivity, renunciation of materialism, and oneness with creation had failed to make up for an utter lack of originality... But this is not a conventional nature book, and so I shall begin instead by pointing out how everything I saw this morning was a fake.

His point is that what is extolled as "natural" isn't as "natural" as Americans think. Bill McKibben highlights a similar point in his book, [The End of Nature](#); human impact has now stretched to the ends of the planet, so "nature" untouched by humans – the ideal of American wilderness sentiment – no longer exists. Another sort of rebellion against the canon of American environmental writing is when Michael Pollan takes Thoreau to task for one of his famous lines in [Walden](#):

As an observer and naturalist, Thoreau consistently refuses to make "invidious distinctions" between different orders of nature; sworn enemy of hierarchy, the man boasts of the fact that he loves swamps more than gardens. But as soon as he determines to make "the earth say beans instead of grass" he finds he has made enemies in nature: worms, the morning dew, woodchucks, and weeds. The bean field "attached me to the earth," Thoreau felt, giving him positions he must defend if he hopes to prove his experiment in self-reliance a success. And so Thoreau is obliged to wage a long and decidedly uncharacteristic "war, not with cranes, but with weeds, those Trojans who had sun and rain and dews on their side. Daily the beans saw me come to their rescue armed with a hoe, and thin the ranks of their enemies, filling up the trenches with weedy dead." He finds himself "making such invidious distinctions with his hoe, levelling whole ranks of one species, and sedulously cultivating another."

Thoreau is gardening here, of course, and this forces him at least for a time to throw out his romanticism about nature – to drop what naturalists today hail as his precious "biocentrism" (as opposed to anthropocentrism). But by the end of the chapter, his bean field having achieved its purpose, Thoreau trudges back – lamely, it seems to me – to the Emersonian fold: "The sun looks on our cultivated fields and on the prairies and forests without distinction....Do [these beans] not grow for woodchucks too? ... How, then, can our harvest fail? Shall I not rejoice also at the abundance of the weeds whose seeds are the granary of the birds?"

Sure, Henry, rejoice. And starve. (Pollan, p. 108)

Pollan believes Thoreau to be the progenitor of an American Wilderness ethic, whose romantic notions are sometimes not in line with reality. Pollan proceeds to track a history of various compelling ideas of nature in America, which he analogizes as different trees (The Colonial Tree, the Wilderness Tree, the Litigious Tree...). Pollan's eventual point is that some American ideas of nature that have been compelling in the past have outlived their usefulness.

I suspect something similar is going on in American environmental ideas about religion.

A familiar refrain in environmental values literature is for an author to retrace their journey of enlightenment, from some self-centered, utilitarian view of nature as a "resource" to be exploited by humans to a more indigenous or eastern view that reveals the duality of their American expectations and awakens them to a more deeply ethical perspective on nature. The assumption is often that Western views (and Western religion) are uniquely mired in duality and antagonism to nature.¹ This idea makes great press for environmentalists, apparently. If only it were true.

1. For instance, Stephen Kellert, in *Birthingright: People and Nature in the Modern World* (Yale U. Press, 2012): "An inordinate desire to control nature is said to be a characteristic of Western society, particularly its Judeo-Christian religious traditions that have encouraged human domination of the natural world."



Note from the photographer, Tony Losekamp: "I didn't have many chances to get out and enjoy nature in college, especially freshman year living on campus at OSU. I really enjoyed taking time out of busy freshmen year to slow time and enjoy the little bit of nature on campus."

Having briefly surveyed the landscape of developments in American religious environmentalism in the last chapter, here I want to look at the most influential and famous idea in religion-environment thinking, Lynn White Jr's thesis about the culpability of Western Christian doctrine for our modern environmental problems. That question was the focus of the primary chapter of my dissertation, which was published in Environmental Education Research in 2007. That article can be found [here](#).²

For those who already appreciate the details of the case I make in that article, the bottom line is this: Lynn White's thesis posited that Western biblical notions of "dominion" and Christian anthropocentrism and duality were the key roots of our ecologic crisis. A number of significant critiques of White's thesis have evolved in the literature, as summarized in Hitzhusen (2007); in a nutshell, White's thesis is weakened because:

- White's thesis suffered from misinterpretation and overgeneralization,
- Other cultural factors have been more salient than religion in enabling environmental degradation in the West, such as: materialism, secularization, democratization, individualism, and wealth,
- Environmental degradation in the East (which is typically more severe than in the West) suggests that Eastern religions have been not been more "ecological" than Western,
- White's biblical interpretations are theologically incoherent, and
- White's thesis has not been well supported by empirical findings.

In brief, the thesis has not held up to scrutiny – it appears to be sociologically, geographically, and historically dubious, and I think Wendell Berry (1990) has it right in terms of the theological accuracy of White's claims: if the question is "does the Bible imply that humans are free to do as they please with Earth because of 'dominion,'" Berry replies that such an "extremely unintelligent" reading of Genesis "is contradicted by virtually all the rest of the Bible."

Lacking substantive evidence, many environmental writers who have continued to champion some variant of White's thesis have used a line from Ronald Reagan's Secretary of the Interior, James Watt, as their primary evidence for White's theological claims, but it turns out that this is a famous misquote (Watt was alleged as saying "when the last tree is felled, Christ will return"). What many environmentalists assumed to be Watt's view of biblically-based disregard for the environment was derived from a comment by Watt that actually indicated that his Christian beliefs motivated him toward careful stewardship of natural resources for future generations (p. 61 of Hitzhusen (2007) elaborates on these specific details – Watt actually said that we don't know how long it will be until the Lord returns, so *we need to manage natural resources with care*). White's contemporary examples of anti-environmental biblical views were therefore ungrounded, and moreover, his theological claims were not just poor interpretations, they were theologically incoherent.

I realize that calling someone's thesis "incoherent" – especially a thesis that was as widely lauded as White's – is a dangerously frank criticism, and requires more elaboration. But White's idea has been around for over 50 years now, and given that it has not held up well to empirical scrutiny, maybe it should not be surprising that the theological assumptions of the thesis were flawed in the first place. I acknowledge that White's ideas remain compelling for some environmentalists, especially for those who argue that their own views are compelling in part because they avoid the criticisms of White's thesis. But the fact remains that White's theological claims make sense only through improbable interpretations of biblical theology. For instance, just on its face, to call an obviously theo-centric belief system "anthropocentric" is surely to miss the point of that system. For most religions, re-orienting humans from their self-centeredness towards something greater than themselves (in the case of Biblical religions, that's God) is more or less the point – a point that White and his environmental champions seemed to completely ignore.

2. ENR 3470 students at OSU have access to this article in Canvas.

2.2 The Genesis of Eco-Theology

So let's start at the very beginning and take a look at what I call the Genesis of Eco-Theology.¹ Most of the commentary that pegs the Bible as anti-environmental, including White's thesis, attends to just a couple of passages in Genesis, as if those few lines suffice to judge a whole tradition. This can lead to persuasive claims, especially for less theologically informed readers, but it is always important to know the context of a verse within a chapter. After all, if someone was reading a scientific article, or any other piece of literature and made criticisms based on only reading a couple of sentences, we wouldn't expect those criticisms to be very reliable.

The Hebrew Bible (and Christian "Old Testament") begins with the book of Genesis, which starts with this line: "In the beginning God created the heavens and the Earth" ([Gen. 1:1](#), NIV).² Note at this point that the earth is "formless and void," darkness is over the the surface of the deep, and then the wind (*ruach*) of God sweeps over the face of the waters. So, there were some primordial waters, a dark deep, some sort of chaotic substrate over which God's breath (or spirit) swept. This is the beginning.

And then God speaks some things into being. "Let there be light" (Day 1) and "let there be sky" (Day 2), and "let there be dry ground" (Day 3). God orders (or structures) something at each step – light is separated from darkness, yielding day and night; waters above are separated from waters below yielding sky; the waters under the sky are concentrated in places to let dry land emerge so there is now land and sea. Then God "lets" the land get in on the act – God says "let the *land* produce vegetation" – plants and trees of all kinds (Day 3). And God says "let there be lights in the expanse of the sky, to set apart day and night and seasons, yielding sun and moon and the stars" (Day 4). And now the sea gets its cue: "let the *water* bring forth swarms of living things and let birds fly in the skies"; and so the waters teemed with creatures and all the winged birds took to the skies (Day 5). And the land again joins the creative act as God says "let the *earth* bring forth creatures of every kind," and now all manner of creatures, livestock, and wild animals entered the mix (Day 6). Between hovering and speaking things into existence and letting land and sea bring forth creatures, God's presence and spirit and Word are acting together within creation to bring all things into being.

1. My goal here is to run through the Genesis account from creation to Noah and highlight significant points relevant to ecotheology and creation care. I am not suggesting that this chapter provides a comprehensive examination -- there will surely be some gaps in what I cover – our subject is only one of the most intensely studied pieces of literature in the entire world, and I don't presume to be the final authority on these well-known texts. But I do think that anyone who still finds White's thesis compelling must grapple with the points I highlight here.
2. I will follow standard abbreviation format for biblical verses, with a chapter number followed by a colon, followed by the relevant verse numbers within that chapter.



Image obtained through the public domain.

One important moment in this creative sweep comes after the waters have brought forth creatures: “God blessed them, saying, “Be fruitful and multiply and fill the waters in the seas, and let birds multiply on the earth.” ([Gen. 1:22, NRSV](#)). The first divine blessing in the Bible is for the fish and birds, so we know that God wants them to flourish. On the same day that all the other land creatures and mammals were created, God also creates humans, male and female, in the image and likeness of God and lets them rule (gives them dominion, *radah*) over the fish, birds, and other creatures. We’ve now reached the first verse that often gets mentioned by environmental critics, Gen. 1:26, but it will be quickly overshadowed by Gen. 1:28, the mother of all verses for environmental criticism. And then, like God had done with the fish and birds, God blessed the humans and said to them, “Be fruitful and multiply (*rabah*); fill/replenish the earth and subdue (*kabash*) it. Rule/have dominion (*radah*) over the fish, birds, and every living creature” (Gen 1:28).

It’s worth noting a couple of points here: humans get a blessing just like the fish and birds, but they don’t get their own day of creation – they come along on the same day as other land creatures (and indeed, share most of their DNA with their mammalian kin, who also came forth from the earth – more below on human “earthiness” in Genesis 2). And as the next verse makes clear, God then invites the humans to eat

plants, alongside the other creatures – “everything that has the breath of life in it,” to them God gives green plants for food. As theologian Karl Barth noted, humans and other creatures are “referred to the same table” to eat.³ Or as the bumper sticker from one faith-based environmental organization ([Restoring Eden](http://RestoringEden.org)) puts it:



Image used by permission from Restoring Eden.

Whatever the case may be about the language of “dominion” and “subdue”, it apparently does not involve humans eating animals, so we should question how much it applies to any system or culture where humans eat meat. For contemporary readers, perhaps this suggests that only vegetarians should be allowed to hold positions of responsibility for managing the earth (and perhaps only vegetarians are blessed to be fruitful and multiply?). I realize this may sound absurd to some readers – we will need to look at more than just these few verses for a more reasoned view.

As a preliminary summary: in this biblical account, creation takes place within a created order and by God's creative will, through a process – not just from an act of fiat or even a series of acts of fiat – but also through prior things enabling the development and emergence of later things. There are three days of structuring, ordering, and separating things (days/nights, heaven/earth, water/land), three days of populating things with creatures, and then a day of rest.

There is one other obvious point so far which I have saved for now: as God creates day by day⁴, God stops and sees that what is created is good, so we hear a repeated line after each creation: “and God saw that it was Good” in reference to the light ([1:4](#)), earth and seas ([1:10](#)), vegetation ([1:12](#)), lights in the dome (sun, moon and stars, [1:18](#)), sea creatures and birds ([1:21](#)), and land creatures ([1:25](#)). God saw each of these creations and saw that they were good, and after all things had been created (including humans), and God saw all that had been made, the text says that God saw that it was “very good” ([1:31](#)). This is the ending point of the first chapter of Genesis: each of the different parts of creation are good, and all of it together is exceedingly good. This is something that God, and perhaps humans too (made in God's likeness), can “see.”

This point about the goodness of creation is worth highlighting further. First, an important device in biblical Hebrew is that when something is important, a favorite way to signal importance is by repetition. So, to be told over and over (six times, in fact), that parts of creation are good – and a seventh time that all things together are very good – is a neon biblical sign signaling significance. No reader should miss that God sees and considers creation good; nothing in this chapter, the beginning of the whole Bible, is emphasized more. Second, note that God does not say, “Let there be light, and I declare that the light is good!”, rather, God creates, and then once that thing exists, it's goodness becomes apparent to God. This makes it clear that God sees the value and goodness in all of creation, and the text is at pains to make sure the reader notices that God says all these things are good. Secular environmental ethicists have built arguments for decades in an attempt to solidly ground the notion that nature has intrinsic value – in part, to counter the apparent lack of regard for the planet that Americans have – and here, on page and chapter one of the Bible, that seems to be an inescapable point. God can see that creation is good, and that point seems crucial enough to the biblical authors to highlight it more than any other point. In absolute contrast to Lynn White's thesis about biblical ideas causing disregard for nature, it seems the point at the start of the bible is to make clear that the creation has intrinsic value – creation is profoundly good.

3. I have been unable to find the original citation of Barth's quote, though Dick Baer regularly quoted it in his teaching at Cornell, and Rod Garner's chapter on "Being Compassionate" in the book *Teaching Virtue: The Contribution of Religious Education* quotes Barth on this point on [page 96](#).
4. The Hebrew term for “day” can also be translated as a longer period of time, like an “era.”



Image obtained through the public domain.

A third point develops this a bit further. Some commentators have suggested that the English language makes a relatively flimsy translation of the concept “very good.” They point to the language of the Greek septuagint version of the Bible, which renders this as [tiam kala](#) – “altogether good and beautiful” (HE Metropolitan Kallistos (Ware) of Diokleia).⁵ This seems apt – not only does “altogether” echo the point that God is now seeing all things together as especially good, but the notion of “beauty” is added here, which might help explain why God sees goodness in all these things. As philosopher and novelist Iris Murdoch argues (and we will comment on this in chapter 6), beauty is one of the easiest and most direct ways that humans recognize goodness beyond themselves and find value in other things. Our own experience probably confirms this – it’s easy to see the beauty of creation, and this beauty adds to our valuation of creation. As the second chapter of Genesis says (in the Adam and Eve garden account of God’s creation), in the garden “God made to grow every tree that is pleasant to sight and good for food” – note that beauty is mentioned before utility (food value). Eden, furthermore, is the term for “delight,”⁶ and there is a certain revelling in beauty and delight that attends the acts of creation in other biblical accounts, too, such as in Proverbs [8:22-31](#) where the creation is recalled as the time when wisdom served as the craftsman at God’s side, dancing and full of delight day after day, rejoicing always in God’s presence, rejoicing in God’s whole creation and delighting in mankind.⁷ No matter what else creation might be, there is always this beautiful, good original value that cannot be ignored.

And to be sure, many later passages extol the beauty and goodness of creation, particularly in the Psalms, like [19:1](#) where creation is admired for testifying to God, or the ecological Psalm, [104](#), where the fullness and interconnectedness within creation inspires rejoicing, and reflects divine presence. In the Christian New Testament, Paul writes in [Romans 1:20](#) that no one has an excuse for doubting God’s existence, for *since the creation of the world, God’s invisible qualities – God’s eternal power and divine nature – have been clearly seen in what has been made in creation*. If creation is so closely linked to God, and goodness – if created things are good, and all things together are very good – then we might take a related point from Thomas Aquinas as an argument for the value of biodiversity when he said that since [no one creature can adequately reflect all of God’s goodness](#),⁸ then all things together more fully testify to the glory of God.

5. <http://www.orth-transfiguration.org/safeguarding-the-creation-for-future-generations/>

6. “Fruitful” and “well-watered” are other meanings for “Eden.”

7. Richard Baer delighted in lecturing on this topic at Cornell University in his “Religion, Ethics and the Environment” course.

8. Aquinas wrote: “For He brought things into being in order that His goodness might be communicated to creatures, and be represented by them; and because His goodness could not be adequately represented by one creature alone, He produced many and diverse creatures, that what was wanting to one in the representation of the divine goodness might be supplied by another. For goodness, which in God is simple and uniform, in creatures is manifold and divided.” (St. Thomas Aquinas, *Summa Theologica*, I, 47, 1).



Image obtained through the public domain.

A final point of perspective about all this goodness: If God – the creator, the source of life, who in this account will be described as caring for human well-being – made something precious and amazing and life giving (life itself, actually!) and called it good, good, good, good, good, good, VERY good... that doesn't sound like the kind of thing you're supposed to degrade or destroy.

Beyond the point of goodness, the second most-emphasized point here is “blessing,” which gets repeated three times (seven and three are key numbers in scriptural texts, and three repetitions is the more standard device for emphasizing a point). God blesses the sea creatures and birds to be fruitful and multiply (1:21) and then also blesses the humans to be fruitful and multiply (1:28). Finally, as the story shifts into the second chapter of Genesis, on Day 7, God rests from creating, and God blesses and hallows the Sabbath day. As noted above, the blessing of fruitfulness is not only given to humans, so common sense tells us that if humans act in a way that jeopardizes the ability of other creatures to be fruitful and multiply, that works against God's blessing of those creatures, which would not seem to be the way God would want humans to use their freedom. The blessing of the Sabbath day raises some additional points: the fact that God ceases from creative work and just lets creation “be” on the Sabbath indicates that creation is able to abide without God's constant activity – creation has an integrity all its own that is part of why later in Genesis God affirms that so long as the earth endures, seedtime and harvest, seasons, and night and day will not cease (Gen 8:22). This promotes confidence in the reliability of creation – it has its own substance and regenerating capacity. This account of creation also shows us that just as sun, moon, stars, water, land, plants, and creatures are all a part of creation, God makes Sabbath rest a part of the order of creation, too, and blesses and hallows such rest.

There will be much more to say about biblical creation accounts by moving on to Genesis chapter 2, but first we should return to take a closer look at the environmentally problematic lines that focus on human dominion and “subduing” the earth in Genesis 1. It would seem that these verses fall within a context of goodness and blessing in creation, but as many have pointed out, these verses are challenging for those who seek a creation-friendly posture in Genesis.

Genesis 1:26 says: Then God said, “Let us make humankind in our image, according to our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the wild animals of the earth, and over every creeping thing that creeps upon the earth” (NRSV).

This hints at more to come in the following verses and suggests that there is something special about humans, who are made in God's image⁹, and to whom “dominion” over other creatures has been granted.¹⁰

Genesis 1:27 builds on this: “So God created humankind in his image, in the image of God he created them; male and female he created them” (NRSV).

9. God's image appears to be plural, which is intriguing, but not a point we will focus on here.
10. There's an interesting spin on this granting of dominion in Islamic tradition, where tradition holds that the role of holding dominion, or vice-regency (where humans are considered God's [vice-regents or vice-gerents](#)), was first offered to other beings, like the mountain, trees, and other animals. Each refused the responsibility, but when vice-regency was finally offered to humans, they were the only ones to say “yes.”

It may be because humans are in God's image that they make a reasonable choice for the responsibility of dominion. From a Christian perspective, the image of God is also conditioned by the person of Jesus, believed by Christians to be Messiah/Christ, son of God, part of the trinity of Father, Son and Holy Spirit; Jesus' model of wielding power would therefore be the prime example of proper human behavior; and notably the leadership of Jesus was self-sacrificial, servant leadership. Jesus is an example of one who laid down his life for those "under" him, one who endured death rather than exercise any divine power for self-preservation (both during his temptation in the wilderness at the start of his ministry, and at his death when some of his followers encouraged him to avoid the persecution that seemed headed his way), thereby showing restraint. This echoes the Jewish image of a proper ruler (where "ruler" comes from the same root as rule/dominion, *radah*), who is not to Lord his power over others, and is to rule gently, not exploiting his people. So while this role of power sounds potentially dangerous, the biblical view of such a role is in contrast to a ruler who would use his or her power for exploitation.

Next comes the blessing of Genesis 1:28: God blessed them, and God said to them, "Be **fruitful** and **multiply**, and **fill** the earth and **subdue** it; and have **dominion** over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth" (NRSV, emphasis added).

First, what is this business about multiplying? In an age when many environmentalists have wrestled with the challenges of growing human populations, this blessing is often suspected of encouraging unchecked population growth, so from that perspective, it sounds like a source of environmental strain. But seeing this passage in context, note that these are the instructions given to the very first humans. According to the story, they have been made amid the already flourishing creation where the waters teem with creatures, birds swarm in the sky, and creatures are all around the earth. If humans are to make it, they'll need to get busy and start reproducing. Also note in this regard that these Genesis passages are the start of a narrative that develops along many storylines, such as in [Exodus 1:7](#), where the Israelites have settled in Egypt – they were "exceedingly fruitful; they multiplied greatly, increased in numbers and became so numerous that the land was filled with them" (NIV).

In the trajectory of the larger story that begins here, there are times when a land is now full of God's people, so this charge to multiply to fullness appears to be an encouragement that can be fulfilled, rather than a perennial order to just keep multiplying without worry (like some population-control environmentalists seem to suspect is the agenda of the Bible).¹¹

But notice another sense of the word "fill" – the passage says "be fruitful and multiply, fill the land... and subdue it." The King James translation of the word "fill" is "replenish," and that suggests a responsiveness to the fullness of the earth. As [Psalm 24](#) says, "the Earth is the Lord's, and the fulness thereof..." (KJV). The description so far of creation, with waters teeming with creatures and swarms of life on the planet, suggests abundance. "Replenish the Earth and subdue it" would suggest keeping the earth "full" and abundant so as to harvest from that abundance. You might even call it a good mandate for natural resource management. So perhaps "fill the earth" might suggest a charge to "keep it full," which isn't such bad advice. But we still have to deal with the terms "subdue" and have "dominion/rule."

There's no getting around the relatively rough sense of these terms, at least that for "subdue":

- **Subdue** (*kabash*) – trample under foot, enslave, subjugate, conquer, force, molest, overcome, bring under control
- Have **dominion** (*radah*) – rule, govern, reign, officiate, trample grapes

It's easy to see the environmentalist complaint – most of the senses of "subdue" sound like harsh treatment, so a ruler who is supposed to subdue the land sounds like a potential despoiler of ecosystems. But yet ruling, *radah*, is a royal responsibility (see [Psalm 72](#)) – it shouldn't be harsh (see [Ez 34:1-4](#) and [Lev 25:43, 46](#)). Proper ruling should be understood as caregiving, nurturing, not exploiting, especially in light of the norm of vegetarianism and God's blessing to other creatures to also be fruitful and multiply. And if the Christian sense of servant leadership is applied, the ruler might be expected to serve the land or the creatures, even lay down their life for them.¹² This latter might be a bit of a stretch, because land, animals and people are different sorts of things to rule or serve, and indeed, this is the only place in the Bible where the term *radah* is used in relation to non-human creatures – elsewhere it denotes rule over people (where it is intended to be a caregiving rule). In another sort of switch-up, the term *kabash*, subdue, can be used to refer to coercive human relations (see [Num. 32:22, 29](#)), but there is no enemy postulated here regarding the earth/land as there is in other verses where human enemies are part of the context. Remember, the context here is the very recent gift from God of a good land, good creatures, good plants, good heavens and earth, and a very good biosphere (humans included), so there has been no sense that the creation is some sort of enemy to be subdued; rather, we have been given a picture of teeming life and abundance that God blesses and sees as good.

Subdue/*kabash* does refer to land in other passages (conquering the promised land, for example), but Genesis 1 is likely more agricultural in intent; here, as with the instructions to multiply, the "beginning of all life" context is probably relevant – these are encouragements to the very first humans who will try to make a living off the land. Subdue, *kabash*, makes a probable reference to the requirements of agriculture,

11. Notably, once the Israelites became so numerous in Egypt, the Egyptians began to resent and persecute them, so biblical stories are not blind to the challenges of successful multiplying.

12. Andrew Linzey mentions a similar idea in his chapter: Linzey, A. "The Theological Basis of Animal Rights," pp. 355-360 in Gottlieb, R.S., ed, *This Sacred Earth: Religion, Nature, Environment* (second edition), New York: Routledge, 2004.

a difficult task especially in those days.¹³ Subduing the land as such may have more sense of bringing order out of disorder – think about what it would take for the first humans to gather and grow food...make the soil productive... and be good stewards of the creatures.¹⁴

Think of it this way: you, the reader, are sitting somewhere, probably in a relatively climate-controlled space, reading this book on an electronic device whose very possibility represents an incredible amount of control of nature, and likely most everything about your life is linked to massive systems of managing and controlling natural resources, capital, and human labor. The earth is subdued now like never before, and we live off of the products of that control, some of us very comfortably, such that the idea of dirtying our hands with some harsh notion of *subduing nature* sounds far removed from our lives...but like the Budiansky quote at the beginning of the chapter, for most Americans, any sense that we are somehow living without causing much impact on the world is a very fake sense.

We will soon turn to the second creation story in Genesis Chapter 2, the garden story of Adam and Eve, which carries many similar elements and follows the basic line of the creation story in Genesis 1 but also has some stark differences. Where Genesis 1 takes an “ancient science” point of view, describing a relatively sequential creation process from a cosmic point of view, Genesis 2 frames the creation story more immediately from a human point of view, that of the original human characters, Adam and Eve. If we imagine the kind of instructions that God might give the very first humans, who are heading out into a vast world populated by almost no humans, and compare them to how God might advise humans today when there are over 7 billion humans already on the planet, perhaps we get a sense that we shouldn’t expect this story to directly address every question we might have about how to live in today’s world. But then, this isn’t a story designed to provide a list of do’s and don’ts – this is a commentary on the human condition and on the relations between God, humans, and the rest of creation.



Rooftop garden sunflowers at the Evangelical Lutheran Church in America Headquarters in Chicago, IL. Photo courtesy of technologyforthe poor.com

13. Imagine an anachronistic alternative for this creation story: God says, “Don’t worry about toiling on the land, just go to the Walmart Supercenter down by the burning bush and get whatever food you need!”
14. Terrence Fretheim’s favors such an interpretation in his book, *God and World in the Old Testament: A Relational Theology of Creation*, Abingdon Press, 2005.

2.3 Human-Divine-Land Relations in Genesis 2

One of my favorite commentaries on the relation between humans, God, and nature is a [Far Side cartoon](#) by Gary Larson showing a countryside scene, like unto a newly created world. A big jar labeled “humans” has fallen from the sky and broken open in the center of the frame, releasing a small flock of naked humans into the wild. A deer and a squirrel look on tentatively while the humans run off into the hills with a posture of “woo hoo!” and a voice from heaven says: “uh-oh.” Perhaps a creator God who had prepared a very good creation, and had humans in mind as a possible addition, must always have been aware that there could be liabilities associated with releasing humans into an otherwise earthly paradise.

With this thought in mind, let's move to Genesis chapter 2. Remember that in Genesis chapter 1, the humans have been created vegetarian. They've been given dominion (to care for what belongs to God like a steward would tend to the master's property), but that dominion has not meant that they should eat any other creatures. {Footnote for my Ohio State students ¹}

So far we've looked at all of chapter 1 in Genesis, where verse 28 has been the most famous supposedly “anti-environmental” verse, and we can see that this verse is set within a creation story that distinctly proclaims the goodness of God's creation, charges humans to take responsibility through careful dominion, and seems to imagine a human role where ecological abundance and fruitfulness will be maintained. I've emphasized several points that run counter to Lynn White's interpretations, but to be clear: most commentators who defend these verses against environmental criticism mainly do so with reference to Genesis chapter 2, and for good reason.

What we've read in chapter 1 is considered by scholars of biblical literature to be the “priestly” account, while the Adam and Eve creation story in the garden of Eden in chapter 2 is considered to be a more ancient story, the “Yahwist” account. Regardless of potentially different frames of reference, both accounts have been preserved in the scriptures and refer to many of the same questions. Any claim about what Genesis says about creation clearly can't ignore one chapter and only focus on another. There are other differences and similarities between the two chapters, but this basic frame change remains significant. While chapter 1 has God saying “let us make man in our image, in our likeness,” and then confirms that God created humans, both male and female, chapter 2 provides more detail about God's creation of humans. As verses 7 and 8 say:

“...then the Lord God formed man [adam] from the dust of the ground [adama], and breathed into his nostrils the breath of life; and the man became a living being [nephesh hayah]. And the Lord God planted a garden in Eden...”

Most English translations say that God formed the man, Adam, from the soil, though at this point, the term *adam* is not gendered. The more environmentally interesting linguistic detail, however, is the word play of the human, the *adam*, being formed from the soil, the *adama*. Perhaps the *human* from the *humus* is a good way to say this in English, or as some have suggested as a way to capture the non-gendered status of this soil creature, we might say God created the *earthling* from the *earth*. And after God breathes into its nostrils (like the wind/spirit/breath that hovered over the waters in chapter 1), the earthling becomes a living being, *nephesh hayah*. Notably, trees and other animals are also considered *nephesh hayah*, so though the story doesn't mention God similarly breathing into other beings, they too are called *nephesh hayah*, living creatures, living souls, through whom life takes flesh. In chapter 1, it was the soil, the earth, that brought forth all the land creatures (and the plants), and the Jahwist account of chapter 2 seems to add the detail of how God also brought forth *humans* from the earth.

It won't be our focus here, but note that there is a whole different ordering of the process of creation in this chapter. Verse 4 suggests that the earth and heavens were made, but as yet there were no plants, as God had not yet sent rain nor made humans to work the ground. So, streams came up from the earth and watered all the land, and then God formed the *adam* from the dust of the ground, as noted above. God then places the *adam* in the garden God had planted in Eden, makes all kinds of trees grow there, and then offers what has often been the mother of all sources for the environmentally positive interpretation of “dominion and subdue” in Genesis: **The Lord God took the *adam* and put him in the garden of Eden to till (*abad*) it and keep (*shamar*) it** (Gen 2:15, emphasis added).

