

Chapter XXXX:  
Neuroscience, Spiritual Formation, and Bodily Souls:  
A Critique of Christian Physicalism

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### Introduction

The link between human nature and human flourishing is undeniable. “A healthy tree cannot bear bad fruit, nor can a diseased tree bear good fruit” (Matt. 7:18). The ontology of the human person will, therefore, ground the nature of human flourishing and thereby sanctification. Spiritual formation is the area of Christian theology that studies sanctification, the Spirit-guided process whereby disciples of Jesus are formed into the image of Jesus (Rom. 8:28-29; 2 Cor. 3:18; 2 Peter 3:18).<sup>1</sup> Talk of such transformation permeates the New Testament.<sup>2</sup> As a natural part of salvation,<sup>3</sup> spiritual formation includes every aspect of our being, “spirit, soul, and body” (1 Thess. 5:23-24), as it is the whole person that is sanctified. Until the nineteenth century, there was an overwhelming consensus among Christian thinkers that some form of mind-body (or soul-body) dualism is true of human beings. Recently, that consensus has eroded, and with it the availability of a shared body of knowledge about spiritual formation.<sup>4</sup>

Two views dominate this discussion. Substance dualism (hereafter referred to as dualism) is the thesis that we consist of soul and body. The following distinction is helpful:

*Minimal Dualism:* The self and its body are distinct entities.<sup>5</sup>

*Significant Minimal Dualism:* The self and its body are distinct entities, while the self is an agent with causal powers such that it can affect the physical world and be affected by that world.<sup>6</sup>

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<sup>1</sup> See, Steve L. Porter, “Sanctification in a New Key: Relieving Evangelical Anxieties Over Spiritual Formation,” *Journal of Spiritual Formation & Soul Care* 1 (2) (2008): 129-128.

<sup>2</sup> See, 2 Cor. 3:18; Rom. 5:1-5; 12:2; Eph. 4:14-16; Col. 3:4-17; 2 Pet. 1:2-11; and 3:18.

<sup>3</sup> See Dallas Willard, “Spiritual Formation as a Natural Part of Salvation,” in Dallas Willard, *Renewing the Christian Mind: Essays, Interviews, and Talks*, edited by Gary Black Jr. (New York, NY: HarperOne, 2016), 301-319.

<sup>4</sup> See for example, Dallas Willard, *Knowing Christ Today: Why We Can Trust Spiritual Knowledge* (New York, NY: HarperOne, 2009); and Dallas Willard, *The Disappearance of Moral Knowledge* (Forthcoming).

<sup>5</sup> C. Stephen Evans, “Separable Souls: A Defense of ‘Minimal Dualism,’” *Southern Journal of Philosophy* 19 (3) (1981): 313-332.

<sup>6</sup> C. Stephen Evans, “Separable Souls: Dualism, Selfhood, and the Possibility of Life after Death,” *Christian Scholar’s Review* 34 (3) (2005): 327-340.

Christian dualists are at least committed to Significant Minimal Dualism. According to the alternative view, Christian physicalism, we are physical bodies or at least parts of physical bodies, like the brain and central nervous system.<sup>7</sup> Some Christian physicalists hold that these physical bodies have non-physical emergent properties. Some Christian physicalists argue that dualism is incompatible with central elements of spiritual formation. Neuroscientist Warren Brown and psychologist Brad Strawn offer the only substantive account of spiritual formation from the view of Christian physicalism and its accompanying objections to dualism.<sup>8</sup> Hence, it is on their arguments that this chapter focuses.

Although some argue that dualism is the biblical backdrop which informs and makes intelligible Christian spiritual formation,<sup>9</sup> Brown and Strawn argue that contemporary neuroscience proves this false while supporting Christian physicalism. On their view, spiritual formation is illuminated by a set of neuroscientific data. This data, they claim, supports a view of spiritual formation that requires special attention to the physical nature of our spiritual life. As such, it emphasizes our embodiment and neurological and social development, which they claim is incompatible with dualism.<sup>10</sup> Call this the incompatibility thesis.

We argue that Brown and Strawn fail to support their incompatibility thesis. Additionally, we argue that Christian physicalism stands in tension with important philosophical and theological foundations of Christian spiritual formation. In doing so we offer a specific form of dualism, the bodily soul view, and explain how this view illuminates the importance of embodiment, our neurological and social development, and hence the important physical aspects of Christian spiritual formation.

### **Why Dualism is Compatible with Embodied Spiritual Formation**

So, just how is dualism supposed to be incompatible with a neuroscientifically informed account of spiritual formation? The strongest statement of the incompatibility thesis is one of logical impossibility. This view is impossible to defend for one simple reason: there is no logical contradiction between dualism and the neuroscientific data. The truth of dualism and the importance of the physical nature of our spiritual life do not entail a contradiction. God could have created natural laws uniting soul and body, such that neuroscience studies the bodily aspects of this unity. Likewise, the incompatibility thesis cannot be stated in terms of metaphysical impossibility. This thesis entails that God could not create a world where dualism is true and the neuroscientific data of this world

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<sup>7</sup> See, for example, Lynne Rudder Baker, 'Need a Christian Be a Mind/Body Dualist?' *Faith and Philosophy* 12, no. 4 (1995), pp. 498-504; 'Christian Materialism in a Scientific Age', *International Journal of Philosophy of Religion* (January), pp. 1-13; Trenton Merricks, *Objects and Persons* (Oxford: Oxford University Press, 2001); Peter van Inwagen, *Material Beings* (Cornell University Press, 1990); and Kevin Corcoran, *Rethinking Human Nature* (Grand Rapids, MI: Baker Academic, 2006).

<sup>8</sup> Warren S. Brown and Brad D. Strawn, *The Physical Nature of Christian Life: Neuroscience, Psychology, and the Church* (New York, NY: Cambridge University Press, 2012).

<sup>9</sup> See for example, Lewis Ayers, "The Soul and the Reading of Scripture: A Note on Henri De Lubac," *Scottish Journal of Theology* 61(2) (2008): 173-190; Dallas Willard, "Spiritual Disciples, Spiritual Formation, and the Restoration of the Soul," *Journal of Psychology & Theology* 26 (1998): 101-109. Reprinted in Dallas Willard, *The Great Omission* (San Francisco, CA: Harper Collins, 2006); and JP Moreland, "Restoring the Substance of the Soul to Psychology," *Journal of Psychology and Theology* 26 (1) (1998): 29-43.

<sup>10</sup> Brown and Strawn, 69.

obtain. That is a considerable constraint on God's creative capacity. This strikes us as highly implausible, and Brown and Strawn do not give us reason to think otherwise. Hence, the incompatibility thesis can make only the much weaker claim, that the conjunction of dualism and the neuroscientific data is improbable or less probable than the conjunction of Christian physicalism and the neuroscientific data. So, how do they defend this thesis?

We must recognize that Christian physicalists cannot make use of popular objections to dualism, especially the conservation of energy<sup>11</sup> and causal closure arguments, which rely on an in-principle rejection of causation between the physical and the non-physical and the causal closure of the physical. Christianity is necessarily committed to causation between the non-physical and the physical, at least with respect to God and his creation.<sup>12</sup> Sanctification, for example, requires the causal interaction of the Holy Spirit with human persons (e.g., Gal 5:16–24). Hence, Brown and Strawn must object to dualism in other ways, which we now turn to.

### ***What Has Dualism to do with Gnosticism and Individualism?***

The main objection from Brown and Strawn is that dualism leads to Gnosticism, which is incompatible with biblical and neuroscientific data. Gnosticism, they explain, is the view that the material world is evil, while non-material reality is good. Human souls are saved from this material world only by embracing the fact that we belong in a heavenly realm of light.<sup>13</sup> “The inward focus on the soul, fostered by dualism,” they say, “creates a strong magnet drawing modern religious perspectives almost inevitably toward Gnosticism.”<sup>14</sup> From this they conclude that dualism is false.

