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## *What Can Science Tell Us About the Soul?*

Chad Meeks  
Navarro College  
chad.meeks@navarrocollege.edu

It is commonly argued that, due to advancements in contemporary physical science (specifically neuroscience), the existence of souls is implausible and any belief in such things is irrational. Ever since Gilbert Ryle's *deus ex machina* argument against Descartes, materialists (those who claim only material or physical things exist) have argued that dualism (the view that humans are composed of body and soul) is an archaic and scientifically unpractical stance.<sup>1</sup> Today, many contemporary thinkers default to physical science when thinking about human composition. Concerning questions about human nature, the default process is to look to scientific enterprises, garner answers through empirical research, and submit an explanation based on experimental studies. Even philosophers are known to place scientific methods and explanations prior to philosophical argumentation when exploring the depths of the mind. For example, Owen Flanagan writes, "we have no evidence whatsoever that there are any nonphysical things."<sup>2</sup> The "evidence" that Flanagan speaks of is scientific evidence. Since, via the scientific method, souls are undetected, souls, according to Flanagan *et al.*, probably do not exist.

This apotheosis of science has been propagated in large part by a philosophical idea I will call scientific naturalism (defined below). Adherents to scientific naturalism (SN) range from humanities professors to producers of popular documentaries to scientists; such purveyors generally jettison many semblances of epistemic humility and stamp the empirical method as the king of all knowledge acquisition—especially when it comes to human composition. Essentially, scientific naturalism's claim is that belief in an immaterial soul is incompatible with modern and/or contemporary science.<sup>3</sup> Such a claim is at odds with the standard Christian position that human beings are composed of both physical body and nonphysical soul.<sup>4</sup>

So can science tell someone if he or she has a soul? I will argue that science (as defined by scientific naturalism) is no help to us when seeking to

<sup>1</sup>Gilbert Ryle, *The Concept of Mind* (New York City: Barnes & Noble, 1959).

<sup>2</sup>Owen Flanagan, *The Science of the Mind*, 2nd ed. (Cambridge: The MIT Press, 1991), 20.

<sup>3</sup>I take modern science to be one undergirded by Newtonian physics and contemporary science to be one undergirded by relativity and quantum mechanics.

<sup>4</sup>That is not to say that Christians agree or have historically agreed on the details of the composition.

affirm, disaffirm, or detect a nonphysical component of a human. Overall, I will argue, scientific naturalism fails to demonstrate that belief in the immaterial soul is incompatible with belief in the general trends of modern or contemporary science and it fails to show that belief in an immaterial soul is irrational. I will begin by giving a general overview of scientific naturalism and its claims. Then I will discuss the methods of science given the constraints applied by scientific naturalism. Finally, I will offer an argument against scientific naturalism.

### Scientific Naturalism

Broadly speaking, naturalism can be defined as the philosophy that all things can be reduced to nature and no reality exists beyond nature. W.V.O. Quine, credited with developing naturalism (at least in a contemporary sense), writes that naturalism is “an inquiry into reality, fallible and corrigible but not answerable to any [tribunal outside of science], and not in need of any justification beyond observation and the [scientific] method.”<sup>5</sup> Scientific naturalism goes one step further by claiming that something exists only if it is “describable and explainable in an ideal, complete science or, more specifically, physics.”<sup>6</sup> The specific aim of scientific naturalism is to describe all of existence and reality by scientific explanations or processes, even the ego or conscious self. It does not simply adumbrate that we cannot know anything beyond the physical. According to SN, the natural world is all there is and to study the world, one must use some type of scientific method.

So why hold to scientific naturalism? What are the arguments for it? All forms of naturalism generally use the same argumentation, though scientific naturalists take the implications further. Essentially, most scientific naturalists argue that the success of science and the scientific pursuits, justify holding a naturalistic worldview.<sup>7</sup>

Regarding the explanatory power of science, Willem B. Drees writes “sciences provide an increasingly integrated and unified understanding of

<sup>5</sup>Quoted by Alan Weir, “Quine’s Naturalism,” in *Blackwell Companions to Philosophy: Companion to W.V.O. Quine*, edited by Gilbert Harman and Ernie Lepore (Malden: Wiley/Blackwell, 2014), 116.