As a quick note, ² God realized that it wasn't good for *adam* to be alone, so then made all manner of animals as potentially suitable helpers/partners, and *adam* named them. But none were suitable, so God put

1. Clearly there is a disconnect here between basic predator-prey biology and the biblical/Genesis 1 vision where apparently no one eats meat, not even the lions (the other animals have been given plants to eat, and note that the beatific vision of the “lion lying down with the lamb” (when all things are eventually reconciled to God) apparently returns to such a vision). Yet there is also evidence that on islands where species interactions are limited, some plants have never evolved the basic protections that they do in the face of competition and predation (thorns, for instance). How might a biologist who feels strongly about the preservation of biodiversity, or a vegan who idealizes a non-predatory lifestyle, wrestle with these contrasts between an ancient science/biblical view of nature, modern-science-informed views, and ethical concerns for the well-being of all life? That would make a great term paper topic.
2. And keeping in mind that this basic order of *when* things were created differs from the order

adam in a deep sleep and formed another human from *adam's* rib (or *side* – the Hebrew term could be understood as dividing the *adam* in half and making another being from the other side. Here is where gender differentiation occurs for the *adam*, and we get *ish* and *isha*, the word play suggesting similarity, perhaps like two sides of the same coin)³. In any case, there is a powerful sense that humans are fundamentally relational beings who need other humans and other beings as partners to avoid isolation and being alone, which God could see was not good.⁴ So if we are still thinking about how obviously good all of creation is made out to be in chapter 1, now God is saying that it is not good for humans to be alone in the garden. Again, echoing Gen 1:31, it's apparently very good when all of creation is together, humans and plants and animals and earth and all.

So if the human is placed in the garden, on earth, to till (*abad*) it and keep (*shamar*) it, let's look at those words:

- Till (*abad*) – work, cultivate, serve, dress (implying adorn, embellish, improve)
- Keep (*shamar*) – exercise care for, guard, watch, protect, preserve

Most eco-theology commentators see this as a complement to the instructions in Genesis 1, where the blessing there was to be fruitful and multiply, fill the earth and subdue it, and have dominion, while here in the role of gardener, the human vocation is apparently best described as working/cultivating/improving and keeping/preserving/protecting the land. Thus, whatever one thinks “dominion” and “subdue” imply, Genesis 2:15 provides a further charge, though it does not appear too difficult to reconcile the two. Blessed to be fruitful and have dominion in chapter 1, humans would seem to be charged with careful stewardship of keeping the earth full and abundant in life; in chapter 2 the narrator simply tells us that the human was placed in the garden to care for it.⁵

specified in Genesis 1 (for instance, in Genesis 1 other animals are created before humans, but in Genesis 2, humans are created before other animals)...

3. The classic source of a provocative reading of gender relations in Genesis 2 and 3 is Phyllis Trible's article: Trible, Phyllis. "Eve and Adam: Genesis 2-3 Reread." *Andover Newton Quarterly*. 13 (1973): 74-81 (a copy is available [here](#)).
4. Gen 2:18: The Lord God said: "It is not good for the man to be alone..."
5. This is the conclusion of the vast majority of commentators and theologians. However, there is a tiny minority interpretation, generated by E. Calvin Beisner, the spokesperson for the free market think tank I mentioned in chapter one, whose theology dissertation was funded in part by Exxon (no joke!). Conveniently, he arrives at a slightly different conclusion; he says that in chapter 1, God orders the chaos/wilderness and tells humans to have dominion; in chapter 2, by contrast, he notes that humans are placed in a garden, a developed area, and that's where they're told to till and keep. So by Beisner's logic, wilderness areas and other lands rich in natural resources are there for humans to develop, whereas once we develop areas, then we should take care of them. I don't think the garden of Eden as described in the Bible sounds at all like a humanly developed area, and the chaos of Genesis 1 (the primordial waters above which God's spirit hovered) sounds nothing like a typical wilderness area, but I can definitely see how Beisner's interpretation would be a nice justification for an oil company to keep on drilling in pristine wilderness areas, all for the small price of a graduate school tuition!

2.4 Filling the Earth Without Overdoing it

If humans are uniquely charged to be caretakers (perhaps because as beings created in the image of God, they have capacities to manage and make judgments that other creatures do not), let's not forget that on a wild, abundant planet earth, living and flourishing still require hard work. Especially when we think of the basic food-providing vocations that make life sustainable for humans (agriculture, fishing, etc), the work is demanding, yet you can't overwork the land or overtax resources – abundance must be replenished; so tilling, cultivating and improving the land will involve restorative work. The fruitfulness of creatures and plants and ecosystems must not be diminished lest God's blessing be obscured and our physical livelihood diminished, so we must keep, protect, and preserve creation.

If this is what human dominion means, it is no wonder why after God created all things, *including humans*, and saw all of it together, God saw all these things as very good. We humans can care for what God has made – we can tend to our common home while remembering that in the end, the earth and all its fullness is the Lord's, so we have a distinct responsibility as stewards and caretakers.¹

Sometimes critics mention the passages where *adam* names all the creatures that God brings to him (Gen 2:19) and suggest that this is an arrogant display of taking power over those creatures. But when I think of naming, I have two main reference points – one is as a parent, expecting our two boys when they were in the womb. We were delightfully focused on finding a name that would be suitable, that would capture who we hoped our children would be, a name that we'd love to call. I also have a lot of friends and colleagues who have backgrounds in biology (my wife is a high school biology teacher), and their experience around naming species may be more relevant. One of the coolest things a biologist or zoologist can do is discover a new species and get to name it. No doubt, the ideal of species naming is usually either to honor someone or something (thus a species name that includes a researcher or celebrity's surname – maybe this is a little akin to naming a child after a family member) or the latin genus and species name designed to help describe the character of that species. As [Cal DeWitt](#) has said, in order to properly name a creature, you have to study it, know it, and respect it. So while those looking for criticisms of the Genesis text might want to claim this as an example of humans showing power over creatures to highlight the anti-environmental dominion they imagine being promoted in these texts, I find that view convenient for critics but not very compelling.

Another point that gets attention from environmental critics of biblical texts is the cursing of the ground in Genesis 3:17-19:

“...cursed is the ground because of you; in toil you shall eat of it all the days of your life...By the sweat of your face you shall eat bread until you return to the ground, for out of it you were taken; you are dust, and to dust you shall return.”

While this passage reaffirms human kinship with the earth/dust, the mention of cursed ground is what draws attention, and in this case, not from environmentalists being critical of the Bible, but usually from Christians reacting against the views of environmentalists, or at least from developers reacting against environmentalists who are trying to force them to protect rather than develop land. Similar to the “end times” type of argument associated with James Watt (that was debunked in Hitzhusen (2007)), the claim here is that because God has cursed the ground, there is no sense wasting extra time, money, and energy trying to heal land that is already fated to be cursed. This is a curious justification for not preserving land, but note that the charge to humans to be good stewards is nowhere revoked in this story.

The point that becomes clearer and clearer, however, is that humans turn out to be quite imperfect stewards. This is where no smaller concept than the “fall of man” comes into play; the ground is cursed, women will have pain in childbirth, thorns and thistles will sprout. We will keep reading to see how this story turns out, because humanity starts looking pretty bad at this point in the biblical narrative. Picking up on the instructions of the blessing in Genesis 1, Chapter 6 begins to reveal what happens as the people multiply:

When people began to multiply on the face of the ground... The Lord saw that the wickedness of humankind was great in the earth, and that every inclination of the thoughts of their hearts was only evil continually. And the Lord was sorry that he had made humankind on the earth, and it grieved him to his heart. (Genesis 6:1,5,6)

Things are starting to go badly, and God, ever watchful, sees this, and the divine “uh-oh” in the Far Side cartoon mentioned above might be apt. To channel another popular cartoon character, a Homer Simpson version of this would be a divine “Doh!” But this is really more than just a sigh of “oops” from God. The text continues:

Now the earth was corrupt in God's sight, and the earth was **filled** with violence. And God saw that the earth was corrupt; for all flesh had corrupted its ways upon the earth. And God said to Noah, “I have determined to make an end of all flesh, for the earth is filled with violence because of them...” (Genesis 6:11, emphasis added)

The creator is angry, aggrieved. Wondering why he ever made humans, God decides to blot them out – how dare they profane what God created good, what God intended, what God blessed? So, it's not all good when humans begin to multiply. What God sees now is corruption, not goodness. Instead of multiplying and *filling* the earth and subduing it with care and keeping through good work or replenishing the earth, the humans have *filled* (this is the same Hebrew word from Chapter 1 of Genesis) the earth with violence. So as most Americans are probably aware, this is the start of the flood story with Noah's ark. The text explains that thankfully, Noah was a good and righteous man, or that might have been the end of the human experiment. Unlike the rest of disobedient humanity, over and over the text tells us in Chapters 6 and 7 that Noah does all that God commands him ([Gen 6:22; 7:5,9,16](#)). The general state of disobedience has become a commentary on what humanity is like in contrast to what God intends or desires.

1. This might be part of the sense of the important human role Genesis 2:5 describes by God's hesitance to create plants before there was a human to care for them.



Image obtained through the public domain.

Yet there is one human who seems to be following the model God had intended. Noah is behaving like humans were supposed to – he does what God commands him, including building a huge ark on dry land (at great expense and enduring the ridicule of his neighbors). The ark allows him to undertake a heroic act of dominion and care; as the flood waters rise, Noah and his family and their ark protect/save/serve/rescue all kinds of living creatures. Not just the economically beneficial ones or the cute cuddly ones or the charismatic megafauna. ALL of them. Male and female each, preserving their potential for fruitfulness. No doubt, if they survive the flood as the last of their kind, they'll need to be fruitful and multiply all over again once dry land has reappeared! And indeed, that is what happens next in the story:

...and God made a wind blow over the earth, and the waters subsided; the fountains of the deep and the windows of the heavens were closed, the rain from the heavens was restrained, and the waters gradually receded from the earth. (Gen 8:1-3)

The language of a wind blowing over chaotic waters parallels day 1 from Genesis Chapter 1, and the restraining of heavenly waters and return of dry land parallel days 2 and 3 of creation. By verse 8:11, when the dove returns with the olive leaf, we know that the vegetation has returned, further paralleling day 3. The parallels continue in Gen 8:17 as the ark settles on dry land, and Noah is told to go out of the ark:

“Bring out with you every living thing that is with you of all flesh – birds and animals and every creeping thing that creeps on the earth – so that they may abound on the earth, and be fruitful and multiply.”

Any attentive reader by now should realize that the elements of Genesis Chapter 1 are being repeated, and in biblical Hebrew, any time the text repeats something, we know to pay attention. The animals – all flesh – are now called out of the ark to be fruitful and multiply. If only humans, birds, and fish got the explicit blessing in Genesis 1, now every creature on the ark is given God's charge to go forth and abound. It seems that all creatures are in the same boat when it comes to needing to be *fruitful and multiply* in order to abound on earth, especially at times when the earth is depopulated! These themes continue along with some assurance that the earth can be trusted:

And when the Lord smelled the pleasing odor, the Lord said in his heart, “I will never again curse the ground because of humankind, for the inclination of the human heart is evil from youth; nor will I ever again destroy every living creature as I have done. As long as the earth endures, seedtime and harvest, cold and heat, summer and winter, day and night, shall not cease. (Genesis 8:21-22)



Image obtained through the public domain.

This passage is interesting on multiple counts. God here ensures and assures stability, which humans cannot do. Humans appear to have the power to disrupt the earth, and in the case of the flood, God allowed human wickedness to carry the disruption to the brink of total destruction, but God's promise after the flood is never to destroy every living creature as in the flood.² Reading further in the Bible, we will see multiple examples of the prophets warning the people and decrying their evil and violence and wickedness and disobedience, and witnessing to how these actions of people are causing an un-doing of creation (land withers, creatures pass away, humans suffer), so it's clear that as the biblical story goes along, humans retain the ability to cause suffering and destruction by their sin, but God has pledged not to again release a flood of total destruction because of human wickedness.³ And to the point we raised above, in response to the curse of the ground that some have used as an excuse to downplay the need to care for the earth, the text tells us here that God will never again curse the ground. Noah himself, whose name, *Nuach*, means rest, brings peace on the land as the curse is relinquished and creation returns from the chaos of the flood to the goodness and flourishing that God intended. And here, God repeats the blessings we recall from Genesis 1, helping us to realize that this story has just come to a point of starting over – this is the new starting point for humanity and all life:

God blessed Noah and his sons, and said to them: “Be fruitful and multiply, and fill the earth. The fear and the dread of you shall rest on every animal of the earth, and on every bird of the air, on everything that creeps on the ground, and on all the fish of the sea; into your hand they are delivered.” (Genesis 9:1-2)

An important thing to note here is that we are once again seeing exact lines repeated from Genesis 1, so we know that this is important. But when, such as here, something changes from the earlier usage compared with the new usage, then we should know that the thing that has *changed* is also particularly important. Note that the blessing to be fruitful and multiply and fill the earth has been repeated, but the

2. Some have suggested that this doesn't bar God from destroying all life in the future by some other means (if not by flood, maybe by fire?), but commentators generally agree that this is an assurance of earthly integrity and a pledge to restrain powers of divine destruction.
3. Some may point to contemporary comments from politicians claiming that they are not worried about climate change or other environmental degradations because they believe God is in charge, and will not allow humans to destroy the earth, but this much seems clear – the biblical witness goes on to describe all sorts of human strife and suffering and land and animal degradations that occur because of human wickedness, which the prophets call people to acknowledge and turn from their sinful, harmful ways in response to these violations of the integrity of creation. It is, however, true that the text claims that God decided never again to bring the end of the world because of such human wickedness.

lines about having dominion over creatures and subduing the earth are not here. In their place is an acknowledgement of a power dynamic between humans and animals; fear and dread of humans will rest on all animals – a sad, fearful effect and an acknowledgement that humans indeed have the power of taking life.

I will say more below about the dynamics of the “dominion” and “subduing” that are not mentioned explicitly here, but one more point of note here has to do with biocentrism. There is no denying that this biblical account is not biocentric or ecocentric, if that implies that all creatures should be considered as complete equals. Biocentrism and ecocentrism have been popular views of environmentalists and make interesting topics in their own right (footnote for OSU students ⁴), but there is also a sense in which unless we are ourselves the biosphere, we can't truly be biocentric – we are stuck being human. ⁵ There is [another Far Side cartoon](#) that helps get at the tension: three haggard men and a dog are in a life boat, and they've just drawn straws. One of the men has drawn the short straw and has a shocked look on his face. The caption reads: “Fair is fair, Larry. We're out of food, we drew straws–you lost.” The dog looks on smugly.

We will have more to say about animal welfare and animal rights in chapter 7, but some environmental thinkers seem to assume that a biocentric view is necessary for humans to avoid disregard of animals and the planet. At stake in many criticisms of these biblical texts is the deeper question of whether these portrayals of the origins and orientations of humans in relation to the rest of life are generative of exploitation or of care or of some mix of sentiments. Let's return to the subsequent verses in chapter 9 to see what more this story might be saying. In Gen 9:3–4,6, the text says:

Every moving thing that lives shall be food for you; and just as I gave you the green plants, I give you everything. Only, you shall not eat flesh with its life, that is, its blood... Whoever sheds the blood of a human, by a human shall that person's blood be shed; for in his own image God made humankind.

This is something of a turning point; as life re-starts after the flood, God grants humans permission to eat meat, though with some restrictions, including a prohibition against eating humans, who, the text confirms, are still considered to be in God's image. So, two significant differences and similarities with Genesis 1 are clear – as a concession, God now allows a meat-eating diet, but in concert with Genesis 1, humanity's identity as being made in God's image is reaffirmed. Finally, the re-starting of human-creaturely-earth-God relations comes to its conclusion in this story with a final re-charging of human expectations, and it's quite a finish:

“And you, be fruitful and multiply, abound on the earth and multiply in it.” (Genesis 9:7)

This may sound fairly pedestrian. Again, the language echoes Genesis 1. But take a close look. What would you expect this verse to say if it were exactly paralleling Genesis 1?

Remember that in Genesis 1:28, the verse that exploded environmental worries about the Bible thanks to Lynn White, God told the humans to *be fruitful and multiply, to fill the earth and subdue it, and have dominion over the creatures*. Here in Genesis 9, when humanity starts all over again, the part about “subdue the earth and have dominion over the creatures” has distinctly been omitted. This is a conspicuous change from Genesis 1, and thus as readers, we should note that an item of particular importance in these texts has just been revealed. When God starts over with humans after all the wickedness and the destruction of the flood, he chooses NOT to charge humans with subduing the earth and having dominion. To be fair, the previous verses have just acknowledged that other creatures will fear humans (rightly, given our power), so the reality of our dominion-like power is not being ignored, but God seems to have learned something about these humans. Telling them they are in charge can backfire; charging humans with “subduing” and having “dominion” led to all manner of destruction, so here, God thinks better of saying that again and simply charges the humans with being fruitful and multiplying, to fill the earth and multiply in it.

If the environmentalist complaint against the Bible was that it encouraged an anthropocentric or arrogant “dominion” over earth, it appears that the Bible itself, if one simply keeps reading the rest of the story, is highlighting the dangers of the arrogance and self-centeredness of humans. Rather than affirm that the main charge of humanity is to have dominion, which White's thesis seems to assume, the biblical text distinctly removes that charge. It has been deleted as the first charge to humans. Perhaps the biblical writers were trying to make the same point that Lynn White was trying to make. ⁶

4. These make great term paper topics for ENR 3470!
5. Buddhist views of the interconnectedness of all things will be discussed in chapter 5, but being part of something larger seems not to be the same as being the larger thing itself, though if one sees humans as being one and the same with the biosphere itself, then would biocentrism be a self-centered view? This too might make a good term paper for ENR 3470 students!
6. There is one other interesting nuance of the text here, and that's in the specifics of the words “multiply” and “subdue.” Remember that multiply is the translation of the Hebrew word *rabah*, and subdue is the word *radah*. Those words look almost the same, and in fact, the only difference is a bet (Hebrew letter “b”: ב) in *rabah* compared to a dalet (Hebrew letter “d”: ד) in *radah*. The Hebrew maintains this distinction, but the translators of the Latin Vulgate (which was the translation used most by the early church fathers, and thus would have informed multiple generations of early commentators, especially Catholic theologians) believed that the Hebrew scribes had erred, and added a single line that turned the dalet into a bet. They figured that to repeat “multiply” twice in the same line was probably not intended, and they assumed the biblical authors intended to include the word “subdue” from Genesis 1, so they changed the language to

One of the more compelling reasons to say that Lynn White's thesis about the import of the word "dominion" in the biblical text is theologically incoherent is that it simply (and completely) misses the fact that the biblical text itself already was providing a critique of that term and its potential destructiveness at the hands of humans.

yield: "And you, be fruitful and multiply, abound on the earth and subdue it." This still didn't include the word "dominion", but it did (incorrectly) preserve "subdue" at least for a while.

2.5 A Covenant with All Creatures

This isn't the end of the story, however, at least not for our purposes. The real ending to this particular piece of the story comes next, as the flood event ends, and humanity moves forward with a new beginning. Not content to simply give instructions to be fruitful and multiply, God now establishes a covenant with Noah and with all peoples to follow. Remember that the White Thesis said that biblical traditions were extremely anthropocentric, as though humans are the measure of all things. If so, we might expect that this covenant which sets the tone for the new start of humanity would in some way anticipate, establish, reinforce, or at least reflect this apparent human-centric focus. Take a close look at what is emphasized in the covenant, remembering that in biblical Hebrew, things that are repeated are being explicitly emphasized:

8 Then God said to Noah and to his sons with him, 9 "As for me, I am establishing my covenant with you and your descendants after you, 10 **and with every living creature that is with you, the birds, the domestic animals, and every animal of the earth with you, as many as came out of the ark.** 11 I establish my covenant with you, that never again shall all flesh be cut off by the waters of a flood, and never again shall there be a flood to destroy the earth." 12 God said, "This is the sign of the covenant that I make between me and you **and every living creature that is with you,** for all future generations: 13 I have set my bow in the clouds, and it shall be a sign of the covenant between me **and the earth.** 14 When I bring clouds over the earth and the bow is seen in the clouds, 15 I will remember my covenant that is between me and you **and every living creature of all flesh;** and the waters shall never again become a flood to destroy **all flesh.** 16 When the bow is in the clouds, I will see it and remember the everlasting covenant between God **and every living creature of all flesh that is on the earth.**" 17 God said to Noah, "This is the sign of the covenant that I have established between me **and all flesh that is on the earth.**" (Gen 9:8-17, emphasis added)



Image obtained through the public domain.

It should be obvious based on the bolded text that a major point here is that God wants humans to understand themselves as in covenant with God and with all life. Perhaps, just in case Noah and his family were prone to become as self-centered as humans had before the flood, God repeats that the covenant is with all creatures (and with the earth) six times! Does anyone remember the last time the Bible repeated something six times? Yes, it was in the creation story when chapter 1 emphasized the goodness of creation.¹ There, the point was that creation was good, good, good, and very good. Now the point is that God is covenanting with humans and with all other life – not just with humans, but with humans *and with all other life*. This covenant reaffirms the passage above (Gen 8:22) that God will not again cause such destruction with a flood – God cares about humans and the earth and all life, desires to protect creation, and affirms its endurance.

A few more points will round out our attention to eco-theology in Genesis. I have argued that these Genesis passages don't actually promote human "dominion" (particularly not the sort of *environmentally disrespectful* "dominion" that White's thesis imagines), that they in fact critique it and explicitly demote dominion (even the more benign sort that God intended), by toning it down in the charge to Noah. These passages ("the fear and the dread of you shall rest on every animal of the earth"...) acknowledge that humans do have dominion-like power – it's hard to imagine that we would be able to have so much negative impact on the planet if we didn't have some power of this sort – but they caution the reader about the potential destructiveness of humans.

1. There is a seventh "I establish my covenant with you" in these verses that only mentions the humans (Gen 9:11), which tempts me to wonder whether the seven "goods" of Genesis 1 (six "goods" and one "very good") are being balanced here by seven "I establish my covenant"s...

I have used this overview to show that if we focus beyond just one or two verses in Genesis 1, we can see that even the passages in Genesis 1 are not bent toward environmental disregard. But readers may still wonder, what about the rest of the Bible? I quoted Wendell Berry above as saying that a "dominion" interpretation requires ignoring most of the Bible, but what if it goes the other way – what if there are later passages that re-encourage dominion? Well, great question: when does the Bible mention human dominion over earth and creatures again?

The quick answer is that the Bible does not ever again encourage humans to have "dominion" or subdue the earth (no doubt this is also confirming evidence of the theological incoherence of the White thesis, though it should come as no surprise after realizing that Genesis intentionally writes the dominion charge out of the human story). You'd think if "dominion" was the intent for humans that the prophets might encourage it, the 10 commandments might have included it, that Jesus would mention it (in the New Testament), or at the very least that it would be recalled in a fond way. Nope.

There are, however, a few allusions to human dominion, the power that humans seem, for good or ill, to have. Probably the most familiar mention is in the humble and reverent lines of Psalm 8, where the psalmist wonders in awe at the heavens whose greatness make humans seem small and cause wonderment that God would give humans dominion. And Solomon, the wisest human of all time, is acknowledged as having a dominion that stretched from sea to sea ([1 Kings 4:24-25](#)) – notably the text then says he had "peace on all sides". So dominion does get mentioned again in the context of a wonderment at the creation that causes humility, and in the context of the wisest of all humans overseeing peace from sea to sea. Solomon is also noted as having unsurpassed knowledge of trees and all creatures, such that people would come from all nations to hear him ([1 Kings 4:33-34](#)) – here, the dominion-holding king who brings world peace would apparently have been a great biologist and likely would have done well at naming the animals had he been around when God made *adam*.² As far as the Christian New Testament goes, there are exactly zero scriptures referring to humans subduing the earth or having dominion – Jesus never mentions that people should have dominion – there are only references to God or Christ having dominion.

And what about the prophets? There are many books of the Bible that report the visions of the most revered prophets – surely they would refer to something as important as "dominion" if it was meant to be a key function for humans. By now we are not surprised, however, to find that the prophets never once encourage or chastise the people to "get back to subduing the earth and having dominion," nor fault them for failing to fulfill such a charge. Rather, over and over in the prophets we see the opposite – we see the echoes of the sort of destruction that caused God to wipe out humanity with the flood. A key example is in Hosea 4:1-3:

Hear the word of the Lord, you Israelites, because the Lord has a charge to bring against you who live in the land: "There is no faithfulness, no love, no acknowledgement of God in the land. There is only cursing, lying and murder, stealing and adultery; they break all bounds, and bloodshed follows bloodshed. Because of this the land mourns, and all who live in it waste away; the beasts of the field and the birds of the air and the fish of the sea are dying."

The prophets echo and warn against the destructiveness of human wickedness. Time and again they note that when humans are wicked and unjust, the land mourns, the animals perish, and creation starts to unravel.³ Over and over the prophets attend to the problem of human sin perverting God's intentions and bringing violence and disharmony to the world. These sentiments echo the view of [Gus Speth](#), former Yale School of Forestry and Environmental Studies Dean, when he said he'd realized that rather than biodiversity, climate and pollution, it seems that pride, apathy, and greed are the toughest environmental problems; and indeed, problems of the sort that religions seek to address.

A few notes from Christian scriptures will round out our investigation, as there are related themes of Christocentric cosmic salvation that extend these ideas further into Christian theology. John's gospel begins with echoes of Genesis: "In the beginning was the Word..." and adds that "all things have been created through him..." (John 1:1, 3). The famous passage (often seen on placards between the uprights in football games), John 3:16, "for God so loved the world that he gave his only son," uses the term *kosmos* for "world," meaning that Christian salvation stems from God's love of all creation. [Colossians 1:15-20](#) brings many of these themes around somewhat like the covenant with Noah – these verses mention six times that **all things** (*ta panta*) were created by Christ, through Christ, for Christ; he is before **all things**, and as verse 20 concludes: "through him God was pleased to reconcile to himself all things, whether on earth or in heaven, by making peace through the blood of his cross." For Christians who wonder what Jesus Christ has to do with saving the earth, these passages suggest that Christian salvation is intended as a reconciliation of all things, not just humans (anyone feeling like we're back in Genesis 9?). In the words of Romans 8:19, which is one of the key New Testament bases for eco-theology, "all of creation is eagerly waiting for the revealing of the children of God, so that creation itself can obtain the glorious freedom of the children of God." The sort of liberation and freedom that Christians associate with salvation in Christ is thus a freedom that all of creation might enjoy, if humans could just note how creation is groaning in travail ([Romans 8:22](#)), and reveal themselves to be the children of God that they are – articulate caretakers of creation.

If humans were to fulfill such a calling, then Gary Larson's vision of God's great mistake – his [cartoon](#) where the release of humans into the wild appears to have been a mistake – might be revised. The divine "uh-oh" of the cartoon seems a great match for the Genesis story, as clearly humans can foul their nest (and that of other creatures) now more than ever. But imagine if these humans then stopped to notice the stars, were humbled, and then marveled that they should have such a station in life

2. The following quote seems apt here: "What is man that he has been given dominion over the creatures? It is the man "who has first looked up to the stars, and realized how small he is in comparison with the glory of the Heavens. It is the man who knows his place in the creation....This Adam is no strong ruler, trampling the earth; this is the shepherd king or the gardener." Margaret Barker, 2002, "Paradise Lost: Religion, Science and the Environment."
3. Jeremiah 4:22-28 and 5:23-25 provide particularly good examples of the undoing of creation, with the elements that came together in Genesis chapter 1 at creation getting un-done because of human wickedness. So contrary to the "religious" claims of some current politicians who have said that they think God is in control of nature and won't let humans destroy the earth (harkening, ironically, to God's promise after the flood not to destroy the earth again) – and thus they needn't fret so much about environmental degradations – the message of the prophets seems to be that the undoing of creation continues when people are wicked and unjust, greedy and power-seeking, and (surprise!) rather than saying "don't worry about it, God won't destroy the earth again," the prophets are at pains to call humans to repentance and faithfulness, to turn from their unjust and greedy ways and work toward peace.

as to be able to care for God's creation. Undoubtedly, God would be pleased, and would think such an outcome was very good. The birds and beasts and the trees and mountains, in fact, rather than tentatively looking on as in the cartoon, might even celebrate and rejoice.⁴ Something along these lines, in any case, and not a notion of "dominion" as divine sanction to do as one pleases with the earth, is the sort of direction pointed by biblical sources.

Lynn White's thesis is now over 50 years old, and much of eco-theology and the field of religion and ecology has thankfully moved beyond the assumptions and expectations that White's thesis helped generate among many environmentalists. That biblical religions are bad for the environment turns out to have been a case of fake news. Perhaps it should have been obvious sooner that the "White thesis" as pursued by environmentalists was thin, since it didn't even match White's own conclusions, which commended a Western, Christian model for moving forward.⁵ It may be that many environmentalists wanted White's thesis (or their interpretation of it) to be true, so that they could justify disregarding biblical views. Regardless, there are now many Christians who resist any affiliation with "environmentalists" – not, it seems, because they feel a need to disregard the environment, but rather, because they wish to distance themselves from a movement that has so often blamed them unfairly for the world's environmental ills, and treated them like second-class environmental citizens. Perhaps better understanding the values and beliefs of faith communities can help environmentalists become less alienating and more inclusive of those whose beliefs are different from their own.

4. In Christian theology, when humans and God are reconciled, as in the person of Jesus Christ, then even the stones might cry out!
5. In 1998, Carl Pope, the Executive Director of the Sierra Club, joined Greek Orthodox Patriarch Bartholomew at a forum, and apologized on behalf of the American environmental community for not realizing sooner what an ally faith communities had been for environmental work. He acknowledged that many environmentalists had read Lynn White, and totally missed the fact that White concluded his famous paper by suggesting that a direction forward could be found in St. Francis, a Western, Christian saint (see: <https://vault.sierraclub.org/sierra/199811/ways.asp>).

Bibliography

Aquinas, T. (1981). *St. Thomas Aquinas Summa Theologica*. Allen: Christian Classics, I, 47, 1.

Bible Gateway. (n.d.). Retrieved January 21, 2018, from <https://www.biblegateway.com/>

Budiansky, S. (1995). *Nature's Keepers: The New Science of Nature Management*. Free Press.

Gregory E. Hitzhusen (2007) Judeo-Christian theology and the environment: moving beyond scepticism to new sources for environmental education in the United States, *Environmental Education Research*, 13:1, 55-74, doi: 10.1080/13504620601122699

HE Metropolitan Kallistos (Ware) of Diokleia. (2002, June 8). Safeguarding the Creation for Future Generations. Retrieved January 22, 2018, from <http://www.orth-transfiguration.org/safeguarding-the-creation-for-future-generations/>

Kellert, S. R. (2012). *Birthright: People and Nature in the Modern World*. Yale University Press.

