

IN SEARCH OF THE SOUL



FOUR VIEWS OF THE MIND-BODY PROBLEM

EDITED BY **JOEL B. GREEN AND STUART L. PALMER**

WITH CONTRIBUTIONS BY **KEVIN CORCORAN, STEWART GOETZ,
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InterVarsity Press
Downers Grove, Illinois

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InterVarsity Press
P.O. Box 1400, Downers Grove, IL 60515-1426
World Wide Web: www.ivpress.com
E-mail: mail@ivpress.com
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Design: Cindy Kiple
Images: Chad Baker/Getty Images
ISBN 0-8308-2773-0

Printed in the United States of America ∞

Library of Congress Cataloging-in-Publication Data

In search of the soul: four views of the mind-body problem / edited by Joel B. Green and Stuart L. Palmer; with contributions by Kevin Corcoran . . . [et al.].

p. cm.
Includes bibliographical references and index.
ISBN 0-8308-2773-0 (pbk.: alk. paper)

1. Soul. 2. Mind and body. 3. Body, Human—Religious aspects—Christianity. I. Green, Joel B., 1956- II. Palmer, Stuart L., 1955- III. Corcoran, Kevin, 1964-
BT741.3.B63 2005
233'.5—dc22

2004029592

P 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
Y 18 17 16 15 14 13 12 11 10 09 08 07 06 05

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1

BODY AND SOUL, MIND AND BRAIN

CRITICAL ISSUES

Joel B. Green

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."

So God created humankind in his image, in the image of God he created them; male and female he created them.

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."

GENESIS 1:26-28

We are machines built by DNA whose purpose is to make more copies of the same DNA. . . . This is exactly what we are for. We are machines for propagating DNA, and the propagation of DNA is a self-sustaining process. It is every living object's sole reason for living.

RICHARD DAWKINS, "GROWING UP IN THE UNIVERSE"

In a characteristically provocative, some might say insolent, fashion, evolutionary biologist Richard Dawkins articulates a scientific view of humanity that contrasts sharply with the perspective of Christian Scripture and the Christian tradition. His is the sort of viewpoint that many Christians fear when the natural sciences enter the conversation. Not only have we become "machines" in Dawkins's reckoning, but the purpose of our lives, individually and collectively, has been reduced to accommodating those impulses arising at the level of our molecular biology.

Although for many the threat to traditional views of personhood may appear to originate in evolutionary biology, today the frontier of human definition is defined more particularly by study of the central nervous system, especially the brain: its systems, networks and neuronal interactions. “Bit by experimental bit,” writes philosopher Patricia Churchland, “neuroscience is morphing our conception of what we are.”¹ This includes dispensing with the “soul” in favor of biologically anchored processes. As a recent *New York Times* article reported, “Neuroscientists have given up looking for the seat of the soul, but they are still seeking what may be special about human brains, what it is that provides the basis for a level of self-awareness and complex emotions unlike those of other animals.” Noting the now-common view that morality and reason grow out of social emotions and feelings that are themselves linked to brain structures that map the body, the article suggests that, maybe, what makes us human is all in the wiring of the brain.² If the Christian tradition has typically located human distinctiveness—indeed, the human sense of “self”—in human possession of a “soul,” then it is no surprise that science might be regarded by some as a spiritually caustic agent.

What does it mean to be human? In what ways, if any, is our essential humanity tied to body and soul, mind and brain? This is not the stuff of mere curiosity. A host of pressing issues is at stake:

- What distinguishes us from nonhuman animals?
- Is there anything about humans that our mechanical creations, our innovations in artificial intelligence, will be unable to duplicate?
- What view of the human person is capable of funding what we want to know about ourselves theologically—about sin, for example, as well as moral responsibility, volition, repentance, joy and growth in grace?
- How do we explain our actions? Am I free to do what I want, or is my sense of decision making a ruse?
- What portrait of the human person is capable of casting a canopy of sacred worth over human beings, so that we have what is necessary for discourse concerning morality and for ethical practices regarding “human dignity” and “sacred worth,” not least on beginning- and end-of-life issues?
- If humans, like sheep, can be cloned, will the resulting life form be a “person”?

¹Patricia Smith Churchland, *Brain-Wise: Studies in Neurophilosophy* (Cambridge, Mass.: MIT Press, 2002), p. 2.

²Sandra Blakeslee, “Humanity? Maybe It’s All in the Wiring,” *New York Times*, December 9, 2003, F1.

- How should we understand “salvation”? What needs to be “saved”? What does salvation entail? Salvation of my “soul”? If so, does this entail a denial of the world and embodied life, focusing instead on my internal, spiritual life and the life to come? What view of salvation is funded by a given view of humanity?
- How ought the church to be extending itself in mission? Mission to what? The spiritual or soulish needs of persons? Society at large? The cosmos?
- What about pastoral ministry? Given that the role of the pastor has historically been defined as “soul care,” what happens to the pastoral vocation if there is no “soul”?
- What is the nature and role of the church? How is our understanding of the church implicated in different views of what it means to be human? What is the role of the church in the formation of human persons?
- What happens when we die? What view(s) of the human person is consistent with Christian belief in life after death?

For many, and not least for many Christians, the traditional answer to the question, what makes a human genuinely human? has been the identification of the human person with his or her soul. Although the origin of the soul was debated among Christian theologians as early as the second century,³ it was nonetheless clear to most by the postapostolic period that, as the *Letter to Diognetus* puts it, “the soul dwells in the body, yet is not of the body” (1.27). Exegesis of the Genesis account of the creation of humanity generally focused on God’s breathing into Adam “the breath of life” (Gen 2:7)—that is, the placing of the living soul into what had been formed from dust⁴—with the result that the first human being, and all persons to appear subsequently, is a human person by virtue of the possession of a soul. “Without the soul, we are nothing,” wrote Tertullian.⁵ Writing in the early fourth century, Lactantius is even more clear: “The body can do nothing without the soul. But the soul can do many and great things without the body.”⁶ Dogmatic or systematic theology concerned with the doctrine of humanity has traditionally discussed the unique-

³Are souls created by God ex nihilo at the moment of their infusion into the body (Lactantius, Thomas Aquinas, Peter Lombard)? Are body and soul formed together (Tertullian, Martin Luther)? Are souls pre-existent (Origen)?

⁴For an accessible compilation of relevant texts, see Andrew Louth, ed., *Genesis 1–11, Ancient Christian Commentary on Scripture, Old Testament 1* (Downers Grove, Ill.: InterVarsity Press, 2001), pp. 50–53.

⁵Tertullian *Soul’s Testimony* 6.

⁶Lactantius *Divine Institutes* 7.12.

ness of humanity in two theological loci, human creation in the divine image and the human possession of a soul.⁷ Often these two are reduced to one, with the soul understood as the particular consequence of creation in God's image.

For persons of faith—Christians included, but many others besides—the idea of a soul separable from the body is not only intuitive but has contributed a great deal. We have regularly appealed to the soul as proof that humans are not mere animals, and thus as a foundation for our views of human dignity and the sacredness of human life; we have imagined that human possession of a soul has immediate and far-reaching consequences for the burgeoning and troubled arena of bioethics.⁸ Moreover, Christians generally have derived from belief in the existence of the soul their affirmation of the human capacity to choose between good and ill, as free moral agents. Further, since it is with regard to the soul that the divine image shared by human beings comes into clearest focus, the soul provides the necessary (though not sufficient) ground of human spirituality, of one's capacity to enter into and enjoy a relationship with God. Still further, the existence of a nonphysical soul, distinct and separable from the body, is typically regarded as the means by which human identity can cross over the bridge from this life to the next; indeed, traditional Christian thought has tended to regard the body as frail and finite and the soul as immortal.

These are important matters, but they are also complex. Many voices are needed if these issues are to be explored fully. In this volume, we hear particularly from Christian philosophers who, in various ways and to varying degrees, are themselves in conversation with other disciplines.⁹ The purpose of his opening chapter is to provide orientation to the larger discussion concerning the nature of the human person by (1) introducing the range of options championed today for portraying what it means to be human, together with

⁷For example, H. Wheeler Robinson, *The Christian Doctrine of Man*, 3rd ed. (Edinburgh: T & T Clark, 1926); and, more recently, Paul K. Jewett, *Who We Are: Our Dignity as Human: A Neo-evangelical Theology*, ed. Marguerite Shuster (Grand Rapids: Eerdmans, 1996).