We find this objection unconvincing. Brown and Strawn offer no empirical support for this hypothesis, much less an explanation as to how dualism leads “almost inevitably” to Gnosticism. It isn't clear what their argument is, as it can be taken several ways. If taken in the anthropological or psychological sense, their conclusion does not follow. That many people believe or are caused to believe  $x$  does not tell us if  $x$  is true or false, or if  $x$  is unreasonable to hold. Furthermore, conflicting empirical evidence is easy to furnish. After surveying the main Christian proponents of dualism, one is hard-pressed to find a single Gnostic among them. Instead, we find outright rejections of Gnosticism. For example, Dallas Willard, a dualist and spiritual formation scholar, explicitly rejects the Gnostic view that what is immaterial and spiritual is inherently good, while the body and other material things are inherently bad.<sup>15</sup> On Willard's view, the soul and body are both in a

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<sup>11</sup> For a reply to the conservation of energy objection see, Robin Collins, “The Energy of the Soul,” in *The Soul Hypothesis: Investigations into the Existence of the Soul*, edited by Mark C. Baker and Stewart Goetz, pp. 123-37 (New York: Continuum, 2011).

<sup>12</sup> For a detailed defense of this claim, see, Dennis Bielfeldt, “Can Western Monotheism Avoid Substance Dualism,” *Zygon* 36 (1) (2001): 153-77.

<sup>13</sup> Raymond E. Brown, *An Introduction to the New Testament* (New York, NY: Doubleday, 1997), 92. Cited in Brown and Strawn, 22.

<sup>14</sup> Brown and Strawn, 23. This argument is reiterated through the book, especially chapters 1-3.

<sup>15</sup> Dallas Willard, *Renovation of the Heart: Putting on the Character of Christ* (Colorado Springs, CO: NavPress, 2002), 17.

ruined condition in need of redemption.<sup>16</sup> The body is central to Willard's detailed account of how the entire person is sanctified in Christ.<sup>17</sup>

If taken in the philosophical sense, the Gnostic thesis faces other problems. First, dualism is not and does not entail a thesis about what is or is not valuable, the nature of sanctification or salvation. Brown and Strawn admit that we cannot equate dualism with Gnosticism.<sup>18</sup> Contra Gnosticism, Christian dualists hold a very high view of the body. Charles Taliaferro, for example, argues that given dualism, embodiment allows for the exercise of six types of virtue: sensory, agency, constitutional, epistemic, structural, and affective.<sup>19</sup> Richard Swinburne argues that embodiment makes possible great goods that souls otherwise couldn't have, such as the ability of free choice between good and evil and the ability to influence others and the inanimate world.<sup>20</sup> Howard Robinson defends a robust view of the soul's dependence on the brain and body for the great good of psychological development.<sup>21</sup> Contrary to what Christian physicalists claim, Christian dualism maintains that the *telos* of the human soul, as created by God, is embodiment.<sup>22</sup> This alone entails the rejection of Gnosticism.

Of course, it is true that dualists have a history of valuing the soul more than the body. Augustine considers the soul as a much higher degree of reality and value than the body, with the soul surpassed only by God.<sup>23</sup> However, this does not mean that Augustine holds a low view of the body. That one takes *x* to be more valuable than *y* does not entail that *y* is not of great value. One could value their spouse more than their parents, and yet maintain a very high value of their parents. The Christian physicalist surely admits this when valuing God above creation although highly valuing creation.

Additionally, Brown and Strawn argue that belief in dualism leads to individualism, as dualists look inwardly at the soul rather than outwardly towards God and others. Like their previous Gnostic objection, Brown and Strawn fail to show a necessary connection between dualism and individualism. Even if there were a correlation, it doesn't follow that holding dualism leads to indifference towards others, the natural world, or historical events. Consider Kierkegaard, who, although a dualist, does not think of the self as merely a mental substance. For Kierkegaard, the self is a kind of synthesis of contrasting elements—finitude with infinitude, necessity with possibility. Human selves are a work-in-progress, involved in making themselves the persons they become, and doing so always in relationship to others. Far from being an individualist, Kierkegaard understands that we all are who we are by virtue of the relationships with others. He is interested in

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<sup>16</sup> Ibid., 45.

<sup>17</sup> Ibid., chapter 9.

<sup>18</sup> Brown and Strawn, 163.

<sup>19</sup> Charles Taliaferro, "The Virtues of Embodiment," *Philosophy* 76 (2001): 111-125.

<sup>20</sup> Richard Swinburne, "What's So Good About Having a Body?" in *Comparative Theology: Essays for Keith Ward*, edited by Timothy Walter Bartel (Spck Publishing, 2003), 137.

<sup>21</sup> See Howard Robinson, "A Dualist Perspective on Psychological Development," in J. A. Russell (Ed.), *Philosophical Perspectives on Developmental Psychology*, pp. 119-139 (Oxford: Basil Blackwell, 1987); and "A Dualist Theory of Embodiment," in John R. Smithies and John Beloff (eds.), *The Case for Dualism*, pp. 43-58 (Charlottesville, VA: University of Virginia Press, 1989).

<sup>22</sup> See for example, Gordon Barnes, "Is Dualism Religiously and Morally Pernicious?" *American Catholic Philosophical Quarterly* 78 (1) (2004): 103.

<sup>23</sup> Augustine, *Confessions*, III, 6.

helping individuals develop a relation to God which relativizes those human relationships.<sup>24</sup> It just false that dualism *qua* dualism leads to individualism.

Lastly, there are more plausible accounts of the turn away from embodiment and toward individualism that do not place the blame on dualism. Some have argued that the turn toward individualism is the result of theologians and then pastors abandoning the soul, which paved the way for the contemporary mental health movement.<sup>25</sup> This may be overstated, but it is relevant. Additionally, it seems far more plausible that the problem of contemporary individualism is with the conception of salvation as mere forgiveness of sins. Willard points out that such a view makes Paul's statement that we are "saved by his [Jesus's] life" (Rom. 5:10) unintelligible. Willard observes,

How can we be saved by his life when we believe salvation comes from his death alone? So if we concentrate on such theories exclusively, *the body and therefore the concrete life we find ourselves in are lost to the redemption process.*<sup>26</sup>

In fact, we find dualists, such as Willard, holding the exact opposite of Gnosticism and individualism.

Spirituality in human beings is not an extra or "superior" mode of existence. It's not a hidden stream of separate reality, a separate life running parallel to our bodily existence. It does not consist of special "inward" acts even though it has an inner aspect. It is, rather, a relationship of our embodied selves to God that has the natural and irrepressible effect of making us alive to the Kingdom of God—here and now in the material world.<sup>27</sup>

The problem of individualism, escapism and rejection of embodiment is solved, not by rejecting dualism, but by embracing the Gospel of the Kingdom of God, that God's project of redemption has come and we are invited into that life of Kingdom community here and now. The Gnostic and individualistic objections to dualism are both unsupported, and fail to diagnose the real problem. Rejecting dualism isn't the solution, as dualism isn't the problem.

### ***Where is this Soul of the Gaps?***

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<sup>24</sup> See C. Stephen Evans, "Who is the Other in *The Sickness unto Death?* God and Human Relations in the Constitution of the Self", and "Kierkegaard's View of the Unconscious", both in C. Stephen Evans, *Kierkegaard on Faith and Self: Collected Essays* (Waco, TX: Baylor University Press, 2006).

<sup>25</sup> For example, Boyd writes, "The word *self* has replaced the term *soul* in popular culture, with the effect that people tend to think of themselves without thinking that God is important to their self-concept. We live in a pre-Copernican age where God, if God is thought to exist at all, is understood as being in orbit around the self, strengthening self-esteem or weakening the self through guilt feelings. The center of focus in our time is on the self, on the individual and the individual's need for autonomy, self-determination, fulfillment, happiness, and self-sufficiency" (Boyd, Jeffrey H. Boyd, "Losing Soul: How and Why Theologians Created the Mental Health Movement," *Calvin Theological Journal* 30 (1995), 473).