<sup>6</sup>Stewart Goetz and Charles Taliaferro, *Naturalism* (Grand Rapids: Eerdmans, 2008), 14. Stewart Goetz and Charles Taliaferro call scientific naturalism “strict naturalism.” I have chosen to use the term “scientific naturalism” because it seems to be a better descriptor of the idea. Intelligent Design advocates commonly use the term “scientific naturalism.” I prefer the term to “strict naturalism” because it helps clearly distinguish between the standard version of “naturalism.” Ronald Numbers claims that Thomas Huxley first coined the term “scientific naturalism;” either way, the term is a commonly used term in the literature and I am using it in a way that is concurrent with the literature, e.g., J.P. Moreland uses the term in his work *When Science and Christianity Meet* (Chicago: University of Chicago Press, 2003), 266.

<sup>7</sup>Willem B. Drees, “Religious Naturalism and Science,” in *The Oxford Handbook of Religion and Science*, edited by Philip Clayton (Oxford: Oxford University Press, 2008), 108–23. Drees lists four different arguments; however, I think that there are two main claims of the four.

reality, resulting in precise predictions which correspond to empirical results.”<sup>8</sup> According to the naturalist, science is capable of giving an explanation to phenomena in a way that is more satisfying and sufficient. One need not conjecture that anything from outside the system causally influenced something inside the system. To do so, would be to overdetermine causally an effect beyond what is necessary. Focusing on physical explanations gives one the ability to simplify the causation of events without appealing to religious or spiritual beliefs that are complex and difficult to verify. Quine writes, “If the scientist sometimes overrules something which a superstitious layman might have called evidence, this may simply be because the scientist has other and contrary evidence which, if patiently presented to the layman bit by bit, would be conceded superior.”<sup>9</sup>

Likewise, science has made significant progress in explaining natural events that were once believed to be a product of divine action. Drees writes,

The epistemic success of the natural sciences as it developed in the last century or two, resulting in corroborated theories that have a wide scope, unifying the understanding of phenomena in various contexts, in combination with remarkable precision, is totally without equal with any cognitive understanding offered in previous human history, whether in religious myth, theological systems, or philosophical speculations. *This success makes it urgent to take these theories as our best available guides to the understanding of reality.*<sup>10</sup>

According to Drees and other naturalists, science has proven to be our most reliable epistemic mechanism to acquire knowledge of the world. Its success affirms that the general conclusions of the scientific enterprise can be trusted as the most reliable way of acquiring knowledge—more reliable than divine revelation, traditional religious speculations, and philosophical argumentation. It should also be noted, that the progress of science is generally given in contrast with what the naturalists consider as a lack of progress in religion and philosophy. For example, one could note the cosmological theories that bring together theoretical conjectures and data from particle physics to the universe at large—generally, providing a reliable, constructive path to knowledge of the cosmos from two disparate sources. On the whole, notes the scientific naturalist, when religions converge, wars and disputes break out, and there is little enhancement of understanding.<sup>11</sup>

<sup>8</sup>Ibid., 109.

<sup>9</sup>W.V.O. Quine, *The Ways of Paradox* (Cambridge: Harvard University Press, 1976), 233.

<sup>10</sup>Drees, “Religious Naturalism and Science,” 114. Emphasis added.

<sup>11</sup>Peter Atkins, “Atheism and Science,” in *The Oxford Handbook fo Religion and Science* (Oxford: Oxford University Press, 2008), 131.

The scientific naturalist has taken the explanatory power of the scientific enterprise and the success of science to develop a more robust view of naturalism; a naturalism that does not stop at an epistemic claim, but broadens the claim to include an assertion about all existence. Thus, the advocate of SN claims that if something does indeed exist, in principle, science could detect it and study it (directly or indirectly). Conversely, the advocate of SN would claim, if science cannot detect something (directly or indirectly), then, in principle, it does not exist.

