

Blame It on the Brain?

Distinguishing Chemical Imbalances,
Brain Disorders, and Disobedience

EDWARD T. WELCH

R&R
P U B L I S H I N G
P.O. BOX 817 • PHILLIPSBURG • NEW JERSEY 08865-0817

© 1998 by Edward T. Welch

All rights reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted in any form or by any means—electronic, mechanical, photocopy, recording, or otherwise—except for brief quotations for the purpose of review or comment, without the prior permission of the publisher, Presbyterian and Reformed Publishing Company, P.O. Box 817, Phillipsburg, New Jersey 08865-0817.

Unless otherwise indicated, Scripture quotations are from the HOLY BIBLE, NEW INTERNATIONAL VERSION. Copyright © 1973, 1978, 1984 International Bible Society. Used by permission of Zondervan Bible Publishers. *Italics (or reverse italics) indicate emphasis added.*

Composition by Colophon Typesetting

Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Welch, Edward T., 1953–

Blame it on the brain? : distinguishing chemical imbalances, brain disorders, and disobedience / Edward T. Welch.

p. cm. — (Resources for changing lives)

Includes bibliographical references (p.).

ISBN-10: 0-87552-602-0

ISBN-13: 978-0-87552-602-7

1. Brain—Diseases—Religious aspects—Christianity.
2. Neuropsychiatry. I. Title. II. Series.

RC386.2.W43 1998

616.8—dc21

98-7094

CONTENTS

Acknowledgments 9

Introduction 11

Part One: Biblical Foundations

1. Who's in Charge? 19
2. Mind-Body: Questions and Answers 27
3. Mind-Body: Practical Applications 49

Part Two: Brain Problems Seen Through the Lens of Scripture

The Brain Did It: Brain Dysfunction

4. Alzheimer's Disease and Dementia 67
5. Head Injury 85

Maybe the Brain Did It: Psychiatric Problems

6. An Introduction to Psychiatric Problems 105
7. Depression 115
8. Attention Deficit Disorder 131

The Brain Didn't Do It: New Trends in the Brain Sciences

9. Homosexuality 151
10. Alcoholism 183
11. Final Thoughts 203

INTRODUCTION

THE 1990s were officially declared the decade of the brain, and for good reason.

- ▶ President Reagan's Alzheimer's disease brought to national attention a disabling brain disease that creates innumerable practical difficulties and untold pain for hundreds of thousands of families and friends.
- ▶ Researchers offered possible treatments for previously incurable brain diseases.
- ▶ New technologies provided unprecedented views of the brain.
- ▶ Philosophers and theologians rediscovered the mind-body debate.

Given these and hundreds of other events, it is probably more accurate to say that the 1990s were merely the *debut* of influential brain research. Much more is yet to come.

I have been an interested student of the brain ever since I did research in brain diseases and brain electrophysiology in the 1970s. Since then, I have found that a rudimentary understanding of brain

Introduction

functioning can be very useful when it comes to understanding and helping others. For example, a knowledge of brain functioning can help us answer questions about chemical imbalances and the appropriateness of psychiatric medicines. It can help us understand people whose ability to learn and think are different from our own. And it can also help us distinguish between physical and spiritual problems. In the material that follows, I hope to provide some of this helpful information.

Yet, even though I am enthusiastic about understanding brain function, I wonder if the brain has been receiving *too much* credit. Consider, for example, some other “discoveries” of the 1990s that have been more troubling.

- Ritalin became *the* prescription for children.
- Mood swings that were once seen as a result of a bad day at the office, an afternoon battle with the children, or disappointment in relationships, are now viewed as the result of chemical imbalances in the brain, treated with antidepressant medications or, for those who want more natural assistance, St. John’s Wort and other herbs.
- We have a growing sense that the brain is the *real* cause of behavior. What started as a suggestion that brain chemistry is the ultimate cause of alcohol abuse has expanded to the point where brain chemistry is considered the ultimate cause for literally every human problem.