<sup>26</sup> Dallas Willard, *The Spirit of the Disciples: Understanding How God Changes Lives* (New York, NY: Harper & Row, 1988), 33-34.

<sup>27</sup> Dallas Willard, *The Spirit of the Disciples*, 31.

The main argument from neuroscience proffered by Brown and Strawn against dualism is a soul-of-the-gaps the objection. They write,

However, three centuries ago, Descartes did not have access to what is known in modern neurology. Thus, he could not imagine how it could be that matter—that is, physical bodies and brains—could do anything rational or intelligent. So he concluded that these human capacities must be due to a nonmaterial thing.<sup>28</sup>

“Descartes,” says Brown and Strawn, “was forced to the conclusion that we must have a nonmaterial soul due to the lack of knowledge during his time of the functioning of the human brain.”<sup>29</sup> Brown and Strawn seem unaware of Descartes’s extensive anatomy and physiology research.<sup>30</sup> Descartes knew quite well that mental states often depend on brain states.

Regardless, this soul-of-the-gaps objection fails to understand why Descartes and many others are dualists. Plato, Augustine, Descartes, Butler, and Reid held dualism in virtue of being aware of themselves from the first-person perspective as not reducible to or identical to their body.<sup>31</sup> Others, like Aristotle and Aquinas arrived at different kinds of dualism by analyzing positive arguments for the soul. After a detailed look at the literature, Stewart Goetz and Charles Taliaferro conclude,

There is not the least bit of evidence for the idea that they arrived at their belief in the soul’s existence after failing to explain various experiences in terms of what goes on in the physical world.<sup>32</sup>

It is the awareness of self and metaphysical arguments that motivate dualism. This accords well with the prevailing view among cognitive scientists that dualism is a widespread, pre-theoretical belief, shared across cultures, and developed in infancy.<sup>33</sup> This shouldn’t be the case if dualism is simply maintained out of ignorance. We are, as Paul Bloom says, “natural Cartesians.”<sup>34</sup>

Moreover, this soul-of-the-gaps objection presumes that dualists are ignorant of the neurosciences. This is certainly not the case today. Nobel Prize

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<sup>28</sup> Brown and Strawn, 32.

<sup>29</sup> *Ibid.*, 47.

<sup>30</sup> In fact, his fascination with anatomy and physiology prompted one Descartes to suggest that, “if Descartes were alive today, he would be in charge of the CAT and PET scan machines in a major research hospital.” See Richard Watson, *Cogito Ergo Sum: The Life of René Descartes*, Revised Edition (Boston, MA: David Godine, 2007), 15.

<sup>31</sup> For contemporary work on dualism and self-awareness, J. P. Moreland, “Substance Dualism and the Argument from Self-Awareness” *Philosophia Christi* 13 (1) (2011): 21-34. See also, David Barnett, “The Simplicity Intuition and Its Hidden Influence on the Philosophy of Mind,” *Noûs* 42 (2008): 308-355; and “You are Simple” in Robert Koons and George Bealer (eds.), *The Waning of Materialism*, pp. 161-74 (Oxford: Oxford University Press, 2010).

<sup>32</sup> Stewart Goetz and Charles Taliaferro, *A Brief History of the Soul* (Oxford: Wiley-Blackwell, 2011), p. 155.

<sup>33</sup> See, for example, Paul Bloom, *Descartes’ Baby: How the Science of Child Development Explains What Makes Us Human* (Cambridge, MA: Basic Books, 2004).

<sup>34</sup> *Ibid.*, xii.

winning neuroscientist, John C. Eccles, defended dualism,<sup>35</sup> as did Nobel Prize winning physicist, Eugene Wigner.<sup>36</sup> Likewise, neuroscientists Wilder Penfield<sup>37</sup> and Matthew Stanford,<sup>38</sup> research psychiatrist Jeffery Schwartz<sup>39</sup>, and psychologists Nancy Duvall,<sup>40</sup> Todd W. Hall,<sup>41</sup> Jeffrey H. Boyd,<sup>42</sup> Eric L. Johnson,<sup>43</sup> Sherwood Cole,<sup>44</sup> and Stephen Greggo are all dualists who take embodiment seriously.<sup>45</sup> Many dualists, conversant with the relevant neuroscience, make their case from neuroscientific data.<sup>46</sup> Even non-dualists begrudgingly recognize that the neurosciences are often based on the conceptual framework of

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<sup>35</sup> See for example, Karl R. Popper and John C. Eccles, *The Self and Its Brain*, 2<sup>nd</sup> corrected edition (New York: NY: Springer-Verlag, 1985); John C. Eccles, *The Human Psyche* (1980); *Evolution of The Brain: Creation of The Self* (London: Routledge, 1989); and *How the Self Controls Its Brain* (Berlin, Springer-Verlag, 1994).

<sup>36</sup> Wigner argued that quantum mechanics requires a commitment to a strong variety of mind-body dualism. For example, Winger writes, “Until not many years ago, the ‘existence’ of a mind or soul would have been passionately denied by most physical scientists. [...] There are [however] several reasons for the return, on the part of most physical scientists, to the Spirit of Descartes’ ‘Cogito ergo sum’ [...] When the province of physical theory was extended to encompass microscopic phenomena, through the creation of quantum mechanics, the concept of consciousness came to the fore again: it was not possible to formulate the laws of quantum mechanics in a consistent way without reference to consciousness.” See Eugene Paul Wigner, “Remarks on the Mind–Body Question,” originally published in I.J. Good (ed.) *The Scientist Speculates*, pp. 284–302 (London: Heinemann, 1961). Reprinted in J.A. Wheeler, and W.H. Zurek (eds.), *Quantum Theory and Measurement*, pp. 168–69 (Princeton: Princeton University Press, 1983).

<sup>37</sup> See Wilder Penfield, *The Mystery of Mind* (Princeton: Princeton University Press, 1975).

<sup>38</sup> Stanford, states, for example, “God has created us as embodied spirits, having physical and spiritual aspects to our being.” Matthew S. Stanford, *The Biology of Sin: Grace, Hope, and Healing for Those Who Feel Trapped* (Downers Grove, IL: InterVarsity, 2010), 12.

<sup>39</sup> Jeffrey Schwartz, “A Role for Volition and Attention in the Generation of New Brain Circuitry: Toward a Neurobiology of Mental Force,” *Journal of Consciousness Studies* 6, nos. 8–9 (1999): 115–42; and Jeffrey Schwartz and Sharon Begley, *The Mind and the Brain: Neuroplasticity and the Power of Mental Force* (New York: HarperCollins, 2002), 54–95.

<sup>40</sup> Nancy S. Duvall, “From Soul to Self and Back Again,” *Journal of Psychology and Theology* 26 (1) (1998): 6–15.

<sup>41</sup> Todd W. Hall, “The Soul or Substantive Self as Experiencer, Actualizer, and Representative in Psychoanalytic Theory,” *Journal of Psychology and Theology* 26 (1) (1990): 55–65.

<sup>42</sup> See for example, Jeffrey H. Boyd, *Reclaiming the Soul: The Search for Meaning in a Self-Centered Culture* (Cleveland, OH: The Pilgrim Press, 1996); “The Soul as Seen Through Evangelical Eyes, Part I: Mental Health Professionals and ‘the soul.’” *Journal of Psychology and Theology* 23(3) (1995): 151–160; “The Soul as Seen Through Evangelical Eyes, Part II: On Use of the Term ‘Soul’,” *Journal of Psychology and Theology* 23(3) (1995): 161–170; and “A History of the Concept of the Soul During the 20<sup>th</sup> Century,” *Journal of Psychology and Theology* 26 (1) (1998): 66–82.