⁸This is recently argued in J. P. Moreland and Scott B. Rae, *Body and Soul: Human Nature and the Crisis in Ethics* (Downers Grove, Ill.: InterVarsity Press, 2000).

⁹For multidisciplinary perspectives, see the following collections: Warren S. Brown, Nancey Murphy and H. Newton Malony, eds., *Whatever Happened to the Soul? Scientific and Theological Portraits of Human Nature*, Theology and the Sciences (Minneapolis: Fortress, 1998); Joel B. Green, ed., *What About the Soul? Neuroscience and Christian Anthropology* (Nashville: Abingdon, 2004); Niels Henrik Gregersen et al., eds., *The Human Person in Science and Theology*, Issues in Science and Theology (Grand Rapids: Eerdmans, 2000); Malcolm A. Jeeves, ed., *From Pills to Souls: Changing Portraits of Human Nature* (Grand Rapids: Eerdmans, 2004); Robert John Russell et al., eds., *Neuroscience and the Person*, Scientific Perspectives on Divine Action (Vatican City State: Vatican Observatory, 1999).

some of the vocabulary typically associated with these options; (2) presenting a series of compass points we Christians need to consider as we contemplate these options; and (3) sketching some representative issues that together underscore why discussions about body and soul, mind and brain are so significant and controversial.

In the essays and responses that make up the heart of this book, philosophers Stewart Goetz, William Hasker, Nancey Murphy and Kevin Corcoran demonstrate how each portrait of the human person they champion accounts for many of these issues. Of course, given the constraints of space imposed on our contributors, we can hardly expect them to address all of the pertinent concerns. Even so, the astute reader may be able to extrapolate from what the contributors are able to discuss to how they might further their arguments; moreover, we may follow the paths of their thinking in their own additional publications and in other materials they cite. The final essay, by Stuart Palmer, will help us reflect on how different views might manifest themselves in the representative Christian practices of hospitality and forgiveness.

Portraits of the Human Person: Options and Definitions

To many Christians, the range of possible ways of giving an account of the human person may be surprising, and the assumptions and vocabulary that characterize the discussion can be off-putting, if not downright overwhelming. In a recent introduction to the debate, Corcoran concluded that "the mind-body problem remains wide open."¹⁰ This would come as a surprise to mid-twentieth-century readers of one of the early histories of neurology, wherein Walther Riese confidently asserts that the human soul, a stranger to the anatomical structures of the cerebrum, had been eliminated in the 1800s by philosophers, naturalists and physicians.¹¹ More recently, Dawkins confidently pronounced over the demise of the idea of a human soul, "Good riddance."¹² Nevertheless, standard textbooks on the philosophy of mind continue to discuss a range of options for articulating the nature of the relationship of mind and brain, just as neurobiologists admit to the persistence of an "explanatory

¹⁰Kevin Corcoran, introduction to *Soul, Body and Survival: Essays on the Metaphysics of Human Persons*, ed. Kevin Corcoran (Ithaca, N.Y.: Cornell University Press, 2001), p. 11.

¹¹Walther Riese, *A History of Neurology* (New York: MD Publications, 1959), pp. 19-48.

¹²Richard Dawkins and Steven Pinker, "Is Science Killing the Soul?" (The Guardian-Dillon Debate, chaired by Tim Radford, Westminster Hall, London, February 10, 1999), *Edge* 53 (April 8, 1999), <<http://www.edge.org/documents/archive/edge53.html>>, accessed on January 2, 2004).

gap" regarding how the physical correlates of a phenomenal state are related to our subjective feelings of that state.¹³

Unrest around these issues, especially among philosophers, has yielded a plethora of options, including, for example, substance dualism, naturalistic dualism, holistic dualism, emergent dualism, two-aspect monism, reflexive monism, constitutional materialism, nonreductive physicalism and eliminative materialism.¹⁴ With this renaissance in philosophical attention, the debate has come full circle, since, in Western thought, its beginnings can be traced to the dualism of Plato (c. 429-347 B.C.), the monism of Aristotle (384-322 B.C.) and the range of metaphysical permutations aligned along this continuum.¹⁵ Even as early as the late fifth century B.C., however, treatises written by (and attributed to) Hippocrates, the famous physician of classical antiquity, weighed in on the relation of σῶμα (*sōma*, "body") and ψυχή (*psychē*, "soul," "self," "personality"); and historically the terms of this debate have been correlated with anatomical and physiological factors, especially as these have been related to concerns of a religious sort. That is, the mind-body problem has long been the gathering point for wide-ranging perspectives—philosophy, theology, the natural sciences and the psychological sciences, among the most prominent.

In the chapters that follow, the contributors devote considerable attention

¹³See Joseph Levine, "Materialism and Qualia: The Explanatory Gap," *Pacific Philosophical Quarterly* 64 (1983): 354-61; Susan Greenfield, "Soul, Brain and Mind," in *From Soul to Self*, ed. M. James C. Crabbe (London: Routledge, 1999), pp. 108-25.

¹⁴For substance dualism, see, e.g., Richard Swinburne, *The Evolution of the Soul*, rev. ed. (Oxford: Clarendon, 1997). For naturalistic dualism, see David J. Chalmers, *The Conscious Mind: In Search of a Fundamental Theory* (Oxford: Oxford University Press, 1996). For holistic dualism, see John W. Cooper, *Body, Soul and Life Everlasting: Biblical Anthropology and the Monism-Dualism Debate*, 2nd ed. (Grand Rapids: Eerdmans, 2000). For emergent dualism, see William Hasker, *The Emergent Self* (Ithaca, N.Y.: Cornell University Press, 1999). For two-aspect monism, see Malcolm A. Jeeves, *Human Nature at the Millennium: Reflections on the Integration of Psychology and Christianity* (Grand Rapids: Baker, 1997). For reflexive monism, see Max Velmans, *Understanding Consciousness* (London: Routledge, 2000). For constitutional materialism, see Kevin J. Corcoran, "Persons and Bodies," *Faith and Philosophy* 15 (1998): 324-39; Lynne Rudder Baker, *Persons and Bodies: A Constitutive View*, Cambridge Studies in Philosophy (Cambridge: Cambridge University Press, 2000). For nonreductive physicalism, see Nancey Murphy, "Nonreductive Physicalism: Philosophical Issues," in *Whatever Happened to the Soul? Scientific and Theological Portraits of Human Nature*, ed. Warren S. Brown, Nancey Murphy and H. Newton Malony, Theology and the Sciences (Minneapolis: Fortress, 1998), pp. 127-48. For eliminative materialism, see Paul M. Churchland, *The Engine of Reason, The Seat of the Soul: A Philosophical Journey into the Brain* (Cambridge, Mass.: MIT Press, 1995).

¹⁵For historical perspective, see John P. Wright and Paul Potter, eds., *Psyche and Soma: Physicians and Metaphysicians on the Mind-Body Problem from Antiquity to Enlightenment* (Oxford: Clarendon, 2000); Paul S. MacDonald, *History of the Concept of Mind: Speculations about Soul, Mind and Spirit from Homer to Hume* (Aldershot, U.K.: Ashgate, 2003).

to introducing their respective positions and attendant vocabulary. By way of anticipating those more expansive discussions, it may be helpful to provide some linguistic and conceptual orientation.

Arranged along a continuum, perspectives championed today can be characterized as more or less materialist, more or less dualist. On the extreme poles are two positions, (reductive) materialism and radical dualism, both of which are difficult to square with Christian theological commitments. Dispersed between these two poles are other generous categories within which the debate among Christians tends to be localized.

Reductive materialism has it that the human person is a physical (or material) organism whose emotional, moral and religious experiences will ultimately be explained by the natural sciences. People are nothing but the product of organic chemistry. As Francis Crick has famously remarked, " 'You,' your joys and your sorrows, your memories and your ambitions, your sense of identity and free will, are in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules."¹⁶

Radical dualism puts forward the view that the soul (or mind) is separable from the body, having no necessary relation to the body, with the human person identified with the soul. Apart from further qualification or explanation, in this view the soul acts apart from bodily processes, and the body is nothing more than a temporary and disposable holding tank for the soul.