### Components of Scientific Naturalism

As I see it, there are two essential components of scientific naturalism. One merely needs to show that these components are either false or untenable to defeat scientific naturalism. Here I will present the components and I will offer counters to them below. The first component to scientific naturalism is causal closure (or if one holds to scientific naturalism, one also holds to causal closure). This is the proposition that nothing has influence on events, conditions, and entities in time and space except for events, conditions, and entities within time and space. Also, there is nothing outside of time and space.<sup>12</sup> Thus, if something is in time and space, it must have a cause that is in time and space.<sup>13</sup> This closure inhibits any thing outside the physical realm from being a cause of any event or agent in the physical realm.<sup>14</sup> Stewart Goetz and Charles Taliaferro write,

The study of the literature about [scientific] naturalism, however, leads one to believe that in the end [scientific] naturalists appeal to one central argument in support of their view “the argument from causal closure.” Philosopher of science Karl Popper’s comment about physicalism is apropos for naturalism as well: “the physicalist principle of the closedness of the physical [world] . . . is of decisive importance, and I take it as the characteristic principle of physicalism or materialism.”<sup>15</sup>

Thus, in the mind of the scientific naturalist the only possible cause of any effect is a physical cause. God, an immaterial soul, or anything non-physical is rejected as irrational or unknowable.

Whether it is due to the makeup of the universe or the physical limitations of the human brain, we are epistemically locked into knowing the

<sup>12</sup>Robert C. Koons, “The Incompatibility of Naturalism and Scientific Realism,” in *The Nature of Nature*, edited by Bruce Gordon and William Dembski (Wilmington: ISI Books, 2011), 216.

<sup>13</sup>If  $x$  (which can be substituted for events, entities, or beings) is in time and space, then  $x$  is closed to an explanation outside of time and space. Thus,  $x$  must have a physical cause  $c$  that happened at time  $t$ .

<sup>14</sup>This is assuming the intimate confluence of time and space.

<sup>15</sup>Goetz and Taliaferro, *Naturalism*, 26. Again, I am substituting what Goetz and Taliaferro call “strict naturalism” for “scientific naturalism.”

physical realm alone.<sup>16</sup> When discussing this issue David Papineau writes, “The thesis of the causal closure of the physical thus argues that [at first glance] non-physical occurrences—all those that exert an influence on the physical realm—must themselves in fact be physical.”<sup>17</sup> Perhaps an honest adherent to SN would claim that there might be a dimension beyond the physical; however, being that we are physical creatures with physical sensory apparatuses, we can only know the physical. Being physical locks us into the physical. Thus, any meaningful knowledge can only come through empirical investigation and physical proof. For example, suppose that a teenager loses his arm in a tragic car accident. His parents, being devout Christians, invite fellow believers to his bedside to pray for healing and recovery. That night, after the impromptu prayer service, while the teen slept, his arm unexpectedly and mysteriously reappears. According to a scientific naturalist, the only explanation for the mysterious growth of the appendage would be a natural explanation. One may quickly retort: Well, science cannot answer how the appendage reappeared. But according to the causal closure thesis, if one cannot supply a natural explanation, then one cannot supply any viable explanation.<sup>18</sup> If one were to conjecture otherwise, according to a scientific naturalist, one would be in clear violation of the thesis of causal closure. Specifically regarding our focus here: if one were to conjecture an immaterial cause of a physical effect, he or she would be in clear violation of the most sacred principle of scientific naturalism.

The second component to scientific naturalism is scientism. Alex Rosenberg defines “scientism” as “[t]he conviction that the methods of science are the only reliable ways to secure knowledge of anything; that science’s description of the world is correct in its fundamentals; and that when ‘complete,’ what science tells us will not be surprisingly different from what it tells us today.”<sup>19</sup> Thus, according to adherents of scientism, the only reliable epistemic acquisition process (i.e., the only way we can know anything there is to know) is by use of the scientific method. Jerry Fodor explains further,

Scientism claims, on the one hand, that the goals of scientific inquiry include the discovery of objective empirical truths; and on the other hand, that science has come pretty close to achieving this goal at least from time to time. . . . Scientism is . . . the scientist’s philosophy of science. It holds that scientists are trying

<sup>16</sup>As noted above, there would be some disagreement on this. Here I speak of it in general.

<sup>17</sup>David Papineau, “Physical Causal Closure and Naturalism,” in *The Oxford Handbook of Philosophy of Mind*, edited by Brian P McLaughlin, Ansgar Beckerman, and Sven Walter, (New York City: Oxford University Press, 2011), 55.