<sup>43</sup> Eric L. Johnson, *Foundations of Soul Care: A Christian Psychology Proposal* (Downers Grace, IL: IVP Academic, 2007). Johnson holds that the soul is an immaterial substance (16–17). Also, see Johnson, “Whatever Happened to the Human Soul? A Brief Christian Genealogy of a Psychological Term,” *Journal of Psychology and Theology* 26 (1) (1998): 16–28.

<sup>44</sup> Sherwood O. Cole, “Don’t Disembody Me Just Yet! A Christian Perspective on our Biological Nature,” *Journal of Psychology and Christianity* 21 (2) (2002): 15–60.

<sup>45</sup> Greggo argues that compassionate clinical care is enriched by dualism, whereby we have “the increased awareness that persons as living souls are formed by a creative convergence of both human and divine nature and nurture” (266). See, Stephen P. Greggo, “Soul Origin: Revisiting Creationist and Traducianist Theological Perspectives in Light of Current Trends in Developmental Psychology,” *Journal of Psychology and Theology* 33 (4) (2005): 258–267.

<sup>46</sup> See for example, Riccardo Manzotti and Paolo Moderato, “Neuroscience: Dualism in Disguise”, in Andrea Lavazza and Howard Robinson (eds.), *Contemporary Dualism: A Defense*, pp. 81–97 (New York, NY: Routledge, 2014); Alessandro Antonietti, “Must Psychologists Be Dualists?” in A. Antonietti, A. Corradini, and E. J. Lowe (eds.), *Psycho-Physical Dualism Today: An Interdisciplinary Approach*, pp. 37–67 (Lanham, MD: Rowman and Littlefield, 2008); and Mario Beauregard and Denyse O’Leary, *The Spiritual Brain* (New York, NY: HarperCollins, 2007).

dualism.<sup>47</sup> Moreover, several dualists, after analyzing the data, argue that neuroscience fails to support physicalism over dualism.<sup>48</sup> While one might disagree with their arguments, one cannot claim these dualists are neurologically ignorant. It is simply false that dualism is the result of neuroscientific ignorance or soul-of-the-gaps reasoning.

Finally, this objection presumes, quite prematurely, that neuroscience has somehow undermined dualism. There is a growing skepticism, even among neuroscientists, about inflated claims from neuroscience.<sup>49</sup> This is certainly true regarding philosophical issues like free will and the mind-body problem.<sup>50</sup> Skepticism aside, several non-reductive physicalists, in accord with dualists, are convinced that even a complete understanding of all the physical facts about the universe could not explain consciousness. One reason for this is what Joseph Levine calls the explanatory gap, our inability to provide or even comprehend a plausible explanation of how consciousness could fully depend upon a non-conscious, physical substrate.<sup>51</sup> David Chalmers explains,

If this is right, the fact that consciousness accompanies a given physical process is a further fact not explainable simply by telling the story about the physical facts. In a sense, the accompaniment must be taken as brute.<sup>52</sup>

Secondly, non-reductive physicalists are in widespread disagreement over how to explain consciousness. This can be seen in the “new mysterians”, who hold that although materialism must be true, we will never understand how it could be true.<sup>53</sup>

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<sup>47</sup> See, M.R. Bennett and P.M.S. Hacker, *Philosophical Foundations of Neuroscience* (Malden, MA: Blackwell, 2003); W. Teed Rockwell, *Neither Ghost nor Brain* (Cambridge, MA: MIT Press, 2005); William R. Uttal, *The New Phrenology: The Limits of Localizing Cognitive Processes in the Brain* (Cambridge, MA: The MIT Press, 2001), and William R. Uttal, *Dualism: The Original Sin of Cognitivism* (Mahwah: Lawrence Erlbaum Associates, 2004).

<sup>48</sup> See for example, Eric LaRock, “Neuroscience and the Hard Problem of Consciousness,” in Thomas M. Crisp, Steven L. Porter, and Gregg A. Ten Elshof (eds.), *Neuroscience and the Soul: The Human Person in Philosophy, Science, and Theology*, pp. 151-180 (Grand Rapids, MI: Eerdmans, 2016); Eric LaRock and Robin Collins, “Saving Our Souls from Materialism,” in *Neuroscience and the Soul*, 137-146; Eric LaRock, “Is Consciousness Really a Brain Process?” *International Philosophical Quarterly* 48 (2) (190) (2008): 201-22; and J. P. Moreland, “Christianity, Neuroscience, and Dualism,” in *The Blackwell Companion to Science and Christianity*, edited by J. B. Stump and Alan Pagget (Oxford: Blackwell, 2012), 467-79; Jeffrey M. Schwartz and Sharon Begley, *The Mind and the Brain: Neuroplasticity and the Power of Mental Force* (New York: HarperCollins, 2002); Mihretu P. Guta, “Neuroscience or Neuroscientism?” *Perspectives on Science and Christian Faith* 63 (1) (2011): 69-70; and Terence Horgan, “Nonreductive Materialism and the Explanatory Autonomy of Psychology,” in *Naturalism: A Critical Appraisal*, edited by Steven Wagner and Richard Warner, pp. 313-14 (Notre Dame: University of Notre Dame Press, 1993).

<sup>49</sup> See for example, Paolo Legrenzi and Carlo Umiltà, *Neuromania: On the Limits of Brain Science*, translated by Frances Anderson (Oxford: Oxford University Press, 2011); Robert G. Shulman, *Brain Imaging: What it Can (and Cannot) Tell Us About Consciousness* (Oxford: Oxford University Press, 2013); Sally Satel and Scott Lilienfel, *Brainwashed: The Seductive Appeal of Mindless Neuroscience* (New York, NY: Basic Books, 2013); and Raymond Tallis, *Aping Mankind: Neuromania, Darwinitis and the Misrepresentation of Humanity* (New York: Routledge, 2011).

<sup>50</sup> For a defense of this claim see, Moreland, “Christianity, Neuroscience, and Dualism.”

<sup>51</sup> Joseph Levine, “Materialism and Qualia: The Explanatory Gap,” *Pacific Philosophical Quarterly* 64 (1983): 354-361.

<sup>52</sup> David Chalmers, *The Conscious Mind: In Search of a Fundamental Theory* (Oxford: Oxford University Press, 1996), 107.

<sup>53</sup> Owen Flanagan, *The Science of the Mind*, Second Edition (Cambridge, MA: MIT Press, 1991), p. 313. The New Mysterians include Colin McGinn, *The Mysterious Flame: Conscious Minds in a Material World*



Moreover, the recent turn toward panpsychism and panprotopsyism, which view consciousness as an irreducible, fundamental feature of reality, belies the devoted confidence of non-reductive physicalists who take neuroscience to fully explain consciousness. Neuroscience is far from proving physicalism or disproving dualism.

Curiously, Brown and Strawn fail to address the work of any dualist we've mentioned, much less interact with their arguments. How can one make the claims Brown and Strawn have about a view they don't seem to have seriously researched? Ironically, it is out of their own ignorance that Brown and Strawn presume dualism to be held out of ignorance or a soul-of-the-gaps thesis.

### ***No, Neuroscience Hasn't Exorcized the Soul***

Brown and Strawn offer two types of arguments from neuroscience against dualism. The first is that dualism is committed to a disembodied view of spiritual formation, which is incompatible with neuroscientific findings. According to Brown and Strawn, "We are formed into mature, virtuous, and wise persons, not by some disembodied mystical process, but by life together in a body of persons."<sup>54</sup> The assumption here is that dualism is somehow committed to a disembodied mystical process of spiritual formation. Of course, historically some dualists have embraced a mystical process of spiritual formation that denigrates the body. Ascetic Christians, such as the Desert Fathers, are often cited as examples. However, such a sweeping claim is naïve. In his seminal work on views of the body in early Christianity, Peter Brown observes,

Yet to describe ascetic thought as "dualist" and motivated by hatred of the body, is to miss its most novel and its most poignant aspect. Seldom, in ancient thought, had the body been seen as more deeply implicated in the transformation of the soul; and never was it made to bear so heavy a burden. For the Desert Fathers, the body was not an irrelevant part of the human person, that should, as it were, be "put in brackets"... It was, rather, grippingly present to the monk: he was to speak of it as "this body, that God has afforded me, as a field to cultivate, where I might work and become rich... In the desert tradition, the body was allowed to become the discreet mentor of the proud soul."<sup>55</sup>

Dualism didn't always or even commonly lead to a mystical disembodied process. Most dualists embraced the body and its positive role in spiritual formation. However, even if some Christian dualists did neglect the body, a historical connection is not a logical connection. Brown and Strawn fail to demonstrate a logical link between dualism and a mystical disembodied approach to spiritual formation. Therefore, we have no reason to think that dualism must embrace a disembodied notion of spiritual formation.