Holistic dualism in its various renditions qualifies as a form of substance dualism, but it posits that the human person, though composed of discrete elements, is nonetheless to be identified with the whole, which then constitutes a functional unity. "The soul and the body are highly interactive, they enter into deep causal relations and functional dependencies with each other, the human person is a unity of both."¹⁷ As will become clear in the essays that follow, the substance dualism of Goetz (chap. 2) and the emergent dualism of Hasker (chap. 3) can be located within this broad category.

Various forms of *monism* defended among Christians require no second metaphysical entity, such as a soul or spirit, to account for human capacities and distinctives, while insisting that human behavior cannot be explained exhaustively with recourse to genetics or neuroscience. Using various models, these monists argue that the phenomenological experiences that we label

¹⁶Francis Crick, *The Astonishing Hypothesis: The Scientific Search for the Soul* (New York: Simon & Schuster, 1994), p. 3.

¹⁷J. P. Moreland, "Restoring the Substance to the Soul of Psychology," *Journal of Psychology and Theology* 26 (1998): 35.

“soul” are not reducible to brain activity and represent essential aspects or capacities of the self, rather than a substantial, ontological entity such as a “soul.” Two of those models are presented in this book: Murphy’s nonreductive physicalism (chap. 4) and Corcoran’s constitution view of the human person (chap. 5).

Although sometimes presumed in popular discussion, a *tripartite* view of the human person is only rarely found in biblical studies or in the theological literature; according to this view, the human being is made up of three ontologically separate entities—body, soul and spirit.¹⁸

Theology, Christian Scripture and Science: Points of Departure

One of the first sets of questions that we who are interested in understanding the human person from a Christian vantage point must address has to do with the sources of our knowledge. Whatever else Christians do, we work with constraints such as Scripture, experience and the Christian tradition. Of these, the last is the only one that has, until recently, spoken with almost one voice; Christian tradition is practically univocal in its presumption of some form of anthropological dualism.¹⁹ Much less easy to summarize is how Christians will account for the findings of the natural sciences, since Christians have embraced different approaches.²⁰

Anthropology and science. What, then, of the natural sciences? Should neuroscience, in particular, provide yet another constraint in Christian anthropology? In fact, the concept of God’s “two books,” the Bible and the natural world, was a regular fixture in seventeenth-century English natural theology. Accordingly, science and religion could not be viewed as antagonists, for science was simply an investigation into God’s creation. As Augustine had written centuries earlier, “Some people read books in order to find God. But the very appearance of God’s creation is a great book.” He advised, “Ponder heaven and earth religiously.”²¹

¹⁸In propagating this view, the work of Watchman Nee has been surprisingly influential. See his *The Spiritual Man*, 3 vols. (New York: Christian Fellowship, 1968). See now John C. Garrison, *The Psychology of the Spirit: A Contemporary System of Biblical Psychology* (n.p.: Xlibris, 2001); cf. Edward J. Cumella, “Bio-Psycho-Social-Spiritual: Completing the Model,” *Remuda Review* 1, no. 1 (2002): 1-5.

¹⁹That the earliest tradition was marked by some diversity at this point is suggested in Etienne Gilson, *The Spirit of Medieval Philosophy* (New York: Charles Scribner’s Sons, 1936), p. 172.

²⁰For an overview and a compelling argument concerning the hyperbole of reported tensions between science and Christian faith, see Denis Alexander, *Rebuilding the Matrix: Science and Faith in the Twenty-first Century* (Grand Rapids: Zondervan, 2001).

²¹Augustine *Sermo Mai* 126; English translation in Karlfried Froehlich, “‘Take Up and Read’: Basics of Augustine’s Biblical Interpretation,” *Interpretation* 58 (2004): 12.

Science must be taken seriously, first, on account of our doctrine of creation. This means that, for the Christian, inquiry starts not from “science,” but from the Christian tradition in its understanding of nature in its creatureliness. Of course, until the modern era, there was no need for navigating science-theology relations, since science, philosophy and religion composed the same vocation, proceeded from the same intellectual impulses and focused on the same subject matter. On account of the Christian doctrine of creation, theology is an all-encompassing enterprise, so that the subsequent segregation of science from theology could never mean that science would fall outside the purview of theology. Insofar as science is present as one of the sources for the theological enterprise, theology remains open to the possibility of reformulation on account of scientific discovery. It is not only that our doctrine of creation urges a unitary approach to knowledge, pressing us to account for natural science in our theological work, however. There are also considerations of an epistemological sort—considerations, that is, which focus on how we know what we know. Accordingly, we must account for the reality that natural science is, and has always been, part of our worldview. The two, science and theology, interact in a more organic way than we often acknowledge, with the result that it is virtually impossible to extricate the one influence from the other. This is true of the “science” presumed of the biblical writers and of the “science” presumed of biblical interpreters and theologians from the second century onward. We have before us a long history of interpreters of biblical texts who have engaged those texts on the basis of scientific views of the human person pervasive in the worlds of the interpreters.

What is contemporary science telling us about the human person? Neuroscientists almost exclusively speak of human life in terms of embodiment as physical persons. Typically, they do this on account of the complex and subtle dependencies of our thought processes on the state and functioning of our brains. They might draw attention to any variety of research reports from the last year or two, including the following:

- experimental data demonstrating that the psychological pain of social loss, such as the loss of a loved one, has neural correlates in the prefrontal cortex and the anterior cingulate cortex, suggesting a “human sadness system” in the brain²²
- the use of functional magnetic resonance imaging (fMRI) to show that the

²²Naomi I. Eisenberger et al., “Does Rejection Hurt? An fMRI Study of Social Exclusion,” *Science* 302, no. 5643 (2003): 290-92.

orbital and medial prefrontal cortex and the superior temporal sulcus regions of the brain play a central role in humans' moral appraisals, demonstrating a neural substrate for the emotions by which we assign moral values to events, objects and actions²³

- research, popularized in *Newsweek*, indicating that when a person intends to suppress unwanted memories, his or her prefrontal cortex is involved in dampening activity in the hippocampus, a subcortical structure implicated in memory retrieval²⁴
- evidence that communicative intention between persons is signaled by the activation of two common brain regions (namely, the paracingulate cortex and temporal poles bilaterally), the same areas of the brain that are activated when people are asked to consider the mental states of others²⁵
- research, also popularized in *Newsweek*, showing that the experience of motherhood triggers morphological and hormonal alterations in the brain, effecting reductions in anxiety and stress responsiveness²⁶
- indications that emotion-induced memory gains and losses depend on a common neurobiological mechanism that can be manipulated by the pharmacological agent propranolol or by damage to the amygdala²⁷
- support for the hypothesis that gray matter volume differences in motor, auditory and visual-spatial brain regions (comparing professional musicians with amateur and nonmusicians) is due to structural adaptations in the brain in response to long-term skill acquisition and repetitive rehearsal of those skills²⁸
- a study establishing that the brain's anterior cingulate cortex is impli-

²³Jorge Moll et al., "The Neural Correlates of Moral Sensitivity: A Functional Magnetic Resonance Imaging Investigation of Basic and Moral Emotions," *Journal of Neuroscience* 22, no. 7 (2002): 2730-36.

²⁴M. C. Anderson et al., "Neural Systems Underlying the Suppression of Unwanted Memories," *Science* 303, no. 5655 (2004): 232-35; cf. Mary Carmichael, "An Irrepressible Idea," *Newsweek*, January 19, 2004, p. 10.

²⁵Knut K. W. Kampe et al., "'Hey John': Signals Conveying Communicative Intention Toward the Self-Activate Brain Regions Associated with 'Mentalizing,' Regardless of Modality," *Journal of Neuroscience* 23, no. 12 (2003): 5258-63.

²⁶Jennifer Wartella et al., "Single or Multiple Reproductive Experiences Attenuate Neurobehavioral Stress and Fear Responses in the Female Rat," *Physiology & Behavior* 79, no. 3 (2003): 373-81; cf. Mary Carmichael, "Mother Knows Best," *Newsweek*, November 17, 2003, p. 8.

²⁷B. A. Strange et al., "An Emotion-Induced Retrograde Amnesia in Humans Is Amygdala- and β -Adrenergic-Dependent," *Proceedings of the National Academic of Sciences* 100, no. 23 (2003): 13626-31.