Have you ever been surprised at how some people have accused their brain, making it responsible for some of their bad behavior? I once watched a televised press conference given by a prominent politician that made me actually feel sorry for the man’s brain. It was declared guilty without any real evidence.

INTRODUCTION

This anti-drug politician had been a Teflon man through his two terms of office. Although he had faced constant legal charges, none of them stuck. Embezzlement, selling political favors, drug use—he was always accused but never found guilty. Now he had been caught in the act of buying and using illegal drugs. It was all on tape. How was he going to get out of it this time?

As he was moving toward the podium, a reporter called out, “Why did you do it? Why did you lie to us all these years?”

His response was immediate. “I didn’t do it,” he said. “My brain was messed up. It was my brain that did it. My disease did it!” There wasn’t a hint of remorse—only indignation that someone would ask such a question.

I had to shake my head as I watched. Surely he could come up with a better answer than that! No real student of the brain would accept such an excuse. I thought, *These reporters will be all over him in a minute with that response.*

But to my surprise, no one was laughing. His answer actually seemed to satisfy everyone present. Maybe they were afraid that they would appear ignorant of some brain research that supported the politician’s claims. Maybe they didn’t want to attack someone as a villain who might turn out to be a victim. Whatever the case, the politician appeared to have silenced his critics. He was already moving to another topic.

If privately polled, most of those attending the press conference would probably have said that this man was simply trying to avoid blame. But they would have had to give him credit for at least one thing: he knew how to change with the times. A few decades ago, his best bet would have been to blame his upbringing. Now, following some of the cultural trends of the day, he blamed it on his brain. And no one dared challenge him.

This means that the task before us in this book is twofold: to in-

Introduction

roduce areas where the brain has received too little credit, and to highlight where the brain has received too much credit (or blame).

As human problems seem to get both deeper and more widespread, people are desperate for solutions—and the quicker the better! How wonderful it would be, many think, if the right pill or genetic alteration could solve our problems! And such hope is encouraged by reports suggesting that we are on the verge of revolutionary brain treatments for problems that were once attributed to the soul.

As Christians, we are not so naive, however. We know that we cannot blindly accept everything we hear as God's truth. Information we receive about brain functioning is viewed the same way we view any information, whether it is about finances, parenting, or the causes of our behavior: we view it through the lens of Scripture. And that requires us to be thoughtful, careful, and prayerful as we hear and assess the latest scientific discoveries.

Frankly, many people don't understand why we attempt to do this. They think we are narrow-minded, old-fashioned, paranoid, or—well, you fill in the blanks. Most people are under the impression that researchers go into their laboratories and simply report the facts. Then, those who get those facts report them to us. The reality, however, isn't that simple. Although observations and discoveries come to us garbed in scientific language, they are more than just facts by the time we hear them. The reality is that, like all information we receive, data about the brain is shaped by influences such as our own desires and the unspoken assumptions of our culture.

At best, by the time brain research filters down to us, it is like a message distorted by a long game of "Whisper down the lane." The original brain researcher whispers, "The brain is a remarkable instrument that *participates* in or *contributes* to all behavior." But the last person hears, "My brain made me do it." That's what you and I tend to hear from our neighbors or read in the newspapers. And that

INTRODUCTION

was the message the politician used at the press conference to try to keep his job.

Responsible research, of course, does not support the politician's comments, but some research *does* suggest that more and more of our behaviors are caused by brain functioning and dysfunctioning. Probably this evidence started the whispers that, when misinterpreted, led to the politician's excuses.

So here is the problem. Sometimes it is legitimate to blame our misbehaviors on the brain, and sometimes it isn't. How can we know? In the case of the politician, the answer is obvious. But there are other cases, such as those discussed in this book, where the answer is less clear.

To help you think through these issues and questions, Part One of this book will supply the theological resources necessary for dialogue with the brain sciences. Why *theological* resources rather than technological and scientific? Because theology is the lens through which Christians interpret all research, and it is essential that our lens be clear and accurate. Sadly, in relation to the brain sciences, our lenses have been particularly cloudy, and, as a result, they have not controlled our vision. In fact, many people seem to take their biblical lenses off entirely when looking at brain research. Therefore, Part One will clean and polish our theological glasses.