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(New York, NY: Basic Books, 1999), and Thomas Nagel, *Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False* (Oxford: Oxford University Press, 2012).

<sup>54</sup> Brown and Strawn, 87.

<sup>55</sup> Peter Brown, *The Body and Society: Men, Women and Sexual Renunciation in Early Christianity* (New York, NY: Columbia University Press, 1988), 235-36.

While we can think of no contemporary Christian dualists who adopt such a view, there are many Christian dualists who reject it. For example, spiritual disciplines, a historic cornerstone of Christian spiritual formation, are not disembodied mystical processes.<sup>56</sup> J. P. Moreland, who is as dualist as anyone, explains this well.

A Christian spiritual discipline is a repeated bodily practice, done over and over again, in dependence on the Holy Spirit and under the direction of Jesus and other wise teachers in his way, to enable one to get good at certain things in life that one cannot learn by direct effort.<sup>57</sup>

Willard arranges spiritual disciplines into two categories: abstinence/detachment (solitude, silence, fasting, frugality, chastity, secrecy, sacrifice) and engagement (study, worship, celebration, service, prayer, fellowship, confession, submission).<sup>58</sup> These disciplines, says Willard, “essentially involve bodily behaviors” as “whatever is purely mental cannot transform the self.”<sup>59</sup> This is an outright rejection of a disembodied mystical process.

The second argument from Brown and Strawn is that neuroscience has made certain discoveries that present an understanding of spiritual growth that is incompatible with dualism. These discoveries support three theses.

*Developmental Thesis:* spiritual formation is a process that continues through adulthood.<sup>60</sup>

*Interpersonal Thesis:* spiritual formation takes place in virtue of interpersonal interactions such as imitation, shared attention, attachment, empathy, language, and story.

*Bodily Process Thesis:* human characteristics, such as rationality, relationality, morality, and religiousness are the outcome of the functioning of our bodies and brains, not a nonmaterial soul or mind.<sup>61</sup>

Let's begin with the developmental thesis. That sanctification is a gradual process has been known for quite some time (2 Cor 4:16; Gal 4:19), and is

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<sup>56</sup> According to Scripture, we present our *body* to God as a living sacrifice (Rom. 12:1), with repeated *bodily exercise* (1 Cor. 9:24-27; 1 Tim. 4:7-8) involving specific *body parts* (Rom. 6:11-13,19), resulting in putting to death our bad habits (Col. 3:5).

<sup>57</sup> J. P. Moreland, *Kingdom Triangle: Recover the Christian Mind, Renovate the Soul, Restore the Spirit's Power* (Grand Rapids, MI: Zondervan, 2007), 152.

<sup>58</sup> Willard, *The Spirit of the Disciplines*, 158-190.

<sup>59</sup> *Ibid.*, 152.

<sup>60</sup> They write, “For some reason, our dualist presuppositions about persons created a disconnect between our understanding of Christian formation in children and our comprehension of the forces at work in adult Christian life. It is not true that the impact on human development of all of these processes of ongoing reciprocal interaction with one's social environment comes to an end somewhere in later childhood or early adolescence. Rather, this developmental process is ongoing, allowing for continuing development, formation, and change as adults” (Brown and Strawn, 70).

<sup>61</sup> Brown and Strawn, 30-46.

recognized by dualists.<sup>62</sup> It isn't clear how these are incompatible, and Brown and Strawn present no argument for us to analyze. Perhaps this objection is motivated by presuming that a soul is fully formed once it comes into existence and therefore cannot develop. But why should the dualist embrace this? There is nothing contradictory in holding that the soul psychologically develops in conjunction with the body over its lifetime. While most dualists hold that the soul is mereologically simple, as it has no parts, the soul is complex with respect to its modes or properties and causal powers. These features are what change as the person, body and soul, matures.<sup>63</sup> Hence, there is nothing about dualism that is incompatible with the developmental thesis.

Likewise, it is not at all clear how dualism is incompatible with the interpersonal thesis. Again, Brown and Strawn merely assert this incompatibility without explanation or argument. Rather, they presume that dualism leads to individualism, which undermines the importance of interpersonal relations for spiritual formation. However, we have shown that dualism does not necessarily lead to individualism. Moreover, there is nothing inconsistent about the dualist holding that the ontology of the soul is such that we require interpersonal relationships in order to grow spiritually.<sup>64</sup> Consequently, dualism is not incompatible with the interpersonal thesis.

The bodily process thesis, or something like it, is popular among Christian physicalists when objecting to dualism. The strength of this objection comes from what “the outcome of the functioning of our bodies and brains” means exactly. Presumably, that will be determined by the neurological evidence. Here are some examples they discuss.

*Rationality:* fMRI studies show that brain activity increases in specific areas of the brain in conjunction with certain mental acts: the left side of the cerebral cortex when asked to perform language tasks, different but overlapping areas of the left cerebral cortex when listening to someone talk, and a different pattern of cerebral cortex areas when solving mathematical problems.

*Relationality:* fMRI studies show that a participant's subjective experience of being shocked triggered a very similar pattern of brain activity that is triggered when they expect their friend to be shocked.

*Morality:* fMRI studies show that the more complexity the moral reasoning the more intense is the brain activity in a particular region of the brain. Individuals with damage to the lower middle portions of their frontal lobes exhibit an inability to use moral guidelines.

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<sup>62</sup> For an insightful treatment of the gradual nature of sanctification by a dualist, see, Steven L. Porter, “The Gradual Nature of Sanctification,” *Themelios* 39 (3) (2014): 470–483.

<sup>63</sup> For a detailed dualist account of this, see Robinson, “A Dualist Perspective on Psychological Development.”

<sup>64</sup> For such an account, see John Coe and Todd Hall, *Psychology in the Spirit: Contours of a Transformational Psychology* (Downers Grove, IL: IVP Academic, 2010).

*Religiousness*: According to fMRI studies, when Buddhist monks and Catholic nuns reported reaching a state of “oneness” during meditation there was increased frontal lobe activity, and decreased right parietal lobe activity. Similar studies showed that when speaking in tongues activity in the frontal lobes and left temporal lobe decreased significantly.

From these studies, among others they mention, Brown and Strawn make the following conclusions: acts of rationality are “based on” and are “an outcome of” patterns of brain activity;<sup>65</sup> “interpersonal empathy is based on mirroring the emotional experience of the other’s pain within your own brain”;<sup>66</sup> morality is based on brain activity; and “religious states are associated with identifiable changes in the distribution of brain activity.”<sup>67</sup> Taken together, Brown and Strawn conclude that rationality, relationality, morality, and religiousness are an outcome of the functioning of our bodies and brains, not a soul or mind.