²⁸Christian Gaser and Gottfried Schlaug, "Brain Structures Differ between Musicians and Non-Musicians," *Journal of Neuroscience* 23, no. 27 (2003): 9240-45.

cated in monitoring the consequence of one's actions²⁹

- confirmation that long-term depression can reshape the brain, shrinking the hippocampus, a subcortical structure implicated in memory³⁰

These research results may be combined with often dramatic clinical stories of a patient's altered sense of self due to brain lesion and with related research unveiling the role of the brain in emotion and volition.³¹ These data (and their less sophisticated precursors over the past 300 years) have generally led scientists away from belief in a nonmaterial entity, such as a soul, as a way of explaining the human self. And the fact that these research results are increasingly finding their way into the popular press leads us to anticipate that the population at large, including the churching population, will increasingly begin to contemplate their ramifications for what it means to be human.

As a whole, those neuroscientists who are Christians champion the notion of psychosomatic unity, too, though they are careful to avoid the reduction of mental states or spiritual awareness, for example, to neuronal interaction.³² Evidence of this sort has led theologian Wolfhart Pannenberg to conclude that the close mutual interrelations of physical and psychological occurrences have robbed of their credibility traditional ideas of a soul distinct from the body. "When the life of the soul is conditioned in every detail by bodily organs and processes, how can it be detached from the body and survive without it?"³³

How will such research results as these be factored into the philosophical and theological debate on the mind-brain, body-soul problem? Will science join Scripture, the Christian tradition and experience as constraints on the discussion?

²⁹Shigehiko Ito et al., "Performance Monitoring by the Anterior Cingulate Cortex During Saccade Countermanding," *Science* 302, no. 5642 (2003): 120-22.

³⁰Constance Holden, "Future Brightening for Depression Treatments," *Science* 302, no. 5646 (2003): 810-13.

³¹These connections were suggested in the cases described over three decades ago in Oliver Sacks, *The Man Who Mistook His Wife for a Hat and Other Clinical Tales* (New York: Simon & Schuster, 1970). More recently, see Antonio R. Damasio, *Descartes' Error: Emotion, Reason and the Human Brain* (New York: Putnam, 1994); idem, *The Feeling of What Happens: Body and Emotion in the Making of Consciousness* (New York: Harcourt, 1999); Todd E. Feinberg, *Altered Egos: How the Brain Creates the Self* (Oxford: Oxford University Press, 2001). On emotion and volition, see also Joseph LeDoux, *The Emotional Brain: The Mysterious Underpinnings of Emotional Life* (London: Weidenfeld & Nicolson, 1998); Elkhonon Goldberg, *The Executive Brain: Frontal Lobes and the Civilized Mind* (Oxford: Oxford University Press, 2001); Benjamin Libet et al., eds., *The Volitional Brain: Towards a Neuroscience of Free Will* (Thorverton: Imprint Academic, 1999).

³²Most recently, cf. Jeeves, ed., *From Cells to Souls*.

³³Wolfhart Pannenberg, *Systematic Theology* (Grand Rapids: Eerdmans, 1994), 2:182.

Anthropology and Scripture. What of Scripture? Does the Bible teach either monism or body-soul dualism? Any number of texts could be marshaled in support of a manifestly affirmative response on behalf of dualism: for example, “Do not fear those who kill the body but cannot kill the soul; rather fear him who can destroy both soul and body in hell” (Mt 10:28) or “Then Jesus, crying with a loud voice, said, ‘Father, into your hands I commend my spirit’ ” (Lk 23:46).

Until recently, the view of many theologians would have been that the Old Testament assumes or bears witness to anthropological monism, whereas the New Testament supports a dualist rendering of the human person, body and soul. Biblical scholars who have addressed the question, on the other hand, are almost unanimous in their conclusion that both Old and New Testaments assume or testify to an anthropological monism. This is not because biblical scholars have been influenced by neuroscientific research, but rather because of shifts in the discipline of biblical studies itself, among which two are especially important.

First, we now recognize that the longstanding and pervasive view that posited a dichotomy between Hebrew thought (which affirmed some form of monism) and Greek thought (which affirmed some form of dualism) was a gross caricature. This is because, on the one hand, Greek thought was more variegated on the nature of the soul than a reading focused on Plato (or on some first-century Neo-Platonists) would allow. There simply was no singular conception of the soul among the Greeks, and the body-soul relationship was variously assessed among philosophers and physicians in the Hellenistic period.³⁴ For example, Heinrich von Staden summarizes “the belief cluster” shared by philosophers and physicians of the Hellenistic period by noting, among other things, that the “soul” is corporeal, and that the “soul” is generated with the “body” and neither exists before the body nor is separable from it after the body’s demise. That is, “the soul does not exist independently of the body in which it exists.”³⁵ What happens after we die? It may be useful to refer to Cicero, who summarizes the two primary competing views: either the body and soul are annihilated at death or the soul separates from the body.³⁶ This is

hardly the dualism widely assumed to characterize “the Greeks” in the Hellenistic and Roman periods.

On the other hand, one must speak of the complex relationship of Hellenism and Judaism characterizing the centuries after the military successes of Alexander the Great in the Near East in the last half of the fourth century B.C.—relationships of acculturation, to be sure, but otherwise on a continuum between resistance and integration. Consequently, the environment within which the New Testament was taking shape provided for the presence of a variety of views, both within Roman Hellenism and within Hellenistic Judaism. For both of these reasons, it is erroneous to allege that the New Testament authors lived in a milieu pervaded by body-soul dualism. For these reasons, too, it is easy to understand how Graham Warne could reach the conclusion that the apostle Paul was a monist but Philo the Alexandrian Jew a dualist, in spite of the fact that these two Jewish writers lived at approximately the same time and under similar religious and philosophical influences.³⁷

Second, advances in linguistics, following the work of Ferdinand de Saussure in the early twentieth century, disallow the confusion between words and concepts, and thus call into question the erroneous view that, say, the Greek term ψυχή (*psychē*) means “soul” and therefore refers to (something like) an ontological entity separate from the σῶμα (*sōma*, “body”). Although ψυχή *could* refer to “soul,” understood within the framework of a body-soul dualism, this *cannot* be presumed on lexical grounds. Aristotle, for example, devotes an entire treatise to “the soul” (ΠΕΡΙ ΨΥΧΗΣ, “On the Soul”), and defines ψυχή in terms of what we today would designate a physicalist account of human nature, just as the Septuagint, a Greek translation of Israel’s Scriptures dating from the Hellenistic period, typically translates the Hebrew נֶפֶשׁ (*nepesh*, “vitality”) with ψυχή, without thereby introducing anthropological dualism into the Old Testament. In fact, נֶפֶשׁ occurs almost 800 times in the Old Testament, with the primary meaning of “throat” or “gullet” (very much a physical referent!) and with the extended sense of “vitality” or “the impulse of life over against death.” When used anthropologically, its typical use is with reference to the entire human being, not to a portion of the person. Persons in the Old Testament “do not think of themselves in a subject-object relationship (spirit and soul); the subject in particular is not thematic. On the basis of being alive, of individuation within life, of perceiv-

³⁴See, e.g., Wright and Potter, eds., *Psyche and Soma*; Dale B. Martin, *The Corinthian Body* (New Haven, Conn.: Yale University Press, 1995), pp. 3-37.

³⁵Heinrich von Staden, “Body, Soul and Nerves: Epicurus, Herophilus, Erasistratus, the Stoics and Galen,” in *Psyche and Soma: Physicians and Metaphysicians on the Mind-Body Problem from Antiquity to Enlightenment*, ed. John P. Wright and Paul Potter (Oxford: Clarendon, 2000), pp. 79-116 (79).

³⁶Cicero *Tusculan Disputations* 1.11.23-24.

