# BLAME IT ON THE BRAIN?

Distinguishing Chemical Imbalances, Brain Disorders, and Disobedience

### EDWARD T. WELCH



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### INTRODUCTION

his book has its roots in the 1990s, which were officially declared the decade of the brain, and for good reason.

- President Reagan's Alzheimer's diagnosis 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.

Much more was 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 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 is different from our own. And it can also help us distinguish between physical and spiritual problems. In the material that follows, I will present 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. We now have a 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 many human problems.

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. This politician had been made of Teflon throughout his two terms of office. Although he had faced constant legal charges, none of them stuck. Embezzlement, sale of 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 moved 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!" He expressed not a hint of remorse—only indignation that someone would ask such a question.

No student of the brain would accept such an excuse. I thought, *These reporters will be all over him in a minute.* But his answer seemed to satisfy everyone present. Maybe they didn't want to attack and villainize someone who might turn out to be a victim of some crooked gene. Maybe they had heard all kinds of rationalizations and excuses in the past, and this was only the most recent. Maybe the decade of the brain had given the brain too much credit. Whatever the case, the politician appeared to have silenced his critics. He'd already moved to another topic.

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If privately polled, most of those attending the press conference probably would 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 beforehand, his best bet would have been to blame his upbringing. Now, following the cultural trends of the day, he blamed it on his brain. And no one dared challenge him.

As human problems multiply, 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. As Christians, however, we are not so naive. We know something about the heart or soul, so we view information we receive about brain functioning the same way we view any information: through the lens of Scripture. That is the aim of what lies ahead.

Responsible research *does* suggest that some of our behaviors are caused by brain differences. But 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, shapes*, and *contributes to* all behavior." But the last person hears "Your brain made you do it." This is what led to the politician's excuses.

This means that the task before us is twofold: to introduce areas where the brain has received too little credit and to highlight where the brain has received too much blame. Sometimes it is legitimate to blame our misbehaviors on the brain, and sometimes it isn't, and in some cases the answer is less than clear.

To help you think through these issues and questions, part 1 of this book supplies 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

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not controlled our vision. In fact, many people seem to take their biblical lenses off entirely when looking at brain research. Therefore, part 1 cleans and polishes our theological glasses.

The theological structure presented in part 1 is 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 2 puts them to work. Part 2 takes several modern diagnoses and experiences that have been attributed to the brain and considers them from a biblical perspective. We will not discuss every disease and every experience 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 with more confidence, wisdom, and compassion.

### Part 1

## **BIBLICAL FOUNDATIONS**

1

### A SEARCH FOR THE SOUL

"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 looking at pornography. How *can* I stop, given my sexual orientation?"

These are some of the 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, and pastor should have their Bible knowledge supplemented by courses in genetics, neurochemistry, brain injury, and brain disease.

But there is an alternative approach. What we need is not necessarily more sophistication in understanding the brain. Instead, what we need is to examine Scripture in depth, recognizing that it is relevant to these questions. Then we can use the observations of the brain sciences to illustrate the biblical position.

We begin our task by listening to a discussion that has gone on for centuries. It concerns the soul (also called the *mind*) and its relation to the brain.

#### 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 BC, the physician Alcmaeon of Croton proposed a reasonable theory. He suggested, on the one hand, that sensory information such as sight and sound was 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. Straton of Lampsacus 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*, he criticizes Ajax of Thersites with the words "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 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."<sup>1</sup>

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. The result has been a foundation of pure research that will most likely lead to life-saving advances in the way we respond to diseases such as Parkinson's and Alzheimer's.

As onlookers, we don't understand what brain scientists are doing, but it sounds good, and occasional comments about possible applications of the research are encouraging. This level of engagement, however, is not quite enough.

#### 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 Scripture, and the results of their research 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 inaccurate ideas on the brain that were prevalent in biblical times? Wouldn't it make

<sup>1.</sup> G. W. Bruyn, "The Seat of the Soul," in *Historical Aspects of the Neurosciences:* A Festschrift for Macdonald Critchley, ed. F. Clifford Rose and W. F. Bynum (New York: Raven Press, 1982), 56.

more sense to say that the Bible is authoritative on the spiritual realm and the brain sciences are authoritative on the brain?

This may sound fair, but 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 with "the fear of the LORD" (Prov. 1:7). All knowledge begins with our 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.<sup>2</sup>



# Figure 1.1. Three possible relationships between the Bible and science

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. We begin with three:

- 1. God created all things. Therefore, God created the brain.
- 2. God has called us to be students of creation. Therefore,

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.

creation, including the brain, can be studied and partially understood.

3. Students of God's world should be truth-tellers and people of integrity. Therefore, scientists should be careful in their investigations and truthful as they report 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 our 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 influence our interpretation of neuroscientific data. The Bible winds up looking like a head of state that has no real power.

In fact, Scripture has been losing its functional authority in the biological sciences for 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 who were affected, not the financially stable middle- and upper-class folk who typically attended church.

An 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 narrowed. Instead of Scripture ruling 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. . . . Material preoccupations and

empirical habits of thought had not so much defeated as displaced the spiritual concerns of earlier generations. America seemed well on the way toward becoming a land of 'practical atheists.'"<sup>3</sup>

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

Let's say that a pastor is counseling a woman in his congregation who is very depressed. For years they struggle together, confident that there are biblical answers to her depression. Then a neighbor of the depressed woman happens to mention her own experience with antidepressant medication. When the woman goes to her neighbor's psychiatrist and starts taking medication, her depression lifts. This woman will undoubtedly consider the brain sciences to be more insightful and authoritative regarding her problem than the Bible. She tried both, after all, and medication was more effective.

Or consider the opening case study in the book *Listening to Prozac*,<sup>4</sup> in which a man's interest in pornography ends soon after he starts taking that drug. Do you think this man will ever call pornographic indulgence a sin? A spiritual change did not remove his desire; rather, medication manipulated his brain chemicals. Therefore he will argue that if the soul exists, it can be changed through prescription drugs, not by the gospel of Christ.

The list could go on. You already know about the debates over a 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? Brain research itself rarely draws these conclusions. But once the research gets whispered

4. Peter D. Kramer, *Listening to Prozac: A Psychiatrist Explores Antidepressant Drugs and the Remaking of the Self* (New York: Viking, 1993), ix–xi.

<sup>3.</sup> Charles E. Rosenberg, *The Cholera Years: The United States in 1832, 1849, and 1866* (Chicago: University of Chicago Press, 1962), 213.

down the lane to online outlets 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, understand how Scripture's teaching on the soul deepens the discussion, and bless both the sciences and the church in the process.