<sup>18</sup>Even if one were apt to distinguish the disciplines of science and philosophy, it makes no difference to the causal closure thesis. All explanations (scientific, philosophical, or otherwise) must be natural explanations.

<sup>19</sup>Rosenberg, Alex, *The Atheist’s Guide to Reality*, (New York City: Norton, 2011), 6.

to do pretty much what they say that they are trying to do; and that, with some frequency, they succeed.<sup>20</sup>

Here one can see the appeals to the authority and priority of natural (or physical) science.

According to scientism, our best picture of reality, the best picture of the world is a materialistic one. If immaterial souls exist, then natural science would discover or detect it. Physical science has never discovered or detected immaterial souls. Thus, according to the scientific naturalist, immaterial souls do not exist. Scientism leads its adherents to claim that science can tell us what J.P. Moreland calls the “Grand Story.”<sup>21</sup> That is, it is within the capability of science to tell a narrative of our existence and the existence of the universe using the methods of science alone.

The orthopraxy of scientism is clear: If one is to answer life’s greatest questions, one needs look no further than the scientific practice. Furthermore, scientism takes the extra step of claiming that science is the only way one can find viable, true answers (or at least verisimilitudes) about our universe, our existence, ourselves.

So where does this leave us with the soul? Obviously, if the immaterial realm does not exist, then, according to SN, immaterial souls do not exist. Thus, given the entailments and constraints of SN, we are nothing more than our bodies. Under the guise of SN, there is no other reasonable explanation for a soul. For if our only mode of knowledge acquisition is via the scientific method (according to the adherent of scientism) and the scientific method can only detect and study the physical, then all explanations must be grounded in the physical.

Suppose I raise my arm. According to SN, raising my arm is merely the physical processes of my neurons firing in the motor cortex, the secretion of acetylcholine at the axon end plates of my motor neurons, the stimulation of the ion channels, which stimulates the cytoplasm of my muscle fibers, which

<sup>20</sup>Jerry Fodor, “Is Science Biologically Possible?” in *Naturalism Defeated? Essays on Plantinga’s Evolutionary Argument Against Naturalism*, edited by James Beilby (Ithaca: Cornell University Press, 2002), 30. Fodor takes what could be classified as a robust view of scientism. He writes, “I’m inclined to think that scientism, so construed, is not just true but *obviously and certainly* true; it’s something that nobody in the late twentieth century who has a claim to an adequate education and a minimum of common sense should doubt. In fact, however, Scientism is tendentious. It’s under attack, on the left, from a spectrum of relativists and pragmatists, and, on the right, from a spectrum of Idealists and a priorists. People who are hardly otherwise on speaking terms—feminists and fundamentalists, for example—are thus often unanimous and vehement in rejecting Scientism. But though the rejection of Scientism makes odd bedfellows, it somehow manages to make them in very substantial numbers. I find it, as I say, hard to understand why that is so, and I suppose the Enlightenment must be turning in its grave. Still, over the years I’ve gotten used to it.” Ibid.

<sup>21</sup>J.P. Moreland and Scott B. Rae, *Body & Soul* (Downers Grove: IVP Academic, 2000), 92.

leads to those muscles contracting, and as a consequence my arm goes up.<sup>22</sup> That is, it is nothing more than a purely physical phenomenon. Furthermore, many naturalists would claim that what one perceives to be desire, intention, or free will is simply an illusion produced by certain features or functions in the brain.<sup>23</sup> They all can be reduced to physical characteristics of the brain and body. Given scientific naturalism's resolute stance that all explanations be nonpurposive in nature and that all human activity (even that of the intentional self) fall underneath the nexus of a determinative causal structure, scientific naturalists are unwilling to bifurcate the distinction between the mental life and the physical body. Hence, by the measure of the scientific naturalist, dualism is considered false.<sup>24</sup> A nonphysical cause bringing about a physical effect is not a viable solution.

### Limitations of Physical Science

In this section, I will argue that science, as practiced and defined by naturalists, is inadequate to show that belief in a soul is irrational. To do this, I must first discuss the scientific method being practiced by naturalists.

