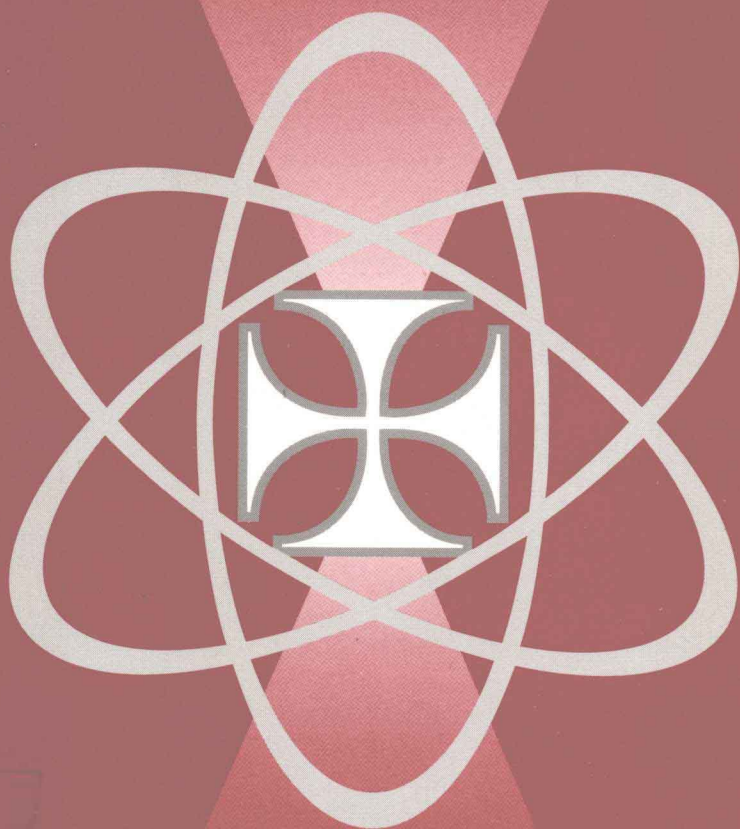


Reconciling Theology and Science

A Radical Reformation Perspective



Nancey Murphy

Reconciling Theology and Science

A Radical Reformation Perspective

Nancey Murphy

Published by Pandora Press,
Kitchener, Ontario
Co-published with Herald Press,
Scottsdale, Pennsylvania/Waterloo, Ontario

Canadian Cataloguing in Publication Data

Murphy, Nancey C.

Reconciling theology and science : a radical
reformation perspective

Includes bibliographical references and index.

ISBN 0-9698762-4-6

1. Religion and science. I. Title.

BL240.2.M87 1997 261.5'5 C97-931048-2

All Bible quotations are used by permission, all rights reserved, and unless otherwise indicated are from the *New Revised Standard Version Bible*, copyright 1989, by the Division of Christian Education of the National Council of the Churches of Christ in the USA; REB, from the *Revised English Bible*; KJV, from the King James Version of the Bible.

RECONCILING THEOLOGY AND SCIENCE:
A RADICAL REFORMATION PERSPECTIVE

Copyright © 1997 by Pandora Press,

Kitchener, Ont. N2H 3C1

All rights reserved

Co-published with Herald Press,

Scottsdale, Pennsylvania; Waterloo, Ontario

International Standard Book Number: **0-9698762-4-6**

Printed in Canada on acid-free paper

Book and cover design by Clifford Snyder

05 04 03 02 01 00 99 98 97 10 9 8 7 6 5 4 3 2 1

Reconciling Theology and Science

To
John Howard Yoder

Author's Preface

I have taught and lectured on the relations between Christian theology and the sciences in a number of contexts. I received my theological training at the Graduate Theological Union (GTU) in Berkeley, California. I had gone there with a Ph.D. in the philosophy of science, having decided that questions about the rationality of Christian belief were more pressing—and more intriguing—than questions about the rationality of science. Shortly after I began my theological studies, Robert J. Russell founded The Center for Theology and the Natural Sciences at the GTU and I became involved in its work.