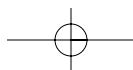
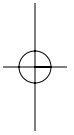
The theological structure presented in Part One is fairly straightforward: we are created by God as a unity of at least two substances—spirit and body. Nothing new here. This is a theological statement that has stood for centuries. What is new, however, is the *application* of this theology to some modern questions.

Outfitted with this theology and its manifold applications, Part Two will put it to work. Part Two will take some modern diagnoses and experiences, all attributed to the brain, and consider them from a biblical perspective. We will not discuss every disease and every experience

Introduction

in detail. Instead, you will learn a *way* of thinking that will allow you to think biblically about specific problems as you encounter them. This, in turn, will enable you to minister biblically, with confidence, wisdom, and compassion.

PART ONE *Biblical Foundations*



CHAPTER 1

WHO'S IN CHARGE?

"I think I have a chemical imbalance. What should I do?"

"Should my child be taking Ritalin?"

"Why is my father acting like this? Alzheimer's disease has changed him so much."

"Since his accident, my son has been fired from twenty-five jobs. Is he going to be living with us for the rest of our lives?"

"I'm angry that God made me an alcoholic. Other people don't have to deal with this. Why did he give *me* this disease?"

"It's hard to stop cruising gay bars and getting pornography from the Internet. How *can* I stop when I have a homosexual orientation?"

These are some of the new questions that make helping other people seem more complicated these days. We like to think that the Bible is sufficient for the critical questions of life, but these questions challenge that assumption. After all, what does the Bible have to say about chemical imbalances, Ritalin, and alcoholism as a disease? Maybe every friend, counselor, discipler, and pastor should have their Bible knowledge supplemented by courses in genetics, neurochemistry, and brain injury and disease.

But there is an alternative approach. Consider this: What is needed is not necessarily more sophistication in understanding the brain. In-

Chapter One

stead, what is needed is a more in-depth and practical examination of Scripture that is relevant to these questions. Then we can use the observations of the brain sciences to illustrate the biblical position.

Our task begins by listening to a discussion that has gone on for centuries. It concerns the soul (also called *mind*), the brain, and how they are related.

The Soul and the Brain

For centuries the brain has been an object of human fascination. “Can this really be the seat of the elusive soul? If so, where exactly is the soul?” asked physicians and philosophers. As early as the fifth century B.C., the physician Alkmeon of Kroton proposed a fairly sane theory. He suggested that sensory information such as sight and sound were more earthly and occupied distinct brain areas. Thoughts, on the other hand, were spiritual. They were part of the immortal, immaterial soul and could not be physically located.

Plato declared that the brain was supreme among the organs of the body, but his reasoning was peculiar. He thought that a lower, rounded part of the brain, now called *the medulla*, was where God planted and enclosed the soul. Aristotle was not so sure. He thought that the heart was the place to find the human soul. The brain was merely a type of radiator or “kettle” that either warmed or cooled the blood.

Stratos of Lampsakos found the soul between the eyebrows! Shakespeare, following a Greek philosopher, wrote that the soul was in the pia mater, part of the meningeal skin that covers the brain. In *Troilus and Cressida* (act 2, scene 1) he criticizes Ajax of Thersites: “His pia mater is not worth the ninth part of a sparrow.” Most popular was the idea that the soul resided in the fluid-filled ventricles of the brain. The ventricles, some clerics thought, were the one place in the brain that seemed to have enough room to house a soul.