#### Methodological Naturalism

There has been substantial discussion within philosophy of science on the sufficiency of science. How, exactly, is one to define and do science? What method(s) should be used to maintain the integrity of the experiment? Does science need methods (and does it have integrity, for the matter)? Even among naturalists, the definition and practice of science is varied and debated. Yet, one point seems to be agreed upon among naturalists, all practicing science must use the method commonly called "methodological naturalism" (MN).<sup>25</sup> The advocate of MN claims that when conducting experiments within science, as with any discipline, there are certain parameters within which one must work. A complete view of science may encompass more processes (e.g., testability, reproducibility, etc.), but MN is generally seen as a necessary component of any scientific method—at least within the physical sciences.<sup>26</sup> If one were to breach these parameters, the integrity of the experiment would be compromised; this is simply the nature of science. If there were no parameters, so the argument goes, then science would be inchoate and yield little to no information for the inquirer. Due to the nature

<sup>22</sup>John Searle, *Minds, Brains, and Science* (Cambridge: Harvard University Press, 1984), 93.

<sup>23</sup>Examples include Daniel Dennett and Alex Rosenberg.

<sup>24</sup>Goetz and Taliaferro, *Naturalism*, 18.

<sup>25</sup>Ron Numbers notes that philosopher Paul de Vries coined the term. *When Science and Christianity Meet*, edited by David C. Lindberg and Ronald L. Numbers (Chicago: University of Chicago Press, 2003), 320.

<sup>26</sup>Many proponents of MN would claim that methodological naturalism is not a sufficient indicator of the demarcation between science and philosophy; yet, MN is necessary when practicing science.



of scientific investigation, physical science is forced to the practice of methodological naturalism. Indeed, the atheist Michael Ruse argues, that science is best defined as methodological naturalism.<sup>27</sup>

So what, exactly, is methodological naturalism? Before that question is answered, I need to note that an endorsement of methodological naturalism will not be given here. Whether MN is a proper scientific method is a worthy project, but it will not be explored here. My goal is to offer as precise a definition of MN as I can and then show how MN is an immoderate method in proving or disproving the existence of the soul.<sup>28</sup>

One of the difficult aspects of understanding MN is that a precise definition is difficult to find. As Stephen C. Dille and Ernan McMullin point out, there are several different definitions of methodological naturalism.<sup>29</sup> Indeed, methodological naturalism seems to find various definitions among its opponents and advocates.

Two dominant theses seem to be at work within the discussion of MN. First, all scientific practice must be a study of the physical or natural world alone. Second, God cannot be assumed as a factor in any scientific explanation. Although, the second of the two theses seems to be less accepted—perhaps it would be more precise to say that the second thesis is qualified by some. For example, Ernan McMullin does not like the description that MN is some type of “provisional atheism.” According to McMullin, MN need

<sup>27</sup>Michael Ruse, “Methodological Naturalism under Attack,” in *Intelligent Design Creationism and Its Critics*, edited by Robert T. Pennock (Cambridge: The MIT Press, 2001), 363–86. Ruse claims that if methodological naturalism is defined any way other than referencing the study of the physical world, it is not a proper definition. Also see, Keith Miller, “The Misguided Attack on Methodological Naturalism,” in *For the Rock Record: Geologists on Intelligent Design*, edited by Jill S. Schneiderman and Warren D. Allmon (Los Angeles: University of California Press, 2009), 117–40.