On completion of my doctorate, I took a teaching position at Fuller Theological Seminary. This has provided further opportunities to pursue questions regarding the relations between theology and science. However, a major shift was required to adapt the work I had done at the GTU for teaching at Fuller. The theological resources at the GTU are Catholic and mainline Protestant, the latter the more liberal segment of the Protestant world. Meanwhile Fuller is evangelical Protestant. At the GTU the task was to convince students that the sciences are relevant to theology. At Fuller, the challenge is to persuade students that theology and science can coexist peacefully.

I describe in chapter six my conversion to the Radical Reformation or Anabaptist tradition. I have gradually come to recognize that the important issues in mainline discussions of theology and science, whether liberal or conservative, are not always the issues of concern to Mennonites, Brethren, and others in the radical tradition. That recognition led to a fruitful collaboration with George F.R. Ellis, a cosmologist in South Africa and a Quaker deeply involved in peace and justice issues there. We asked ourselves the question: What does theology and science look like from a Radical Reformation perspective? Our first attempt at an answer can be found in *On the Moral Nature of the Universe: Theology, Cosmology, and Ethics* (Fortress Press, 1996).

At the time we were completing that book, I was delighted to receive an invitation from Harry Huebner at the Canadian Mennonite Bible College (CMBC) in Winnipeg, Canada, to give the J.J. Thiessen lectures. I agreed to present lectures on theology and science. This would give me an opportunity to test some of these new ideas in a public forum, before

an audience from the Radical Reformation community. The present book is based on the four lectures I gave at CMBC in October 1996. I very much enjoyed the opportunity to meet people there, and I thank the publication committee at CMBC for permission to use those lectures in chapters one, two, three, and six.

It has been a delight to work with C. Arnold Snyder and Michael A. King at Pandora Press. I thank them for their courtesy and efficiency.

Francisco J. Ayala made valuable suggestions for improvements; I regret that I have not been able to incorporate all of them.

I want to thank my husband, James Wm. McClendon, Jr. It was in his doctoral seminar on the Radical Reformation that I perceived a call to ally myself with this tradition; I continue to learn from him. I also thank John Howard Yoder for the immense amount I have learned from him about how to understand the New Testament. To him I dedicate this book.

—*Nancey Murphy*
Pasadena, California

Table of Contents

<i>Author's Preface</i>	ix
Introduction	1
Chapter One: Relating Theology and the Sciences	7
1. The Standard Account: Conflict versus Isolation	7
2. Critique of the Standard Account	8
2.1 Theology and Life on Mars	9
3. Theology and Science in Creative Interaction	12
3.1 The Hierarchy of the Sciences	12
3.2 Theology in the Hierarchy of the Sciences	17
4. Summary	17
Chapter Two: Theology as a Science	19
1. What Is Theology?	19
2. Parallel Developments in Science and Theology	20
2.1 The Deductive Model	20
2.2 The Inductive Model	21
2.3 The Hypothetico-Deductive Model	22
3. A Hypothetico-Deductive Account of Theological Reasoning .	24
4. Objectivity versus Subjectivity	30
5. Summary	31
Chapter Three: Cosmological Fine-Tuning and Design	33
1. Divine Action—The Critical Issue	33
2. Cosmological Fine-Tuning	34
3. A Theological Interpretation?	36
3.1 Evidence for the Existence of God?	37
3.2 William Paley's Design Argument	38
3.3 Fine-Tuning and Design	39
3.4 Further Confirmation	41
4. The Place of Humans in the Cosmos	44
5. Summary	45

Chapter Four: Neuroscience and the Soul	47
1. A Potential Conflict?	47
2. Ancient and Medieval Views of the Soul	47
3. Developments in the Neurosciences	50
3.1 The Story of Phineas Gage	50
3.2 Brain Localization Studies	52
4. Biblical Accounts of the Person	55
5. The Anabaptists and "Soul Sleep"	60
6. Summary	61
Chapter Five: Christianity and Evolution	63
1. Overview	63
2. Historical Reasons for Objections to Evolution	63
3. Current Objections to Evolution	66
4. What Is at Stake for Radical Reformation Christians?	68
4.1 How to Read Scripture	68
4.2 Evolutionary Ethics	69
4.3 A Coherent Worldview	72
5. Summary	75
Chapter Six: Radical Reformation Theology and Social Science	77
1. Radical Christianity	77
2. Conflict and Consonance Between Theology and the Sciences	79
3. Ethics in the Hierarchy of the Sciences	80
4. The Exclusion of God from Academia	82
5. Social Science, Ethics, and Theology	82
5.1 The Assumption of the Necessity of Violence	83
5.2 The Church as Social Experiment	85
5.3 A New Vision for Social Science	87
6. Summary	89
Notes	91
Index	97