McKibben, B. (2006). *The End of Nature*. New York, NY: Random House Trade Paperbacks.

Pollan, M. (2003). *Second nature: a gardeners education*. New York, NY: Grove Press.

Thoreau, H. D. (2017). *Walden*. CreateSpace Independent Publishing Platform.

Biblical passages were taken from the following versions:

THE HOLY BIBLE, NEW INTERNATIONAL VERSION®, NIV® Copyright © 1973, 1978, 1984, 2011 by Biblica, Inc.® Used by permission. All rights reserved worldwide.

New Revised Standard Version Bible, copyright © 1989 the Division of Christian Education of the National Council of the Churches of Christ in the United States of America. Used by permission. All rights reserved.

CHAPTER 3: DEFINING OUR TERMS AND DIRECTION

Given that biblical sources are not as ill-fit to environmental values as 1960s and 1970s environmentalists thought, the intellectually curious might next want to examine with fresh eyes the creation care teachings of the Bible. However, before we begin to look more deeply into different religious views of nature, the next two chapters will take a step back to lay a firmer foundation for exploring these topics. This chapter, complemented by Michael Pollan's book *Second Nature*, provides some tutoring in how to share ethical views in a narrative, self-deprecating way that lends itself to the kind of conversations we have with friends. We suspect an approach like that is the kind we'll need to achieve the sort of conversation with everyone that global environmental problems invite.

Beyond introducing a more fruitful way of making an argument about environmental ethics, this chapter moves from Pollan's debunking of the wilderness ethic and appreciation of our own stories to defining some of our terms and beginning to ask larger questions about the human story. Richard Baer's article on [Our Need to Control](#) will become the point of departure for exploring deeper questions of epistemology and the philosophy of science in the next chapter.

A digital copy of Michael Pollan's *Second Nature* is available [here](#) from the [Internet Archive](#), a non-profit digital library.

3.1 Embracing Human Nature in Relation to "Nature": A Gardener's Ethic...and What are People For?

*If nature is one necessary source of instruction for a garden ethic, culture is the other. Civilization may be part of our problem with respect to nature, but there will be no solution without it. As Wendell Berry has pointed out, it is culture, and certainly not nature, that teaches us to observe and remember, to learn from our mistakes, to share our experiences, and perhaps most important of all, to restrain ourselves. Nature does not teach its creatures to control their appetites except by the harshest of lessons – epidemics, mass death, extinctions. Nothing would be more natural than for humankind to burden the environment to the extent that it was rendered unfit for human life. Nature in that event would not be the loser, nor would it disturb her laws in the least – operating as it has always done, natural selection would unceremoniously do us in. Should this fate be averted, it will only be because our culture – our laws and metaphors, our science and technology, our ongoing conversation about nature and man's place in it – pointed us in the direction of a different future. Nature will not do this for us. – Michael Pollan, *Second Nature* (p. 232)*



Milo-Grogran community garden in Columbus, OH. Photo credit: Kamara Willoughby

A highlight for some ENR 3470 students at The Ohio State University is reading Michael Pollan's book, [Second Nature: A Gardener's Education](#). It is deliciously written, and I suspect Pollan's stories about his failures and successes in his garden connect well with many of our own stories. Many readers appreciate Pollan's relatively "hands-on" philosophy of human-nature relations. But I also commonly get the question: "What does Pollan's book have to do with religion and the environment? He has almost nothing to say about religion, so what is the connection to religion and environmental values in America?"

Part of the reason I use Pollan's *Second Nature* at this point in the course is that the book, like the class, is an exercise in discovery more than truth-telling. Aldo Leopold's environmental ethics classic, *A Sand County Almanac*, succeeded in inspiring environmental values where much of Leopold's earlier scientific writing had failed; Leopold allowed the reader to learn how he had developed his own views through experience and failure. ¹ Pollan takes a similar approach, so it's an easy book to read; he skillfully deals with a number of significant questions in environmental ethics. ² Most importantly, Pollan critiques what he calls the "wilderness ethic" that has characterized a fair amount of American environmental thinking, and – by sharing his own story of learning to garden – he commends a "gardener's ethic" as more suited to our times.

Pollan takes on no less than Henry David Thoreau and the romantic vision of nature he painted in his writings. Pollan recognizes that truly "pristine" wilderness no longer exists and points out that the bean field "weeds" that Thoreau poetically defended as wild were actually exotic invaders. Pollan is intent on countering romantic, hands-off alienation from nature and what he sees as human alienation from our own nature, which is to be hands-on gardeners.

More important for our purposes, however, is Pollan's narrative style. He does not attempt to make a watertight, lawfully argument to end all arguments; rather, he invites the reader into his story, his world, his garden like a friend and is honest about his own prior notions, failings, and lessons learned

1. See pp. 51-67 of Louis Ulman's chapter <http://www.geography.ohio-state.edu/faculty/madsen/files/ENGLGEOG/Readings/UlmanThinking-OPT.pdf>
2. Credit goes to Dr. Jim Tantillo, lecturer in environmental ethics at Cornell University, for incorporating *Second Nature* into the lexicon of Dick Baer's Religion, Ethics, and Environment course, where I was introduced to the book. Baer was the originator of the "discovery rather than truth-telling" approach.

the hard way.³ He memorializes many good practices he learned from his grandfather, a developer and gardener, but updates them for his own life as an environmentalist and gardener. Along the way, Pollan provides suggestions for how American culture might more fruitfully shift its affections and loyalties from a consumer/developer model to a citizen-of-nature model. Leopold would no doubt approve.

It is this approach of Pollan's that we will build upon in this chapter and the next, but first there are other points to emphasize from *Second Nature*. Pollan offers his gardener ethic as a cure for environmental failings in our culture. He blames romantic, "wilderness ethic" notions of nature that Americans inherited from Thoreau as asserting a separation between nature and culture. By assuming that humans were not themselves a good part of nature, but instead must be separated from true nature/wilderness to restore nature to harmony, Pollan remarks that Americans became good at protecting the "sacred 8 percent" of land that is set aside as wilderness but lost the conviction to "prevent us from doing a great deal of damage to the remaining 92 percent." Pollan says a wilderness ethic "taught us how to worship nature, but it didn't tell us how to live with her. It told us more than we needed to know about virginity and rape, and almost nothing about marriage."⁴

Pollan opens a line of critique that might have connections to religion. This commentary about purist ideals that focus us strictly on the extremes but leave us less equipped to cultivate balanced daily norms suggests a somewhat puritanical ethos underlying the wilderness ethic. Perhaps for the earliest "American" Puritan European settlers, whose survival was greatly in question and who likely lived in great fear of whatever lack of vigilance might deliver their demise, it was appropriate to attend to extremes. But for Americans who now live in a greatly subdued wilderness – where death by the claws of wild (non-human) predators or exposure to elements is significantly outpaced by death at the hands of vehicles, guns, economic distress, or diseases – it seems an extreme wilderness ideology has outlived its usefulness. There may be echoes here to my comments about the creation stories in Genesis and the instructions there to "fill the earth and subdue it, and have dominion over the creatures" – the survival value of these instructions is more compelling for the first humans who were vastly outnumbered by the swarms of other creatures described in that story. Later, once the land is "full" of people, that sort of imperative might seem dysfunctional.⁵ These sorts of ideas about how people might be suited to relate to nature, whether religious or not, can have persuasive and historical impact, as ideas evolve to meet the challenges of any particular time.

In contrast to the negative view of humans that the wilderness ethic and the American environmental movement has often espoused⁶, recall that the "re-origins" flood story makes critical revisions to the biblical commentary of *what people are for*. It concludes with God's repetitive, dramatically emphasized covenant that makes absolutely clear that God cares for and covenants with humans and with all life, with all of nature (Gen 9:1-17). The text highlights this God-human-creation link six times, perfectly echoing the number of times God saw at creation how good creation was (Gen 1). And in contrast to the wilderness notion that humans are not good partners or parts of nature, the biblical story asserts that humans are meant to be a key part of what makes all of creation very good. Pollan highlights that contingency in nature – the fact that all manner of forces influence what thrives and perishes – is "an invitation to participate in history. Human choice is only unnatural if nature is deterministic..." If nature will be "the product of myriad chance events, then why shouldn't we also claim our place among all those deciding factors?...If our cigarette butts and Norway maples and acid rain are going to shape the future of this place, then why not also our hopes and desires?..." Pollan concludes that nature "is evidently happy to let the free play of numerous big and little contingencies settle the matter. To exclude from these human desire would be, at least in this place and time, arbitrary, perverse, and, yes, unnatural."⁷

3. This is the same rhetorical approach that Leopold adopted in *Sand County Almanac*, quintessentially in the essay "Thinking Like a Mountain," as argued by Ulman (see note 1 above).
4. Pollan quotes a wilderness ethic proponent who opposes development as giving up on land that isn't protected as wilderness, since then "you might as well put up condos!" p.221, 224-225 (Delta Trade Paperback edition of 1991).
5. Indeed, this seems to be the implication of the text in Genesis, which, as described in the last chapter, goes on to describe how the multiplication of humans led to a multiplication of violence and destruction. As a result, the story says God started over again, wiped out all the humans save for Noah and his family, and conspicuously did not charge the newly original humans (version 2.0?) with "subduing and having dominion" as humanity repopulated the earth after the flood.
6. For one view on environmentalist misanthropy, see the following: <https://www.firstthings.com/web-exclusives/2013/01/environmentalisms-deep-misanthropy>; environmental elitism is also critiqued in other ways, such as the following: <https://grist.org/article/klingle/>
7. Pollan p. 219



Note from the photographer, Tony Losekamp: "These beautiful hostas were surrounded by concrete on all sides in a busy city. In a desert of a city these were an oasis of life."

This is Pollan's message for humans to embrace their own nature, their calling as gardeners, and to avoid an unnatural situation of imagining ourselves outside of nature - de-coupled and divorced from nature, only capable of destruction - such that we have to exclude ourselves from it to imagine nature as good. Given the goodness attributed to all of creation - including humans - in the biblical creation accounts, such a separation seems unforgiven, cursed, focused on human depravity rather than human wisdom, care, and faithfulness - perhaps there are some deep theological issues underlying some of these impulses. ⁸ It is curious that most environmental criticisms of Genesis are focused on the dysfunctional human themes that Genesis itself critiques; yet, these criticisms ignore how the biblical accounts reconcile and move beyond those human problems. ⁹ Pollan's more gracious approach to the possibility of human goodness as a gardener moves us out of a mainly negative view of the human role in nature. Maybe the Genesis accounts of creation (and the relations of people to God and creation commended there) have been arguing for a Pollan-esque gardener ethic all along.

A final point of note in Pollan is what he calls the either/or tendencies of our culture:

8. It could be that background "we are damned" sorts of messages from religion have contributed to the pessimistic view the wilderness ethic has of humans; in Chapter 7, we will look at the work of Mark Stoll, who traces the intriguing history of many of the champions of the environmental movement of the 20th century. These champions grew up with protestant clergy parents and seemed to evolve a reformed puritan ethos that put care of nature at the center of human good works and salvation, which provided a deep spiritual/theological motivation and justification for environmentalism that often goes unnoticed.
9. Likewise, biblical theologies focused on human sinfulness that fail to also highlight grace, the subsequent lifting of curse, or ongoing blessing to humans may have a similarly negative tone.

"All or nothing," says the wilderness ethic, and in fact we've ended up with a landscape in America that conforms to that injunction remarkably well. Thanks to exactly this kind of either/or thinking, Americans have done an admirable job of drawing lines around certain sacred areas (we did invent the wilderness idea) and a terrible job of managing the rest of our land. The reason is not hard to find: the only environmental ethic we have has nothing useful to say about those areas outside the line. Once a landscape is no longer "virgin" it is typically written off as fallen, lost to nature, irredeemable. We hand it over to the jurisdiction of that other sacrosanct American ethic: laissez-faire economics. "You might as well put up condos." And so we do. – Pollan, p. 223

One positive sign since the time Pollan wrote these lines – perhaps evidence that something like his gardener ethic has begun to take hold – is the rise of the field of ecological restoration. Indeed, as Pollan would applaud, we now see increasing investment in the training and employment of professionals who observe a great respect for ecology and land; apply their knowledge and training to repair and enhance degraded natural systems; and design urban and suburban systems that are more and more in line with natural, sustainable processes. I suspect Pollan sees this as very good.

3.2 From the Garden to the Culture: More Food for Thought



Youth pose with produce harvested from a YMCA garden spurred by Cardinal Turkson's visit to Columbus in 2015, which catalyzed an urban garden sister project between Columbus, Ohio and Accra, Ghana. Photo Credit: Dustin Hansen

By now, we have added a number of ingredients to the pot, and I like to assure my students that if all of these points don't seem to connect like a dot to dot not to worry – we will add still more ingredients to simmer, and we'll use the whole book to let the full flavor develop. Pollan raised up a gardener ethic as a suggestion of how to overcome nature being opposed to culture in America, to encourage more of a marriage of nature and culture (drawing on a bit more culture, not less). Where Thoreau said "in wildness is the preservation of the world,"¹ Pollan channels Wendell Berry to claim, in contrast, that "in human culture is the preservation of wildness."²

This echoes what Colin Beavan says in his book, *No Impact Man*, which was the Ohio State Buckeye Book Community selection for freshman book in 2010. In his author talk to OSU students, Bevan assumed his audience already knew the book's story of how he and his family managed to live with no net environmental impact for a year in Manhattan, so he instead focused on the key lessons he'd learned from trying to live with minimal environmental impact. One of the main motivations he said had propelled him into action was not just a reaction to environmental crisis but his frustration at his own inaction. He was sick of his comfortable and easy pretension of helplessness. "Am I really helpless? Is it true that a guy like me can't make a difference? Or am I just too lazy or frightened to try?"³ He decided to change his own life when he realized that his culture and his own self-centeredness were leading him to believe that he was powerless to effect change. Recognizing the gap between the environmental values he held and his own environmentally impactful lifestyle, he challenged himself by asking whether he was at least willing to try to live according to his own environmental values. In doing so, he took a slightly different approach than just trying to reduce his impact:

"Instead of just thinking, 'How do I live without harming the environment?' Bevan said, 'I find myself asking: How shall I live?...What will it all count for when I'm gone?...What is my life really for?...These questions are so important, because we live our lives on the assumption that the way to happiness is to fulfill our desires. What if we kill the planet filling our desires and then discover that that's not what we were here for? Isn't this worth stopping to figure out?'"⁴

Beavan also concluded – even as he embarked on many lifestyle choices that bucked the American, consumerist norm – that his efforts to live sustainably, if they were to have any ripple effect on his culture, would need to embrace culture. He said he recognized that it is easier to say that our culture should be more sustainable than to actually make it that way. He decided "it might be easier...to understand the challenges for our culture in solving our environmental emergency if I didn't repudiate the culture."⁵ This approach is in contrast to some of the counter-cultural roots of the environmental movement, and it certainly contrasts the impulse to blame culture or religion, as with proponents of the White thesis. What

Bevan, Pollan, and Leopold all suggest, rather, is to shift, rethink, and re-feel culture instead of throwing the baby out with the bathwater. This is what Lynn White recommended in the conclusion of his famous article, where he commended the spirituality of St. Francis to point a direction, distinctly concluding that a Western, biblical view was not somehow inferior as a basis for environmental care. The environmental movement⁶ and various champions of the supposed White thesis all but ignored these suggestions, preferring instead to promote a position of blame and repeal, one that often also proposed beliefs like biocentrism or deep ecology as the only sufficient ideologies to support environmental ethics.⁷ One legacy

1. Henry David Thoreau's essay, Walking <https://www.google.com/url?q=https://www.theatlantic.com/magazine/archive/1862/06/walking/304674/&sa=D&ust=1517787385632000&usg=AFQjCNGIqL0AwFkhRMz2x2BwUuVdI6kuDQ>

2. Pollan, p. 135

3. Beavan, p. 10.

4. Beavan, p. 110–115.

5. Beavan, p. 20.

6. I suppose if "environmentalism" amounts to such a narrow and sectarian view of things, privileging only certain views while unfairly criticizing views (like biblical views) that have much more cultural potential and resonance in America, then the "death of environmentalism" (2004) that was much discussed a decade ago might be a helpful advance for the environmental movement itself.

7. Note that some of the ongoing supporters of the White thesis, seemingly in spite of the evidence that has been already presented in earlier chapters, are also promoters of ecocentrism as superior to other views (for example, Taylor et al, 2016, claim to conduct a comprehensive review of literature and research related to the White thesis and call for more

of these condescending, elitist approaches is the continued resistance of many Americans to allying with environmentalists. Particularly in a time when the American political climate is as polarized and partisan as ever, rather than continue to promote ideologies that seek environmental progress by proclaiming their superiority to other views, environmental care could gain much wider support by empowering Americans' existing values.

Perhaps a reappraisal of the value of a gardener's hands-on, connected, responsible and respectful approach as well as the well-suited teachings of American religious communities (yes, including Western, biblical religions) could be more important than previously realized for environmental care in America. Where Earth care is concerned, those who insist on preaching that "western/developed is bad, while eastern/indigenous is good," would seem to be antagonizing a powerful ally for creation care. Biblical views – especially for those 70-80% of Americans who self-identify with biblical traditions – could be a profound platform for gardener/earthcare/environmental ethics that are already suited to the majority of Americans, who needn't convert to a new ecocentric or Eastern religion to be gardeners and environmental caretakers. If religion is as influential in shaping thoughts as its detractors seem to fear, that is all the more reason to empower the environmental ethic and positive tenets of belief systems that people already hold.

8

empirical study to arrive at better conclusions, but curiously ignore existing reviews of the empirical literature (like Hitzhusen 2007) that highlight the philosophical and empirical weaknesses of the White thesis, or other reviews of social science approaches to the White thesis that cast doubt on the prospects of vindicating the thesis (like Proctor and Berry 2005)). I admire and support many aspects of ecocentric thinking and believe that it has as much right to guide environmental progress as any belief system (it would also make a fantastic term paper topic!); however, I reject the notion that other, more prevalent and culturally salient perspectives (like Christianity, Judaism, Islam, and other religious views), are inferior bases for environmental ethics and policy, especially in America. Note that Arne Naess himself (a founder of deep ecology) concluded that White's thesis was an oversimplification (Ness 1989).

8. This is not to disparage religious conversion for the sake of caring for the Earth – surely that could be, is, and has been a viable path for some (there is evidence that among American environmentalists, in contrast to the general public, conversion away from Christianity has been a pattern (Shaiko 1987)). But generally, promoting religious conversion makes for a big ask, and for the majority of Americans -- who *haven't* denounced their religion (Christianity) *in order* to better care for creation, and who are probably highly unlikely to denounce their religion in any case, especially when their religion has demonstrated outstanding potential for inspiring creation care -- I wager that deepening and enhancing their focus on environmental work *because* of their religion, faith, or spirituality seems a much more likely path to increasing environmental citizenship in America. Put another way, the more likely "conversion" for most Americans toward greater environmental care is likely to be the sort of "ecological conversion" that Pope Francis or other religious leaders are calling for *within* their faith communities than a conversion to a system of secular environmental values or ecocentrism or some other new environmental belief system. At the same time, while Americans are known for being curious and interested in the religious beliefs of others, so any religious or spiritual environmental witness can be a positive influence for Americans -- surely Buddhism has been held in high esteem by many Americans for its environmental views, for example -- continuing to blame people's religion, unfairly, for environmental problems, or arguing that people can't be good caretakers of the planet unless they forsake their religion for other views, is more likely to discourage other Americans from wanting to associate with "environmentalists."

3.3 Defining Our Core Concepts

This section explores some further thoughts from Richard Baer about the underlying sources of environmental degradation. Baer says we won't solve environmental problems until we understand what it is about us that led to our environmental situation in the first place. He claims that the healing of nature will only come about with the healing of persons, which is most likely to occur through each individual's own spirituality, religion, or belief system. However, Baer cautions that our ways of thinking about these questions have been conditioned by Western views of knowledge, which have shifted significantly in the last 300 years towards the rationalistic, aggressive, and controlling modes of knowing characteristic of science, industry, and technology. To take a balanced look at these questions requires stepping back to examine the ways we think about thinking, question what we think we know about knowing, and attend to the historical and philosophical underpinnings of the paradigms that shape contemporary dialogue. Such an approach commends re-balancing our use of different modes of knowing to create a more complementary mix of intuition, reasoning, contemplation, action, wonder, dispassion, meditation, research, and aesthetic, ethical, and religious forms of understanding.

Before delving into such a range of topics, though, it's high time that we defined the basic terms of our discussion, don't you think?

Following the title of the book, the four terms I'll focus on are "religion," "environment," "values" and "America." These terms are best explored in conversation; I don't want to short-circuit that discussion, so I will only briefly treat each of these here and will leave space for the reader's own thinking. In any case, a clear conversation about matters of religion and the environment will need to be clear about what we might mean by these terms.

America

The easiest term to start with is "America," because its importance in the title of this book is mostly a matter of location. To some extent, "North America" might be the larger area of interest, but the primary focus is simply the United States. A key reason for this is our problematically consumptive status - while it's been said that much of the world aspires to live like Americans, it's also been noted that the U.S. holds only 4-5% of the world's people, yet consumes 25% of the world's resources and produces 25% of the world's waste. Thus shifting American culture away from such disproportionate consumption (which clearly can't be sustainably duplicated by all nations) could be huge for global environmental prospects.

There are also a few elements of the American story that make us interesting. First is the unique creation-evolution clash in America. While this has mostly been a non-issue in other places, the unique history of the U.S. (and the [Scopes trial](#) in particular) has turned questions about creation and evolution into a divisive cultural issue. Second is the fact that America is known for a sort of frontier mentality, classically described by [Frederick Jackson Turner's frontier thesis](#), which described how access to relatively unlimited resources attended the establishment of our nation. Settlement and industry and natural resource exploitation developed for several hundred years with relatively few constraints because there was effectively always more open land, more room to dump waste, and thus free wealth to be had. The American unlimited development trajectory only started to hit obstacles as the frontier began to close at the start of the 20th century, and we began to encounter natural limits. It's easy to see, then, how the American national ethos (young, as nations go) might include an expectation of unlimited growth, free from constraints. Finally, America is relatively religious. So, there are many aspects of the American values landscape that may occupy our attention.

Values

Values are a more complex topic of interest for our purposes, and no doubt America has a multi-faceted moral history. I explore a number of related terms with my students including values, morals, and ethics. In general, "value" can mean "worth," and commonly we think of a "value" as an ethical precept on which we base our behavior. Values are also understood as the social principles, goals, or standards held or accepted by an individual, class, group, or society. There are many common cultural values that are esteemed in America. Can you think of some of them?



An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/enr3470/?p=158>



An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/enr3470/?p=158>



An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/enr3470/?p=158>

As we think about what it means to be human, what humans are for, and what our purpose might be, keep in mind that [Charles Darwin](#), in his [Origin of Species](#), judged humans as compared to other species as "the moral species" - we are the species that wonders about, talks about, argues about what is right and what is wrong, and that is one of our distinctive traits. Just as Pollan says it's natural for humans to garden and to make invidious distinctions, Darwin apparently thought it natural for humans to ponder right and wrong. Any notion that humans should do anything - like pollute the environment or not - is a question of morals, ethics, and values. "How should we live?" is, after all, the fundamental question of ethics.

One treatment of environmental values that is worth mention is [Steve Kellert's](#) typology of basic values of nature. From his book [The Value of Life](#), Kellert considered these values as biological in origin, signifying "basic structures of human relationship and adaptation to the natural world developed over the course of human evolution." Kellert uses the typology descriptively to characterize the range of values that arise from human-nature relations, and thus he provides us a sort of functional definition of values by highlighting what he thinks is the function of each.

Table 1: A Typology of Basic Values

VALUE	DEFINITION	FUNCTION
Utilitarian	Practical and material exploitation of nature	Physical sustenance/security
Naturalistic	Direct experience and exploration of nature	Curiosity, discovery, recreation
Ecological-Scientific	Systematic study of structure, function	Knowledge, understanding, observational skills
Aesthetic	Physical appeal and beauty of nature	Inspiration, harmony, security
Symbolic	Use of nature for language and thought	Communication, mental development
Humanistic	Strong emotional attachment and "love"	Bonding, sharing, cooperation, companionship
Moralistic	Spiritual reverence and ethical concerns for nature	Order, meaning, kinship, altruism
Domineering	Mastery, physical control, dominance of nature	Mechanical skills, physical prowess, ability to subdue
Negativistic	Fear, aversion, alienation from nature	Security, protection, safety, awe

1

Keller's view of values highlights that beyond the ways that our values shape our environmental ethics, behavior, and policy preferences, nature is valuable in providing for our development as human beings, and we may therefore also value nature because it benefits us.

• Environment-Nature and Religion

If we value nature because it benefits us in some way, what do we mean by nature or the environment? The terms "natural" and "nature" are some of the most complex in the English language, with multiple definitions in the Oxford English Dictionary (OED) and other dictionaries. Religion, meanwhile, is the central concept of this course, and let's be honest - three of the toughest terms to define for philosophers are God, humanity, and

2

nature, so how we might define "environment" and "religion" is no small topic. I discuss additional nuances of these terms with my students, but I'll add a few notes here.



An interactive or media element has been excluded from this version of the text. You can view it online here:

<https://ohiostate.pressbooks.pub/enr3470/?p=158>

1. Much of this commentary on values (including Table 1) comes from: <http://environ.andrew.cmu.edu/m3/s1/03valuescultures.shtml>
2. Note that these are also the three members of the Noahic covenant that we discussed in earlier chapters.

Religion and Spirituality

We will discuss the term “religion” further, and eventually I will recommend a “functional definition of religion” as the best way to proceed with discussions of religion and the environment. “Religion” is a word with many connotations. For some it signifies something of great and sacred importance. For others it generates feelings of fear, abuse of authority, or irrationality. But in general, we tend to think of “religion” in terms of structured or organized expressions of spiritual identity and practice.

“Spirituality” tends to connote the general spiritual experiences or dimensions of human life. Below, in section 4.4, we’ll look at how Ian Barbour typified the range of spiritual phenomena that human cultures recognize, but for our purposes, the “spiritual” domain is that which points toward greater depth or transcendence of daily material existence. To have a spiritual experience is to experience something that seems to reach beyond us, or to encounter the mystery of that which is larger than ourselves. Spiritual experiences are often understood within religious systems – you might say that any patterned or common-enough-to-become-tradition spiritual experience or practice becomes “religion.” Based on the history of spiritual experiences that helped form any particular religion and its traditions, one’s spiritual experiences can be contextualized and understood.

“Theology” is the study of God or the divine (theos = God, logos = study of), and while this term tends to be associated with Christian cultures, such study of spiritual experiences and encounters with the divine provides reflection and understanding, and usually informs the traditions and practices and ethical understandings held by a religion.

For many Americans today, especially younger Americans, being “spiritual but not religious” is becoming more common. To some extent, as Americans become less familiar with the spiritual understandings held by different religions and denominations, or perhaps as some familiarity with a much wider range of religious traditions has become available, it seems harder or less appealing for some to place their spiritual experience in general into a particular religious context. Whatever the case may be, these days it is clear that “religion” can be a charged and challenging term. In terms of the ideas we discuss in this book, it is helpful to step back from the more charged connotations of religion (if your tendency is to see “religion” as something to fight about one way or another, this book may not be of much interest to you, or at least my lack of interest in engaging in fights about religion may bore you). Instead, we commend a **functional definition of religion**.

For our purposes of discussing religion and the environment, a religion, functionally, is any system of understanding that answers one’s questions about life, particularly the “big questions” about human meaning and purpose. Whatever system of understanding and belief you appeal to to make sense of the world and what’s going on, and to guide your moral or ethical sense of how you should live is, functionally, your religion. And putting different functionally “religious” understandings in conversation with each other is the conversation this book is interested in. Thus, whether one is theistic, agnostic, atheistic, or otherwise, your own views and understandings are important to this conversation. As Pope Francis stated in his encyclical *Laudato Si’* (2015), addressing the challenges of living sustainably on our planet will require a conversation that includes everyone, and considers all views offered in good faith.



Great Cathedral. Photo credit: Bill Bradlee

Environment

There is also more to say about the meaning of “environment.” Loren Wilkinson outlines several “names for the Earth” in his book [Caring for Creation in Your Own Backyard](#), each of which has been popular at different times. Wilkinson describes “nature” as the first and oldest such word, which “is related to words referring to birth (like natal and nativity), and reflects the mysterious fertility of the earth, which seems to bring forth life of its own accord.” Wilkinson notes that nature religions worship the earth and/or fertility. Another name is “resources,” which Wilkinson says is a more modern way of thinking of the earth – seeing Earth as something to be used. “The trouble, though, within thinking of the earth as resources,” says Wilkinson, “is that it implies that its main purpose is for human use.” Wilkinson also comments on the word “environment,” which he does not

favor. He says that largely as a reaction against damage done by regarding the earth as “resources,” we’ve moved to the term “environment,” which reflects a growing sense of interconnectedness. Multiple elements, living and non-living, make up our environment. “The problem with environment,” clarifies Wilkinson, “is that it says either too little or too much. It says too little when we mean by it our (human) environment. Then we are back to regarding all things simply as resources for us. But it means too much when it means “everything connected to everything else” in an equal and undifferentiated web.” This gives humans no real place to stand. “In this environmentalist view we are just one more part of the web, acting and acted upon. But one part of a web can hardly be steward of another!”

As the title of Wilkinson’s book suggests, his preferred term is “creation” – a word also commended by no less than [L.C. Wilson](#), whose book [Creation: An Appeal to Save Life On Earth](#) follows the logic of the study by Kempton and colleagues mentioned in chapter one. Wilson favors the respectful sense of seeing the Earth as a creation and recognizes that most humans – including a strong majority of Americans – hold a belief in a creator. Scientists and environmentalists, claims Wilson, will find better common ground to care for Earth by referring to “creation” than otherwise.

We can see an additional sense of the term “nature” with reference to an article by Harvard theologian [Gordon Kaufman](#), who distinguishes between nature as “wilderness” and nature as “cosmos,” signifying the world, the universe, which is a construct to help us understand things, but not an empirical reality as such. Semantic slippage between these two senses of the word might matter in cases where experts in one realm (say, scientists on the one hand examining the physical universe, and philosophers or cosmologists on the other examining purposes and meanings) might mistake what they know in one realm as sufficient to answer questions in the other realm. Coming to clarity about these and other terms can help point us in a good direction right from the start.