<sup>28</sup>For more on the debate regarding methodological naturalism see: Kathryn Applegate, “A Defense of Methodological Naturalism,” *Perspectives on Science and Christian Faith* (2013): 27–45; Robert C. Bishop, “God and Methodological Naturalism in the Scientific Revolution and Beyond,” *Perspectives on Science and the Christian Faith* (2013): 10–23; Alvin Plantinga, “Methodological Naturalism?” *PSCF* (1997): 143–54; David J. Krause, “Response to Plantinga,” *PSCF* (1997): 285–86; Robert C. O’Connor, “Science on Trial: Exploring the Rationality of Methodological Naturalism,” *PSCF* (1997): 15–30; Harry Lee Poe and Chelsea Rose, “From Scientific Method to Methodological Naturalism: The Evolution of an Idea,” *PSCF* (2007): 213–18; *But Is It Science? Philosophical Questions In The Creation/Evolution Controversy*, edited by Michael Ruse and Robert T. Pennock (Amherst: Prometheus, 2009); Robert T. Pennock, *Tower of Babel*, (Cambridge: The MIT Press, 1999). Bradley Monton, *Seeking God in Science: An Atheist Defends Intelligent Design*, (Buffalo: Broadview Press, 2009); Alvin Plantinga, *Where The Conflict Really Lies*, (Oxford: Oxford Press, 2011); *Intelligent Design, Creationism, and Its Critics*, edited by Robert T. Pennock, (Cambridge: The MIT Press, 2001); *Philosophy of Pseudoscience: Reconsidering the Demarcation Problem*, edited by Massimo Pigliucci and Maarten Boudry, (Chicago: University of Chicago Press, 2013); and Philip Kitcher, *Abusing Science*, (Cambridge: The MIT Press, 1982).

<sup>29</sup>Stephen C. Dille, “Philosophical Naturalism and Methodological Naturalism,” *Philosophia Christi* (2010): 118–47. Ernan McMullin, “Varieties of Methodological Naturalism,” in *Nature of Nature*, edited by Bruce L. Gordon and William A Dembski (Wilmington: ISI Books, 2011), 82–94.

not reference or entail a hypothetical atheism. To reference or entail such a term, McMullin seems to say, MN would need a grander definition—one of which he is unwilling to give. A study of the physical world, however, need not entail that one presuppose a naturalistic ontology of the universe. Though McMullin may not claim that MN is simply an epistemic indicator of the demarcation between science and philosophy, it is quite clear that he would claim MN has no presuppositions regarding the ontology of existence (i.e., provisional atheism is not needed), which leads us to some additional confusion with MN.

Some naturalists who endorse MN claim that one must hold to a default atheistic position in scientific practice.<sup>30</sup> That is, some naturalists, disagreeing with McMullin, seem to indicate that to practice science, one must adopt some type of “provisional atheism.” That is, a scientific method viewed as strictly naturalistic (i.e., the study of nature) must also view naturalism as a true claim regarding the ontology of the universe—methodological naturalism entails ontological naturalism (ON). This entailment requires, according to its proponents, that one must be atheistic when practicing any type of scientific activity. God cannot, in anyway, factor into the cause and effect of scientific or philosophic explanation. It should be noted, however, that methodological naturalism is different from ontological naturalism—and many philosophers agree.

ON is the stance that “there is no such person as God or anything at all like God; there is no supernatural realm at all.”<sup>31</sup> ON is a statement that goes beyond the scientific method. Of the definitions listed above, the ones that mention “God,” are only noting that God cannot be used as an explanation of physical effects. To claim that God does not exist or that one cannot know if there is a God is a different definition or stance entirely.

<sup>30</sup>According to Michael Ruse, Phillip Johnson is guilty of making the same entailments. Ruse writes, “Phillip Johnson—an academic lawyer on the faculty at Berkeley—denies that one can thus separate methodological and metaphysical naturalism; at least, Johnson thinks that any such separation is bound to be unstable. In his opinion, methodological naturalism—however well-intentionally formulated—inevitably collapse within a very short time into metaphysical naturalism.” Ruse, “Methodological Naturalism under Attack,” 366. Ruse, however, does not supply a direct quotation, he only references Johnson’s work, *Reason in the Balance*. I could not find any direct reference verifying Ruse’s claim, though I will admit that Johnson’s work seems nuanced at times. For example, in it he writes, “The grand metaphysical story is the product of an epistemology—a way of knowing—called methodological naturalism.” Phillip Johnson, *Reason in the Balance* (Downers Grove: IVP, 1995), 17. He later writes, “MN in science is only superficially reconcilable with theism in religion. When MN is understood profoundly, theism becomes intellectually untenable.” *Ibid.*, 208. And, “The point of theistic MN is to allow theists to survive in a naturalistic academy” (216). Kathryn Applegate also notes that William Dembski and Jonathan Witt make the same inference. She writes, “The ID community tells a different story . . . In a primer about ID, [Dembski and Witt] argue that methodological materialism (their term for methodological naturalism) is inherently atheistic.” Applegate, “A Defense of Methodological Naturalism,” 39. To be fair, Dembski and Witt do seem to use the same definition for methodological materialism that Applegate (*et al.*) use(s) for methodological naturalism.