Introduction

I describe this book as a Radical Reformation perspective on theology and science. I believe the radical tradition is misunderstood by outsiders more often than are some of the other Christian traditions. Thus it is important to give clues at the outset concerning my understanding of this form of church life.

The Schleithem Confession (1527), an early attempt to set forth the positions that distinguished the radicals from other Protestants, is still useful (see chapter six). Believers baptism, separation from the world, selection of shepherds (pastors) from within the congregation, and refusal to swear oaths are all calculated to undo the effects of Constantinianism—the identification of the church first with empire, then with nation state, and now with civil society.

Rejection of the sword and adoption of the ban as the most severe form of punishment derive from recognition that God does not use coercion against enemies, and neither may we. Believers baptism and rules concerning reconciliation before breaking bread are aimed at the formation of a community with enough commitment and cohesion to be Jesus' church in the world (at least in its better moments).

Some of my own reflections on radical distinctives: We believe Christianity has primarily to do with real life, here and now. It is only secondarily about life in the hereafter; it is more about changing the world than interpreting its "meaning." Doctrine is important in that it constitutes presuppositions for the way we live.

This realistic and practical attitude toward Christianity absolves us from many controversies over the finer points of doctrine and scriptural interpretation. I shock some Christians by saying I am *in favor* of reading the Bible literally, so long as we begin with the Sermon on the Mount and work our way to other passages after we have gotten that one right.

The question whether the gospel is true does not much arise here. It seems so obviously true to me that the human race would be saved (from itself!) if we would just follow the teaching of Jesus that there does not seem to be much reason to doubt the rest of it.

In the following overview I shall say a few words about how this perspective on Christianity shows up in the chapters that follow.

Chapter one presents a hierarchical model—a schematic representation—to depict the relations between theology and the sciences. Physics, study of the simplest building blocks of reality, goes at the bottom. The rest of the basic sciences (chemistry, the various levels of

biology) are located in order above physics, to represent the fact that they study increasingly complex or increasingly comprehensive systems.

Above biology, however, the hierarchy branches, giving place for the physical sciences that study increasingly comprehensive systems. Cosmology comes at the top of this branch since it studies the most encompassing system in the natural world—the entire universe. The second branch includes psychology and the social sciences. I argue that theology can usefully be thought of as the science at the top of the entire diagram since it studies the most comprehensive and complex system of all—God in relation to both the natural world and human society.

The relation between theology and the sciences is much like the relation between one science and another. Each science has its own proper language and concepts and provides a relatively autonomous description of reality. Yet each science can learn from its neighbors. Thus theology provides a relatively autonomous description of reality, yet has some things to learn from the sciences and some things to teach them as well.

However, some will object that classing theology among the sciences is a mistake. Thus in chapter two I argue that theology itself is in fact much like a science. It has its own proper data—from history, revelation, and the cumulative experience of the church. We can think of doctrines as being comparable to theories in the sciences, rationally justified by their ongoing ability to explain the data.

Chapters three through five take up theological issues arising from several of the sciences. In chapter three I consider "boundary questions" that arise in the natural sciences, especially scientific cosmology. I define a boundary question as one that arises at one level of the hierarchy but can only be answered by turning to a higher level. So we will look at ways theology answers questions that arise in but cannot but answered at those scientific levels.

Here are examples. Many scientists say the universe, even time itself, began with the Big Bang. So what happened before the Big Bang? It is not yet clear whether science can address this issue at all. If cosmologists do produce a scientific account of the cause of the Big Bang, then the boundary question is simply pushed back a step.