Much can be said in reply to these kinds of arguments. First, these studies only show close correlations between specific mental states and localized brain states. This correlation may be evidence of a causal interaction between mental states and brain states. However, the direction of causation is by no means always clear; in some cases, it looks like the causal relation may be from the mental state to the brain state. However, in cases where mental states do seem dependent on brain states, there is no reason for a dualist to resist such claims. So, when Brown and Strawn speak of certain mental states as “based on” or “an outcome of” certain brain states, we can only take them to mean that there is a causal or dependence relation between these mental states and these brain states. However, almost every dualist holds this kind of dependence and interaction. Although neuroscience has helped us understand *how* the mind depends on the brain in some cases, *that* biology plays a role in our thoughts and behavior was known by the ancient Hebrews and first-century Christians.<sup>68</sup>

Brown and Strawn seem to assume that if dualism is true then the mind should not depend on the brain in any way. However, minimal dualism accepts the possibility that such dependence may be pervasive. However, the fact that mental states may depend on brain states does not show that they are identical. Nor does it show that there is no dependence in the other direction. No discoveries in neuroscience show that mental states play no important causal role in our lives. In fact, if neuroscience did show anything like that, it would undermine the kind of “non-reductive physicalism” Christian physicalists typically affirm. If mental states are completely explicable in terms of brain activity, then it is hard to see how one could resist a reductive form of physicalism.

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<sup>65</sup> Brown and Strawn, 32.

<sup>66</sup> *Ibid.*, 35.

<sup>67</sup> *Ibid.*, 46.

<sup>68</sup> Stanford observes, “The ancient Hebrews and the first-century Christians were unaware of how the brain and nervous system function. “They were not unaware, however, that biology played a significant role in thoughts and behavior (e.g., Jeremiah 17:10, Psalm 26:2, 73:21-22)” (Stanford, *Biology of Sin*, 135). For more, see, R. Shane Tubbs et al., “Roots of neuroanatomy, neurology, and neurosurgery as found in the Bible and Talmud,” *Neurosurgery* 63 (2008): 156-62.

Physicalists often fail to recognize the logical relations that hold between self-conscious beings and their bodies. For example, it does not follow from any neuroscientific findings that because the brain is used to do certain things that the brain is what does those things. As Roderick Chisholm observes,

Many have assumed—quite obviously incorrectly—that from the fact that one thinks by *means of* the brain, it follows logically that it is *the brain* that thinks. We walk by means of our feet, but our feet do not walk in the sense we do (if they did, then they would have feet).<sup>69</sup>

Even ardent anti-dualist Nancy Murphy admits that current neurological evidence does not rule out dualism.<sup>70</sup> The dualist can always interpret such studies as showing that the nature of the soul is such, that while embodied, it is dependent on the brain in a variety of ways. Significant minimal dualism is completely open to whatever causal dependence is supported by the evidence. The only way neuroscience could disprove this kind of dualism would be to prove epiphenomenalism. But as one of us has argued elsewhere, the discovery that the mind is epiphenomenal would imply that our experience of ourselves as conscious agents is illusory. However, this cannot be the case, as all of science, including neuroscience, depends on our self-understanding as conscious agents.<sup>71</sup>

### **Problems for Christian Physicalism and Spiritual Formation**

So far, we have shown that each objection from Brown and Strawn fails to undermine dualism in favor of Christian physicalism. In the following section, we demonstrate how the Christian physicalism of Brown and Strawn is incompatible with certain theological and philosophical preconditions of spiritual formation theory and practice.

First, an observation: It isn't clear how the view of spiritual formation that Brown and Strawn present is distinctively Christian, or Christian at all. For example, their view lacks a robust role for the Holy Spirit's active role in sanctification. The clear teaching of scripture is that the Holy Spirit is the empowering/transformational agent of on-going sanctification (e.g., 1 Cor 6:11; Gal 5:16–24; 2 Thess 2:13; 1 Pet 1:2). Hence, any account of spiritual formation must be grounded in the sanctifying activity of the Holy Spirit. Yet, Brown and Strawn fail to attribute any activity to the Holy Spirit. All the work is done by church bodies functioning as self-forming systems, networks of communication and interaction between persons who imitate those who imitate Christ. However, it is in partaking of and participating in the divine nature—not the mere moral influence of a church body—that the believer is sanctified (2 Peter 1:4; see also 1 Cor. 1:9). It is entirely possible for their account of sanctification that God does not even exist. Of course, this needn't be the case for all Christian physicalist accounts.

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<sup>69</sup> Roderick Chisholm, "Mind," in *Handbook of Metaphysics and Ontology*, edited by Hand Burckhardt and Barry Smith (Munich: Philosophia Verlag, 1991), 544.

<sup>70</sup> Nancy Murphy, *Bodies and Souls, or Spirited Bodies?* (Cambridge: Cambridge University Press, 2006), 112.

<sup>71</sup> Evans, "Separable Souls: Dualism, Selfhood, and the Possibility of Life After Death," 335.

It seems to be produced by an overemphasis on a purely scientific, rather than a scientifically informed, account of spiritual formation.

### ***Christian Physicalism's Fragmented Persons***

According to Brown and Strawn, Christian physicalism holds that, as bodies, we have a single, unified nature.<sup>72</sup> However, we will argue that their ontology of the human person is neither holistic, unified, nor substantial. Rather, it is one where we are biological aggregates. Consequently, their view cannot ground central features of human persons like persistence, agency, and the unity of consciousness, each of which is necessary for any account of Christian spiritual formation.

Their account in a chapter titled “How Bodies Become Persons” is often unclear, moving between talk of the person, the brain, and the human mind, each of which are characterized as having a self-organizing nature.<sup>73</sup> Elsewhere, they state that a person is “... a uniquely organized pattern that is dynamic in its developmental process of self-organization...”<sup>74</sup> and that, “We human beings are also complex dynamical systems...”<sup>75</sup> They seem to reject the self as a substance, a genuine unified entity, and identify the self as a function or process.

Brown and Strawn offer two pictures of the self. They maintain that we are wholly physical bodies. Yet, they also assert that we are a function or process. It isn't clear how both descriptions can be correct. But suppose we assume that the human person is a wholly physical body and that such a body is just a collection of complex processes and functions. It is not clear how such a view can explain how humans can be subjects of consciousness and agents. Nor it is clear how it can explain how humans can undergo psychological and spiritual transformation. These facts pose significant problems for physicalists.<sup>76</sup>

As a biological organism, the human body undergoes an unrelenting process of part replacement. Moment by moment your body absorbs new parts and expels old parts. This takes place through respiration and metabolic processes, among others. Strictly speaking, the body you had 20 seconds ago is not exactly the same body you have now. It is similar, but not identical. This is true for the same reason that the body you have now is not identical to the body you had when you were an infant. If your body is nothing more than a wholly-physical biological organism comprised of various complex processes and functions, then your body does not exist from one moment to the next. Your body five minutes ago does not have all the parts that your body has right now. It is fairly obvious that they are not identical. However, if you are identical to your body, a wholly-physical biological organism comprised of various complex processes and functions, then you do not persist

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<sup>72</sup> Brown and Strawn, 5.

<sup>73</sup> Ibid., 54.

<sup>74</sup> Ibid., 125.

<sup>75</sup> Ibid., 75.

<sup>76</sup> This section is influenced by the following papers: J. P. Moreland, “Restoring the Substance of the Soul to Psychology,” *Journal of Psychology and Theology* 26 (1) (1998): 29-43; and J. P. Moreland, “Spiritual Formation and the Nature of the Soul,” *Christian Education Journal* (2000): 25-43. Although Moreland raises different objections than ours, his approach to analyzing substances in contrast to aggregates or property things inspired our approach in this section.

through part replacement either. That is, the person that existed 5 minutes ago is not the person you identify as yourself right now.

Like other Christian physicalists, Brown and Strawn hold that there are features of your consciousness, agency, and psychology that are emergent and thus not reducible to your body. So perhaps they can escape this objection by holding that although the body you are identical to does not persist, the emergent properties that are a part of what comprises you do persist, and so in some sense you do as well. But why think this is possible? If it is possible, this implies that the persisting entity is not wholly physical, since it has non-physical emergent properties that seem essential to it.