³⁷Graham J. Warne, *Hebrew Perspectives on the Human Person in the Hellenistic Era: Philo and Paul* (Lewiston, N.Y.: Mellen, 1995).

ing life as an in-and-out rhythm (breathing?), they find themselves to be living quanta with respect to *hayyīm*, life.³⁸

Of course, we should acknowledge the ease with which we in the modern era might read a Cartesian interest in “the mind” back into the Bible. Given the importance of the horizons of our own assumptions in acts of reading and interpretation, and given the pervasive influence of the Cartesian idea of a disembodied mind even today, it is no surprise that many readers of the Bible have found body-soul dualism in its pages. We can illustrate the problem with reference to Western medicine, where the Cartesian mind-body split is so fully on display. Only with slight hyperbole can Trinh Xuan Thuan remark, “To this day, the brain and mind are regarded as two distinct entities in Western medicine. When we have a headache, we consult a neurologist; when we are depressed, we are told to see a psychiatrist.”³⁹ Given this way of structuring reality, why would we not unreflectively segregate healing (biomedical) from salvation (spiritual)?⁴⁰ In the Old Testament, however, the identity of God as “healer” is preeminently focused on deliverance for the people of God; “I, Yahweh, am your healer,” God’s people are told, following the narration of the incredible lengths to which Yahweh has gone to liberate Israel from Egypt (Ex 15:26, my translation; see 2 Kings 5:7). In Scripture as a whole, when it comes to Yahweh’s saving acts on behalf of his people, we find little room indeed for segregating the human person into discrete, constitutive “parts,” whether “bodily” or “spiritual” or “communal.”

Persons who find evidence for dualism in the Scriptures sometimes point to evidence of a different sort—to a biblical eschatology that requires a disembodied intermediate state, for example, or to the story of the witch of Endor in 1 Samuel 28, which seems to require the presence of Samuel’s “soul” at Endor. With regard to 1 Samuel 28, however, Bill Arnold has cataloged evidence especially from the early history of Christian interpretation of this story demonstrating that no consensus has emerged that would defend a traditional dualism. Although he is himself cautious about what conclusions might be reached about the anthropology assumed by this text, he does observe that those interpretations assuming a physicalist approach are closer to the ancient Israelite

³⁸H. Seebass, “שׁוּפֵר,” in *Theological Dictionary of the Old Testament*, vol. 9, ed. G. Johannes Botterweck et al. (Grand Rapids: Eerdmans, 1998), pp. 503-4; see Seebass’s excursus, “The Translation ‘Soul,’” pp. 508-10.

³⁹Trinh Xuan Thuan, *Chaos and Harmony: Perspectives on Scientific Revolutions of the Twentieth Century* (Oxford: Oxford University Press, 2001), p. 294.

⁴⁰For a prominent example of this bifurcation, see John Wilkinson, *The Bible and Healing: A Medical and Theological Commentary* (Grand Rapids: Eerdmans, 1998).

worldview.⁴¹ Regarding the intermediate state, the evidence is also less than straightforward whether Scripture and/or its earliest interpreters assumed or taught an intermediate state or, if an intermediate state is presumed, whether it would be disembodied.⁴²

In short, simple appeal to “what the Bible teaches” will not resolve those anthropological questions arising from discussion of body and soul, mind and brain. It is worth asking, though, whether a reading of the narrative of Scripture as a whole accounts best for a view of the human person characterized by dualism or by monism. Theological interpretation of Scripture will need more textured attention than it has generally attracted if the biblical materials are to speak faithfully to these issues.

Anthropology and experience. In discussion of Christian anthropology generally, appeal is made to two kinds of human experience: (1) I am more than my body, and (2) I experience all manner of sensations in a unified way. Both have to do with our experience of a subjective inner life—the perceptions, thoughts, feelings and awareness of my experiences, including what it is like to be a cognitive agent. This subjective, firsthand quality of experience goes by the shorthand “consciousness,”⁴³ and, for most of us, it is difficult to believe that our first-person experiences of embarrassment or fulfillment, love or hate, and smells or colors are nothing more than brain states.

How do we explain consciousness? How can I be aware that, at this very moment, I am crafting this sentence and employing a word processor, without being aware of the underlying neural processes at work in my doing so? Simply put, no one knows, and this has led to two different sorts of approaches. One is to posit the existence of a soul, by which I recognize as a singular, unified experience what is otherwise a fractured and complex set of interactions and sensations. In order to explain my experience of a unified consciousness, that is, something beyond the physical is required. In the absence of an accepted neuroscientific explanation, the appeal to a non-material solution is especially attractive, though, of course, one of the possibilities in this argument of which we should be wary is the devolution of the whole discussion into a soul-of-the-gaps explanation: since it cannot be

⁴¹See Bill T. Arnold, “Soul-Searching Questions About 1 Samuel 28: Samuel’s Appearance at Endor and Christian Anthropology,” in *What About the Soul? Neuroscience and Christian Anthropology*, ed. Joel B. Green (Nashville: Abingdon, 2004), pp. 75-83.

⁴²See, e.g., Brian Edgar, “Biblical Anthropology and the Intermediate State,” *Evangelical Quarterly* 74 (2002): 27-45, 109-21; Joel B. Green, “Eschatology and the Nature of Humans: A Reconsideration of the Pertinent Biblical Evidence,” *Science & Christian Belief* 14 (2002): 33-50.

⁴³I have borrowed this attempt at definition from Chalmers, *Conscious Mind*.

explained by the natural sciences, it must be supernatural.

Of course, the lack of an explanation for consciousness is not regarded as a deterrent by persons otherwise convinced by nondualist anthropologies. How might conscious selfhood, comprising subjective experience and autonomous agency, arise from causal chains of events in the material world? Thomas Metzinger, a German philosopher who has written extensively on the matter, replies that, in reality, there are no autonomous selves in the physical world; rather, our “selves” are ongoing processes that allow each of us to conceive of ourselves as wholes, thus enabling us to interact causally with our inner and outer environments in an entirely new, integrated and intelligent manner.⁴⁴ Antonio Damasio, seeking the neurobiological underpinnings of consciousness, speaks not of a single neural site or center of “the self,” but rather of one’s sense of self arising through a complex of crossregional integrations of neural activity; other neuroscientists similarly present models of consciousness that depend on an intricate choreography of distributed populations of neurons and neuronal systems.⁴⁵ In these discussions, it is not uncommon to hear talk of emergent capacities, even of “soul” in the sense of powers of mind that arise from our bodies and brains (rather than as an entity distinct from the body).⁴⁶

One of the crucial factors urging a nested, physicalist understanding of consciousness is evidence from lesion studies that consciousness is abolished by widely distributed damage rather than by localized cortical damage to the brain. The failure or alteration of the experience of selfhood (as this is experienced by most of us) among those whose brains are damaged by traumatic injury or disease—the reality, for example, of persons who experience themselves as being nonexistent (Cotard’s syndrome), of persons who fail to recognize a part of their own bodies or who totally reject it (asomatognosia),

⁴⁴Thomas Metzinger, *Being No One: The Self-Model Theory of Subjectivity* (Cambridge, Mass.: MIT Press, 2003). For extensive discussion on a variety of approaches to the question of consciousness, see Metzinger’s edited volumes: *Conscious Experience* (Paderborn: Schöningh, 1995) and *Neural Correlates of Consciousness: Empirical and Conceptual Questions* (Cambridge, Mass.: MIT Press, 2000).

⁴⁵Damasio, *Feeling of What Happens*. Compare, e.g., Wolf Singer, “Phenomenal Awareness and Consciousness from a Neurobiological Perspective,” in *Neural Correlates of Consciousness: Empirical and Conceptual Questions*, ed. Thomas Metzinger (Cambridge: MIT Press, 2000), pp. 121–37; Gerald M. Edelman and Giulio Tononi, “Reentry and the Dynamic Core: Neural Correlates of Conscious Experience,” in *Neural Correlates of Consciousness: Empirical and Conceptual Questions*, ed. Thomas Metzinger (Cambridge, Mass.: MIT Press, 2000), pp. 139–51.

⁴⁶From different perspectives, e.g., Jeffrey M. Schwartz and Sharon Begley, *The Mind and the Brain: Neuroplasticity and the Power of Mental Force* (New York: HarperCollins, 2002); Keith Ward, *In Defence of the Soul* (Oxford: OneWorld, 1992); Fraser Watts, *Theology and Psychology*, Ashgate Science and Religion Series (Aldershot, U.K.: Ashgate, 2002).

of persons whose sense of relatedness to others is severely compromised (e.g., Capgras syndrome), and of persons who experience the presence of two purposeful minds (some callosotomy patients)—argues strongly for taking seriously the importance of the brain in explaining the experience of unitary consciousness. Nevertheless, for the majority of us, it remains difficult to overcome the sense that bodies and brains are just different sorts of things than feelings and thoughts and intentions, and, undoubtedly, this is one reason for the persistence of a dualist accounting of the human person.