[Editor’s Note: Readers may wish to skip ahead to chapter 5, the case study on climate change, if you would like to get a taste of the range of faith-based views on environmental issues before moving ahead to chapter 4.]

3

4

3. Wilkinson, pp. 14–15; Wilkinson’s view represents a Christian, theocentric framework.
4. This is often seen as distinct from “culture” – this is the “nature” that we think of as forests and pristine landscapes (experienced “as God made them”).

Brown, C. (2008) 'No impact man: The adventures of a guilty liberal who attempts to save the planet, and the discoveries he makes about himself and our way of life in the process' (ed.) Picador.

Kuhse, H. R. (1997) *The value of life: biological diversity and human society*. Washington: Island Press.

Noss, A. (1988) *Ecology, Community and Lifestyle*. Cambridge: Cambridge University Press.

Proctor, J.D. and E. Berry (2005) Religion and environmental concern: The challenge for social science. In S. Taylor (ed.) *Encyclopedia of Religion and Nature*. New York: Continuum International.

Shalin, E. G. (1987) Religion, politics, and environmental concern: a powerful mix of passions. *Social Science Quarterly*, 68(1-2), 244-262.

Thoreau, Henry D. (1842) *Walking*. The Atlantic, June 1882. Retrieved from <https://www.thoreauwildlife.com/engelsky/articles/2002/06/walking-2008-04>.

Utman, H. L. (1996) "Thinking Like a Mountain": Persuasion, Ethics, and Judgement in American Nature Writing. In C. G. Herndl & S. C. Brown (Eds.), *Green Culture: Environmental Rhetoric in Contemporary American* (pp. 46-85). Madison, WI: The University of Wisconsin Press.

Wilkinson, L., & Wilkinson, M. R. (2003). *Caring for creation in your own backyard*. Regent College Publishing.

Chapter 3 Discussion Questions

The Garden: What Does It Tell Us about the Meaning of Nature?

Reflection Questions:

- By and large it seems that college students are often more interested in preserving wilderness than in either gardening or protecting the natural qualities of our near environment. Do you think this is the case, and if so, why?
- "Nil or nothing" says the wilderness ethic, and in fact we've ended up with a landscape in America that conforms to that injunction remarkably well" (p. 223). What is Pollan taking about? Do you agree with his analysis?

Discussion Questions:

1. Pollan writes on p. 12 that his grandfather's "success for our soil was also an extension of his genuine and deeply felt love of the land. I don't mean love of the land, in the nature lover's sense. The land is abstract and is some final sense ungraspable by any individual" What do you think?
2. Pollan refers to gardening as "moral drama of a high order" (p. 86). What is he talking about? Do you agree with him?
3. Pollan writes in Chapter 4: "There isn't an American gardening book published in the last twenty years that doesn't become lyrical on the subject of compost." By contrast, claims Pollan, most Europeans seem to be only mildly interested in compost. What does this difference in attitude tell us about the views of European and Americans about gardening?
4. According to Pollan (Chapter 6), Ralph Waldo Emerson once said that "a weed is simply a plant whose virtues we haven't yet discovered." What do you think?
5. Pollan argues in Chapter 4 that Americans tend to think in terms of "rural alternatives" about nature: "to virtually subdue it in the name of progress; or to place it strictly off limits in 'wilderness areas.'" Do you think this comment is accurate, and if so, why do we act this way?

Study Questions:

1. What were some of Pollan's views that changed as a result of actually growing a garden as ever against theorizing about nature?
2. American gardeners, according to Pollan, are more interested in virtue than in beauty. What is his evidence for such a claim?
3. Pollan notes that in the stories "weed" became a nickname for marijuana. Why does he find this significant?
4. Why is your attitude towards "weeds" a pretty good indicator of your overall view of nature?
5. What does Pollan mean when he writes (p. 138) that "by weed is to bring culture to nature"?
6. In what ways, if any, did Pollan's discussion of Cathedral Pines change your views about the management of nature?
7. In Chapter nine, Pollan discusses the case of Cathedral Pines. What would you have chosen to do at Cathedral Pines following the tornado if you had had the authority to make the decision? Give reasons for your plan of action (note: Pollan also discusses Cathedral Pines on pp. 220-26).
8. In Chapter 10, Pollan summarizes what he thinks the garden can tell us that will help us develop a new land ethic. In your own words, summarize his main points.
9. What are some of the ways in which the design of a garden is an informal challenge? (see Chapter 12).

CHAPTER 4: SOME POINTS FROM EPISTEMOLOGY AND PHILOSOPHY OF SCIENCE TO HELP US THINK

How can we know what we're talking about? Drawing on epistemology and philosophy of science to better address the topic of religion and the environment

In this chapter we finish our discussion of definitional questions about "religion," "environment," "values," and "science," wrestling with some of the possible meanings and implications of these terms, and focusing on what sort of conversation we think is possible and responsible about these topics. Underlying the intersection of these terms is the more basic and potentially challenging relationship between religion and science. If science and religion are going to be discussed in the same conversation, we'll want to take a

close look at what we think we mean by "science" and what we think we mean by "religion," and what we think anyone can say with any authority or reliability about these subjects. Doing so may uncover some often-ignored barriers to better understanding, and will help us lay a firmer foundation as we move forward to discuss the key concepts and questions of religion and the environment.



¹⁹ Just speaks to a universal pull and blessing of nature when we have time to be alone and acknowledge to the richness of nature," says photographer Andrew Sussall. (Another blessing: photos submitted with captions to the [National Geographic Photo Contest](#).) See also commentary to the philosophy of science Central Highlands, Ireland.



*Faith and Science standing together to advocate for all creation and community-led climate solutions. Birmingham, Alabama. Photo credit: Michael Matthews

Religion-Environment discussions don't always take the step that we intend in this chapter, which is to consider the underlying meanings and paradigms that contextualize these topics and the ways that we typically understand and assess them. This may seem like a simple step, but examining our own context can be elusive, because often what and how we already think seems so basic (just as taken for granted) as the air we breathe. My belief is that we can arrive at a better understanding by critically assessing our underlying paradigms than if these remain unexamined. Because this approach ¹ is uncommon and nuanced (and possibly perplexing), this preview provides hints as to the direction we are heading in this chapter:

¹We'll start by thinking about what it means to know anything in the first place. Science and knowledge are closely linked, and we'll critique some of the ways moderns have thought about knowledge by examining Richard Baer's "One Hand to Control," which criticizes an overemphasis on knowledge as power and control. We'll also question whether preferences for "objectivity" in our claims about knowledge might reveal a control-based approach to nature. If so, such rationalistic views – that make humans reason the measure of all things – might be what got us into this "enlightenment" mess, more than the religious variables that Lynn White blamed.

1. The basic tenets of this approach are based on the philosophical and epistemological framework that Richard Baer developed while teaching NR407 "Religion, Ethics and the Environment" at Cornell University from 1974-2005. It is my view that this framework might have provided a better starting point for much contemporary religion and ecology scholarship and education, but Baer's work has not been appreciated sufficiently to cause such a ripple effect. While this book is dedicated to Richard Baer, this chapter in particular is indebted to his teaching and vision.
2. Alister McGrath's book, ["The Re-enchantment of Nature,"](#) makes a compelling case that rationalistic criticisms of religion as being the source of modern problems may in some cases be a projection of blame – McGrath argues that modern science and enlightenment rationality, not religion, have been most responsible for disenchanting the universe (or at least the Western view of the universe). This dismissal of religious/spiritual beliefs leaves humans in control of all meaning, and removes any theoretical limits on human behavior beyond what humans can enforce on themselves. This scientific, rationalistic turn, argues McGrath, objectifies nature as something to be controlled with indifference, whereas a religious, or more enchanted view of reality, would cast humans in a more humble role. McGrath (who holds PhDs in biochemistry and Christian theology) therefore advocates for the re-enchantment of nature as a way to undo the damage of an over-emphasis on rationalistic control of nature and knowledge, and he encourages a posture of awe and wonder in the face of the gift of creation.

We will look at *different* modes of knowing – particularly at the more objective, rational, repeatable, scientific modes and methods of knowing (what *they* relate to *ratio*), as well as the more intuitive, subjective, relational, spiritual, mystical, emotional/affective modes and methods of knowing (intuition). We will discuss how these *forms* of knowledge relate to one another in a complementary way that provides a platform for fruitful and respectful dialogue. We will note several models of how religion and science might interact. Our approach assumes that dialogue and some amount of integration between science and religion is both possible and appropriate, both for environmental professionals, college students studying religion and environment at a local grant university, and people of faith in Ohio and beyond. We will also respect the assumption that operating in this realm does not threaten our respect for scientific and religious experts alike.

3

As for *epistemology* – after discussing what we think it means to “know” something, either in science or religion (or both), we will want to talk about the ways in which we think knowledge is relevant. Will we assume that what we decide we “know” about religion and the environment is a form of absolute knowledge – knowledge that is definitively right as opposed to other things that are wrong? Will it be a type of relative knowledge, where what we know will be compelling to us, but other things might be compelling to others?

4

Allen Wood’s article on “Relativism” explores these questions, and compares relativism to skepticism, nihilism, and other options. In the end, we will discuss ways to redefine knowledge and “objectivity” so as to proceed with productive common ground between religious and scientific knowledge and without being derided by premature dismissals of views that challenge us or getting pulled into knee-jerk arguments that uncritically treat one magnifying either science or religion. We will proceed from there with “open” about what we are talking about and the challenges of talking about these subjects. Hopefully by the end of this chapter, the table will have been set for our proper investigation into religion and environmental values in America.

Belief systems addressed in future chapters:

Religion	Belief
Buddhism	The teachings of the Buddha can alleviate suffering and bring about enlightenment.
Christianity	Believes Jesus Christ to be the Messiah and ultimate revelation of God, as documented in the Bible. Includes Protestants and Catholics.
Hinduism	A person's karma will determine their karma in this life or the next. One's beliefs may choose to worship different gods.
Islam	The words revealed to the Prophet Muhammad in the Quran are the definitive revelation of God.
Judaism	Reveres the scriptures of the Hebrew Bible and traditions of commentary.
Secularism	Rational/scientific knowledge and understanding provides the answer to all of life's meaningful questions.

3. This is not to say that all scientists and religious people respect each other - indeed, some people perceive or assume great tension between religion and science; part of the point of this chapter is to demonstrate that assuming such a conflict is not the only (and certainly not the best) option for how intelligent people can approach religion and the environment, and we will decidedly not privilege perspectives that do not respect either science or religion and faith as starting points for respectful dialogue. (I will also acknowledge that religion has regrettably been (and will likely continue to be) the cause of great harm in some people’s lives, though it has also been and will continue to be a source of great inspiration, meaning and peace for others. Even so, that religions and spirituality contain valuable resources for creation care and might help humans live sustainably, regeneratively, and peacefully on Earth is the *raison d’être* for this book.)
4. Some readers may immediately be thinking: “why would anyone want to proceed with such unhelpful, dialogue-killing reactions?” Unfortunately, such reactions have been quite common in religion-science dialogue in the past, so it is important to become more aware of such barriers.


4.2 Returning to Terms

1
In the last chapter, we looked at definitions of "environment." Loren Wilkinson noted that several nations have been popular for the term "at different times. "Nature," he said, is the "first (and oldest) of such words. It is related to words referring to birth (the natal and nativity), and reflects the experiential fertility of the earth, which seems to bring forth life of its own accord. (Nature) religions worship the earth and worship fertility / Earth as "mother" leads to fit this concept, or here you could include "Gaia" the Greek name for the goddess of the earth.

2
"Resources" is a more modern way of thinking about earth, as "something to be used" Wilkinson says "the trouble with thinking of the earth as resources is that it implies that its main purpose is for human use." Similar to Lynn White's concerns, this word became popular when the "new world" was discovered by Europeans and was seen as a great source of riches. Scientific and industrial revolutions then gave us new knowledge to gain power. Coal, iron ore, falling water, uranium, planets, and animals are no longer seen as part of creation, but as resources for our use.

"Environment" is a more recent term – it emerged mostly as a reaction against damage done by "earth as resources" nations. It reflects an interconnected world made of many things. Wilkinson says the "problem with environment" is that it says either too little or too much. It says too little when we mean by it "our (human) environment. Then we are back to regarding things simply as resources for use. But it means too much when it means "everything connected to everything else" in an equal and undifferentiated whole "here, we have no place or purpose; we're just one among many; part of the web and acting on it. "But one part of a web can hardly be 'steward of another'" Here we get a sense of Wilkinson's Christian view, where humans have a role or significance more than just being a part of nature like any other part; this view is clearly not bio- or eco-centric, but neither is it anthropocentric (it is theocentric). Wilkinson is holding out for a term that isn't as prone to extremes.

3
Better than this, says Wilkinson, is to think about the human role on Earth in terms of "stewardship." The Greek root of "stewardship," *oikonomia*, means "keeper of the household" and the term is also translated as "economics." This bears some explaining, because many of us think of "economics" as mainly a monetary or financial concept. Wilkinson explains that "In Greek, the word contains *oikos*, which means household, and shows up in a more recent word *ecology*, coined to describe the science of the relationship of living things to their environment: the whole *oikos*, or earthly dwelling place." From this view, "economics" not only means stewardship but is clearly related to ecology; both deal with the whole *oikos* or household of creation." This helps explain why Wilkinson and co-authors like the term "earthkeeping" which suggests not just everyday "housekeeping" but also the breadth of our larger home, the whole created earth." These terms, then, would suggest a holistic linkage between our economic system and our ways of caring for all of creation.



Wilkins the content of this discussion. It has been interesting to see which words people use in their chapters in the [Book's Companion Discussion](#). Comments from photographer Jackson Stuard: "At Camp Abernethy, Cal and I've enjoyed observing the sea. Jackson also submitted for the North Carolina Coastal Federation through a book in which we're prepared to use a knowledge component about risks are going to be involved in the different of creation. Being an environmental steward gets our children to creation, and at Camp Abernethy I have seen that show I have."

These are some ways of thinking of "environment" – note that many faith-based environmental programs and literatures have not focused on "environment" but on "creation" or "Earth" or "green." I use "environment" in the title of this book in deference to its general and popular usage to refer to sustainability issues. I also opt for "environment" because it may well be "environmentalist" who have the most to gain (and the most to lose) from a better understanding of religion and the environment. Note how complex these terms get, even when we merely scratch the surface – "nature" has many potential meanings.

4
One example of this complexity is Gordon Kaufman's discussion of nature as "wilderness," nature as "cosmos," which highlights the potential for people to talk past each other when discussing these concepts and underlines the importance of attending to the scale and scope of whatever commentary we intend to make.

By "nature" as wilderness, Kaufman means the immediate natural world that we experience, say, when walking in the woods. This is the sort of nature that we can relate to directly, and might brook our wonder, perhaps even worship. How a forest works or how the parts of ecosystems interact in the governance of this "nature" is the study of ecology and biology and other fields, and the experiences and inspiration gained here is the focus of poets and writers and naturalists. This is a different concept, and at a different scale, than what Kaufman calls "nature" as cosmos. This term has to do with our idea of the whole of existence, the nature of things – the universe.

5
Since the whole universe is not observable as such – we cannot take it all in with our limited human perspective – it is not so much an object of our experience as it is a concept, a notion, an idea that we have developed to help explain and bring together all things as we think we see and understand them. As such, nature as cosmos is a creation of human minds, and while extraordinary

1. All Wilkinson quotations are derived from his book, "Caring for creation in your own backyard," pages 14-15.
2. Often, "Earth" is capitalized as a proper name for a planet; at other times is is not capitalized, suggesting a sense of the term related to soil, the ground upon which we walk, or the life and ecosystems of the planet. These different usages are not always consistently applied.
3. To add some layers: some thinkers who favor eco-centric views have criticized "stewardship" as being too human-centric. Alternatively, Pope Francis more recently softly indicated a preference for the term "care" by only using the term "stewardship" twice in his environmental encyclical *Laudato Si'*, since humans, he said, might be good stewards by doing the right environmental things, but still not actually "care," and Francis feels caring is essential to successfully addressing degradations of creation.
4. Gordon Kaufman, "A Problem for Theology: The Concept of Nature", Harvard Theological Review, 1972
5. Note that the former is mostly about observables, and the latter is more like a theory to make sense of what we can observe. Our discussion of laws and theories below will tread similar ground.

and commendable as such, Kaufman says it is not therefore worthy of our worship. When we speak of what we know of nature as wilderness, we speak at a different level of knowledge and understanding than when we speak of nature as common. How “nature” works at the wilderness level doesn’t necessarily directly translate to the common level, and vice versa. For example, the breathtaking equanimity of the universe and how it might have come to be is not the same as the wisdom of an ocean, which can seem unlimited to the stroller. Newtonian laws apply at the physical level, but they don’t at the sub-atomic level – the basic (underlying sub-atomic order) of what we see is not operating by the same sense as the sensible manner of our normal, daily experience. So too ideas of cosmology and of what brought all things together and continues to hold things in existence. We can’t say when discussing nature that what “is” in the wilderness is the same sort of thing that “is” about the common. That is semantic slippage.

The point is this: semantic slippage happens, and scientists may be guilty of this when they try to make metaphysical comments about the nature of reality (grounded based on what they “know” only from physical reality [evidence]). Similarly, religious authorities can mis-apply knowledge about metaphysical and spiritual realities and impose it unduly on physical realities.

To complicate things further, this is not to say that spiritual and physical realities are unrelated or cannot be connected (after all, perhaps it is the case that all physical reality is just an expression of a larger or deeper spiritual reality, or, perhaps what we perceive as spiritual reality simply emerges from the fundamental physical reality of the universe, or – to shift perspective – separating the two may only seem to make sense at a shallow level of inquiry, while more careful inquiry and reflection may reveal deeper connections or a unity of truth that transcends these surface distinctions). Rather, this is to say that some of the typical modes of seeing these issues may involve more confusion than is usually noted, and these distinctions are often missed.

Another reason why such distinctions can be hard to see is that sometimes the discussion of them is too heated to think clearly. As a result, the famous adage: “never discuss religion or politics in polite company” often makes good practical sense. Especially where religion and science are seen to oppose one another or to be in heated conflict, it can be challenging to avoid getting drawn into an emotional ideological fight, even among polite company. Part of the goal of this chapter is to invite us into the space of collegial (if not polite) company, where curiosity and respect for sincere ideas hold sway, so as to avoid some of these pitfalls that limit understanding.

6. A good example of this was astronomer Carl Sagan’s claim that “the cosmos is all that ever was or ever will be”; some might also see semantic slippage in applications of E.O. Wilson’s concept of “consilience,” which seems to want to extend the sort of knowledge that works for natural sciences to all of reality, making other forms of knowing subservient to the dominant form of scientific knowledge.
7. One supposes, for instance, that some cases of illness that may once have been attributed to demons or sin were actually simply caused by bacteria or viruses whose existence was not yet known. This is not to say that spiritual health is irrelevant to physical health (excessive confidence in modern medicine might miss the point in the other direction!), but to indiscriminately declare spiritual causes for physical phenomena where knowledge of the physical processes is lacking can cause error.



"Pondering UP at Bass Lake, Chittenden, VT" a good complement to pondering UP is an E-book. Photo credit: Laura Carstensen

A larger question here is how science and religion are related to reality. [Ian Barbour](#), in his work on reconciling science and religion, describes a four-category typology of the ways we may think science and religion relate to one another: conflict, independence, dialogue, and integration.

1

1. From: Four Views of Science and Religion, p. 7-38 (Ch 1) in Barbour, I.G. (2000). When Science Meets Religion (Harper SanFrancisco: SanFrancisco). Another overview is found in Hallanger, N.J. (2012). "Ian G. Barbour," p. 600-610 in The Blackwell Companion to Science and Christianity, First Edition, Ed. by J.B. Stump and A.G. Padgett. A good discussion of

Lee Barbour's 4 models of the interaction between religion and science:

- **Conflict:** Science and religion are in conflict. This view assumes that either science or religion is true while the other is necessarily false, and thus the perspectives of each will be in conflict.
- **Independence:** Both science and religion can be true, but in different domains. This view assumes that science and religion focus on different things, so as long as each keeps to its own domain, it can (and truth in that domain) (Stephen J Gould's idea of non-overlapping magisteria would be an example of this view)
- **DIALOGUE:** Science and religion can be conversation partners, as they both contain truth about many things. This view doesn't assume that science and religion are the same, but that there is enough overlap in what they focus on to mutually inform one another about truths.
- **Integration:** The truths of science and religion can be integrated into a larger whole. This view assumes that the best way to understand the world is through an integration of science and religion, because they are complementary modes of knowing the truth about reality.

While there are many implications of these views, for now, the point to note can simply be that "conflict" isn't the only reasonable option, so if you find yourself in a conversation where the assumption seems to be that conflict between religion and science is the only option, just know that you wouldn't be drawn into that fight – there are other (and probably better) options for understanding and discussing these relations.

It may also be helpful to think about the range of disciplines and fields of knowledge that most universities support, so that we can expand this conversation even more towards its proper bounds, which are larger than we're let on so far. The chart below lays out some of the common disciplines across a spectrum of fields in the physical/natural sciences, the social sciences, the humanities and arts, and religion/ethics. Note that the data and information we gather about things at the far left (physical) end of the spectrum are based on essentially relatively repeatable and physically-caused phenomena, which can often be reduced to laws. But items of interest at the other end of the spectrum, things like ethics and morals and other things we want to know related to the meaning of life, these are not things that function so much like physically-caused things, the billiard balls colliding. In the kinds of things we want to know about across the spectrum differ, as do the methods we use to learn about different types of things.

Spectrum of Disciplines			
Natural Sciences	Social Sciences	Humanities/Arts	Religion/Ethics
physics	psychology	literature	theology
math	sociology	languages	ethics
chemistry	anthropology	philosophy	
biology	economics	classics	
ecology	history/liter and history	arts, media, literary	

If you think about all of the various disciplines of knowledge at the university, the spectrum displayed above suggests a range of approaches to understanding just about everything under the sun. One exercise to help think about this further is the following: If you were to chart the following pairs of terms on the spectrum above in terms of where each thing is studied, at which end of the spectrum (or where in the middle) would you put each term?

- facts versus values
- objective versus subjective
- "is" versus "ought" (to be)
- lawful versus utopian
- public versus private
- real versus symbolic
- material versus spiritual
- predictable/repeatable versus unique/irreproducible
- daily/routine/produce versus life-changing/transformational/natural
- questions of observable and physical interactions versus questions of meaning, purpose, and morals

There is more overlap and trading on these points than simple dichotomies suggest, but it might be helpful to think about where you'd place each term. Regardless of where we place these different words and phrases, a key point here is that the different knowledge domains along the spectrum use different methods to know about different (and/or similar and/or related) types of things. You don't set up a controlled experiment to learn about the impacts of child abuse like you might set up an experiment to learn about how one organism interacts with another in a chemistry lab. And yet, facts and objectivity do play a role all across the spectrum, just as values and subjectivity do.

these four is also found here: <https://scienceandtheology.wordpress.com/2010/11/11/science-and-religion-barbours-4-models/>

2. Some signs that a conversation is caught in these narrow confines is when someone says something like: “well, everyone knows...” or “well, religion has always been at odds with science...” or other overblown generalizations.
3. As Richard Baer was fond of saying: when you want to know how physical particles behave under different conditions, you subject them to those conditions and carefully observe the results. If, however, you are curious to know how torture affects the mental well-being of children, you don't subject children to torture and then carefully observe and record the results (unless you are a sociopath). Instead, we use thought experiments (and sometimes books and movies serve as types of thought experiments to help us think though and see or test what might happen in different social conditions), or we examine what *has* happened in various cultures.
4. Keep in mind that many famous scientific discoveries have been made by accident or were aided by dreams or various and sundry serendipities – creative leaps don't only come from “purely objective” number crunching.
5. “Free will” is a debated concept. For many, free will seems one of the more obvious traits of human reality, but others argue that it is not a proper entity. From a purely materialistic worldview, which believes all things to be reducible to physical or chemical causes, free will must be viewed as an illusion; this belief is not shared by all (and perhaps not by most).

These questions about the properties of knowledge across the spectrum lead us to Barthes's redefinition of objectivity as "intersubjective verifiability with commitment to universality." Barthes notes that data are always theory-laden, and science is subjective and human, though still reliable. So what is sometimes considered to be "objectively" true, might more properly be viewed (particularly for a critical reader like Barthes) as that which the relevant community of experts agrees is reasonable and reliably "true" based on all that we know at any given time, and according to our most rigorous processes of peer review and testing of results and ideas. Surprisingly, this sort of process isn't entirely dissimilar from how the canon of scripture within Christianity was formed, through a public process of intersubjective verifiability over several hundred years. These ideas will be more deeply engaged below. In any case, it becomes clear that the pursuit of reliable knowledge and understanding is not only important to "science," but also in other domains of knowledge.

Another provocative view of what can be known reliably, particularly in religion, is that of Greek Orthodox theologian Vladimir Lossky. Lossky's notion of faith being knowing as the integration of ratio and intellectus, public and private, treats theology as the publicly or commonly agreed interpretation of people's private or unrepeatable spiritual experiences.

Lossky's view suggests that this is what leads to orthodoxy, that there's an intersubjective (hence empirical) agreement in experience across members of a community about real things that have happened to them and what those things mean. If so, that which we call "objective" is more or less what we agree upon as "orthodoxy."

6

7

6. Vladimir Lossky, *The Mystical Theology of the Eastern Church*, St Vladimir's Seminary Press, 1976
7. Lossky, from *The Mystical Theology of the Eastern Church*: "Far from being mutually opposed, theology and mysticism support and complete each other. One is impossible without the other. If the mystical experience is a person working out of the content of the common faith, theology is an expression, for the profit of all, of that which can be experienced by everyone. Outside the truth kept by the whole Church personal experience would be deprived of all certainty, of all objectivity. It would be a mingling of truth and of falsehood, of reality and of illusion: 'mysticism' in the bad sense of the word. On the other hand, the teaching of the Church would have no hold on souls if it did not in some degree express an inner experience of truth, granted in different measure to each one of the faithful. There is, therefore, no Christian mysticism without theology; but, above all, there is no theology without mysticism..." (p.8-9).

4.4 Similar Structures: Theory and Data in Science, Belief and Experience in Religion

Before going further, it will be helpful to clear up how the sort of religious language we've used above could be applied to science, and Ian Barbour's comparison of the structures and methods of religion and science is helpful in that regard (refer to [here](#)). Barbour describes how science works - how theory and data lead to what we know in science; he also develops a parallel description of how belief and experience lead to what we know in religion.

The Structure of Science

Barbour's flow diagram (in the handout listed above and outlined below) highlights how concepts and theories influence observation and lead to observation and data (in a deductive path); meanwhile, inductively, based on what we observe, we use imagination, analogies, and models to come up with theories and explanations. The inductive view of Bacon and MB involved generating theories by generalizing patterns of data, but Barbour notes that theories involve concepts and hypotheses not forced to the data and can refer to things not directly observable. Barbour asserts that all data are theory-laden: our choice of phenomena to study, our choice of variables, the form of our questions that determine our answers, the process of observation which allows observables - all of these relate back to theory. Similarly, Thomas Kuhn ¹ said data depends on existing paradigms, and paradigms imply the kinds of questions that will be fruitful and the types of explanations that are to be sought.

Barbour notes that accepted paradigms are harder to change or overthrow than particular theories. So, science uses four criteria for assessing theories:

- 1. **Agreement with data and predictive power:** the theory matches the data of what is observed and provides predictive power for subsequent data gathering.
- 2. **Coherence:** the theory is consistent with other theories, integrates with them, and yields understanding; simplicity is also a virtue of coherent theories.
- 3. **Scope:** the theory is comprehensive and generalizable, and
- 4. **Fruitfulness:** the theory leads to further developments or can provide a framework for future research.

Barbour notes that these criteria relate to three Western views of truth (each with their own drawbacks):

- 1. **Correspondence view:** a proposition is true if it corresponds with reality - theories agree with data (and yet we each always tell what is real; we don't have total capacity to directly discern or access reality).
- 2. **Coherence view:** a proposition is true if it's comprehensive (inherent and generalizable) and internally coherent (and yet reality seems more paradoxical and less logical than rationality assumes, as demonstrated by chaos theory, complexity theory, and flux - (which show that even if you know all the inputs in a complex system like life on Earth, you can't know or predict all the output)).
- 3. **Pragmatic view:** a proposition is true if it works in practice (and yet a false idea could still "work" in certain contexts).

Barbour concludes that the best definition of truth is "correspondence with reality" because reality is not entirely accessible to us, the criteria of truth must include the four criteria listed above (agreement with data, coherence, scope, fruitfulness). Taken together, Barbour's favored view is a form of realism, a critical realism because of the combination of criteria that are used. (Exercises 4d below will delve more deeply into what Barbour means by "realism" as distinct from positivism, idealism, and instrumentalism.)

Barbour adds that science does not lead to complete certainty - its conclusions are always incomplete, tentative, and subject to revision. Theories change in time, but science offers reliable procedures for testing and evaluating theories through a complex set of criteria. That is how Barbour characterizes the structure and process of science. How he characterizes religion has some surprising parallels.

The Structure of Religion

Barbour charts a similar set of relations for religious knowledge. In religious experience, there are concepts and beliefs, which function like theories do in science. These beliefs influence experience and interpretation, in connection with religious experience, which is then expressed and packaged and stored and reviewed and replayed in story and ritual. These experiences, stories and rituals are the data for religion, which engage and lead to imagination, analogies, and models, from which concepts and beliefs are derived.

By this account, Barbour says that "data" for religion are religious experience, story and ritual (for example, some key stories for Christianity are the creation of the world, covenant with Israel, and the life of Christ; for Buddhism, the enlightenment of Gautama Buddha under the Bodhi Tree; for Judaism, Passover and the exodus from Egypt). Unsurprisingly, experimental testing of religious beliefs is problematic as religious/spiritual experiences are not particularly amenable to scientific approaches for testing data (thus the

criteria below become critically, Barbour also notes that the influence of religious beliefs on the interpretation of data is very strong - more so in religion than in science, though this influence is akin to that of paradigms in science. With religion, we'd say that paradigms are extraordinarily resistant to change, and data is much more theory-laden than in science.