Consciousness, agency, and psychological change are features of an individual person. Consciousness does not exist without a subject of consciousness. The same is true for agency and psychological change. However, if the body does not persist and the body is the person, then the consciousness and agency of that person, that biological organism, does not persist. Likewise, if the body I am identical to does not persist then there is literally nothing that undergoes psychological change. Hence, emergent properties are not sufficient to ground the persistence of a human person.

Consequently, Christian physicalism, at least the version of Brown and Strawn, makes the notion of spiritual formation incoherent. Spiritual formation is a process that an individual person goes through. When a self grows in patience or peace that self must persist through that change. If some other thing replaces the self, then the initial self does not develop but passes out of existence. A self that does not persist cannot undergo any transformation at all. Ironically, like many Christian physicalists, Brown and Strawn present Christian physicalism as a holistic and unified view of human persons, and claim that dualists must reject this. However, as we have shown, the opposite is true.

### ***Interpersonal Knowledge, Phenomenal Consciousness, and Christian Physicalism***

Eternal life, and by extension spiritual formation, is characterized by Jesus as knowledge of God (John 17:3). As one of us has argued elsewhere, the kind of knowledge Jesus refers to here is an *interpersonal knowledge*, which is a species of knowledge by acquaintance.<sup>77</sup> To see this, consider the following propositions:

- a) Laura and Jan know that Jesus is the smartest person to have ever lived.
- b) Laura and Jan know Jesus.

These two propositions express different kinds of knowledge. In (a) what is known is a proposition about Jesus, that he is the smartest person to have ever lived. However, in (b) what is known is not a proposition, but a person, Jesus. Here is another way to understand how these two kinds of knowledge are distinct. Suppose that Jan knows everything there is to know about Laura, even though they've never met. Consider what happens when Jan spends the day with Laura. Clearly Jan "gets

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<sup>77</sup> Brandon Rickabaugh, "Eternal Life as Knowledge of God: An Epistemology of Knowledge by Acquaintance and Spiritual Formation," *Journal of Spiritual Formation and Soul Care* 6 (2) (2013): 204-228.

to know” Laura in a way different from all the facts that Jan knows about Laura. Jan gains interpersonal knowledge of Laura in virtue of her experience of Laura, her knowledge by acquaintance of Laura. This knowledge couldn’t have come from any more propositional knowledge about Laura.

This kind of interpersonal knowledge by acquaintance is present in instances of shared attention and interpersonal attachment between individuals, both of which Brown and Strawn recognize as of great developmental importance.<sup>78</sup> Moreover, the kind of knowledge present in many spiritual formation practices is a type of *intrapersonal-self-knowledge*, which is also a species of knowledge by acquaintance. Knowing the truth that anger keeps me from unity with God is vastly different than my experiential knowledge of a lack of unity with God when I am angry. Consequently, knowledge by acquaintance is a central feature of spiritual formation. However, we argue that Christian physicalism is at odds with interpersonal knowledge by acquaintance.

A prominent thought experiment many take to seriously undermine physicalism can be altered for our purposes here.<sup>79</sup> In Eleonore Stump’s version, we are invited to consider Mary, a neuroscience who is omniscient of the scientific facts about interpersonal knowledge. However, Mary has never met another person before. That is, Mary has never experienced interpersonal knowledge. Imagine one day Mary is united with her biological mother who loves her very much. For the first time, Mary will come to know what it is like to be loved by another. Stump writes,

And this will be new for her, even if in her isolated state she had as complete a scientific description as possible of what a human being feels like when she senses that she is loved by someone else . . . Mary will also come to know what it is like to be touched by someone else, to be surprised by someone else, to ascertain someone else’s mood, to detect affect in the melody of someone else’s voice, to match thought for thought in conversation, and so on.<sup>80</sup>

Mary will also come to know her mother—have knowledge of her mother—in addition to knowing what it is like to know and experience her mother.

Cases like this have proven extremely difficult for physicalism. We argue this difficulty extends to Christian physicalism as well. If physicalism is true then the physical facts about the world should exhaust all the facts about the world. Hence, if one knows all the physical facts about interpersonal knowledge, then there are no further facts one can know regarding interpersonal knowledge. However, this is not what happens in Mary-type thought experiments. Mary knows all the physical facts about interpersonal knowledge, however, she still comes to know

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<sup>78</sup> Brown and Strawn, 58-63.

<sup>79</sup> The original thought experiment was introduced in Frank Jackson, “Epiphenomenal Qualia,” *Philosophical Quarterly* 32 (137) (1982): 127–136; and more fully developed in, “What Mary Didn’t Know,” *Journal of Philosophy* 83 (5) (1986): 291–95.

<sup>80</sup> Eleonore Stump, *Wandering in Darkness: Narrative and the Problem of Suffering* (Oxford: Oxford University Press, 2010), 52.



something new when she meets a person, her mother, for the first time. That is, the physical facts are not the only facts. Hence, physicalism is false.

Consider again the intrapersonal self-knowledge mentioned above. This kind of knowledge is necessarily first-person and cannot be known through third-person scientific inquiry. I can read in the Bible or learn from a friend that my anger keeps me from full unity with God, but that is not sufficient or even necessary for me to attend to the phenomenology of feeling God's distance from me in my anger. That knowledge I gain in my first-person experience, not through third-person propositional knowledge. But the kind of knowledge that Brown and Strawn focus on and ground their view of spiritual formation in is third-person scientific knowledge. That is, their account of spiritual formation does not have, and can't seem to gain, the recourse to account for the kind of self-knowledge involved in important aspects of spiritual formation.

### ***Christian Physicalism and the Nature of Emotions***

Lastly, we wish to draw attention to the metaphysics of emotion that Brown and Strawn advance. This is significant, as emotions have been taken as a significant aspect of spiritual formation. Jesus, for example, begins his Sermon on the Mount with a profound treatment of anger and contempt. He does so as these complex mental states, including emotions, are at the ground floor of what needs to be transformed in us. Although Brown and Strawn recognize that emotions are an important part of spiritual formation, their account of emotions faces difficult problems.

According to Brown and Strawn, "Emotions are continuous brain-body adjustments and attunements to our current situation, most particularly our social situation" (148). They continue with the following:

They [emotions] are by-products of automatic bodily adjustments to the situation that, when experienced consciously, provide information about the nature of our current relationship to the social surrounding (149).

In a later chapter, Brown and Strawn state,

...we are not saying that subjective, inner experiences and emotions are not important in the Christian life. Rather, emotions and feelings are bodily reactions that serve the purpose of giving us information about the significance of the events, including religious events, that we are involved in, physically or in our imaginations.<sup>81</sup>

The view as stated is at best unclear and at worst obviously incoherent. Brown and Strawn first say that emotions are "by-products of bodily adjustments," but then go on to imply that emotions are "subjective, inner experiences." But it is not clear how both can be true. Emotions, as subjective inner experiences with motivational and epistemological components, cannot be identical to bodily

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<sup>81</sup> Brown and Strawn, 162.

reactions.<sup>82</sup> Identity is a necessary relation. A thing must be identical to itself. So, if emotions are identical to bodily reactions or brain states, then there cannot be an instance of an emotion that is not a bodily reaction or brain state. However, the Christian physicalist is faced with the following counterexample: Biblically, God has emotions, but does not have a body, brain states, or any physical features.<sup>83</sup> Therefore, emotions cannot be identical to any physical thing, bodily reactions, brain states or otherwise.

Perhaps Brown and Strawn mean only that human emotions are identical to bodily reactions or brain states. This would escape our counterexample, although this move seems *ad hoc*. Regardless, this view faces a number of problems. First, notice that on their account, phenomenal consciousness is irrelevant to emotion. An individual can have the brain state or bodily reaction of anger although that person does not have the phenomenal experience of anger. The phenomenal experience of anger is not identical to the bodily reaction of anger, which is why one can appear to be angry, yet not actually be angry. Likewise, one can exhibit the bodily responses of fear, such as increased pulse rate, perspiration, and trembling without having any fear at all. For example, someone might tremble from excitement while entering a hot room expecting a surprise.<sup>84</sup> But an account of emotions that leaves out the phenomenal quality, the “what-its-like-to-experience” feature of emotions, has simply eliminated the fundamental feature of emotion. To *feel* anger just is to *be* angry. So, the account of Brown and Strawn does not provide a sufficient condition for what it is for one to be in an emotional state. Moreover, because people can behave as if they are afraid, yet not actually be afraid, their account also does not give a necessary condition for emotions.