Body and Soul: Complexities and Controversies

These ruminations have suggested the complexity of the issues before us, particularly with regard to the range of considerations bearing on Christian thinking about the nature of humanity. What role will these sources of knowledge play? What ought one to make of the Christian tradition with its staunch testimony to some form of body-soul dualism? How will Scripture inform the discussion? What is one to make of mounting evidence from the natural sciences? What role might our experience of conscious selfhood play?

Having placed these considerations side by side in this way, I hope that I have demonstrated why the debate is ongoing. Whether one is thinking, say, of Scripture or human experience, we find no knockdown arguments favoring one view to the exclusion of another. Instead, we press ahead by insisting that all of the relevant data be considered and that those who join the conversation make plain how these different sources of knowledge are to be heard and mobilized.

It remains, finally, to sketch a series of questions that make so important the present discussion concerning the nature of the human person. I want to develop a selection of such issues briefly in order to underscore what is at stake in the debate and why Christians need to be fully engaged in it.

Are we (only) animals? When confronted with the sorts of issues with which this book is concerned, many persons who are new to the discussion are stunned by the presumed inference of monism that we are nothing but animals. Apart from the soul, what is it that separates us from cats and dogs, monkeys and shrimp other than, perhaps, the complexity of our brains? In his first novel, *Watchers*, Dean Koontz, famous for his fictional explorations of the paranormal, introduces a genetically engineered golden retriever, Einstein, who complains about the tattoo identification in his ear. It “marked him as mere property, a condition that was an affront to his dignity and a violation of his rights as an intelligent creature.” In reply, Nora, his human conversation partner, observes, “I do understand. You are a . . . a *person*, and a person with’—this was the first time she had thought of this aspect of the situation—

'a soul.' " She continues, "If you've got a soul—and I know you do—then you were born with free will and the right to self-determination."⁴⁷ We may be stunned by this attribution of a soul to a dog, even a genetically enhanced one, or we may puzzle over the ready conclusion that free will and self-determination are necessarily tied to the canine possession of a soul. What may be even more interesting, though, is how statements of this sort find their way into best-selling books in the late twentieth century. After all, only three decades before, in *I, Robot*, Isaac Asimov had portrayed robots with traits that others might have reserved for humans. Robbie the robot, for example, wants to "hear a story," is "faithful and loving and kind" and is even called "my friend . . . not no machine" by his young companion, Gloria. Gloria's mother is nonetheless clear that Robbie is "nothing more than a mess of steel and copper in the form of sheets and wires with electricity." "It has no soul" and so should never be confused with a human being.⁴⁸ Apparently, how to draw the line between humans and other animals or between humans and machines, or whether there are such lines to be drawn, is on the minds of folks around us.

We know that from a genetic perspective, humans and chimpanzees share some 99 percent of their genetic sequences, with significant differences between them expressed in nuclear transport and olfaction.⁴⁹ We have evidence that brown capuchin monkeys are capable of demanding equitable exchanges and that monkeys engage in goal-oriented decision making.⁵⁰ And now we are told that fish have some level of consciousness—a sense of awareness, though not an awareness of self.⁵¹ Scripture itself teaches us that we are made of the stuff of the earth, like other animals; that we are given the breath of life (*נְפֶשׁ*, *nepesh*, "vitality," sometimes translated "soul") just as other animals are; and that our destiny is enmeshed with that of the rest of creation (Gen 1–2; Rom 8:19-23). If, in the mind of many, what distinguishes the human person from other creatures is human possession of the soul, what are we to make of the singular lack of support for this view in Scripture itself? How might a portrait of the human person answer the question, Are we nothing but animals?

⁴⁷Dean Koontz, *Watchers* (New York: Berkley, 1987), p. 434.

⁴⁸Isaac Asimov, *I, Robot* (New York: Doubleday, 1950), pp. 5, 9, 23.

⁴⁹Andrew G. Clark et al., "Inferring Nonneutral Evolution from Human-Chimp-Mouse Orthologous Gene Trios," *Science* 302, no. 5652 (2003): 1960-63.

⁵⁰S. Milius, "Unfair Trade: Monkeys Demand Equitable Exchanges," *Science News* 164 (2003): 181; Kenji Matsumoto et al., "Neuronal Correlates of Goal-Based Motor Selection in the Prefrontal Cortex," *Science* 301, no. 5630 (2003): 229-32.

⁵¹James Gorman, "Fishing for Clarity in the Waters of Consciousness," *The New York Times*, May 13, 2003, <www.nytimes.com/2003/05/13/science/life/13ESSA.html?ei+5070&en=75a4c333c9e>, accessed on June 6, 2003.

Are we of sacred worth? It has often been imagined, and has now been stringently argued by J. P. Moreland and Scott Rae, that body-soul dualism, with the person identified with soul, is necessary if we are to confer on humans, and especially the most vulnerable among us, a protective canopy.⁵² Those in a persistent vegetative state, the comatose, those with advanced dementia—such persons are worthy of all of the moral consideration and standing we might confer on the healthy because the soul remains. That belief in an immaterial soul identifiable with the real person has served to extend sacred worth to human beings is undeniable.⁵³ Is this necessarily so? Human history demonstrates that this is not the case; witness, for example, the appeal to a person's not having a soul as a means of legitimating the oppression and abuse of human slavery, whether in Roman antiquity or in early America. If human dignity and worth are not tied to human possession of a soul, as monists might want to argue, for what reasons might we extend sacred worth to persons? Particularly, on what basis might we extend love to the most imperiled among us?

Do I have a choice? Whether one turns to Steven Spielberg's *Minority Report* or the Wachowski brothers' *Matrix* trilogy, in many corners today we find popular expression of the public unease with reports, often alleged to represent science, of human determinism. Unless we are seeking to befuddle a jury in a legal case, we resist a bottom-line conclusion that "my genes made me do it." Simple notions of genetic determinism are universally rejected,⁵⁴ but the possibility of libertarian free will, the exercise of volition outside the realm of causation, continues to be discussed. It is especially here, on the battlefield of free will, that various forms of dualism and varieties of monism remain locked in struggle. This is not surprising, perhaps, given David Hume's judgment that the problem of free will is "the most contentious question of metaphysics, the most contentious science."⁵⁵ Generally speaking, for the dualist, the only way to preserve free will—at least, that variety of free will worth having—is to posit a nonmaterial entity, the soul, that is not caught in the chain of cause and effect.

Of course, body-soul dualism thus brings up a further problem: namely,

⁵²Moreland and Rae, *Body and Soul*.

⁵³See, e.g., Stephen G. Post, "A Moral Case for Nonreductive Physicalism," in *Whatever Happened to the Soul? Scientific and Theological Portraits of Human Nature*, ed. Warren S. Brown, Nancey Murphy and H. Newton Malony, Theology and the Sciences (Minneapolis: Fortress, 1998), pp. 195-213 (esp. pp. 197-202).

⁵⁴Compare Ted Peters, *Playing God? Genetic Determinism and Human Freedom* (New York: Routledge, 1997); Daniel C. Dennett, "The Mythical Threat of Genetic Determinism," *Chronicle of Higher Education*, January 31, 2003, B7-9.

⁵⁵David Hume, *Enquiry Concerning Human Understanding* (Oxford: Clarendon, 1975), p. 95.

how an immaterial soul can interact with and guide the activity of a material body. Interestingly, whereas many recent substance dualists are happy to leave the problem of body-soul interaction in the realm of the mysterious, or even to dismiss its force altogether, one of the key figures in the history of neuroscience, Emanuel Swedenborg (1688-1772), regarded agnosticism on this matter as the path to atheism. Though known today primarily for his theological mysticism and the church that bears his name, this polymath devoted his whole life, he tells us, to "the search for the soul," which in turn led him to an exhaustive analysis of all that was currently known about the brain. By the turn of the eighteenth century, Descartes's hypothesis that the "seat of the soul" was localized in the pineal gland had given way to an alternative hypothesis, focused on the cerebrospinal fluid in the brain's ventricles. Swedenborg's examination of all available physiological data led him to conclude, rather, that "it is the cerebrum through which the intercourse between the soul and the body is established; for it is as it were the link and the uniting medium."⁵⁶ Interestingly, Swedenborg's dualism did not lead to the free will so important to many dualists. Rather, since influx from God flows into the soul and from the soul into the mind, which in turn activates the body, in the end free will is an illusion, for it is actually God's will that activates the body through the conduit of the soul.