To develop further on religious "data," Barbour lists six distinctive types of religious/spiritual experiences, understood as accessible to individual experiences, but in the context of the community:

- 1. Numinous experience of the holy - more characteristic of a Western transcendent God; usually interpreted in personal models.
- 2. Mystical experience of unity - more Eastern, implying a union with all; usually interpreted in personal models.
- 3. Transformatory experience of incarnation.
- 4. Courage in facing suffering and death.
- 5. Moral experience of obligation.
- 6. Experience of order and continuity in the world.

Given the broad human experience of these sorts of things - which can't necessarily be repeated or predicted so are not amenable to scientific method in typical experimental ways - assessment of beliefs comes from within a paradigm, and reliability in the culture of religious community therefore calls for the same four criteria as above for science:

- 1. **Agreement with data:** in the case of religion, this is very theory-laden, but beliefs should nonetheless accord with religious experiences.
- 2. **Coherence:** new religious experiences, beliefs, or interpretations are evaluated by the intersubjective judgement of the community, which protects against individualism and arbitrariness.
- 3. **Scope:** a religious belief should help interpret life and social reality; though Barbour says it should also accord with science, and
- 4. **Fruitfulness:** does a religious belief advance basic understanding and vision? Does transformation result? Is healing effected? Is character improved? Are peace and love generated?

In Barbour's framework, the modes of knowing in science and religion are not so dissimilar, and if this is true, we might expect that a comprehensive approach to knowledge about the world would draw from both. We might also suspect (harkening back to Kuhn) that science would be the preferred mode for knowing about nature as wilderness, while religion would have more to say about cosmology and the purpose of life. And in any case, these understandings would be suggestive of Barbour's notion of dialogue, or perhaps

even integration, between science and religion. Indeed, the last couple of decades have seen more and more dialogue between science and religion about the environment, and an increase in integrative approaches.

¹These more complementary patterns differ markedly from what held every 30 years ago when Lynn White was writing about religion and the environment. Undoubtedly the project of modernity privileged cities, observables, empiricism, and "science" across all realms of knowledge, which has led to some imbalances. E.F. Schumacher put it this way (also 30 years ago) in *Small is Beautiful*:

- 1. See Kuhn, T.S. (2012) *The Structure of Scientific Revolutions*, 50th Anniversary Edition (University of Chicago Press: Chicago).
- 2. See also: White, P.S. (2006). "Disturbance, the Flux of Nature, and Environmental Ethics at the Multipatch Scale", pp. 176-198 in David M. Lodge and Christopher Hamlin, Eds, *Religion and the New Ecology* (University of Notre Dame Press: Notre Dame, IN)

"The present danger," says Viktor E. Frankl, a psychiatrist of considerable reality, "does not really lie in the loss of universality on the part of the scientist, but rather in his pretence and claim of totality... What we have to deplore therefore is not so much the fact that scientists are specializing, but rather the fact that specialists are generalizing."³ After many centuries of theological imperialism, we have now had three centuries of an even more aggressive "scientific imperialism" and the result is a degree of fundamentalism and discrimination, particularly among the young, which can at any moment lead to the collapse of our civilization. "The true abolition of rules," says Dr. Frankl, "is individualism... Contemporary individualism no longer brandishes the word enlightenment; today individualism is camouflaged as nothing but virtue. Human phenomena are thus turned into mere epiphenomena."⁴

The notion of "specialists generalizing" as a bad thing is not meant to discourage inductive thinking as a path to the creation of theories – it's a reference to those who take what they know at a physical level of reality, and try to impose it onto the whole cosmos and on larger questions of meaning. It's an example of the semantic slippage that Kaufman might warn us against – of gaining small knowledge about nature as wilderness, and thinking then that it automatically applies to nature as cosmos. This is misinterpreting the forest because of the trees, or, more precisely, misinterpreting cosmology because of the trees. To break the Jesus Christen "Cos" Spinoza quotes we discussed in chapter one to make progress in sustainability, we don't need just more science and policy, we need cultural and spiritual transformation, and that is not so much a thing for the realm of science, but rather falls in the domain of religion. Spinoza sees science and religion as complementary forces, in contrast to the modern, cartesian turn that would privilege science as the arbiter of all and as having the final authority on all subjects.⁵

This discussion of religion and science may be challenging. If Barrow's perspective holds true, it might even point toward something of a paradigm shift in the way that science is understood in relation to religion. For our purposes, the point has been to examine how science and religion operate, and how we arrive at understanding via science and religion. In so doing, we might notice that the contemporary science-religion conversation is still sometimes truncated and obstructed by attitudes, paradigms, and perspectives that don't well match the material. If we allow an anti-science or anti-religion view to set the frame, our discussion will not be very productive. But if we take the time to notice the similar structures of science and religion, and the complementary forms of knowledge that they produce, our prospects for understanding deepen.

3. This brings to mind the problem of semantic slippage raised by Kaufman between nature and wilderness and cosmos. But we also might note that “science” was once a much broader term than it is today; the ancient sense of “science” included knowledge about ethics as well as about the physical universe. So the impulse to think about wilderness and cosmos in relation to one another is ancient, and seemingly quite natural.
4. From E.F. Schumacher’s [Small is Beautiful](#)
5. We will note in chapter 8 and when reading Pope Francis’s encyclical *Laudato Si’* that Francis explicitly acknowledges the limits of religion, stating that religion does not have the final say in matters of the environment, and must turn to science as a partner.

1

We've come a long way from the day of logical positivism – positivism and the positive engagement of religion in environmental issues have had an impact – and maybe the discussion above indicates that science and religion are moving toward better complementarity.

almost nothing is that way – save for a range of important physical facts about how the material universe works, we do not have theoretical certainty (the predictable cause-effect relationships posited by scientific theories) about most things. For all we know, the elevator we get in every day could fail catastrophically at any moment, or we could be killed in a traffic accident, and yet most people don't only get into elevators (or take any other action) when they are absolutely certain that no harm will come to them by doing so.

We live our daily lives based on much less absolute or certain knowledge about things. Knowledge, for all practical purposes, doesn't rely on absolute certainty. So what is knowledge if it's not theoretical certainty?

Theoretical certainty is not the basis of most of what we know and act upon, since we would be paralyzed if we could only take actions where we were certain what the outcomes would be. So what is a more likely definition for knowledge? What sort of thing is a knowledge claim upon which we might base our actions or our lives? It might be something like the following:

- a claim for which we can give good reasons
- a warrantable assertion
- a justifiable claim or belief

We cannot know for certain that each car ride we take won't end in a terrible wreck that takes our lives, but we can justify our choice to ride in a car based on the warrantable claim that only a small percent of people crash and die when they drive somewhere in their car, and we feel the risk is sufficiently low to allow us to drive or ride in cars when we need to. We live our daily lives despite innumerable bits of knowledge about which we cannot be certain. There will probably not be an earthquake that will swallow me up into the sidewalk today. Gravity will not stop working today. We can give good reasons, though, for why these things are very unlikely to befall us, and that's enough to live by.

Now, as we've noted above, these ideas might not sit well with everyone, and for anyone who agrees with skepticism (the belief that science can provide all the answers and knowledge necessary for life), these ideas absolutely pose a challenge. We should expect, as our discussion of knowledge has concluded, that knowing something (including knowing that the world is a certain way) should mean that we have good reasons or warrantable claims as our basis. But sometimes when faced with challenging ideas, rather than address them seriously, we dismiss them with a certain argumentative sleight of hand known as relativism.

Relativism

[Alan Watts's article on relativism](#) addresses this possibility, and challenges us to avoid lazy thinking. Wood's argument partly aims at helping us avoid simplistic dismissals of the ethical, moral or religious views of others by appeal to the claim: "what's true for you is true for you; what's true for me is true for me," which is the basic argument of philosophical relativism. At first glance this view can seem to be epistemologically enlightening. But if we look closer, it seems that such claims are really saying "I think I'm justified in simply ignoring your view and any shortcomings in my own, because I think it's impossible for my own view to be flawed."

Wood wants to avoid that relatively sophomoric philosophical cop-out, in order to make more engaged and thoughtful dialogues possible. He also helps us dial down the tension that is often left between those who seem to believe in "absolute truth" and those who don't agree with them. Wood demonstrates that relativists, quite opposite to their own claims, are actually claiming an absolute truth (that of relativism, a move that initially makes relativism self-refuting, and thus a philosophically indefensible view), and he suggests that relativism simply can't support the sort of tolerance and open-mindedness that relativists seem to want to champion. Instead, Wood describes what he thinks are the quite positive moral ideas that relativists might be trying to offer, views which aren't threatened with self-refutation. They aren't relativistic at all. It turns out – they are values that relativists think everyone should have.

2

3

4

1. Logical positivism (later evolved to logical empiricism), a form of positivism, was a movement in western philosophy whose central thesis was the verification principle; developed by members of the Vienna Circle, it claimed that the only meaningful philosophical problems are those that can be solved by logical analysis (see section 4.6 for more discussion of positivism).
2. Sometimes there is still resistance to this, as an article by Charles Krauthammer, "[Coffee, Tea, or He?](#)" describes. The influence of modern scientific or positivist thinking still holds sway even though these paradigms have fallen out of favor. For instance, some suggest that we have moved beyond a "modern" ideal, where science and technology and human smarts were believed to be capable of improving and perfecting all life. One need only look at the evils of Nazi Germany – the Germans having attained the best universities and a high culture of arts – to realize that such an ideal is not an end-all, be-all; thus the need for post-modern thinking.
3. It is also possible that I might invoke relativism simply because I am legitimately threatened in some way by a particular conversation. Perhaps I was bullied by my parents or my community, and religious ideas were used almost like a weapon against me (to control me, to criticize me, to "put me in my place," to ostracize me, to threaten me, to judge me), and if so, I might simply need to check out of a conversation that will otherwise be too emotionally loaded, or too painful to bear. In this case, I would hope readers can acknowledge and honor anyone's need to not be pressed into painful, dangerous/threatening discussions, and it is always ok to say "I think I need to just sit back and listen a bit" rather than answer to a particular charge that creates anxiety. In fact, outside of the class I teach, I might even commend the tactic of the relativist when faced with an absolutist who has no interest in a mutual exchange, and is only intent on forcing their views on you – just saying "well, whatever is true for you is true for you, and something else is true for me" can quickly conclude that conversation, and save you from the unjustified sermonizing of another. But it should be clear why I want to protect the conversation space in my class (ENR 3470) so as not to have to invoke this conversation-ending relativist (and basically insulting when intentions are not to bully) tactic.
4. Here Wood distinguishes himself from some other forms of postmodern thought, which embrace relativism.

94 | 4.5 What is knowledge?

5

While Wood shows that basic philosophical relativism is self-refuting and thus incoherent, he also shows that ethical relativism

6

is self-refuting and inconsistent. He even explains that cultural relativism

7

is troubled with similar problems of self-refutation and incoherence. Wood nonetheless is at pains to defend the values and virtues that he thinks relativists are (rightly) asserting.

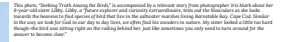
However, Wood makes clear that absolute truth is not the enemy of these values – indeed, those arguing for tolerance, open-mindedness,

and humility tend to believe that there are values that truly and absolutely are important and commendable. But through a view like fallibilism, rather than a simple absolutism, Wood makes clear that just because someone believes in absolute truth or in some particular truth or value, it does not follow that they must believe themselves to be in possession of (or even that humans can be fully in possession of) all truth. A fallibilist can hold to a belief in absolute truth, but still at the same time be able to say “I could be wrong.” They

can live their lives and stake their well-being on what they believe to be true, and they can discuss and argue and disagree with others about what is really true or not, all the while admitting that they could be wrong. It seems that it's not so much the notion of absolute truth that is offensive to people (indeed, the idea that there isn't any absolute truth is itself an absolute truth claim), but the presumption that because there is truth, that someone must believe that they are in sole or full possession of it and that they have more

right to force that truth onto others. In my class, we proceed with an embrace of the idea that absolute truth (in whole and in part) is a legitimate thing to discuss, believe in, compare notes on, and think more deeply about.

5. Ethical relativism believes that if truth/reality itself isn't relativistic, maybe just “ethical truths” are relative to individuals.
6. Cultural relativism believes that right and wrong are relative to different cultures.
7. Virtues of tolerance, open-mindedness, and humility, for instance.



enters our knowing.

The concepts we've discussed above will cover our purposes, and the next chapter will explore two faith-based accounts of the human person - the spiritual anthropologies of Reinhold Niebuhr and David Loy. But for those who want to dive a little bit deeper into this philosophical territory, the next section adds a few more thoughts to the pot.

4.6 A deeper dive into philosophy of science

Science itself isn't pre-determined to be what it is – it could be done in other ways, and there have been plenty of debates about the trajectory of science over time. These varying trajectories suggest that there are many competing worldviews that have shaped science, and indeed religious worldviews have accompanied science (and scientists) all along. After all, some of the most important scientists have been religious people (such as Isaac Newton or Gregor Mendel), and many prominent scientists today are also people of faith (such as Francis Collins, director of the Human Genome Project, who is an evangelical Christian). At the same time, religious authority has been routinely opposed by science at times, and of course many important and contemporary scientists are not religious (and some are firmly anti-religious). We have already noted the "scientific imperialism" that has framed our era, and the influence of scientific thinking continues to convince some that science is the only legitimate path to knowledge. If we pull back the veil of some of these views, it's easier to reduce some of the confusion between science and religion that tends to fan the flames of conflict and obstructs complementarity. If so, one implication is that "conflict" is an unfortunate and unnecessary category for the relation between science and religion (it really only makes sense when people either try to use science like a religion, or in scientism, or when people try to use religion like a science, or in some varieties of creation science). I think some amount of independence, dialogue, and integration all seem more reasonable.

For instance, we see examples of independence and dialogue and integration all happening at universities – different fields delve into different realms of ideas and understanding, and often don't talk much with each other, and yet more and more there is interest in multi-, inter- and cross-disciplinary dialogue.

1 In addition to these possible ways of working how religion and science relate to each other, Barbour also comments on the more specific question of how science is related to reality.

2 Barbour lays out four options that have held sway in the past 100 years: positivism, instrumentalism, idealism, and realism. Barbour asserts that most scientists hold to some form of realism; Barbour himself favors critical realism. Another way to understand these categories of understanding science is as different understandings of what "theories" are:

Theories as summaries of data: Positivism

Positivism is a philosophy of science that rejects metaphysics and theories; it holds that every rationally justifiable assertion can be scientifically verified or is capable of logical or mathematical proof. This view includes logical positivism and the verification principle (we further discuss below). However, positivism doesn't adequately represent the crucial role that concepts and theories play in the history of science. Since "the real" appears to be more than just "the observable," this philosophy seems lacking. Despite the fact that positivism doesn't seem very likely to be correct and has been largely discredited, the attitudes, traditions, and habits of positivist assumptions still hold more sway than we'd think they should for a notion that doesn't match reality. (The idea that "objectivity" is an end-all/be-all criteria for all science and knowledge is one such tradition based on positivism.)

Theories as useful tools: Instrumentalism

In contrast to positivism, instrumentalism recognizes that the learner does more than record and organize data. She abstracts, idealizes, constructs, invents, etc. Inevitably, theories are tools to make accurate predictions, organize information to guide further research and achieve technical control (whether results are true or false is secondary). We recognize that laws and theories are invented, not discovered. However, Barbour reminds us that it seems that valid concepts are true as well as useful, so instrumentalism doesn't seem a perfect match with reality either.

Theories as mental structures: Idealism

This notion posits that the structures of theory are entirely imposed by the mind on the chaos of [sense data](#). As such, theories are subjective; the activity of the mind imposes structure on uninterpreted data – some data have no structure otherwise, according to this view. Thus, reality changes as discovery proceeds! However, realists say our ideas change, but the world/physical reality doesn't, and concepts represent the structure of events in the world.

Theories as representations of the world: Realism

In realism, being is prior to knowing. For many, intelligibility rather than observability is the hallmark of the real. This view is critical of both positivism and idealism, picking up on the critiques noted above. Barbour claims that scientists usually assume realism in their work. Naïve realism overstates the role of our ideas (it looks a bit like positivism: if you assume realism is "true" and then assume that humans can discern a 1 to 1 relationship between the real and our theories about it, then such a naïve view will hold some of the same assumptions as positivism). Critical realism – Barbour's preferred view – acknowledges both creativity of human thinking and the existence of patterns and events not created by human minds. It posits that no theory is an exact description of the world, but yet the world is such as to bear interpretation in some ways and not in others.

If good science aims to understand nature, we can only do the concern for empirical testing of positivism with the concern for intellectual coherence of idealism, while avoiding the excessive preoccupations of either. Science requires both logical processes and a creative imagination transcending logic. For Barbour, this describes critical realism.

A few additional points emerge from the concepts discussed above. The first regards the **verification principle**: this was part of the suite of beliefs of the positivists, and it states that only what can be verified (proposed and predicted) is real or true or knowable.

3 but if only the verifiable is real or has meaning, this is a contradiction, because we can't verify the verification principle itself. That it is true is not empirically verifiable – it appears to be a tautology.

4 The problem can be phrased like this, too: a statement is only legitimate if there is some way to determine whether the statement is true or false (or what the answer to the question is), but the standards of discerning true and false are not verifiable. Indeed, if we look at how much non-verifiable information we have out there on, the verification principle seems less compelling already – it's as though our empirical experience in the world, eventually, points towards even so empiricists relying on non-empirical knowledge to know what we know about life and experience itself. This is

5 like Jude Foster's character in the movie *Crucial*.

6 due to a rationalistic scientist, who realizes that the thing she knows with the most certainty in her life is something that she can't prove scientifically, namely that her deceased father loved her. A related point is that all knowledge, if you question it's foundations far enough, is revealed to rely on unverifiable presuppositions.

1. Note that these three correlate to some extent with the independence, dialogue, and integration categories from Barbour.
2. Ian Barbour, *Issues in Science and Religion*, Harper and Row, 1971
3. Barbour notes that Hume and the empiricists said that observation is the only way we can acquire knowledge.
4. A tautology involves the needless repetition of an idea, especially in words other than those of the immediate context, without imparting additional force or clearness, as in “widow woman”; it is a compound propositional form all of whose instances are true, as “A or not A” (<http://www.dictionary.com/browse/tautology>), thus not actually meaningful. For a verificationist, non-tautologous statements are meaningful only if it is – in principle – possible to establish empirically whether they are true or false. But if your standard is the observable, then we would need to be able to step back and watch a universe where people act only on what they observe versus a universe where people may know other things that aren't verifiable, and I guess then we'd have to judge that the empirical-only universe is somehow “better” or more “correct.” However, the standard we'd have to use to make that judgement itself would then be an opinion, not verifiable as such, so we would need to appeal to something that can't be verified, which would seem to argue against the verification principle.
5. Based on Carl Sagan's novel of the same title.
6. For one who believes that there can be no reality that isn't “verifiable”, this claim could be disorienting or might seem impossible. It is akin to the story of the foundations of the earth resting upon the shell of a giant turtle: one then asks, “Well, what is the turtle resting on?” The answer is “another turtle.” The obvious next question becomes: “Well, what is that turtle resting on?” The answer again is “another turtle” and so on, until the questioner finally says “Don't you see?”

Another point that needs attention, or is likely to have arisen from the preceding discussion, has to do with 'objectivity'. One hanger-on from positivism, somewhat akin to the verification principle, is a line toward thinking that only 'objectivity' is trustworthy or can provide knowledge or a basis for science, but the above arguments make clear that some of the more 'subjective' functions of knowing and thinking do indeed play a role in good science, always have, and always will. Barbour addresses this by redefining

'objectivity' as 'intersubjective testability with commitment to universality.' By this he means that if we look at how science actually proceeds to create and confirm knowledge, we see that any particular field will seek the expert judgment (through peer review) of its own practitioners to test any new ideas or conclusions against what is already known and treated as reliable information. Here 'universality' suggests a focus on aspects of experience that are universal and applicable to all. The result is a perspective on scientific

knowledge that isn't merely 'subjective' and thus somehow unreliable, but rather an acknowledgement of the elements of science that draw on subjective capacities in an intersubjective way (such that any idea will have to pass the scrutiny of a consensus of experts in order to be seen as reasonable).

Laws and Theories

Barbour further comments on laws and theories to describe the differences between the two. Essentially, we think of laws as descriptions of observed phenomena, and of theories as explanations of phenomena (just don't explain why a phenomenon exists or what causes it). It is tempting to think of theories and laws as existing on a spectrum, where the hunches and ideas of scientists (based on careful study) eventually start to gain coherence as a theory that finally is verified in terms of a law of nature, thus

completing the quest for certain knowledge about some part of the world in some cases, this sequence of development might hold true – we might craft a theory based on limited observations to explain what we're observing in the behavior of gases, and then, with time and more and more accurate observations, derive a universal law of physics. But it is important to remember that not only do theories not necessarily lead to laws – we might instead first discern a law through observation before we can figure out a theory to

explain why that law is true – but even if some theories lead to laws (as sometimes happens in physics, chemistry, or other physical sciences), it is another thing to think that all of reality works this way – thinking that it does would assume a positivist (or naive realist) view of the world that doesn't seem to merit much trust. It would assume that all of reality is governed by a sort of physical/material/Newtonian/causal set of formulas. 8

Rather, it seems more the case that laws and theories work at different but complementary levels, and though intuitions and hunches may play a role in the formation of theories, by the time something is declared a law, it's been thoroughly tested for repeatability and "always true-ness." With things that are purely physical/Newtonian in character, formulation of a "law" may be the goal all along. But there are also many types of things where we probably shouldn't ever expect a "law" to emerge or for "law-like" relationships to

be the norm. 9 Many aspects of life are messy, chaotic, chaotic. For instance, imagine that we think we could reduce human relationships, say marriages, to a set of laws. That would suggest that we could predict the outcomes of marriages and relationships, and also that we could expect to achieve happiness in relationships by simply following the formulas allowed by whatever laws of marriage are true. This seems either highly unlikely, or like an achievement that would require either extreme restrictions of human freedom

or a great deal of brainwashing. And yet we're not about to therefore say that relationships and love are not real or are insignificant or irrelevant, just because we can't derive "always true and predictable" laws about these things. So it behooves us to attend to what is a theory, what is a law, and why they might matter.

That said, laws are usually observed or deduced – they have to do with directly observable relationships. Laws can be deduced from theories (at which point we test explicitly to see if that law holds true in reality). Laws are about correlations between two or more concepts that are closely related to observations. There are less complex mental constructs – once we figure out the correlation/primary/relation, it seems pretty straightforward to us and describe what is going on. Meanwhile, Barbour says that theories are

usually deduced, inferred, or interpreted. They are mental constructs. They are unified and generalizable conceptual schemes from which laws can be derived, as such, theories are things that can't so much be observed (at least not yet).

For example, you can derive laws from theories from [Lorentz's theory of gravitation](#), you can deduce [Einstein's laws](#) about the elliptical orbits of planets around the sun. However, it can go in the other direction as well – to account for [Bohr's laws](#), which had been observed and figured out in the 1900's, [Einstein's theory](#) was later developed (and Einstein's Theory accounted for other laws, too, and led to new discoveries).

So we'd say that like [Einstein's theory](#), [Lorentz's theory](#) the inductive ideal is the example of coming up with a law – "generalizing from particular experiences/laws to universal patterns." We take observations, figure out the general pattern, and only, we are headed towards the discernment of a law. The deductive ideal, on the other hand, is when we derive verifiable observation statements from general theories – it's like taking Newton's theory of gravitation to deduce Kepler's laws (if these theories are true, our calculations show that there

must be another planet out there, and voilà! There it is). We can arrive at laws by deduction from a theory, but we can also discover laws by inductive processes working with the data/observations that turn out to be general/predicted by a law. Note, however, that creative imagination plays a key role in imagining theories as well as in deducing laws from observations.

In a sense, we might think of it this way: you figure out a theory based on what you can measure/observe and on the ideas you have about what might explain those observations, but theories can be about things that are still too complex, or maybe not repeatable enough, to deduce a law about them. But, you can also figure out a law based on what you can measure/observe and on the ideas you have about how those things are related, which will be influenced by your understanding of what explains those observations. So,

10

good theories make it easier to sort out complex data to see repeatable patterns that might be reduced to laws (at least, say, or behavior).

Understanding the relation between laws and theories in science is challenging, and it involves both historical and philosophical points. And yet all of this conceptual work still falls within the limited bounds of what and how we think we know things in science. For those who believe (as in science) that scientific laws and theories are all that is, it will be hard to see these concepts as complementary or in dialogue with religion, except as a means to exclude religion as a legitimate mode of knowing. But putting all of these

concepts within the framework of Barbour's critical realism, and with modes of dialogue and integration in mind as alternatives to the conflict model required by the faith of scientists, we will be able to open up a much deeper and far-reaching conversation.

This is absurd! That makes no sense! You just keep invoking another turtle!" which occasions the final reply: "Don't you see? It's turtles all the way." This is the philosophical problem of infinite regress, here exploited to question "certainty."

7. The intuitive leaps, eureka moments, and hunches of scientists might be examples. The mode of knowing that Baer described as *intellectus* fits in this space.
8. Prior to the elucidation/clarification of quantum theory, philosophers were left to debate this, but physicists themselves have provided contrast to such a Newtonian worldview with quantum physics.
9. The relative lack of "laws" in the social sciences compared to the natural sciences might be an indication of the limits of assuming that physical/causal "laws" govern all of reality.
10. Likewise, bad or inaccurate theories based on incomplete data can delay our elucidation of a law.

Barbour, I. G. (1971). *Issues in science and religion*. New York, Hagerstown, San Francisco, London: Harper and Row Publishers.

Lonky, V. (1978). *The mystical theology of the eastern church*. St Vladimir's Seminary Press.

Schumacher, E. F. (1973). *Small is beautiful: economics as if people mattered*. New York, NY: Harper Perennial.

Wilkinson, L., & Wilkinson, M. R. (2005). *Caring for creation in your own backyard*. Regent College Publishing.

Chapter 4 Discussion Questions

Epistemology - Knowledge and Science

- 1. Barz claims that American culture has few of the rites of passage common to most primitive cultures through which the adolescent learns to confront death. Why would this matter to environmental values? Do you agree with Barz's claim? What do you think are the main rites of passage in contemporary American culture?
- 2. Barz argues that Western culture has lost some of the balance between ratio and intellectus that was evident in previous eras. What are ratio and intellectus, and how do they relate to the different kinds of knowledge that Barz discusses? Do you agree with Barz's suggestion that a better balance between ratio and intellectus would help us address environmental problems? Why or why not?
- 3. Do you agree with Barz that in addition to new science and technology and the restructuring of political, economic, and social institutions, the healing of nature will come about only with the healing of persons? Why or why not?
- 4. Barz says that Max Scheler argued that the practical requirements of survival, including the need to perpetuate the conquest of nature, helped shape the scientific perspectives that remain in force today, and that this results in a certain disregard for ethical, religious, and aesthetic dimensions of existence, in preference for what is measurable, quantifiable, and empirically verifiable? What do you think?
- 5. Do you agree with Barz that "we have become woefully deficient in other kinds of understanding, including intuition, wisdom, and aesthetic, ethical, and religious understanding?"
- 6. What do you think of Barz's point about the aggressive view of the mind and intellectual processes that is revealed in university settings?

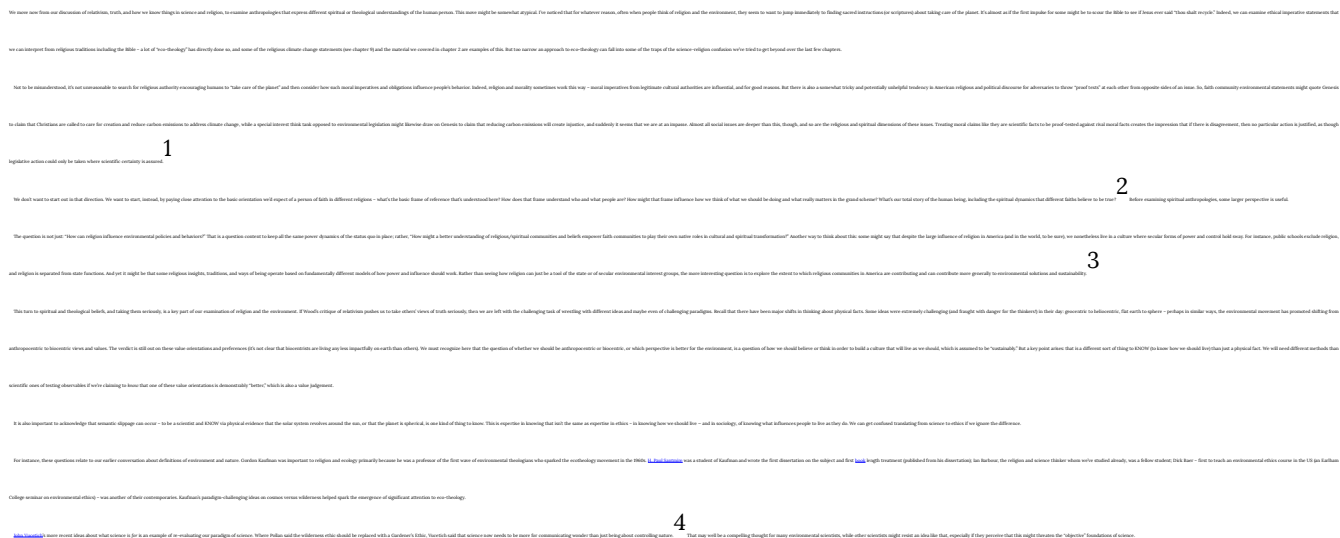
Knowledge Across the Spectrum: What Do We Know About Nature and Knowing?

- 1. What are the strong points of the Allen Wood article on relativism? Do you find any flaws in his argument?
- 2. Do you believe that you can say anything valid about moral questions in cultures other than your own? In light of the Allen Wood article, say why or why not.
- 3. Why, according to Wood, is relativism self-refuting? If relativism is self-refuting, then what is the truth that relativism was trying to uphold?
- 4. Is civilization possible without making judgments about other people and their actions?
- 5. Why do you think the Western world, at least since the Enlightenment, has up until fairly recently so persistently defined knowledge as certainty?
- 6. What does it mean to "know" something?
- 7. Is it ever right to impose our moral judgments on others?
- 8. What is autonomy? Do you consider it good to be autonomous?
- 9. Discuss and evaluate Allen Wood's argument in "Relativism" that relativism serves as an intellectual defense mechanism. "Relativism comes to the rescue by protecting my opinions (making them all 'true for me')." writes Wood. Do you agree with Wood when he says that relativism makes us tolerant of our own "intellectual cowardice, laziness, and incompetence?"
- 10. Is scientific knowledge the only truly reliable knowledge we have? What other kinds of reliable knowledge can you think of?
- 11. What moral imperatives are shared among all human cultures?
- 12. What is religion?
- 13. What are the different ways we define "nature"?
- 14. What is science?