<sup>31</sup>Alvin Plantinga, *Where the Conflict Really Lies*, 169.

Perhaps the best way to avoid this confusion is to offer an emended (yet consistent) definition of methodological naturalism. I will define methodological naturalism as the practice within natural science of looking for physical causes of physical effects.<sup>32</sup> By “physical” I mean quantifiable substances and properties in space and time. Stanley Jaki claims something similar; he writes, “Nothing which is non-quantitative is the business of science. But everything which is quantitative is its business.”<sup>33</sup> Earlier, in the same work, he writes,

Science . . . is synonymous with measurements, which are accurate because they can be expressed in numbers. Those numbers relate to tangible or material things, or rather to their spatial extensions of correlations with one another in a given moment or as time goes on. All the instruments that cram laboratories serve the accurate gathering of those numbers, or quantitative data.<sup>34</sup>

Hence, adherents to MN would claim that due to the ontology of the physical world and the epistemic restraints in studying the physical world, the practitioner of the natural sciences (biology, chemistry, classical physics, geology, etc.) must look for physical causes as the producer of physical effects (or as Jaki puts it “quantitative data”).

To define MN by claiming natural science must remain within the physical realm does not entail that epistemic ability ends with the physical (i.e., ON). The problem occurs when a physical scientist argues and espouses that science can answer all of humanity’s questions. Specifically, when a naturalist claims that science can garner any information necessary to explain life’s “Grand Story.”<sup>35</sup> If, as scientific naturalists claim, science is limited to the physical realm alone, I fail to see how one can use such a practice to deny the workings of God.

As with all disciplines, science is limited—this is simply the nature of science. If there were no parameters, the information science yielded would (or at least could) be bizarre and amorphous. Hence, with MN, physical science is limited solely to collecting data *via* empirical methods. Due to the nature of scientific investigation, physical science is forced to such a practice—MN is simply a rule to achieve a useful result.

Why does this matter to our thesis? Because MN is locked into studying the physical world alone, it is incapable of proving or disproving the existence of anything outside of the physical realm. That is, if MN is assumed, a scientist qua scientist cannot say anything meaningful about nonphysical

<sup>32</sup>This version is very close to the second version of qualified methodological naturalism defined by McMullin, “Varieties of Methodological Naturalism,” 88–89. This is also almost equivalent to Kathryn Applegate’s “A Defense of Methodological Naturalism.”

<sup>33</sup>Stanley Jaki, *The Limits of a Limitless Science* (Wilmington: ISI Books, 2000), 54.

<sup>34</sup>*Ibid.*, 2.

<sup>35</sup>Moreland and Rea, *Body & Soul*, 92.

substances, entities, beings, or things. Perhaps one might claim that science need not be restricted to MN, but, as noted above, this is not an option for the scientific naturalist. According to such proponents, MN is the only way one can practice science. So, for our purposes, I will concede that MN, as defined above, is the proper method of scientific inquiry. That being the case, I hardly see how one can use such argumentation to deflect or dissuade from the belief in the soul. Let us look at each stance.

### A Response to Scientific Naturalism

As Goetz and Taliaferro note, “The goal of [scientific] naturalism is to take the beliefs, desires, preferences, choices . . . that appear to make up conscious, intelligent, psychological life and explain them in terms that are non-conscious, nonmental, and nonpsychological.”<sup>36</sup> Indeed, scientific naturalists want to take that which is conscious and mental and explain it in terms of the nonconscious or nonmental. Here, the limitation of such a stance should be obvious. If one claims that the universe is closed (i.e., causal closure) and the only epistemically viable avenue of knowing our universe is the scientific method (i.e., scientism), then one is completely shrouded from knowing anything about existence outside of the universe or existence of the nonphysical.