Everybody had a theory about the relationship between the brain

WHO'S IN CHARGE?

and the soul, and most of them were horribly amiss. In fact, it has been suggested that, at least in the brain sciences, "the greatness of a man is solely to be measured by the length of time his ideas impede progress."¹

Some could argue that such a definition of greatness is still relevant to the brain or neurosciences, but no one can deny the dramatic developments over the past two centuries. This progress can be attributed, in part, to technological advances. Electron microscopes, CT scans, and new imaging devices have created unparalleled windows to the brain. Just a few decades ago we had our first glimpse of the way nerve cells communicated with each other. Now brain research is unraveling the mysteries of the genetic underpinnings of those cells and discovering the scores of chemicals that are the brain's communication network. Armed with this technological sophistication, brain researchers have been able to let their scientific curiosity run wild. The result has been a foundation of pure research that, in the next twenty years, will most likely lead to life-saving advances in diseases such as Parkinson's and Alzheimer's. For brain researchers these are, indeed, "heady" times.

As onlookers who might not know the difference between positron emission tomography and evoked potentials, the extent of our interest in the brain sciences might be to sit on the sidelines and applaud. We don't understand what the brain scientists are doing, but it sounds good, and the occasional comments about the possible applications of the research are particularly encouraging. So we say, "Keep up the good work; may the National Institute of Health grant you more and more money."

This, however, is not saying enough.

1 G. W. Bruyn, "The Seat of the Soul," in *Historical Aspects of the Neurosciences*, ed. F. Clifford Rose and W. F. Bynum (New York: Raven Press, 1982), 56.

Chapter One

What Does God's Word Say?

As sophisticated and impressive as the brain sciences are, the premise of this book is that they sit under something even more spectacular. They are under the Bible, and their results should be evaluated through the interpretive grid of biblical categories. This may sound audacious at first. After all, what can the Bible offer the brain sciences, especially considering the patently wrong ideas on the brain and the soul that were prevalent in biblical times? Wouldn't it make more sense to say that the Bible is authoritative on the spiritual realm, and the brain sciences are authoritative on the brain?

It may sound plausible, but such a compromise solution actually demeans the God of Scripture and exalts human insight. It would be like saying, "There are some areas of investigation where I will not first ask, 'What does God say?'" The truth is that all knowledge begins, as Proverbs indicates, with "the fear of the LORD." All knowledge begins by first asking, "What does God say? How does God want us to see this?" This is how we study sex, money and economics, politics, and anything else worthy of careful thought. Everything in life *should* come under the authority of Scripture (Figure 1.1).²

The problem in establishing biblical oversight of the brain sciences is that, at first glance, there seem to be very few biblical principles available to guide us. Here are three:

1. God created all things. Therefore, God created the brain.
2. God has called us to be students of creation. Therefore, creation, including the brain, can be studied and partially understood.

² We can, of course, be wrong in our interpretation of Scripture. Scripture is infallible; we, its interpreters, are not. As such, when there is disagreement between Scripture and scientific observations, the problem may lie in the reliability of the scientific observation, our interpretation of Scripture, or both.

WHO'S IN CHARGE?

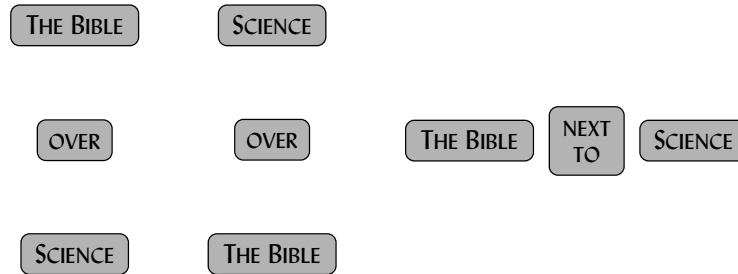


Figure 1.1. Three possible relationships between the Bible and science

3. Students of God's world should be people of integrity or truth-tellers. Therefore, scientists should be careful in their investigations and truthful in their reporting of results. They should not fabricate or skew results to suit their private agendas.

These are good and true principles, but they do not help us bring the wisdom of the Bible into the more technical discussions of the day. The result is that, although in theory we place the Bible over the brain sciences, in practice we do not use God's Word to control the interpretation of neuroscientific data. The Bible winds up looking like a head of state that has no real power—a puppet king at best.