Before we talk about what religions believe about the environment, what sorts of things do religions believe about human life in the first place?

1 Instead of trying to compare or rate the "best environmental religions," we will look at how different religious communities understand the human situation in the first place so as to understand how religious perspectives on humans and the environment might operate. To do this, we'll use David Ley's article, "[Holding Back the Flood](#)," and excerpts from Reinhold Niebuhr's book [The Nature and Destiny of Man: A Christian View](#).
Having set an epistemological frame in the last chapter, we will now examine some theological anthropologies. [Introduction](#) to identify two different religious views of the human condition. We will then tie these perspectives back to environmental issues that are prevalent today. If we can understand the particular way that a religious understanding of the world (and of humans) operates, then we'll be in much better position to understand the meaning and diversity of religious responses to environmental issues, as highlighted in several case study chapters that follow.

1. A theological anthropology is a study of the human person in dialogue with the beliefs of a religious tradition.



1. This is not to say that good or accurate scientific information shouldn't be an essential part of the basis for various policies; the point is simply that if we narrow moral authority to the confines of scientific certainty claims, it becomes easier to oppose positive social change simply by generating rival "facts." I also do not suppose that political debates can be avoided by the perspective shift I am suggesting; the point is simply that some of these dynamics have been influential in religion-science-policy debates, so it is worthwhile to attend to them and avoid their pitfalls. Avoiding the tendency to fall into these dead-end debates is precisely why we've focused on the philosophical and epistemological points of the last chapter.
2. We'll look at theological/spiritual anthropologies that come from within specific religious/spiritual traditions, because where secular anthropology will describe cultures and values, it tends not to do so from *inside* the perspectives of different belief systems. While we will focus on a Buddhist and mainline Protestant perspective as our points of dialogue, any number of religious anthropologies might be similarly explored.
3. For Christians, it is instructive to remember that one of the transformative points of early Christianity was realizing that Jesus was not a "king" like the world would expect, to come wielding earthly power; rather, he modeled a power characterized by servant leadership, where the first became last and the last first, and where worldly power dynamics were turned upside down. Especially in a political environment where power struggles are constant (as in American politics), those hoping that religions can influence environmental policies might take note: it might be that we wouldn't expect religion to play its best role by becoming a weapon in the oppositional power dynamics of contemporary politics. We might rather consider the ways that religions might help reorient our basic postures towards issues (and towards our "enemies") to make different solutions possible. The Christian notion of loving one's enemies is relevant here, and the [Buddhist Renewal documentary segment](#) raises a related potential by seeking not to create separation and duality between environmentalists and their perceived opponents .
4. Vucetich, J. A. (2010). Wolves, ravens, and new purpose for science. In K. D. Moore, & M. P. Nelson (Eds.), *Moral ground* (pp. 337-337-342) Trinity University Press.

Scientists like [George Washington Carver](#) (the father of applied chemistry) fell into the category of being more open to mysticism and wonder – Carver claimed that his daily routine included going for a walk in the woods and “talking with flowers,” at which point he often received spiritual inspiration that guided his work in the lab.

Another example might be E.O. Wilson, whose notion of “building” all knowledge (as outlined in his book [Consilience: The Unity of Knowledge](#)) seems to be an illustration of drawing rational, scientific knowledge to replace (and improve upon) social and traditional forms of knowledge.

Another example would be the key physicists of the 20th century who considered themselves mystics: Einstein, Schrodinger, Heisenberg, Bohr, Dirac, Feynman, Pauli, de Broglie, Stenes, and Plank (this makes an excellent starting point for some papers in 2018-2019, and is fun [because you can learn more in the appendix of this book, see appendix 1](#)).

[Steven Weinberg](#) (who developed our new paper on Einstein and mystery) to contribute to this book. In [his 2018](#) says in his book [Science, Creation, Spiritual Beliefs of the World's Greatest Physicists](#), each of these physicists was surprisingly open to mystical understandings of the world, but they were careful to keep scientific and epistemological distinctions. Their physics didn't contradict mysticism, it just allowed for it – it didn't contradict it.

But if we each just say this relationship that “what's true for you is true for you” and “what's true for me is true for me,” then we may have to think more seriously about stories like this and about this fallibility that our current socially dominant society may be wrong. With that, we will look at the theological/spiritual anthropologies of two traditions as expressed by Reinhold Niebuhr and David Loy.



A reflection from the common garden of Lockhart, Scotland, High School in Chesham, Ohio, provided spiritual inspiration to this (and other) photographer. “The seedhead was large and the number of seeds is probably very considerable. I wanted to capture the detail in the perfectly repeated and arranged in the pattern that is one of nature's examples of an intelligent design of creation.”

5. A biography of Carver that details his spiritual approach to life and science is [The Man Who Talks with the Flowers: The Intimate Life Story of Dr. George Washington Carver](#), by Glenn Clark (reprinted from the original 1939 edition).
6. Wilson is one of the most respected scientists of his generation, and he has participated helpfully in dialogue between religion and science. His book *The Creation: An Appeal To Save Life on Earth* (2007) argues for respectful exchange between science and religion, and invites scientists to use the term “creation” in reference to nature as an offering of common ground between scientists and religion, honoring the belief of many humans that a creator, or God, plays a key role in how life works. Nonetheless, critics have noted that his respect for religious perspectives is more pragmatic than principled, believing that religious people will be needed to save the earth, so it is foolish to insult them.
7. This might be similar to Vucetich’s view of how science allows for wonder, though Vucetich seems to be arguing that the more important *purpose* of science now should be to inculcate wonder.
8. We will call them “theological” when from a “theo”-logical tradition that believes in God, “spiritual” when not, as with Buddhism.

Reinhold Niebuhr's theological anthropology constitutes a distinctive Protestant (Evangelical) perspective, and was classically developed in his chapter "Man as Sinner" from *The Nature and Destiny of Man*, which was developed for his 1958 Oxford Lectures at Balliol College, Oxford. Niebuhr was an American theologian and ethicist, Union Theological Seminary professor, and leading American public intellectual in the 20th century. He was awarded the Presidential Medal of Freedom in 1964 (see <https://www.whitehouse.gov/the-press-office/1964/05/11/1964-05-11-reinhold-niebuhr>). Niebuhr was also a German theologian of the 19th century, a Unitarian scholar.

Niebuhr's Nature and Destiny of Man is considered one of the top 50 most influential books of the 20th century.¹ Reinhold Niebuhr's theology is considered one of the "most influential American theologians of the 20th century," and 1958 lectures earned Niebuhr the "Grawest Professor Theologian in America" award.² In 1958, the Evangelicalism (journal) presented one of the 100 most influential theologians of the 20th century. Niebuhr was ranked 10th in the survey. In 1998, the Evangelicalism (journal) presented one of the 100 most influential theologians of the 20th century. Niebuhr was ranked 10th in the survey. In 1998, the Evangelicalism (journal) presented one of the 100 most influential theologians of the 20th century. Niebuhr was ranked 10th in the survey.

In describing "Man as sinner," Niebuhr addressed an understanding that is not an essential truth, but a human condition. While many theologians view sin as a moral condition, Niebuhr's logic of "sin" is not merely a religious or political statement, and it might have negative consequences for some readers, such as self-righteousness, which is a sin for "Man" for not progressing in understanding Niebuhr, who can be understood as

The description of human conditionality with God by

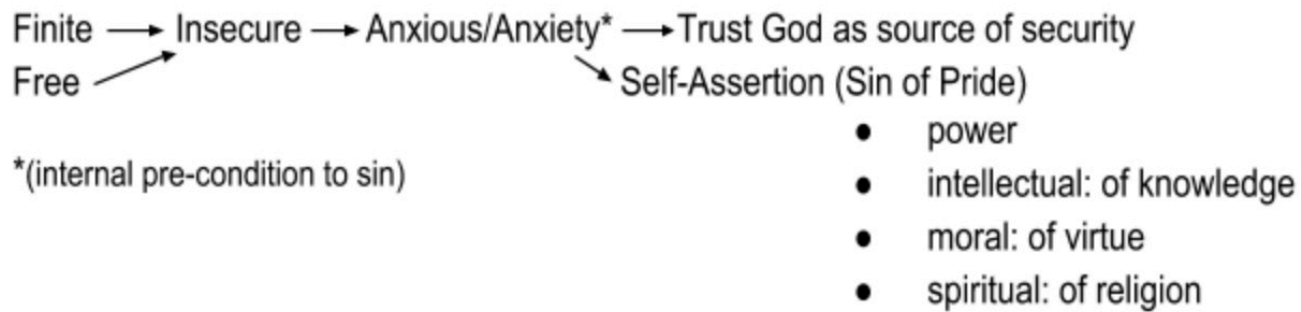
1. Speaking God's grace & liberating condition (grace)

2. Speaking God's grace & liberating condition (grace)

3. Speaking God's grace & liberating condition (grace)

4. Speaking God's grace & liberating condition (grace)

Niebuhr's logic, which is describing the human condition of "sin" is not merely a religious or political statement, and it might have negative consequences for some readers, such as self-righteousness, which is a sin for "Man" for not progressing in understanding Niebuhr, who can be understood as



Niebuhr describes the human condition as not being a sin, but a human condition. While many theologians view sin as a moral condition, Niebuhr's logic of "sin" is not merely a religious or political statement, and it might have negative consequences for some readers, such as self-righteousness, which is a sin for "Man" for not progressing in understanding Niebuhr, who can be understood as

1. Speaking God's grace & liberating condition (grace)

1. Niebuhr, R. (1995). *The Nature and Destiny of Man: A Christian Interpretation*. Westminster John Knox Press.
2. For example, see: <https://religionnews.com/2016/02/24/reinhold-niebuhr-speaks-2016-american-politics/>
3. Migliore, D. L. (1998). *Faith Seeking Understanding: An Introduction to Christian Theology* (First ed.) Eerdmans.
4. In the Biblical creation/garden story (Adam and Eve, and also in the story of Job), the role of the devil is one of tempter. The devil, himself a fallen angel who tried to be as God, now tries to get humanity to follow suit, to try to transgress the bounds set for human life by God. The devil wants us humans to believe that God isn't caring for us (so we think we must care for ourselves) and to think that God is maybe tricking us, so we shouldn't trust God's provision (we're being made a fool). All such thoughts serve to separate and alienate us from God, which fits the definition of sin as error – missing the mark, being separate from God.

9.	10
10.	10
11.	11
12.	12
13.	13
14.	14
15.	15

During a massive flood, there was a man who refused help – as the flood waters encroached the street, a truck drove by to offer him a ride to higher ground, but he replied: “I’ll be ok, God will rescue me!” Later, as the water reached his second floor, a boat came by and offered to carry him to safe shores, but from his second story window, the man replied “I’ll be ok, God will rescue me!” Finally, when the waters had reached the top of his roof, and the man was sitting on the last few shingles that hadn’t been submerged, a helicopter came by to rescue him, but even then, he still refused and said “I’ll be ok, God will rescue me!” The man died from drowning shortly thereafter, and when he got to heaven, he asked: “God, why didn’t you save me from the flood?” and God said: “Well, I sent you a truck, a boat, and a helicopter, what more did you want me to do?”

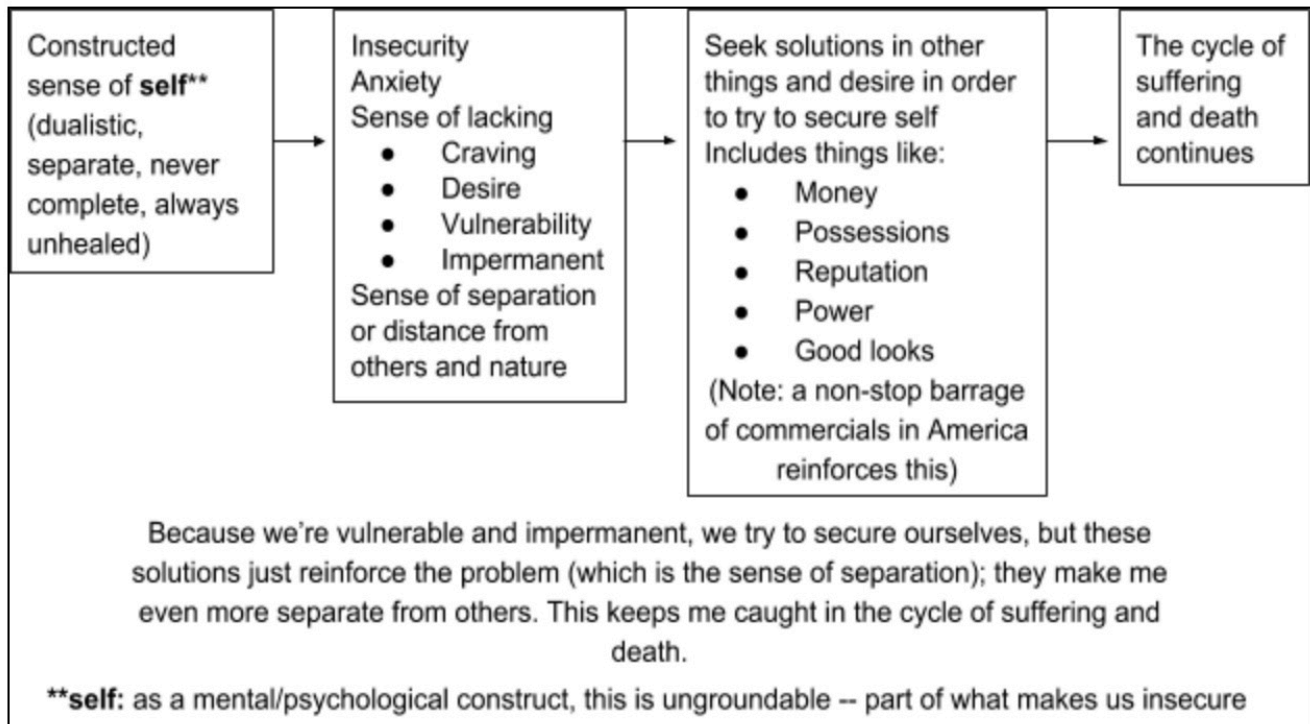
9. Niebuhr, p. 190-191.
10. Niebuhr, p. 194.
11. Here Niebuhr’s commentary seems to apply to the example in Allen Wood’s article on relativism of a thinker who imagines religions as parochial systems of thought akin to climbers that only have access to one side of a mountain; the author of the analogy seems to imagine himself as above all those views. Niebuhr says on p. 196 that “a significant aspect of intellectual pride is the inability of the agent to recognize the same or similar limitations of perspective in himself which he has detected in others.”
12. Niebuhr, p. 195.
13. Niebuhr, pp. 199-200.
14. Niebuhr, pp. 200-201.
15. I also think Niebuhr’s diagnosis of the human situation is more compelling and important to our discussion here than his descriptions of Christian paths forward. In brief, however, Niebuhr’s description of salvation focuses on grace received in faith, the spirit and power of God in humans, the gift of new life, being crucified in Christ (shattering the self in a perennial process of the self being confronted with the claims and presence of God), forgiveness of sins, and the power, holiness, and new life of continually acknowledging God as the source and center of all life. Niebuhr’s theology of the human situation and his framework for salvation and freedom was a primary basis for the healing and recovery process developed by alcoholics anonymous and the 12-step concept in general.

There are a number of other persons' faith formed in Christianity theology, including the following https://www.vimeo.com/32557592	16		17	18
19	20	21	22	

16. <https://vimeo.com/32557592>
17. <http://www.landreform.org/boff2.htm>
18. <https://www.encyclopedia.com/religion/encyclopedias-almanacs-transcripts-and-maps/ecofeminism-and-ecofeminist-theology>
19. <https://www.presbyterianmission.org/eco-journey/2015/06/26/gender-race-environment-and-religious-ethics-eco-w/>
20. Denis Edwards and many liberation theologians were/are Catholic.
21. <https://catholicclimatemovement.global/laudato-si-ch-4-integral-ecology-as-a-new-paradigm-of-justice/>
22. <http://www.orth-transfiguration.org/safeguarding-the-creation-for-future-generations/>



1. Some potential points of similarity with other views emerges here. For instance, Niebuhr advises trusting God because God provides. St. Augustine, a 4th century theologian, said that true freedom is perfect obedience to the will of God. Some ecologists might say that true freedom and sustainability is being in accord with ecological reality.



2

3

4

2. Thus off-base from the truth of oneness...

3. It is worth noting that in the next chapter after "Man as Sinner," Niebuhr focused on "collective egotism," so a fantastic term paper for ENR 3470 would be to look more closely at how Loy's comments about the collective human-environmental situation compare with Niebuhr's; such a paper could also incorporate other commentaries about collective egotism, such as the following: <http://www.chadbird.com/blog/2017/5/6/when-denominations-think-theyre-gods-chosen-group>

4. The Dharma Wheel represents the Noble Eightfold Path.

4. **Significance:** This is a significant work of art.

5. **Significance:** This is a significant work of art.

6. **Significance:** This is a significant work of art.

7. **Significance:** This is a significant work of art.

8. **Significance:** This is a significant work of art.

9. **Significance:** This is a significant work of art.

10. **Significance:** This is a significant work of art.



The photograph is a reproduction of the original work of art. It is not a photograph of the original work of art.

5

10. **Significance:** This is a significant work of art.

5. In later texts, the Middle Way refers to the concept of direct knowledge that transcends seemingly antithetical claims

about existence. Curious students might explore connections between the Buddhist Middle Way and Aristotle's Golden Mean, which will be mentioned in chapter 11.

6. The following analogy relates to some of the options here: as king, you arrive first; as boatman, you arrive with; as shepherd, you arrive last.
7. Note that many sects of Buddhism do not ascribe to a belief in "God," so Loy isn't necessarily speaking for all Buddhists here, but he is likely also alluding to the general historical sweep of religion in American culture, where "faith in God" is a less prominent common force than in the past.
8. An interesting thing to ponder (or an excellent term paper topic) – Loy's Buddhism ends up sounding fairly activist. Loy seems to prescribe/conclude some environmentalist goals; rather than let Buddhism be Buddhism and cure human greed, we're to be motivated by being the world's conscience, which seems like putting a lot on the self when the self doesn't exist. Why not just meditate more so that we can all slide toward peace? Niebuhr talked about this sort of danger – as soon as we identify the Bodhisattva Path, and believe that we are to be the conscience of the universe and do good, we've put ourselves at the center of our action. So how do we keep our actions (as part of the collective) true to what's for the common good, versus becoming actions possibly motivated by trying to be a savior or superhero? Niebuhr would say that as soon as we see ourselves as having some sort of power, our actions may just as easily be an expression of pride. Loy might point out that this is why the practice of meditation, to continually deconstruct the self, is so important.
9. This suggests that the biosphere needs liberation from suffering too, and that notion strongly overlaps with Christian thought. This is what the key eco-theology insight of Romans 8 says about salvation – if humans get saved and reveal their children-of-Godness, all creation can be liberated into freedom.





Smith, J. (2015). The Role of the Nurse in the 21st Century. *Nursing Times*, 12(3), 45-50.

Lee, S. (2018). The Impact of Technology on Nursing Practice. *Journal of Nursing Research*, 25(1), 12-18.

Johnson, A. (2020). The Future of Nursing: A Vision for the 2030s. *Nursing Outlook*, 68(1), 10-15.

Williams, B. (2019). The Role of the Nurse in the 21st Century: A Review of the Literature. *Nursing Times*, 16(2), 30-35.

Green, L. (2017). The Role of the Nurse in the 21st Century: A Review of the Literature. *Nursing Times*, 14(1), 20-25.

Short-answer questions

1. Explain the difference between a short-term and a long-term investment.

2. Explain the difference between a short-term and a long-term investment.

2. Explain the difference between a short-term and a long-term investment.

3. Explain the difference between a short-term and a long-term investment.

4. Explain the difference between a short-term and a long-term investment.

5. Explain the difference between a short-term and a long-term investment.

6. Explain the difference between a short-term and a long-term investment.

4. Explain the difference between a short-term and a long-term investment.

5. Explain the difference between a short-term and a long-term investment.

6. Explain the difference between a short-term and a long-term investment.

7. Explain the difference between a short-term and a long-term investment.

5. Explain the difference between a short-term and a long-term investment.

8. Explain the difference between a short-term and a long-term investment.

9. Explain the difference between a short-term and a long-term investment.

10. Explain the difference between a short-term and a long-term investment.

11. Explain the difference between a short-term and a long-term investment.

12. Explain the difference between a short-term and a long-term investment.

13. Explain the difference between a short-term and a long-term investment.

14. Explain the difference between a short-term and a long-term investment.

15. Explain the difference between a short-term and a long-term investment.

16. Explain the difference between a short-term and a long-term investment.

17. Explain the difference between a short-term and a long-term investment.

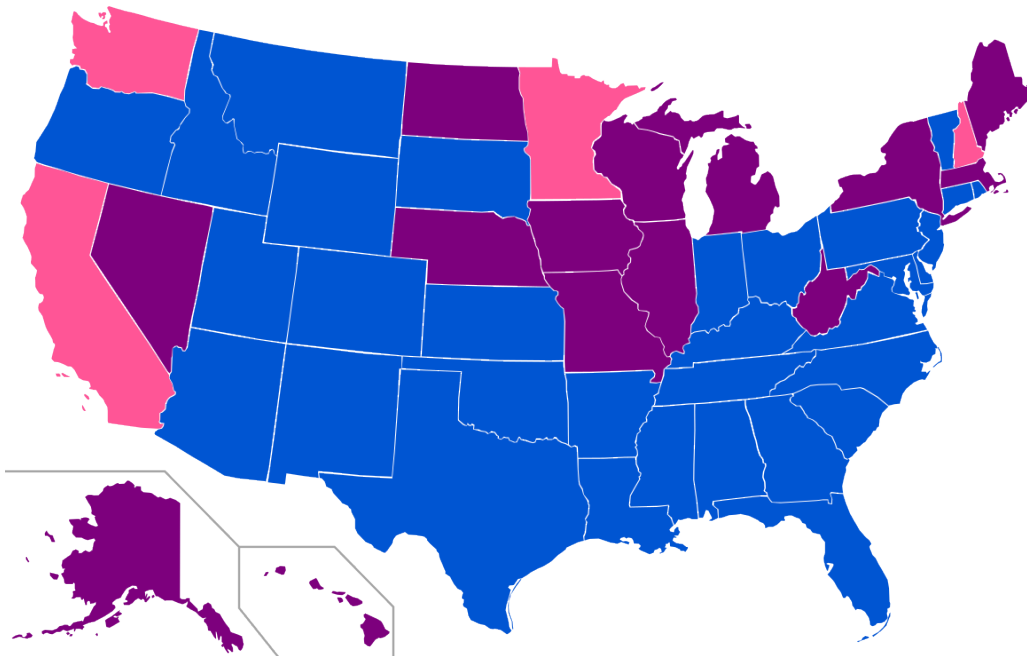
18. Explain the difference between a short-term and a long-term investment.

...

...

1. Much the same could be said for indigenous people and minority groups, and at the same time, undoubtedly the fear and anxiety of dominant social groups has been one of the underlying causes of discrimination.
2. Implicit bias, particularly in how it underlies pervasive racial discrimination, has been highlighted by a great deal of recent scholarship (you can test your own implicit biases [here](#), and read how those biases affect the hiring process [here](#)), and is another striking example. A good deal of important scholarship has highlighted the similar links between race, discrimination, and the environment (including [this paper by Chris Carter](#) and [this paper by Melanie Harris](#)), some of which is discussed in the forthcoming sub-chapter on Ecowomanism in this book.
3. Chapter 11's discussion of virtue theory will ask us to think differently about how to reason about environmental ethics. Rather than splice logic to arrive at the best environmental choices as other modern ethical theories might lead us to do (as we'll discuss in chapter 10), virtue re-orientes us to approach human problems from a different direction. Chapter 5 asked us to consider theological anthropologies as the point of orientation, an approach that focuses on the larger story and understanding a religion might have about how life works, rather than just looking at how its "rules" or ethical imperatives might add weaponry to existing political or ethical arguments about the need to care for the environment. Eco-feminism asks us to stop just focusing on how men say we should fix things... and consider for a moment that men's dominance over women and over land seem related, and might be a big part of "what's going on" overall that we need to attend to if we're going to understand and respond well to eco-crisis and other environmental concerns. So rather than remain stuck in the way we think and argue about things, we are attempting to step back and notice other major factors like this that we should be thinking more about.





2

3

- 6.2 Discrimination and Socialization | 121

4. Is the emergence of a MeToo movement an unsurprising but perhaps hopeful sign in such a culture?

1

2

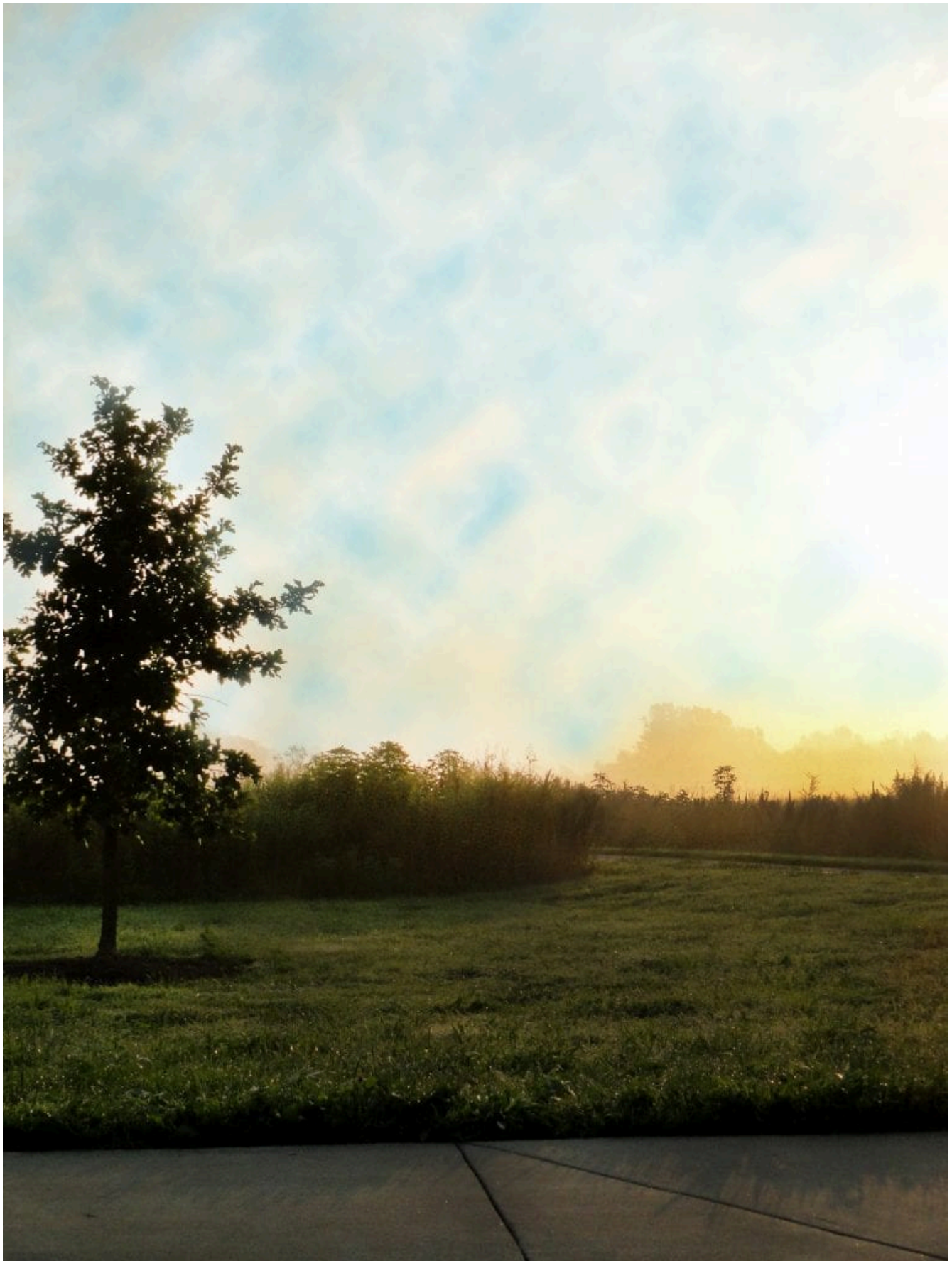
3

1. https://en.wikipedia.org/wiki/Third-wave_feminism
2. The following podcasts explore related topics further: 2019: All Sides with Ann Fisher: <http://radio.wosu.org/post/closer-look-traditional-masculinity#stream/0>; 1999: Susan Faludi on White Male Discontent: <https://www.npr.org/templates/story/story.php?storyId=1064358>; 2016: NPR Health Shots: <https://www.npr.org/sections/health-shots/2016/06/18/482156268/is-it-ok-for-boys-to-cry>; 2017: Tom Ashbrook, On Point: <https://www.wbur.org/onpoint/2017/08/22/middle-aged-men-need-more-friends>
3. Joseph Sax argues in [*Mountains Without Handrails*](#) that Americans, in part, set up national parks to show off our lofty mountains to the rest of the world, to argue that young America was just as amazing as older European countries. This was born of our national insecurity, and new-nation feelings of being weak or young or small, so we needed to make ourselves feel bigger and more impressive.

1

1. No doubt humans have always had to work to survive, but the notion of fighting nature, which is the source of our material sustenance, evokes a curious opposition to our source of support

1. Much of the discussion in this section is drawn from Baer, R.A., Tantillo, J.A., Hitzhusen, G.E., Johnson, K.E., and Skillen, J.R. (2004). From delight to wisdom: Thirty years of teaching environmental ethics at Cornell, *Worldviews*8(2-3): 298-322.
2. Hauerwas writes (1981: 39, n. 30): "Like so many of Miss Murdoch's themes this understanding of love is derived from Simone Weil." See, for example, Weil's work *La pesanteur et la grace*[Gravity and Grace] (1952).