Attempts to account for human volition among nondualists have been extensive and varied, with many adopting a compatibilist form of free will, arguing that deliberation and volition may coexist with causal chains. In a collection of studies published under the title *The Volitional Brain: Towards a Neuroscience of Free Will*, scholars representing diverse fields report on the neurobiology of volition and present psychological and philosophical perspectives as well as contributions from physics. The correlation of the exercise of volition with neural mechanisms located in the prefrontal cortex and, conversely, observations that persons with symptoms of a "sick will" (e.g., inactivity, lack of ambition, autistic behavior, depressive motor and behavioral inhibition) demonstrate subnormal activity in the prefrontal cortex suggest a neural substrate for decision making. Interestingly, in one set of reported ex-

⁵⁶Emanuel Swedenborg, *The Brain: Considered Anatomically, Physiologically and Philosophically*, ed. R. L. Tafel, 4 vols. (London: James Speirs, 1882), 1:67 (italic in original). For an introduction to Swedenborg's neurology, see Martin Ramström, *Emanuel Swedenborg's Investigations into Natural Science and the Basis for His Statements Concerning the Function of the Brain* (Uppsala: University of Uppsala Press, 1910). On the search for "the seat of the soul," see more fully, 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, 1982), pp. 55-81.

periments, electroencephalograph monitoring of brain waves suggested that the awareness of decision making occurred *subsequent to the action itself*.⁵⁷

In *Neurophilosophy of Free Will*, philosopher Henrik Walter argues that a "moderate version of free will" is compatible with what we are learning from neuroscience, whereas in another monograph psychologist Daniel Wegner speaks frankly of "the illusion of conscious will," insisting that "although the experience of conscious will is not evidence of mental causation, it does signal personal authorship of action to the individual and so influences both the sense of achievement and the acceptance of moral responsibility."⁵⁸ Owen Flanagan, another philosopher who has worked to take seriously what we know from neuroscience, insists "there is a robust conception of free agency that does not require us to be metaphysically free." The scenario he paints is one in which "genes and life experiences feed into a brain that has, as one of its properties, the capacity to process and access information consciously or subconsciously in a way that is one important contribution to, possibly the proximate cause of, a decision."⁵⁹ Coming at the issue from an altogether different vantage point, from the perspective of game theory, Paul Glimcher argues that the whole debate about decision making has been hampered by the incapacity of either classic dualism or monism to account for behavior in all of its complexity. Glimcher's research allows him actually to monitor the path of decision making in the brain as the decision is in process, and it leads to a description of our subjective experience of decision making as a mixed strategy solution requiring the activation of a lawful neuronal randomizer. Like many who have joined this debate, Glimcher urges that our experiences and ideas about free will are the consequence of longstanding cultural explanations and that these are in need of re-examination. He concludes that "real animals must be both physical and indeterminate, a possibility Descartes never considered."⁶⁰

Clearly, the last word on the question of free will has not been written. In fact, when it comes to squaring long-held beliefs about our abilities to choose with what we find to be the case in brain research, the first pages are only now being penned. It is manifestly important for all but the most deterministic versions of Christian theology that God has endowed human beings with the ca-

⁵⁷Libet et al., eds., *Volitional Brain*; cf. also Goldberg, *Executive Brain*.

⁵⁸Henrik Walter, *Neurophilosophy of Free Will: From Libertarian Illusions to a Concept of Natural Autonomy* (Cambridge, Mass.: MIT Press, 2001); Daniel M. Wegner, *The Illusion of Conscious Will* (Cambridge, Mass.: MIT Press, 2002), p. 318.

⁵⁹Owen Flanagan, *The Problem of the Soul: Two Visions of Mind and How to Reconcile Them* (New York: Basic, 2002), p. 116.

⁶⁰Paul W. Glimcher, *Decisions, Uncertainty and the Brain: The Science of Neuroeconomics* (Cambridge, Mass.: MIT Press, 2003), p. 345.

capacity to choose (and do) evil as well as good. What sort of free will this necessitates, whether this requires a nonmaterial soul, and how this resonates with the natural sciences remain contentious areas of discussion.

What does it mean to be saved? What is the mission of the church? In the face of budget cuts in the municipal area where my family and I live, the Lexington-Fayette Urban County Government faced hard decisions about competing priorities for funding the arts and social services. The ensuing headline in the *Lexington Herald-Leader* could have appeared in many a congregational newsletter: "Feed the Soul or Feed the Hungry?"⁶¹ This way of thinking is one expression of a longstanding dualism segregating the needs of the body from those of the soul, a dualism easily mapped onto the church's words and practices of Christian mission. There are contrary voices, of course; one thinks, for example, of the Fuller Theological Seminary theologian William A. Dyrness, whose publications have included *Let the Earth Rejoice! A Biblical Theology of Holistic Mission* and, more recently with James Engel, *Changing the Mind of Missions: Where Have We Gone Wrong?*⁶² However, there has been very little work indeed on the implications of our portraits of the human person for our vision and practices of evangelism and mission.⁶³ Instead, the longstanding and widespread assumption that the real person is to be identified with the soul has resulted in the primary attribution of missional interest to the saving of lost souls. Addressing physical needs, in this rendering, has sometimes become a means to an end; witness, for example, the practice of some emergency-relief organizations, which require that the hungry listen to a sermon before partaking of the promised free meal. Without prejudging whether body-soul dualism must lead to a relative deprecation of the body, we can observe nonetheless that body-soul dualism historically has done so when it comes to talk about salvation and practices of Christian mission. Versions of dualism that are more emphatic in their functional holism may have the resources to overcome these tendencies.

Christian monists would take a different viewpoint, since, in their rendering, salvation would be defined in terms of human restoration; and, since the human being is inextricably bound up with the human family and with

⁶¹Rich Copley, "Feed the Soul or Feed the Hungry?" *Lexington Herald-Leader*, June 16, 2002, D1.

⁶²William A. Dyrness, *Let the Earth Rejoice! A Biblical Theology of Holistic Mission* (Westchester, Ill.: Crossway, 1983); James F. Engel and William A. Dyrness, *Changing the Mind of Missions: Where Have We Gone Wrong?* (Downers Grove, Ill.: InterVarsity Press, 2000).

⁶³See now, however, Michael A. Rynkiewich, "What About the Dust? Missiological Musings on Anthropology," in *What About the Soul? Neuroscience and Christian Anthropology*, ed. Joel B. Green (Nashville: Abingdon, 2004), pp. 133-44.

God's created order, then salvation would of necessity be explicated as fully embodied, as oriented toward human community and as cosmological in scope. "Healing," in this portrait, could not segregate mind and brain, body and soul, person and community, or human and cosmos, with the result that Christian mission would have to be worked out in terms of practices that promote human recovery in the fullest terms. When it comes to "salvation," one could speak only of "human needs" and "human wholeness," and not of "spiritual needs" (as if these could be distinguished). Of course, this would require transformations in other areas of life as well. The rigidly biomedical model used by most physicians and psychiatrists in the West, the work of pastoral care, practices associated with teaching and learning—these and many others would need re-envisioning in order to address human persons (and not bodies or souls or intellects) in community (and not as isolated agents).⁶⁴

Either way, dualism or monism, those engaged in the discussion about the nature of the human person would do well in serving the church if they were to engage more self-consciously the implications of their work for our understanding of salvation and our words and practices of Christian mission.

What about life after death? As numerous Christian interpreters have noted, debate on the reality of a human soul is intricately woven into our hope of immortality. Perhaps the most widespread view has been and still is that personal identity, vested in the soul, is dissociated from the physical body at death; that the soul survives death; and that this makes possible life after death. In most versions of dualism, the presumption at work here is that the soul is able to survive death because it is itself immortal.