Unfortunately, the Bible has been losing its functional authority in the biological sciences for quite some time. One turning point was the cholera epidemics of the 1800s. During the first two epidemics in 1832 and 1849, the church was considered the epidemic's authoritative interpreter and advisor. Sadly, from this prestigious position, the church came forth with simplistic and incomplete explanations. It usually explained the cholera outbreaks as evidence of divine retribution against sin. This was especially convenient because it was usually the lower classes that were affected, not the financially stable middle and upper class folk who were the typical church members.

While it is true that disease *can* be a result of divine discipline and *can*

Chapter One

indicate a need for soul-searching and repentance, it is also true that disease can be unrelated to personal sin. In fact, to say that sickness is *always* a result of personal sin is actually an old heresy that goes back to Job and his counselors. So why didn't the church in the 1800s teach that sin and sickness are not necessarily related? Why didn't it encourage precise observation of the created (though fallen) world in order to more fully understand the epidemics? Perhaps the church's theological lenses were unrefined and unable to interpret those problems meaningfully.

This inaccurate use of Scripture eventually took its toll. By the time of the 1866 cholera epidemic, no one looked to the church for helpful answers. Instead, the focus changed to public health initiatives, and the realm of Scripture's legitimate rule was thereby narrowed. Instead of Scripture over science, science ruled its own kingdom, and Scripture was given a small piece of less-than-prime property.

God was still in heaven, as most Americans would be quick to affirm. Yet the fact of his existence had ceased to be a central and meaningful reality in their lives. The warnings of the perceptive divines in 1832 were proving justified; material preoccupations and empirical habits of thought had not so much defeated as displaced the spiritual concerns of earlier generations. Americans seemed to be well on the way toward becoming a land of "practical atheists."³

Today in the brain sciences the situation is similar. The Bible has not been defeated, but it has become irrelevant. Many researchers find no more use for the idea of an immaterial soul. All our behaviors are allegedly explained by brain chemistry and physics.

³ C. E. Rosenberg, *The Cholera Years* (Chicago: University of Chicago Press, 1962), 213.

WHO'S IN CHARGE?

Are you familiar with the research on alcoholism? The research itself is fascinating, but it can arrive at our door wrapped in a theory that says there is no soul. Drinking to intoxication is now called a disease that comes from the body, not the soul. If you were to suggest that sin causes drunkenness, you would be greeted in the same way that moderns might greet Stratos of Lampsakos and his eyebrow theory. You would be a curious but irrelevant voice from the past.

Consider some other practical problems. Let's say that a pastor is counseling a female parishioner who is very depressed. For years they struggle together, confident that there are biblical answers to her depression. Then a neighbor of the depressed person happens to mention her own experience with antidepressant medication. The depressed woman goes to her neighbor's psychiatrist, starts taking medication, and her depression lifts. There is no question that this woman will consider the brain sciences to be more insightful and authoritative regarding her problem than the Bible. She had tried both, and medication was more effective.

What about the opening case study in the book *Listening to Prozac*⁴? It describes a man whose interest in pornography ended soon after taking that drug. Do you think this man will ever call pornographic indulgence sin? Clearly not. It was not a spiritual change that removed his desire; it was a medication that manipulated brain chemicals. Therefore, he will argue, if the soul exists, it can be changed through prescription drugs, not preaching the Gospel.

The list can go on. You already know about the debates over the biological basis for homosexuality. Do you realize that anger, disobedience to parents, worry, drug abuse, stealing, and adultery are also being touted as brain problems rather than sin problems? The brain research itself rarely draws these conclusions. But once the research

4 Peter D. Kramer, *Listening to Prozac* (New York: Viking, 1993), ix–xi.

Chapter One

gets whispered down the lane to the six o'clock news and into the popular psyche, it is often surrounded by these interpretations.

As Christians today, we want to avoid the ecclesiastical mistakes of the 1800s. This time, we want to listen to what people are saying about the brain, develop clear and powerful biblical categories, and bless both the sciences and the church in the process.