3. See “Ethics of Inarticulacy,” in Taylor (1989: 53-90).

4. This will resonate with the virtue ethics approach we will explore in chapter 11

Wang, Y. and Zhang, L. (2019) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 1(1), pp. 1-15.

Wang, Y. and Zhang, L. (2020) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 2(1), pp. 1-15.

Wang, Y. and Zhang, L. (2021) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 3(1), pp. 1-15.

Wang, Y. and Zhang, L. (2022) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 4(1), pp. 1-15.

Wang, Y. and Zhang, L. (2023) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 5(1), pp. 1-15.

Wang, Y. and Zhang, L. (2024) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 6(1), pp. 1-15.

Wang, Y. and Zhang, L. (2025) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 7(1), pp. 1-15.

Wang, Y. and Zhang, L. (2026) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 8(1), pp. 1-15.

Wang, Y. and Zhang, L. (2027) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 9(1), pp. 1-15.

Wang, Y. and Zhang, L. (2028) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 10(1), pp. 1-15.

Wang, Y. and Zhang, L. (2029) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 11(1), pp. 1-15.

Wang, Y. and Zhang, L. (2030) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 12(1), pp. 1-15.

Wang, Y. and Zhang, L. (2031) 'The Impact of Digital Technology on the Financial Industry: A Review of the Literature', *Journal of Financial Technology*, 13(1), pp. 1-15.

Section 6.1

1. Explain the difference between a function and a procedure.

2. What is the purpose of the `main` function in a program?

Section 6.2

1. What is the difference between a local variable and a global variable?

2. How does the scope of a variable affect its lifetime?

3. What is the difference between a parameter and an argument?

4. How does the call stack work in a program?

5. What is the difference between a function call and a function definition?

6. How does the return value of a function affect the program?

7. What is the difference between a function and a method?

Section 6.3

1. What is the purpose of the `return` statement?

2. How does the `return` statement work in a function?

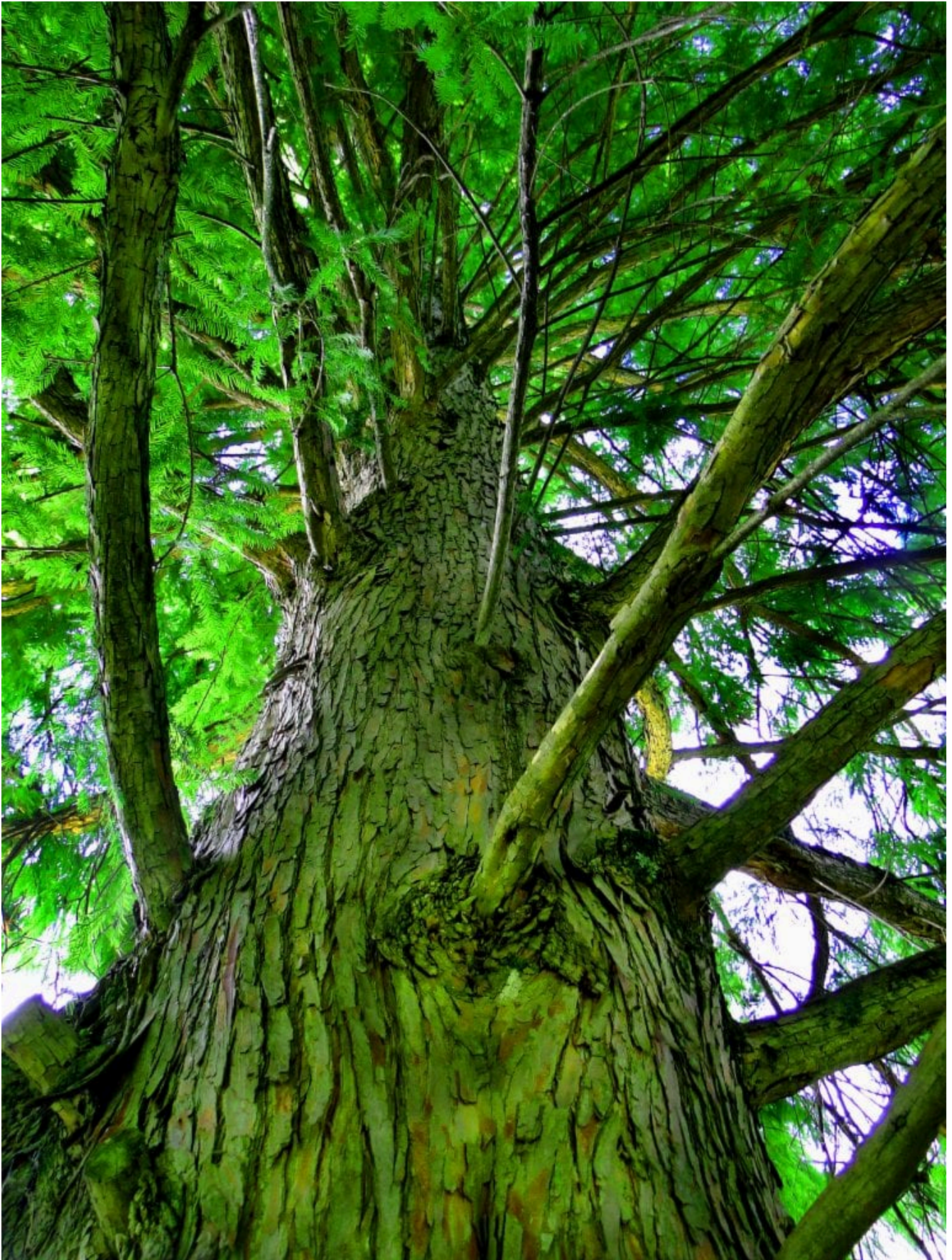
3. What is the difference between a function and a procedure?

4. How does the `return` statement work in a procedure?

5. What is the difference between a function and a method?

6. How does the `return` statement work in a method?

7. What is the difference between a function and a procedure?



1. <http://u.osu.edu/religionandenvironment/2017/03/04/history-professor-explains-religious-origins-of-american-environmentalism/> will be discussed briefly at the end of this chapter.
2. This is not to say that such a “wilderness ethic” is the superior basis for environmental values—Michael Pollan, as you may recall from chapter 3, made a compelling argument that this mindset may perpetuate a separation in America between nature and culture. Additionally, though some environmentalists privilege views like nature-spirituality, a person’s environmental views may not correlate with their ecological footprint. A wide range of worldviews can support positive environmental change, and none are exempt from the potential for hypocrisy. Tom Dunlap’s book, *Faith in Nature: Environmentalism as Religious Quest*, argues that the environmental movement has often functioned like a religion. If this is true, environmentalists must be careful not to allow religious or moral pride to alienate others by promoting a single environmental ideology as morally best.

1 2 3 4 5



6

7

1. <https://www.buddhanet.net/e-learning/buddhistworld/bodgaya.htm>
2. One source among many is Leal's Wilderness Theology in the Bible; a review can be found [here](#).
3. https://en.wikipedia.org/wiki/Muhammad%27s_first_revelation; http://www.bbc.co.uk/religion/religions/islam/history/muhammad_1.shtml
4. The classic exposition of wilderness themes related to Jesus is Ulrich Mauser's *Christ in the Wilderness*; an early review can be found [here](#). A recent post on Christian wilderness experience in Africa is [here](#). A Holmes Rolston commentary on biblical terms for "wilderness" is [here](#).
5. Think of Australian aboriginal walkabout, or native American vision quest, or any of the rites of passage in indigenous cultures that Baer noted as being relatively absent from American culture in his "Need to Control" article
6. The rest of this chapter assumes that the reader has read this article: Biblical Wilderness Theology: Spiritual Roots for Environmental Education from the Spring/Summer issue of the journal Taproot.
7. I.e., humans from humus

8. More discussion of ecological witness in the psalms can be found here: <https://www.reformedworship.org/article/june-2010/all-nature-sings>

1

1. Bratton, Susan (1993). Christianity, Wilderness and Wildlife: The Original Desert Solitaire. Scranton, PA: University of Scranton Press.
2. Hitzhusen, G. E. (2005) Understanding the role of spirituality and theology in outdoor environmental education: a mixed-method characterization of 12 Christian and Jewish outdoor programs, Research in Outdoor Education, 7, 39–56.

2

1. Bratton, Susan (1993). Christianity, Wilderness and Wildlife: The Original Desert Solitaire. Scranton, PA: University of Scranton Press.
2. Hitzhusen, G. E. (2005) Understanding the role of spirituality and theology in outdoor environmental education: a mixed-method characterization of 12 Christian and Jewish outdoor programs, Research in Outdoor Education, 7, 39–56.

1. Bratton, Susan (1993). Christianity, Wilderness and Wildlife: The Original Desert Solitaire. Scranton, PA: University of Scranton Press.
2. Hitzhusen, G. E. (2005) Understanding the role of spirituality and theology in outdoor environmental education: a mixed-method characterization of 12 Christian and Jewish outdoor programs, Research in Outdoor Education, 7, 39–56.



1

2



3

1. A textual content analysis of the four gospels of the Christian New Testament found over 1,000 references to nature (Faber, D.A. (1972) *A Content Analysis of the Four Gospels in Relation to Jesus' Use of the Outdoors*. Master of Education Thesis, Pennsylvania State University). Other examples of nature references in the bible are noted here: <https://www.biblestudytools.com/topical-verses/bible-verses-about-nature/> and here: <https://www.christiantoday.com/article/10-bible-verses-on-the-glory-of-god-in-creation/89071.htm> ; (the [Green Bible](#) also has a “nature trail” through the Bible)
2. For example: <http://www.native-languages.org/nature-spirits.htm>
3. The moralistic value is also a basis for what Ursula Goodenough calls religious naturalism.



4. Romans 1:18 indicates that God's power and divine nature can be seen in the creation, and Elijah's famous encounter with God in I Kings 19:12 pictures the divine presence in the stillness (and in that case not in the wind, or earthquake, or fire); Jeremiah 5:22 also displays Kellert's negativistic value.



1. See for instance Mark Stoll's "Milton in Yosemite: Paradise Lost and the National Parks Idea" (*Environmental History* 13 (April 2008), 237-74.) and his essay, "Religion 'Irradiates' the Wilderness," chapter three of *American Wilderness: A New History* (Lewis, M. L. (2007). *American Wilderness: A New History*. New York, NY: Oxford University Press. 35-53.)

Bibliography

1. [https://www.who.int/news-room/fact-sheets/detail/coronavirus-2019-ncov](#)
2. [https://www.who.int/news-room/fact-sheets/detail/coronavirus-2019-ncov](#)
3. [https://www.who.int/news-room/fact-sheets/detail/coronavirus-2019-ncov](#)
4. [https://www.who.int/news-room/fact-sheets/detail/coronavirus-2019-ncov](#)
5. [https://www.who.int/news-room/fact-sheets/detail/coronavirus-2019-ncov](#)
6. [https://www.who.int/news-room/fact-sheets/detail/coronavirus-2019-ncov](#)
7. [https://www.who.int/news-room/fact-sheets/detail/coronavirus-2019-ncov](#)
8. [https://www.who.int/news-room/fact-sheets/detail/coronavirus-2019-ncov](#)
9. [https://www.who.int/news-room/fact-sheets/detail/coronavirus-2019-ncov](#)
10. [https://www.who.int/news-room/fact-sheets/detail/coronavirus-2019-ncov](#)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____



1. This chapter will be kept intentionally short, to encourage readers to prioritize reading the encyclical itself! Full text is available online from the Vatican here: http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html
2. Mark Ellingsen's book *The Cutting Edge* documents hundreds of such statements prior to the early 1990s; the Yale Forum on Religion and Ecology maintains an online list of statements [here](#).
3. See the next section for further description of papal encyclicals.

1	2				
3	4	5	6		
7					
8	9	10			
			11		

1. One commentary states of encyclicals: “all Catholics are bound seriously in conscience to accept the teaching contained in these documents.”
2. <http://library.athenaeum.edu/c.php?g=30820&p=193150>
3. Francis notes in ¶3 of the encyclical that Pope Saint John XXIII addressed the encyclical *Pacem in Terris* (1963) to the entire “Catholic world” and to “all men and women of good will,” and then says that “now, faced as we are with global environmental deterioration, I wish to address every person living on this planet.”
4. Traditionally offered in defense or vindication, Christian apologetics is “a branch of Christian theology that aims to present historical, reasoned, and evidential bases for Christianity, defending it against objections”; in this case, however, Pope Francis simply seems to be apologizing to those who aren’t interested in Christian or Catholic theology by acknowledging their view and offering Catholic theology “for what it’s worth”...
5. Note that references to specific paragraphs of *Laudato Si’* will be signaled with the symbol for paragraph: “¶”, followed by the paragraph number.
6. ¶62 says: “Why should this document, addressed to all people of good will, include a chapter dealing with the convictions of believers? I am well aware that in the area of politics and philosophy there are those who firmly reject the idea of a Creator, or consider it irrelevant, and consequently dismiss as irrational the rich contribution which religions can make towards an integral ecology and the full development of humanity. Others view religions simply as a subculture to be tolerated. Nonetheless, science and religion, with their distinctive approaches to understanding reality, can enter into an intense dialogue fruitful for both.”
7. Pope Francis U.S. approval ratings from Pew have risen to around 70%: <http://www.pewresearch.org/fact-tank/2017/01/18/favorable-u-s-views-pope-francis/>
8. A number of these can be found [here](#).
9. One example of the latter is the Diocese of Columbus, whose creation care efforts are highlighted [here](#).
10. Presidents of the Ecological Society of America, the American Association for the Advancement of Science, the American Chemical Society, and the Society for Conservation Biology have all issued statements commending the encyclical, accessible [here](#).
11. https://www.catholicnewsagency.com/news/vatican_bishop_points_to_modern_social_sins; Alternatively, consider the ecological implications of Fr. Robert Barron’s presentation on the seven deadly sins and the seven lively virtues, which contains links to Niebuhr’s commentary on the sin of pride, and looks forward to our consideration of environmental virtue in chapter 12: <https://catholicecology.net/blog/eco-implications-seven-deadly-sins>; Barron also comments on *Laudato Si’*: <http://www.ncregister.com/blog/robert-barron/a-prophetic-pope-and-the-tradition-of-catholic-social-teaching>.



12. Turkson is a valuable commentator about Laudato Si', particularly since he was charged by Pope Francis to write the first draft of the encyclical and was the primary author of the theology chapter.
13. A commentary on Turkson's visit to Ohio State is found [here](#), and the full text of his prepared remarks at Ohio State can be found [here](#).
14. Chapter one provides an excellent summary of what Francis sees as the key environmental issues of our time, and it was



clearly crafted in consult with a number of scientists; the chapter reads as one of the best overviews of this sort currently available, so I would recommend it for any environmental studies course.

15. For example, scientific sources like the Millenium Ecosystem Assessment and Intergovernmental Panel on Climate Change (IPCC) reports are referenced in some religious environmental statements.



Chapter 8 Discussion Questions

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

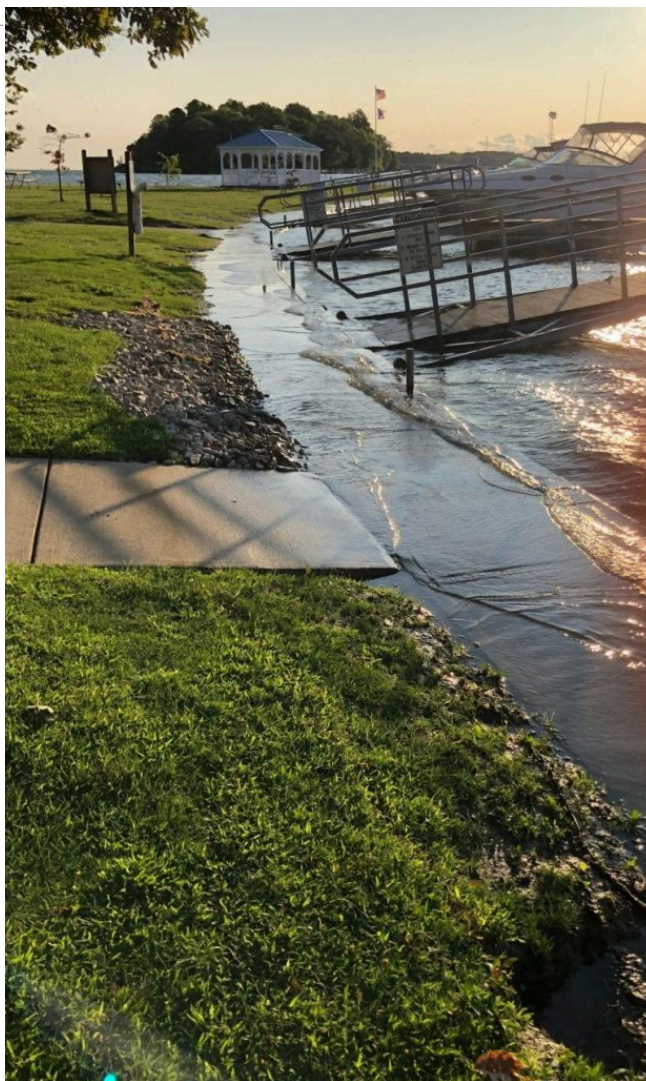
22. _____

23. _____



1

2



1. Later we will take up the question of the extent to which special interest groups or politicians attempt to use religion to motivate or justify their agendas, recognizing that both pro- and anti-environmental groups might do so; this is relevant to the question of how religion influences the environment, but I would just note that faith communities themselves would probably like to be freed of such manipulative influences.
2. Dr. Ellen Mosley-Thompson maintains a one-page online document listing reliable sources of climate science, which can be found [here](#).



3

4

5

6

3. http://changingclimates.colostate.edu/movies/kathy_moore_796_kbits_150k.html
4. Ohio State's Lonnie Thompson was a contributing author to a glacier melt report of the Pontifical Academy of Sciences: <http://www.casinapioiv.va/content/accademia/en/events/2011/glaciers.html>
5. This resonates with the aesthetic view of ethics highlighted in chapter 6, particularly in reference to the thought of Iris Murdoch, who believed that our vision of how the world is naturally shapes most of our ethical views.
6. In addition to the denominational policy statements available at the links above, the Forum on Religion and Ecology at Yale maintains a list of various religious environmental statements: [here](#) and [here](#)



7

8

7. The most recent use of this statement was to support COP21 in Paris in 2015: <http://gbccc.org/>
8. Some additional statements of interest include: National Climate Ethics Campaign: [Statement of Our Nation's Moral Obligation to Address Climate Change](#); [Muslim Green Guide to Reducing Climate Change](#); [Islamic Faith Statement on Islam and Ecology](#); [Hindu Declaration on Climate Change](#); [A Sikh Response to Global Warming and Climate Change](#)



9

10

11

9. <https://www.fossilfreepcusa.org/overtures/overture-2018/>
10. This letter also reflects the liberal/progressive political views of its sponsoring organization.
11. Laudato Si' has also generated significant inter-religious dialogue about climate change: <https://u.osu.edu/religionandenvironment/2015/11/09/laudato-si-adds-catholic-voice-to-diverse-spectrum-of-religious-creation-care-views/>; some notable quotes are highlighted by Interfaith Power and Light [here](#).

12. For example: <http://www.webofcreation.org/religious-education/545-au-sable>
13. A religious statement that claims to obligate adherents to a particular behavior runs the risk of rendering that behavior morally shallow - if one behaves in a certain way only because they are told they must, are they really acting with much moral depth? This relates to Pope Francis' preference for the term "care" in *Laudato Si'*, as discussed in chapter 8, since a heartfelt response may be more genuine and enduring than one generated by a (potentially detached) sense of duty.
14. <http://www.umc.org/topics/topic-united-methodists-care-for-creation>



1. I have been invited to speak about the environment at some churches where the pastor introduced my talk with reference to that church's denominational policy statement on the environment, and many churches regularly host educational sessions with expert speakers who address contemporary social issues; thus environmental policy statements might reinforce the tendency of local congregations to host an expert environmental speaker or otherwise more closely attend to particular issues.
2. <http://climatecommunication.yale.edu/news-events/35-of-american-catholics-say-the-pope-influenced-their-views-on-global-warming/>
3. US Senator Sheldon Whitehouse visited the OSU campus in 2016 and shared this information with an audience of students, faculty, and administrators during a talk on sustainability, and referenced this article: <http://thehill.com/policy/energy-environment/254021-11-republicans-seek-to-fight-climate-change>

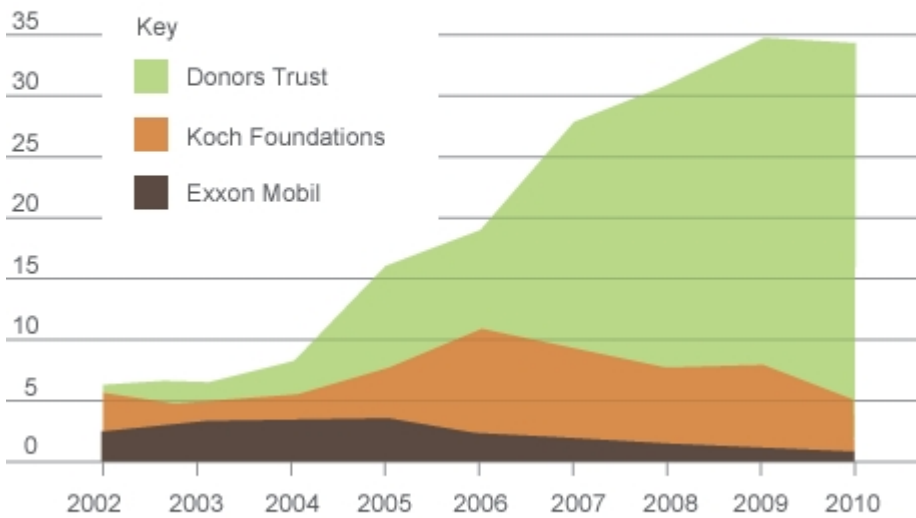
4 5 6

7

Climate denial funds from fossil sources

Amount given to climate denial groups

40 million dollars



SOURCE: GREENPEACE

4. <https://phys.org/news/2017-12-facts-consensus-bridges-conservative-liberal-climate.html>
5. The American Association of Petroleum Geologists revised its 2007 statement, which was skeptical of climate change, in the face of overwhelming evidence published that year by the [2007 Intergovernmental Panel on Climate Change summary report](#), thereby ending its reign as the only scientific society to dissent from the scientific consensus.
6. The 97% claim is usually made with reference to a National Academies of Sciences report in 2010 (Anderegg et al), which can be found [here](#) along with a number of other studies that have examined climate consensus among scientists; more recently, a [study was done of the 3% of dissenting scientists/publications](#), and found all of them had errors in their assumptions, methods, or analysis.
7. Scientific American summarized some of this information [here](#), drawing on Robert Brulle's study on "[Institutionalizing Delay](#)" in the journal Climate Change.

9

10

11

12

13

15

14

16

8. This example was presented in Chapter 1: <https://splinternews.com/how-fossil-fuel-money-made-climate-denial-the-word-of-g-1797466298>; another example is “The Moral Case for Fossil Fuels”: <http://www.moralcaseforfossilfuels.com/>
9. <https://www.theguardian.com/environment/blog/2011/may/05/evangelical-christian-environmentalism-green-dragon> A fund-raising letter from the Acton Institute around this time sought an “additional \$2 million” to add to a \$10 million donation from a “quiet partner” that was enabling them to generate more media reports, videos and DVDs, to multiply their messaging.
10. Examples here: <https://globaldivestmentmobilisation.org/faith-and-the-global-divestment-mobilisation/> <https://www.ecowatch.com/faith-institutions-divest-2492836438.html> <https://www.ncronline.org/blogs/eco-catholic/faith-communities-are-dumping-their-fossil-fuel-investments> <http://www.greenfaith.org/programs/divest-and-reinvest/listing-of-known-religious-divestment-efforts>
11. The reaction of multiple faith communities to US decisions around the Paris Agreement can be found here: <http://u.osu.edu/religionandenvironment/?s=paris+agreement>; other efforts include: <https://thinkprogress.org/250-faith-leaders-demand-nations-ratify-paris-climate-deal-c150f6a30ec3/>
12. <https://www.taxpayer.net/energy-natural-resources/oil-and-gas-industry-a-decade-of-record-breaking-profits/>
13. Jefferts-Schori’s comments are found [here](#).
14. <https://www.agitano.com/franz-alt-im-interview-der-dalai-lama-in-deutschland/18447> ; an alternate summary: “Dear friend, the environmental problems are even more important than Tibet. We are patient as Buddhists and can wait a little longer for our freedom, but in the environment we have to act immediately. Nature can not wait any longer. The climate and sea level rise dramatically.” Other comments by the Dalai Lama on climate change are [here](#), and more of his environmental views are [here](#).
15. Summary article of comments by the presiding bishop is found [here](#).
16. Patriarch Bartholomew has made similar statements on a number of occasions, including [here](#).



Answer:

1. The first step in the process of developing a business plan is to determine the purpose of the plan. The purpose of the plan is to provide a clear and concise statement of the business's goals and objectives, and to outline the strategies and tactics that will be used to achieve these goals and objectives.

Answer:

2. The second step in the process of developing a business plan is to conduct a market analysis. The market analysis is a study of the market in which the business operates, and it is used to determine the size of the market, the growth rate of the market, and the competitive environment.

3. The third step in the process of developing a business plan is to develop a marketing plan. The marketing plan is a statement of the business's marketing strategy, and it outlines the tactics that will be used to promote the business and its products or services.

4. The fourth step in the process of developing a business plan is to develop a financial plan. The financial plan is a statement of the business's financial needs, and it outlines the sources of capital that will be used to fund the business.

5. The fifth step in the process of developing a business plan is to develop an implementation plan. The implementation plan is a statement of the business's operational strategy, and it outlines the steps that will be taken to implement the business plan.

6. The sixth step in the process of developing a business plan is to develop a monitoring and evaluation plan. The monitoring and evaluation plan is a statement of the business's performance goals, and it outlines the steps that will be taken to monitor and evaluate the business's performance.

7. The seventh step in the process of developing a business plan is to develop a conclusion. The conclusion is a statement of the business's overall goals and objectives, and it outlines the steps that will be taken to achieve these goals and objectives.



1 2
3 4 5

1. Chapter 9 discussed some aspects of the climate denial movement; Robert Brulle's work is the best known peer-reviewed study of climate denial funding: <https://drexel.edu/now/archive/2013/December/Climate-Change/>
2. There is a very broad background of religious engagement with food and animal questions, as many religions have dealt in highly specific ways with food and animal issues for thousands of years; the focus of this chapter, however, will tend toward the environmentally salient features of religious, moral, and ethical concerns for food and animals that have vied for widespread attention in American culture since the 1970s.
3. The Jewish Food Movement (as described by Nigel Savage at the links above and also [here](#)) is one example; the Oxford Centre for Animal Ethics [Religion and Animals Project](#) is another; the American Academy of Religion's [Animals and Religion Unit](#) is another.
4. The [Ohio and West Virginia Food Hub Network](#) is an example of some of the organizing taking place to support local food systems.
5. For example: <https://harvardmagazine.com/2017/07/the-rise-of-vegan-culture>

Food, Faith and a Sustainable Future:

Eco-Judaism from the Ground Up



Wednesday, March 30th
Food at 6:30 p.m. | Program at 7 p.m.
Ohio Union, Barbara Tootle Room, 3156

Forum will explore Jewish obligations toward the environment and natural world. Jewish-environmental educator Rabbi Fred Scherlinder Dobb will be our guest speaker, along with OSU Hillel's Rabbi Benjamin Berger. OSU's Dr. Tamar Rudavsky will moderate the session.

Supported by the Gretel Bloch Fund of the Melton Center for Jewish Studies, and co-sponsored with OSU's School of Environment and Natural Resources, Facilities Operations and Development department, Ohio Interfaith Power and Light, Ohio Council of Churches and OSU Hillel

www.meltoncenter.osu.edu



Omnivore's Dilemma: Eating Jewishly in the 21st Century

Thursday, March 20, 2014 - 6:00pm
OSU Hillel, 46 E 16th Ave.



The Melton Center for Jewish Studies presents:

Nigel Savage

Founder of Hazon, a world-leading Jewish based environmental group.

6 pm- kosher, eco-friendly snack and info. tables

7 pm- lecture and discussion

What happens when 3,000 years of Jewish food traditions connect with the complexities of eating in the 21st century? In this evening's address, Nigel Savage, the founder of Hazon, and one of the key leaders of the contemporary Jewish Food Movement will share some insights -- and tell a

story about three goats.

Supported by the Gretel Bloch fund. Co-sponsored by OSU's School of Environment and Natural Resources, Agricultural Ecosystems Management Program, Office of Student Life, Multicultural Center and Energy Management & Sustainability department, Hillel, and Ohio Interfaith Power and Light.





1

2

3

4

5

1. In addition to more ancient examples, vegetarianism and concern for treatment of animals gained some attention in the 1800s and 1900s, with quite a lot of religious justification, though never established a widespread following, such that even today these concerns make up something of a minority movement, but with greater attention since the 1970s. See for instance: <https://michaelbluejay.com/veg/history.html>; <http://www.pbs.org/food/the-history-kitchen/evolution-vegetarianism/>; <http://blog.nyhistory.org/life-on-the-veg-early-vegetarianism-in-america/>; <http://www.onegreenplanet.org/news/six-percent-of-americans-identify-as-vegan/>
2. This is highlighted by British Anglican priest and theologian Andrew Linzey in his books, “Animal Theology” and “Animal Gospel: Christian Faith as if Animals Mattered”
3. Ancient precedents trace to Hindu, Buddhist, Taoist, Jewish and Muslim traditions, predating modern animal welfare concerns; some contemporary arguments might be considered secular recapitulations of earlier (and ongoing) religious arguments.
4. See for instance: https://en.wikipedia.org/wiki/Christian_vegetarianism ; and https://en.wikipedia.org/wiki/Christian_Vegetarian_Association
5. These systems often require dependence on inputs (chemicals, fertilizers, pesticide/herbicides, hybrid seeds, gmo seeds, etc) manufactured by large agriculture corporations, which shifts influence on land use from the practices of local farmers towards the products and profits of large corporations.