At the same time, as Caroline Walker Bynum has demonstrated, Christian belief concerning the resurrection has stubbornly focused on the physicality of both resurrection and ultimate salvation,⁶⁵ and today this interest has led to a

⁶⁴Compare, e.g., Paul R. McHugh, "Treating the Mind as Well as the Brain," *Chronicle of Higher Education*, November 22, 2002, B14; Virginia T. Holeman, "The Neuroscience of Christian Counseling?" in *What About the Soul? Neuroscience and Christian Anthropology*, ed. Joel B. Green (Nashville: Abingdon, 2004); Stuart L. Palmer, "Pastoral Care and Counseling Without the 'Soul': A Consideration of Emergent Monism," in *What About the Soul? Neuroscience and Christian Anthropology*, ed. Joel B. Green (Nashville: Abingdon, 2004), pp. 159-70.

⁶⁵Caroline Walker Bynum, *The Resurrection of the Body in Western Christianity, 200-1336* (New York: Columbia University Press, 1995). She concludes "that a concern for material and structural continuity showed remarkable persistence even where it seemed almost to require philosophical incoherence, theological equivocation, or aesthetic offensiveness. . . . The materialism of [traditional Christian] eschatology expressed not body-soul dualism but rather a sense of self as psychosomatic unity" (p. 11).

renewed emphasis on the resurrection of *the body*, as the Apostles' Creed has it, as opposed to the immortality of the soul. This view has raised rather difficult questions of its own, since the natural decay of the body, the observable frailty of our physicality, seems to vacate the doctrine of bodily resurrection of all sensibility. In reply, Christian theologians and scientists alike have emphasized that Scripture holds forth no belief that inherent in some part of the human person is the quality of immortality; rather, Scripture teaches that the hope of life after death is rooted solely in the gracious intervention of God to bring forth life. As John Polkinghorne reasons,

It seems a coherent belief that God will remember and reconstitute the pattern that is a human being, in an act of resurrection that takes place beyond present history. Thus the Christian hope centers on a real death followed by a real resurrection, brought about through the power and merciful faithfulness of God. Christianity is not concerned with a claim that there is human survival because there is an intrinsically immortal, purely spiritual, part in our being. The ground of hope for a destiny beyond death does not lie in human nature at all, but in divine, steadfast love.⁶⁶

If not through persistence of this body, how might continuity of personal identity, from death to life after death, be guaranteed? How can I be sure that the *me* that enjoys eternal life is really *me*? Here we raise the question of personal identity in general and the possibility of the survival of personal identity in particular—an issue that has suggested to some that the hope of resurrection turns after all on anthropological dualism: mortal body, immortal soul. Given the self-evident finality of death for the physical body, without recourse to a separate entity or personal “essence” (that is, a soul, which constitutes the real *me*) that survives death, how can we maintain a reasonable doctrine of the afterlife? If, instead of *possessing* a body, I *am* a body, then when my body dies, do I not likewise cease to exist?

For Christian belief the hope of resurrection, grounded in God's raising Jesus from the dead, is nonnegotiable. For we Christians, then, any satisfying portrait of the human person will need to narrate how I—*me* and not some

⁶⁶John Polkinghorne, *Science and Theology: An Introduction* (London: SPCK, 1998), p. 115. See also Murray J. Harris, “Resurrection and Immortality in the Pauline Corpus,” in *Life in the Face of Death: The Resurrection Message of the New Testament*, McMaster New Testament Studies, ed. Richard N. Longenecker (Grand Rapids: Eerdmans, 1998), pp. 147-70; Richard N. Longenecker, “Is There Development in Paul's Resurrection Thought?” in *Life in the Face of Death: The Resurrection Message of the New Testament*, McMaster New Testament Studies, ed. Richard N. Longenecker (Grand Rapids: Eerdmans, 1998), pp. 171-202; Ted Peters et al., eds., *Resurrection: Theological and Scientific Assessments* (Grand Rapids: Eerdmans, 2002).

other, *my* particular identity as a person—might cross the bridge from this life to the next.

Epilogue

Well known in the annals of the relationship between scientific innovation and theology are the revolutionary proposals of Copernicus and Charles Darwin. Historically, we humans have preferred to locate ourselves in a place of indisputable honor, at the center of the cosmos. Consequently, we have found ourselves humbled by scientific discovery: in the modern age, first by Copernicus, who demonstrated that our planet and, thus, we who inhabit the earth, are not the center around which the universe pivots; second, by Darwin and evolutionary biology, who have located *Homo sapiens* within the animal kingdom with a genetic make-up that strongly resembles the creatures around us.

At the turn of the third millennium, a further scientific innovation, this one arising from within neurobiology, has the potential to be just as sweeping in its effects among theologians and within the church. Indeed, quantum leaps in our understanding of the brain in the last three decades are rewriting our understanding of who we are, and these are of immediate consequence for the centuries-old quest for answers to basic, human questions: Who am I? Why am I here? For Christians more specifically, these basic questions expand to include concerns about the God-given capacity to choose (and do) evil as well as good, about the meaning and purpose of salvation, about the hope of resurrection and life after death, and more.

In this emerging context, reflective and spirited discussion, not faint-heartedness, is the order of the day. Rather than giving these concerns over to the natural sciences and retreating into a cave of fideism, rather than repeating our beliefs over and over like a mantra, it is important that we engage these questions actively, working self-consciously from within the Christian tradition. The result may be that new light is cast on long- and deeply held theological claims, perhaps even providing new images and metaphors that help to carry forward the enterprise of articulating the faith within the community of God's people and communicating the faith to the unchurched. Alternatively, recognizing with Augustine that “the very appearance of God's creation is a great book” to be pondered religiously, we recognize that our theology remains open to the possibility of reformulation on account of scientific discovery.⁶⁷

⁶⁷See the helpful essay by Michael Fuller, “A Typology for the Theological Reception of Scientific Innovation,” *Science & Christian Belief* 12 (2000): 115-25.

How these multiple voices—Scripture, the neurosciences and related disciplines, the Christian tradition, and our experience—will learn to serve in the same choir remains to be seen. What is clear is that we would be foolish to turn a deaf ear to any one of them.

2

SUBSTANCE DUALISM

Stewart Goetz

The philosopher Roderick Chisholm has written that we should take seriously “certain things we have a right to believe about ourselves” and “be guided in philosophy by those propositions we all do presuppose in our ordinary activity.”¹ Although I am unclear about whether I have a right to believe certain things about myself, it is clear to me that I just find myself having such beliefs, and it is not possible for me to stop having them unless I am provided with a good reason to think that they are questionable or false. One of the things that I, as an ordinary person, believe about myself is that I am a soul that is distinct from my physical (material) body. Hence, I am what philosophers and theologians term a substance dualist or, more simply, a dualist.

Because my belief that dualism is true is ordinary in nature, it is shared by many others. As the philosopher William Lyons has recently stated, the view “that humans are bodies inhabited and governed in some intimate if mysterious way by minds (souls), seemed and still seems to be nothing more than good common sense.”² Thus, we find this common sense was manifested in the ordinary beliefs of people in first-century Palestine. For example, when Jesus asked his disciples who people thought he was, some thought he was John the Baptist, others that he was Elijah and others that he was Jeremiah or one of the prophets (Mt 16:13-14). Even Herod, who had John the Baptist executed, wondered if Jesus was John (Mt 14:2). Given that it is reasonable to assume that John the Baptist’s body could easily be located, it only makes sense to conclude that people thought that Jesus might be John’s soul re-embodied.³ In our own day, J. K. Rowling makes effective use of dualism in

¹Roderick M. Chisholm, *Person and Object* (LaSalle, Ill.: Open Court, 1976), p. 15.

²William Lyons, *Matters of the Mind* (New York: Routledge, 2001), p. 9.

³As N. T. Wright meticulously demonstrates (*The Resurrection of the Son of God* [Minneapolis: Fortress, 2003], chap. 4), the mainstream Jewish view in the immediate centuries leading up to and including the life of Jesus was that bodily resurrection presupposed the existence of the soul in an intermediate state which was united with a new physical body in a new world that God would make in the future when he would vindicate all of the righteous members of Israel against their enemies. The fact that Herod says Jesus is John the Baptist who “has been raised from the dead” (Mt 14:2) does not entail that Herod was expressing a view of