Another example—and this will be the focus of chapter three—why are cosmological constants apparently "fine-tuned" for life? That is, why do the particular laws of nature that we find in operation in the universe, among all of the countless other possibilities, happen to be among the very narrow range of those resulting in a life-supporting universe?

This is surely one of the most intriguing questions to emerge from recent cosmology. There it has been shown, in calculation after calculation, that if the basic numbers involved in the laws of physics—the strength of the gravitational constant, the ratio between the charges of subatomic particles, and countless others—had been different, even by trivially small amounts, the evolution of the universe from the Big Bang on would have gone quite differently. In almost every case, the resulting universe would be unsuitable for the development of life. It would be too short-lived, too cold, or lacking the heavier elements. In all these countless ways things could have gone wrong from the point of view of the requirements for life—yet they did not. Why?

For that matter, why are there laws of nature at all? Where are they? What is their ontological status? What gives them their force?

None of these questions strictly requires a theological answer, but it is clear enough to people of the Bible that our traditional conception of God and God's purposes answers such questions rather easily. God is the ultimate cause of the universe, whatever that first event may have been. God designed the universe with creatures like us in mind. The laws of nature reflect the will of God for ordering the cosmos.

In chapter four we consider the nature of the human person. There is a deep division in our culture over dualism. Many people, especially Christians, assume humans are made of two parts: a physical body and a nonmaterial mind or soul. Increasingly, though, scientists and philosophers—and biblical scholars as well—are calling this theory into question.

I argue for a non-dualistic account of the person, claiming that such a view is not only more consistent with science than dualism but also more consistent with biblical thought. The "nonreductive physicalist" account I develop also fits nicely in the hierarchical model I describe in chapter one. As we go up the hierarchy of levels from physics and chemistry to biology—from nonliving to living—we do not need to add any new substance such as a vital force. Life is a result of the special *organization* of nonliving matter. Similarly, as we go from the non-human to the human level, no new entity such as a soul or mind needs to be added.

Chapter five deals with evolution. I survey reasons why some Christians opposed the theory. Then I turn to issues that ought to be of special concern to Christians in the Radical Reformation tradition. Perhaps the most important challenge for us is the way evolutionary biology has been used to support an ethic in favor of competition and violence.

In chapter six I address relations between theology and the social sciences. I emphasize the consistency and coherence between theology and the *natural* sciences in the first five chapters, but I believe the social sciences make assumptions about the nature of human beings and their social and political relations that are in serious conflict with the teachings of communities with Radical Reformation roots, including Mennonite, Brethren, and others.

So I have attempted to sketch out in these brief essays a few of the ways in which Christian theology can be reconciled with contemporary science. However, the traffic between theology and science goes in both directions. We sometimes have to correct our theology as science advances. For example, contemporary neuroscience suggests a different view of the person than the one that has prevailed through much of church history.

But sometimes theology must correct science as well. I argue below that this reconciliation is an extremely important task since "evangelistic atheists" in our day are doing an effective job of wedding science to a purely naturalistic worldview. I claim, though, that a worldview involving Christian theology and science is more coherent and has more explanatory power than its atheistic rivals.

Furthermore, for this purpose the theology of our radical heritage offers a number of advantages over mainline accounts. Not all Christian theologies are equally reconcilable with contemporary science. For instance, I point out in chapter three that the question of *how* God acts in the world is central to many theological debates. The view that God intervenes in natural processes, overruling and imposing his will, has been rejected by many Christians. The Radical Reformation tradition affirms that God's action is noncoercive in the human realm; it is consistent to assume that God's action in the natural world is noncoercive as well.

One theological problem that arises in discussions of the nature of the person is the question, what happens to us between death and the general resurrection? Some Christian bodies have affirmed a doctrine of the "intermediate state"—that is, the view that Christians are conscious while awaiting resurrection. However, this doctrine seems to require body-soul dualism so that the soul can be with God while the body decays. Radical Reformation Christians have generally abstained from pronouncements on this issue. Thus this theology will be easier to reconcile with the physicalist account of the person, which agrees with current science.