### **Bodily Souls and Spiritual Formation**

Now that we have responded to the objections to dualism from Brown and Strawn and offered some problems for their version of Christian physicalism, we wish to make a positive contribution to the discussion. A main theme of this chapter has been that dualism is often misunderstood by its critics. In order to help remedy this problem we now present a specific version of dualism we have defended elsewhere.<sup>85</sup> We call this form of dualism the bodily soul view.

#### ***The Bodily Soul View***

We agree with Christian physicalists that there is biblical emphasis on the value of the body. We retain this by borrowing from Augustine and Aquinas the insight that we are the kinds of souls that require bodies. Augustine, like Aristotle

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<sup>82</sup> On the nature of emotions see, Robert C. Roberts, *Emotions: An Essay in Aid of Moral Psychology* (Cambridge: Cambridge University Press, 2003); and Michael S. Brady, *Emotional Insight: The Epistemic Role of Emotional Experience* (Oxford: Oxford University Press, 2013).

<sup>83</sup> We are aware that there is a theological tradition that holds that God is “impassible” and thus does not have emotions. We cannot argue for our view here, but simply want to affirm that it is hard to see how the view that God has no emotions can be consistent with the Biblical picture of God.

<sup>84</sup> This example is from M. R. Bennett and P. M. S. Hacker, *Philosophical Foundation of Neuroscience* (Oxford: Blackwell, 2003), 209.

<sup>85</sup> C. Stephen Evans and Brandon Rickabaugh, “What Does it Mean to Be a Bodily Soul?” *Philosophia Christi* 17 (2) (2015): 315-330.

and Aquinas, considers the soul the very life of the body.<sup>86</sup> The body does not exist on its own, but subsists through the soul.<sup>87</sup> My body lives through,<sup>88</sup> and is vivified by my soul.<sup>89</sup> We are selves to be sure, but bodily selves that cannot function properly and be all they are intended to be without bodies. We might say that we are *bodily souls*, souls that exist in a bodily form or bodily manner.

Paradoxically, thinking of my soul as identical to myself rather than a part of myself allows for a more ontologically intimate relation between body and soul. It allows me to think of the body not as a part of myself, but my actual manner of being as a whole. I am a soul, but I am not a pure spirit, like an angel, but rather an incarnate or bodily self or soul. The relation between soul (or self) and body can be as intimate as you like. One might believe that the self cannot exist at all without a body. Or, perhaps more wisely, following Augustine and Aquinas, we could hold that the self cannot exist in the fullest and richest sense without a body. The soul can exist between death and the resurrection but cannot carry out all its functions if it does not exist in a bodily form. Thus, human salvation without a resurrected body would be incomplete.<sup>90</sup>

One might ask why, if self and body are so intimately related, we should not simply identify a person with his or her body. Why not opt for Christian physicalism, rather than dualism? The answer is that a person as a self must be distinguished from his or her body. Identity is a necessary relation. If I am identical to my body, then it is necessary that what is true of my body is also true of me and vice versa. However, because a person has some characteristics *qua self* that the person does not have *qua body*, it is not logically possible to identify a person with his or her body.

In our view, the human body plays a dual role. The self is a bodily *self*, and thus *my* body is not simply another object in the world. It is rather the form in which I exercise my agency. If I move from point A to point B, I do so by walking or biking or otherwise moving my body. However, the body is also experienced as an object in the world. It can and does exhibit the same indifference and recalcitrance as the rest of the physical world. If my legs are trapped under a car, I will not be able to move from point A to point B. If a brain tumor invades the region of my brain that controls my motor functions, I will similarly be unable to walk and move.

I thus find myself necessarily thinking of my body in two distinct ways: both as the locus of my agency; the form in which I exist as a conscious self, and as an object in the world; a physical entity that, like other physical entities, follows the laws of nature and does not always act as I want it to act. When we think of the body in this second way, we naturally think of it as something distinct from our self; we think of the body as if it were merely another object in the world, an entity whose characteristics I must take account of when I act. And when I think of my body as a material object in the world, it is natural and in fact valuable to objectify it, to study it scientifically as one might study any other object in the world.

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<sup>86</sup> Augustine, *On Freedom of the Will*, II, XVI, 41; *The Trinity*, IV, I, 3; *Confessions*, II, 6.

<sup>87</sup> Augustine, *The Immortality of the Soul*, An. XV, 24.

<sup>88</sup> Augustine, *Tractates on the Gospel of John*, XXVII, 6.

<sup>89</sup> *Ibid.*

<sup>90</sup> For a comprehensive defense of bodily resurrection from a dualist view, see, Brandon Rickabaugh, "Dismantling Bodily Resurrection Objections to Mind-Body Dualism," forthcoming.

When I think of my body as the form in which I exist as a self, it is not a mere object, but myself. When I think of my body in this second, objectified manner, however, it is natural to think of it, not as myself, but as something that the self must take into account in its agency, a part of the physical world. When I think of the body in this objectified way, it is natural to think of it as something distinct from the self. Hence, the language of body and soul as two distinct entities is not only appropriate because of the possibility of life after death; it is also appropriate insofar as we conceive of the body in this objectified manner.

Christians should continue to affirm the traditional Christian view that human persons are souls or selves, and that souls are not identical with any physical objects. However, we should not think of our souls as ghostly entities that live inside us. Strictly speaking we do not have souls; we are souls. However, on a Christian view this in no way diminishes the importance of the body, because we are embodied, incarnate souls. I am at the same time wholly soul and yet fully bodily. Wittgenstein says that, “The human body is the best picture of the human soul.”<sup>91</sup> That seems right from a Christian perspective.

### ***Bodily Souls and Embodied Spiritual Formation***

In conclusion, we would like to offer brief statements as to how our bodily soul view explains some bodily aspects of Christian spiritual formation. We offer the following for consideration.

- (1) Because our body is the primary manner in which we manifest our presence in the world, our body must be at the center of our sanctification.
- (2) Because our body is the primary manner in which we manifest our presence in the world, we must pay attention to how we make our selves known through our bodies and also how we can hide our selves by concealing our bodies.
- (3) Because our body has both private and social dimensions our sanctification will also have private and social dimensions. One cannot flourish without the other.
- (4) Because there are intimate interactions between body and soul, what happens to my body significantly shapes my sanctification. Hence, my environment will always contribute to my spiritual formation.

### **Conclusion**

The history of psychology, psychiatry, and by extension neuroscience, is one of increasing reductionism, some of which was the product of political motivations, rather than empirical discovery. Somogy Varga explains that various changes to the definition of what qualifies as a mental disorder in the DSM-III and DSM-IV were produced, not by scientific discovery, but sociological pressure to legitimize psychiatry as a science. This was done by redefining mental disorders in

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<sup>91</sup> Ludwig Wittgenstein, *Philosophical Investigations*, Third Edition, translated by G. E. Anscombe (New York, NY: The Macmillan Company, 1953), p. 178e.

biological terms, and by eliminating any kind of talk that might imply dualism.<sup>92</sup> Of course, not all reductions come about this way. But what this shows is that academic communities have in the past rejected dualism and embraced physicalism for illegitimate reasons. This is true, or so we have argued, of the anti-dualism and Christian physicalism of Brown and Strawn.

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<sup>92</sup> Somogy Varga, *Naturalism, Interpretation, and Mental Disorder* (Oxford: Oxford University Press, 2015), 141.