	6	
7		
	8	
	9	
	10	11
	12	
	13	

6. Consider that the Jewish term for acceptable food, “kosher”, has been adopted as a more general term for things that are acceptable.
7. Additional chapters and whole books could be added to explore Eastern religious perspectives on animals, and indeed religious vegetarianisms are more commonly associated with Eastern religions.
8. To the extent that extreme passions and moral statements are often associated with “religious” behavior or fanatic devotion, this is part of how these movements have become known — think of animal rights activists infiltrating industrial food system animal confinement centers to liberate animals, think of PETA and their attention-grabbing videos and bold moral claims. Moral passions can run high around these topics.
9. For many who put environmental health at the top of their moral concern list, any action that reduces environmental impact or use of natural resources is considered important, and for those keeping count of water and energy use in various systems, moving away from agriculture that feeds animals is something of a no-brainer. Skewed “food pyramid” charts promoted by the US meat industry (which argued for diets much higher in meat than have traditionally been considered healthy) have typically been blamed for institutionalizing such high meat consumption traditions in the US (<http://time.com/4130043/lobbying-politics-dietary-guidelines/>).
10. Some of these ideas are expanded upon in the New York Times article, “Unhappy Meals,” by Michael Pollan.
11. Consider the story of Iowa Interfaith Power and Light founders of the “Cool Congregations” program, which popularized calculating the carbon footprint of congregation member households. This program inspired many people — and later spread nationally beyond Iowa — to take actions to reduce their carbon footprint. They spurred people to shut off unused lights, dial down their thermostats, and insulate their homes; but even though “changing your diet from more to less meat” is a significant way to reduce your carbon footprint (because animal agriculture involves a great deal of fossil fuel burning between production and transport), the Cool Congregations founders realized this wasn’t an area they should emphasize. Why not? “This is Iowa — we wanted the program to succeed, not fail!” they said. Enough said. More recently, however, Iowa Interfaith Power and Light has developed a Food, Faith and Climate program that addresses these questions, which is a good example of how education and ethics campaigns evolve.
12. Elizabeth Telfer’s “Food for Thought” provides arguments about the aesthetic value of taste and pleasure in eating food, and claims that while feeding the hungry is an essential concern, these aesthetic dimensions are not as insignificant as often they are made out to be by those arguing against eating meat.
13. MTSO Seminary Hill Farm is a good case study in this ethos. Wendell Berry also makes arguments for the economic sense of local economies and smaller scale agriculture in his book *Home Economics* (see especially the essays “Two Economies” and “A Defense of the Family Farm”).



14

15

14. The publishers of Animal Liberation tout it as “the book that started a revolution”...
15. Taylor, a Cambridge philosopher, published his comments anonymously, as a parody of Mary Wollstonecraft's arguments for the vindication of the rights of women (1792) - he thought the argument for equality between men and women was absurd, so he tried to demonstrate that Wollstonecraft's same arguments could be made for equality between humans and animals ("brutes"); because Taylor's culture would think any argument for human-animal equality absurd, he hoped to persuade readers that his biases against male-female equality were sound by drawing a connection between the claims.

	16	17	
18			19
	20	21	22
		23	24
25	26		

16. Some sociologists subscribed to the idea that religion might just fade away, such as Peter Berger, who later said his conclusion that religion would fade was the most mistaken conclusion of his career, given how religion has not only not faded, but rebounded worldwide in the meantime (see Berger's book, [The Desecularization of the World](#)).
17. Singer's anti-religious bias is also clearly on display in chapter 5 of his book: "Man's Dominion: A Short History of Speciesism..."
18. Richard Baer was fond of making this point in his religion and environment courses at Cornell.
19. Ironically, Singer is making much the same move that Taylor made in the late 1700s.
20. Omar Saqr, a guest lecturer on Islam and the Environment in my class at OSU, emphasizes the point that Islam is both anthropocentric and biocentric, and shares with the other Abrahamic traditions, overall, a theocentric orientation.
21. The problem is this: claiming that the likes of "equality in the eyes of God" is irrelevant, but then depending on the principle of equality anyway, seems like a biased move; perhaps a similar bias has underlain some animal rights and welfare arguments that have tended to be set in opposition to traditional moral views and mainstream moral communities in America.
22. See for instance Peter Berger's book *Desecularization of the World*: <https://www.amazon.com/Desecularization-World-Resurgent-Religion-Politics/dp/0802846912>
23. Lilly Marlene-Russo published an article as a special supplement in the May/June 1990 Hastings Center Report entitled, "Ethical Theory and the Moral Status of Animals." This article does a nice job of describing the contributions of a range of ethical theories, such as utilitarianism and deontology, to reasoning about the morality of experimentation on animals. Russo describes a thought process that often leads to a "judicious combination of theoretical commitments" — as humans, we tend to draw from different bases of concern to justify our actions and values. Thus, we may draw on a utilitarian argument like Singer's in some cases, on deontology in others, on contract theories in others, etc, demonstrating that an adequate ethical theory for food and animal (or any other) concerns will most likely draw on multiple ethical perspectives. Religious perspectives will also be in the mix for most humans when they think about such issues.
24. Singer spends five pages establishing and defending that animals do suffer — despite claims to the contrary — based on what we know about physiology.
25. Singer further qualifies this in terms of equal consideration — a swat on the rump of a horse would be equivalent to a soft tap on a human baby, equally considered.
26. Here I suspect that people may take issue and disagree — Singer's argument of speciesism would only be true for those who accept an ultimate belief in the moral equality of humans and non-humans, which many people do not. A more palatable belief for many humans would likely be that, just as Singer says, animals are deserving of consideration of their suffering and well-being, but that needn't require a belief in human/non-human equality.

1. A similar development was seen earlier in Jewish outdoor environmental education, where classic outdoor education activities were adapted into Jewish frames of reference. This yielded a dynamic sort of educational programming that benefited from the environmental efficacy developed by secular environmental practitioners; however, this programming added religiously/culturally reinforced roots by grafting those activities into Jewish traditions. A quintessential example of this is Michal Smart's Jewish outdoor education programs based on activities developed by Joseph Cornell. Smart realized the powerful points of overlap between Cornell's exercises and certain Jewish prayer and ritual practices. She re-wrote the exercises within a Jewish frame, and these and other activities like them became staples of the Jewish outdoor education world — see *Spirit in Nature: Teaching Judaism and Ecology on the Trail* for examples of these exercises (Biers-Ariel, M., Newbrun, D., & Smart, M.F., Springfield, NJ: Behrman House, 2000). Another way to see these developments is to note the religious and spiritual intuitions (implicit and explicit) that were already present in a number of environmental education curricula, that resonated with existing religious traditions, or that found deeper homes in some religious traditions. A good overview of a range of such programs focused on environment and food are found in the [JOFEE Report](#) commissioned by Hazon, a Jewish environmental organization based in New York City.
2. Another case of this more generally might be the interplay between religious and theological values and the field of environmental ethics in America. H. Paul Santmire, Richard Baer, Norman Faramelli and others started the [Faith-Man-Nature](#) group in the mid-1960s, and it lasted until the mid-1970s. They wrote articles and books, hosted national conferences, and generally raised the profile of discussing the environment as an ethical issue, in many cases a full decade before the secular field of environmental ethics took shape. Secular environmental ethics scholarship tended to overshadow religious and theological developments in the 1970s and 1980s (for instance, Baird Callicott is often [credited](#) with teaching the first environmental ethics course in the world, in 1971, but this was five years after Richard Baer began teaching environmental ethics in the religion department at Earlham in 1966) while eco-theology and religion and ecology scholarship grew more slowly; however, in many ways, religion and ecology scholarship and religious environmental organizations have matured and filled in the thought-landscape of environmental ethics with views that not only support pro-environmental values, but are aligned well with predominant American religious communities and values.



	4	5	3	6
	7		8	
			9	

3. See these links for more comprehensive descriptions of permitted and prohibited foods in kosher laws, and prescriptions of proper animal treatment: <http://www.jewfaq.org/kashrut.htm> ; <http://www.koshercertification.org.uk/whatdoe.html>. Also note an intriguing Jewish commentary that treats vegetarianism with an interesting caution — Rabbi Abraham Isaac Kook (Chief Rabbi of Palestine in the 1920s) argued that meat eating was a concession to human weakness, which evokes Waskow's comment mentioned earlier that vegetarianism is a “higher path”; according to [Berel Dov Lerner](#), Kook was also “careful to explain that full moral consideration for animals should only be implemented when humanity achieves its highest spiritual development in the messianic era.” Remembering that God's original intentions as displayed in Genesis Chapter 1 were that humans would be vegetarian, “Kook claimed that while the earlier ban on meat would be reinstated in messianic times, a premature demand for vegetarianism and full justice toward animals would be spiritually destructive” (Lerner). The idea here is that presently fallen humans would misunderstand such a demand for vegetarianism as implying “the essential equality of humans and animals,” forgetting humanity's unique spiritual vocation. Lerner elaborates on Kook's perspective, explaining, “Tyrannical governments would use radical campaigns for animal protection as tools for the oppression of humans, and as propagandistic distraction from the injustices they perpetrate against people. Kook argued that absolute justice for animals should be demanded only after inter-human relations are free of violence, oppression and injustice.” One wonders, however, whether practicing justice towards non-human animals could help strengthen the impulse to also treat humans justly (consider the similar case where therapy dogs provide for human healing complementary to the efforts of human doctors and therapists). At the same time, these ideas echo comments by Wendell Berry in *Sex, Economy, Freedom and Community*, where he argues that if humans can't be faithful to each other, we're highly unlikely to be able to be faithful to land and other creatures.
4. A perfectly sharp blade with no knicks is required.
5. Rich, T. R. (n.d.). Judaism 101: Kashrut: Jewish Dietary Laws. Retrieved May 18, 2018, from <http://www.jewfaq.org/kashrut.htm>.
6. For Hindus who do eat meat, the preferred form of slaughter is the [Jhatka](#) method of processing, which involves a [quick and painless death](#).
7. At the same time, some are quick to point out that the Prophet Muhammad (PBUH) intentionally ate very little meat, and others will note that veganism has very close ties to many Islamic principles related to food.
8. Some additional differences and similarities between kashrut and halal are described here: <http://www.differencebetween.net/miscellaneous/difference-between-kosher-and-halal/>
9. Some other commentaries on Islam and food and environmental ethics include: <https://www.halalzilla.com/islam-environment-eco-friendly-muslim/87746>; <https://mvslim.com/introducing-the-green-muslims-why-halal-is-not-enough/>; <https://theweek.com/articles/>



[787788/future-sustainable-food-may-halal](https://www.patheos.com/blogs/altmuslim/2009/12/787788/future-sustainable-food-may-halal); https://www.patheos.com/blogs/altmuslim/2009/12/the_eco-halal_revolution/

10. A summary of some elements of the Jewish Food Movement is found here: <https://www.youtube.com/watch?v=yyRgFIL-pH8>

1. [Bibliography entry 1]

2. [Bibliography entry 2]

3. [Bibliography entry 3]

4. [Bibliography entry 4]

5. [Bibliography entry 5]

6. [Bibliography entry 6]

7. [Bibliography entry 7]

8. [Bibliography entry 8]

9. [Bibliography entry 9]

10. [Bibliography entry 10]

11. [Bibliography entry 11]

12. [Bibliography entry 12]

13. [Bibliography entry 13]

14. [Bibliography entry 14]

Chapter 10 Discussion Questions

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

1

2

3

1. This is not to suggest that philosophers typically dismiss other views, or that secular thinkers aren't often inclusive and respectful; rather, it is just to note the privileged view that sometimes is promoted.
2. The conventional American farmer who finds some agreement with animal welfare views likely finds much more resonance with religious or virtue-based perspectives on ethics.
3. With special thanks to Jim Tantillo and Richard Baer for developing many of the insights discussed in this chapter. Kupfer, Joseph H. "Virtue and Happiness in Groundhog Day." In *Visions of Virtue in Popular Film*. Boulder, CO: Westview Press, 1999, 35-60.

1

2

3

4

5

6

7

8

1. Kupfer's chapter on happiness and virtue in the movie Groundhog Day forms the basis for much of the discussion in this chapter: Kupfer, Joseph H. "Virtue and Happiness in Groundhog Day." In *Visions of Virtue in Popular Film*. Boulder, CO: Westview Press, 1999, 35-60.
2. <https://www.thoughtco.com/nietzsches-idea-of-the-eternal-recurrence-2670659>
3. Eudaimonia comes from the roots eu (good) and daimon (spirit) – having a good indwelling spirit, which leads to happiness and human flourishing. This is the highest human good, so ethics and political philosophy aim to achieve it.
4. The daily repeat helps because it reveals what daily life conceals about pursuing pleasure.
5. One iteration of the "human problem" is that despite generally having a sense of how we should best live, we tend to fail to do so; another is the tragic tendency to defeat our own best potential due to fear or by failure to trust one another; another is the question "why can't we just get along?"
6. This point might need further elaboration. Why, after all, are the intellectual and aesthetic seen as non-moral? Here the sense is likely that in pure form, aesthetic appreciation has an objective dimension to it, as do intellectual pursuits. Learning something that is a simple matter of fact (as in science, for instance, or in learning that some music (like that by Bach) is better than other music (like that by Hitzhusen)) is not a claim about what is right or wrong morally, it simply acknowledges what is. However, undoubtedly there are intellectual and aesthetic claims that can be made with moral intent, or that have moral implications.
7. See Kupfer, p. 40.
8. [Karl Johnson's article](#) about how fishing cultivates virtues is also instructive (Johnson, K. (1998). The Virtues of Fishing. In Genova, P., *First Cast: Teaching Kids to Fly-Fish*, pp. 6-8, Mechanicsburg, PA: Stackpole Books. Reprinted 2002, Texas Fish & Game, 17(12). Reprinted as "Time Well Wasted" in 2004, New York State Conservationist, 58(5)). We might also question the earlier lines about goodness being found in activity – in doing, making, and rational thinking. This seems to be the "western" ideal, which is often contrasted with an "eastern" ideal more tuned to contemplation, of *being* rather than doing. Typically, we criticize a "western" approach as lacking balance – of favoring doing/making/rationality – ratio – over being/receiving/intuition – intellectus -- instead of balancing the two. But note here that Kupfer is highlighting the "unselfing" that results from virtuous pursuits. Perhaps it is the fact that we understand that these pursuits shape us, and form us into something better, rather than assuming that we are already the measure of goodness and excellence, that



allows such doing to have an unselfing capacity? Note that Kupfer here is also highlighting altruism - doing good for others - which has a self-liberating effect.

1

2

3

4

1. David Wilcox's song "Break in the Cup" addresses a similar notion ([video](#); [lyrics](#); [other Wilcox songs](#)).
2. See Kupfer p. 40.
3. See Kupfer p. 42
4. This point reminds us of one of the findings of Martina Vonk in her dissertation about sustainable communities: she found that religious communities that might well be singled out as exemplars for sustainable living ironically do not hold "being sustainable" as their goal. Instead, they tend to be focused on obedience to God, faithfulness to the truths they hold dear, and commitment to their community within which they find fulfillment, security, and comfort in their relationships.

1. As referenced in chapter 2.5, [Speth stated that](#) "The top environmental problems are selfishness, greed, and apathy, and to deal with these we need a spiritual and cultural transformation." If we all lived our values, would we need any environmental policies?

Reflection Questions:

Discussion Questions:

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____

Connection Questions:

- 1. _____
- 2. _____
- 3. _____





1. Schut, M. (1999). *Simpler Living Compassionate Life: A Christian Perspective*. Living the Good News: Denver, CO. pp. 10.

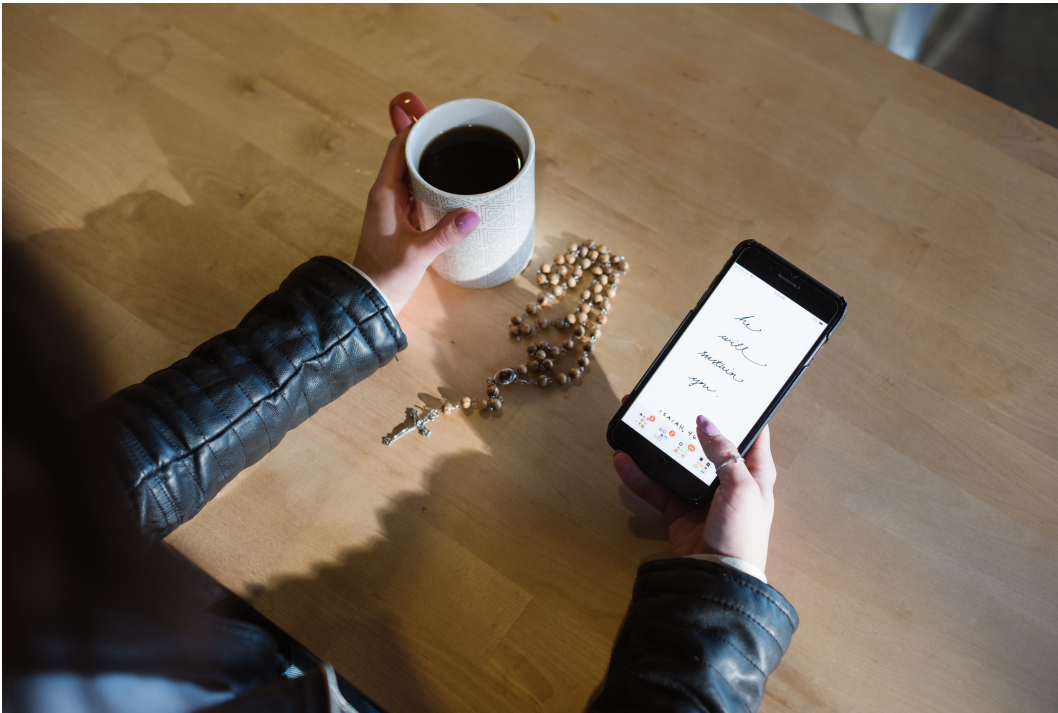


1. Archives of the National Religious Partnership for the Environment. National Religious Partnership for the Environment: Consumption Project: Stage One Proposal, August 5, 1994, p. 3-4



2. Archives of the National Religious Partnership for the Environment. Proposal to The Pew Global Stewardship Initiative from The National Religious Partnership for the Environment, March 3, 1995, p.4-5.
3. Richard Florida examines recent trends in American well-being in the following article, and it remains somewhat unclear what drives these trends: <https://www.citylab.com/life/2018/03/the-unhappy-states-of-america/555800/>.





1. All page numbers in this chapter refer to the NRPE Consumption Project essays.

12.4: A Catholic Perspective: The Good Life from a Catholic Perspective: The Problem of Consumption, by Msgr. Charles



1. All page numbers in this chapter refer to the NRPE Consumption Project essays.

1. All page numbers in this chapter refer to the NRPE Consumption Project essays.

1

2



1. All page numbers in this chapter refer to the NRPE Consumption Project essays.
2. One example of an intentional community in Columbus can be found [here](#).

1



1. Archives of the National Religious Partnership for the Environment. Proposal to The Pew Global Stewardship Initiative from The National Religious Partnership for the Environment, March 3, 1995, p.4-5.

Chapter 12 Discussion Questions

Questions

1. How do you think the world will change in the next 50 years?
2. How do you think the world will change in the next 100 years?
3. How do you think the world will change in the next 200 years?
4. How do you think the world will change in the next 500 years?
5. How do you think the world will change in the next 1000 years?
6. How do you think the world will change in the next 2000 years?
7. How do you think the world will change in the next 5000 years?
8. How do you think the world will change in the next 10000 years?
9. How do you think the world will change in the next 20000 years?
10. How do you think the world will change in the next 50000 years?



View a sample of the spectrum of EJ statements by different denominations by clicking on the links below.

- [United Church of Christ](#)
- [United States Conference of Catholic Bishops](#)
- [Creation Justice Ministries](#)
- [Unitarian Universalist Association \(1994\)](#)
- [Jewish Council of Public Affairs \(1996\)](#)
- [Presbyterian Church \(USA\)](#)
- [Presbyterians for Earth Care Eco-Justice Network list of faith-based Eco-Justice Organizations](#)

1

2

3

4

5

1. As Dieter Hessel says: choosing to address both ecology and poverty “was not characteristic of the emerging environmental movement, which even today too often lacks passion for, or adequate principles of, social justice” (from: <http://fore.yale.edu/disciplines/ethics/eco-justice/>)
2. United Church of Christ. 1987. Toxic waste and race in the United States: a national report on the racial and socioeconomic characteristics of communities with hazardous waste sites. London: Church's Commission for Racial Justice.
3. Middendorf, Nilon, and Jablonski/Poling articles are found here: <https://esajournals.onlinelibrary.wiley.com/doi/pdf/10.1890/1540-9295%282003%29001%5B0159%3ATCOEJ%5D2.0.CO%3B2>
4. Bakken, P.W., Engel, J.G., and Engel, J.R (1995) *Ecology, Justice, and Christian Faith: A critical guide to the literature* (Westport, CT: Greenwood Press).
5. Hessel's comments can be found here: <http://fore.yale.edu/disciplines/ethics/eco-justice/>, where he also outlines what he calls the basic norms of eco-justice:

* solidarity with other people and creatures – companions, victims, and allies – in earth community, reflecting deep respect for diverse creation; * ecological sustainability – environmentally fitting habits of living and working that enable life to flourish, and utilize ecologically and socially appropriate technology; * sufficiency as a standard of organized sharing, which requires basic floors and definite ceilings for equitable or “fair” consumption; * socially just participation in decisions about how to obtain sustenance and to manage community life for the good in common and the good of the commons.





1

2

1. Rasmussen, L. (2003) Environmental Racism and Environmental Injustice: Moral Theory in the Making? Paper presented at the 2003 meeting of the Society of Christian Ethics; available at: <http://www.ecojusticenow.org/resources/Eco-Justice-Ethics/Environmental-Racism-and-Environmental-Justice.pdf>
2. footnotes in quote: 15: The phrase and example are taken from Thomas Berry, *The Great Work: Our Way into the Future* (New York: Bell Tower, 1999), 2. 16: In 1910, 218,000 African-American farmers owned 15 million acres. In 1992 only 18,000 African-American farmers remained; they owned 2.3 million acres. Later statistics are not available but the farm crises of the 1980s and 1990s shifted ownership to larger and larger, corporate entities. It is thus likely that even fewer African-Americans own even less farm land in 2002. "We Are What We Eat," A Report Approved by the 214th General Assembly (2002), Presbyterian Church (U.S.A.), 11.

3. From: <https://spsmw.org/2017/04/26/what-is-eco-justice/>
4. p. 69 in Harris, M.L. (2017) *Ecowomanism: African American Women and Earth Honoring Faiths* (Maryknoll, NY: Orbis Books)
5. Amanda Baugh's review of Harris's book wonders: "What if we discussed ecowomanism as the dominant perspective in courses on Religion and Ecology, and saved 'mainstream' white, colonial perspectives for a unit on 'other' voices?" (From: <http://readingreligion.org/books/ecowomanism>)



Answer:

1. The first step in the process is to identify the problem.

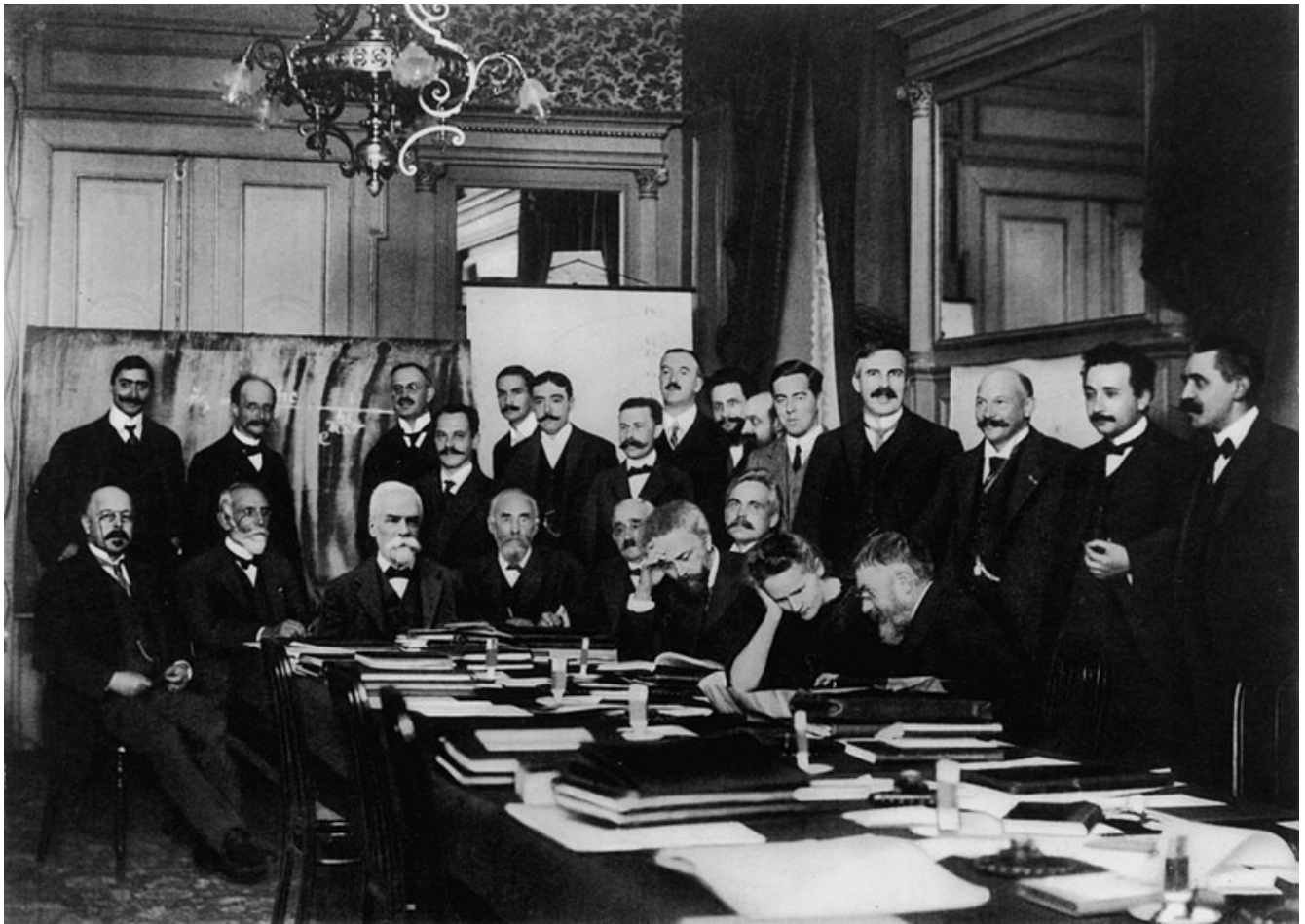
2. The second step is to define the problem.

1

2

1. The very same mystery, clearly, has led to a wide range of religious and cultural understandings, which include many differences in the details and stories used to describe what's true about life; even so, intriguing parallels emerge out of this common sense of the realness of the divine or mysterious elements of life.
2. These ideas connect with the concepts of *ratio* and *intellectus* discussed in chapter 4, highlighted by Dick Baer's article about "Our Need to Control." Einstein seems to be arguing for a balanced practice of both *ratio* and *intellectus* in our science and more generally in our thinking.







3

3. This photo was taken and posted by an account titled “Terren in Virginia” on the website Flickr on

Bibliography

[View all posts by](#) [multisystemic](#)

Rees, R. G. (2004) The Need for Critical Appraisal in Evidence-Based Medicine. *The*

Journal of Management Studies 2002, 35, 475-488

Exercise 3: Jolly/Joking with Opposite: Storytelling the Story That Becomes







revolves around high school sports. many small towns, everyone knows each other, and it

















1. Ramis, H. (Director), Ramis, H. (Producer), & Ramis, H., & Rubin, D. (Writers). (1993). Groundhog day[Motion picture on DVD]. United States: Columbia Pictures.
2. Sandler, R. L., & Cafaro, P. (2005). Environmental virtue ethics. Lanham, MD: Rowman & Littlefield.
3. Kupfer, J. H. (1999). Visions of virtue in popular film. Boulder, CO: Westview Press.



4

5

6

7

8

4. Arendt, H. (1960). FREEDOM AND POLITICS: A Lecture. Chicago Review, 14(1), 28-46. Retrieved from <http://www.jstor.org/stable/25733551>
5. Niebuhr, R. (2004). The Serenity Prayer. Retrieved April 15, 2019, from <http://www.sandersweb.net/ed/OriginalSerenityPrayer.html>
6. Allan, D. G. (2017, February 02). 'Groundhog Day,' the Buddhist lifehacker movie. Retrieved April 15, 2019, from <https://www.cnn.com/2016/02/01/health/groundhog-day-movie-wisdom-project/index.html>
7. Pope Francis. (2015). Laudato si', On care for our common home. Vatican City: Libreria Editrice Vaticana.
8. Loy, D. R. (2010). Healing Ecology. Journal of Buddhist Ethics, 17. Retrieved April 15, 2019, from <http://www.buddhistethics.org/>



9

10

9. Niebuhr, R. (1941). *The nature and destiny of man: A Christian interpretation*. London: Nisbet.
10. Niebuhr mentions a third alternative as well: one of sensuality, an inordinate love for temporary physical pleasures. One doesn't need to address their existential crises if they can find a suitable distraction, but as Phil discovered, those distractions can only last for so long. However, he does find lasting fulfillment in the temporary physical pleasure of ice sculpting, as he does this not as a distraction from his world but as a way to make his world more beautiful.



11. Jethani, S. (2014). *Futureville: Discover Your Purpose for Today by Reimagining Tomorrow*. United States: Thomas Nelson.
12. Interestingly, Phil Connors subverted this when he bought a significant amount of insurance from Ned Ryerson, an old classmate, and it symbolized the acceptance of his own finiteness as opposed to a desire to defy it. Ryerson enthusiastically tells Rita, “He comes to me and buys whole life, term, uniflex, fire, theft, auto, dental, health... with the optional death and dismemberment plan, water damage.” Interestingly, I noticed parallels between this list and the ways we had previously seen Phil cause himself harm. He catches on fire when he drives off a cliff in a car he stole (fire, theft, and auto), he eats irresponsibly while joking that he doesn’t need to floss (dental), he steps in front of a truck (death and dismemberment), and he brings a toaster into the bathtub with him (water damage). By buying life insurance, Phil demonstrates that he has accepted his own mortality, and the next day after his purchase, he wakes up on February third, finally having escaped his inability to die.

13. Stormfax Weather Almanac. (2019, February 2). Groundhog Day History. Retrieved November 19, 2019, from <http://www.stormfax.com/ghogday.htm>.

244 | Glossary

[illegible]