I claim in chapter five that the practical approach to Christianity found in the Radical tradition leads to a practical approach to reading the Bible. This frees us from the literalism that makes it difficult for some Christians to accept the theory of evolution.

As already mentioned, I believe that it is in the social sciences that we find real conflict with Radical Reformation theology. Some theories here assume an account of human nature that makes violence essential to social life. So the reconciling of theology and science requires dialogue: theology not only needs to learn from the sciences but to speak to them as well. A Radical Reformation perspective may have a crucial word to address to our violence-prone society.

I.

Relating Theology and the Sciences

1. The Standard Account: Conflict versus Isolation

August 7, 1996: the day scientists announced evidence of primitive life in a rock from Mars. Here in brief is the news. A rock found in Antarctica is shown by analysis of its chemical composition to have come from Mars. Inside the rock, scientists find what appear to be fossils of tiny, one-celled organisms much like bacteria. This has led many to conclude there was primitive life on Mars long ago.

When the news broke, news people asked theologians and religious leaders to comment on theological implications. A variety of reporters questioned me, but I suspect I disappointed them. I'm sure they wanted to talk with someone from a conservative institution like Fuller Seminary because they hoped to get tidbits for the age-old tale of conflict between science and religion.

This story illustrates two common views in our culture about the relation between religion and science. On one side are those who believe that, as science marches on, Christians can always be counted on to object, deny, argue, and ultimately retrench. Because news people favor such accounts, it is easy to think this antagonism is the whole story.

However, my own reaction to the news was typical of at least as many Christians. It simply had not occurred to me that this science story could be theologically interesting. My reaction fit into what Ian Barbour calls the "two worlds" view of science and religion.¹ According to this view, science and religion are so different they cannot possibly conflict. The way the difference is described varies, beginning perhaps with Galileo's quip that the Bible tells us how to go to Heaven, not how the heavens go.

Liberal theology in the modern period has been deeply influenced by the effort to redefine religion to protect it from clashes with science. The effort began with the philosopher Immanuel Kant. He drew a line between science and ethics—pure reason versus practical reason—and concluded that religion belongs to the sphere of ethics and practical reason rather than the realm of science and pure reason. Thus there are two distinct

forms of thinking: one is science; the other is religion and ethics. It is illegitimate to argue from one kind of thinking to the other.²

At nearly the same time, Friedrich Schleiermacher, founder of modern liberal theology, argued that religion has to do in the first instance with neither science nor ethics—but feeling. So the doctrine of creation, for instance, is not about how or when the universe began but about our awareness of everything's total dependence (here and now) on God.³ Current expressions of this view distinguish science from religion in terms of facts versus values, meaning, or existential orientation.

I have described this two-worlds view because it is not as familiar as the conflict view. As suggested above, it does not make for good news stories. I hasten to add, though, that the two-worlds view is not my own (despite my temporary lapse on August 7). I am among a small but growing number of scholars who object to both the conflict and two-worlds models.

2. Critique of the Standard Account

I begin with objections to the conflict model. A great myth historians have perpetrated on an unsuspecting public is the “warfare” account of science and religion. Two nineteenth-century authors, John W. Draper and Andrew Dickson White, wrote undeservedly popular books titled *A History of the Conflict between Religion and Science* (1874) and *A History of the Warfare of Science with Theology in Christendom* (1896). Both presented what is now widely recognized as a one-sided account of the history. Looking back, we can see their motives. Draper was “aroused by recent proclamations from Rome declaring papal infallibility and elevating ‘revealed doctrine’ above the ‘human sciences.’”⁴ White, first president of Cornell University, was then enmeshed in a conflict with religious folk over the amount of money Cornell was spending on science.

God and Nature: Historical Essays on the Encounter between Christianity and Science, a more recent book edited by David Lindberg and Ronald Numbers, has corrected these biases.⁵ Its authors point out that the church, Catholic and Protestant, has often strongly supported science. Some controversies interpreted as church against science are actually much more complex. They may include Christians of one sort fighting Christians of another sort over intellectual issues such as those involved in the shift from the medieval Aristotelian worldview to the modern.