As noted above, methodological naturalism does not entail ontological naturalism; however, ontological naturalism does entail methodological naturalism. It would be inaccurate to claim the ontological naturalist and scientific naturalist are identical; however, both would use the same scientific method—that is, MN. If one holds to ON and claims the only way we can garner information about the world is through MN, by what means would he or she discover or disprove the nonphysical—surely not by MN? MN is an immoderate and inadequate mechanism for studying anything other than the physical. Richard Fumerton says something similar when defending the existence on nonphysical mental states, “[I]f you are trying to convince me that I’m wrong [about nonphysical mental states] I wouldn’t suggest bringing a cognitive scientist into the discussion. It is just not their job to answer this sort of question.”<sup>37</sup>

For example, imagine a scientist that believes the only light that exists is visible light (a spectrum between approximately 390–780 nanometers). His colleagues worked to convince him that there were many other forms of light (infrared, radio, etc.), but to no avail. He not only disbelieved the existence of any other wavelength, but he refused to use any instrument that might detect such a length (perhaps he thinks such instruments are faulty). By only using instruments that detect visible light, would our visible-light-only physicist even be in the position to detect any other light (assume, for illustration sake, the instruments for observing visible light are different than instruments for other wavelengths)? Would he even be able to appraise whether the other

<sup>36</sup>Goetz and Taliaferro, *Naturalism*, 16.

<sup>37</sup>Richard Fumerton, *Knowledge, Thought, and the Case for Dualism* (Cambridge: Cambridge University Press, 2013), 136.

light waves existed or not? I think the answer is clearly no. The same applies to the scientific naturalist. The only method the scientific naturalist has to detect information about our world is MN. If MN does not and cannot verify or indicate a certain phenomenon, then how is the practitioner able to use MN to ascertain information about the nonphysical?<sup>38</sup>

My point is that the holder of scientific naturalism is locked into a scientific methodology that does not allow the adherent to affirm, disaffirm, discover, or detect anything immaterial.<sup>39</sup> The scientific naturalists cannot even *conjecture* the existence of an immaterial entity (whether that be a soul or immaterial being). For if everyday God tells the moon to rotate around the earth, it would be impossible for the adherent of SN to know. Or, more to our focus, if human souls do indeed exist and interact with human bodies, the adherent of SN would be unable to detect such an interaction. Why? He would be incapable because the scientific naturalist is married to a scientific epistemology that is cut off from knowing anything other than what the dictates of science can show us.

An illustration will help here. Imagine that a philosopher and neuroscientist are observing brain scans of a patient that is willfully (or at least, what the patient believes as voluntary) raising his finger sporadically in the period of 5 minutes. What is the explanation for the patient raising his

<sup>38</sup>Perhaps the scientific naturalist using MN could conjecture indirect evidence for a nonphysical substance or entity? In doing so, however, he or she would violate a significant thesis of scientific naturalism—causal closure. It is argued by proponents of causal closure that the physical world is closed from any substances outside the physical realm. Scientific naturalism denies any causal action or agent from outside the physical system. Hence, a non-physical cause bringing about a physical effect is not even a possible solution with the naturalist. If one ascribes to the combination of ON, causal closure, and scientism, then I fail to see how MN is not the main method of acquiring information about existence. But MN does not attest that the *ultimate* cause is physical; indeed, MN is not a mechanism to determine ultimate causation.

<sup>39</sup>Ultimately, the claims of SN rely upon the truth of SN. Allow  $MN_{\text{only}}$  to be the proposition that methodological naturalism is the *only* method of reliable knowledge acquisition (which is the claim of scientism), and let  $M$  be the proposition that materialism is true. I see the scientific naturalist argument for materialism to be as follows:

- (1)  $SN \rightarrow MN_{\text{only}}$
  - (2)  $MN_{\text{only}} \rightarrow M$
  - (3) Therefore,  $SN \rightarrow M$
  - (4) SN
- Therefore, M

If scientific naturalism is true, then methodological naturalism is the only method of reliable knowledge acquisition. If methodological naturalism is the only method of reliable knowledge acquisition, then materialism is true. Therefore, if scientific naturalism is true, then materialism is true. Thus, one way to refute the scientific naturalist's argument for materialism is to refute SN. So the proponent of SN claims that materialism is the inevitable entailment of SN. But why think that the SN is true? Well, what argument do scientific naturalists present to defend such a claim? As best I can tell, the main reason for accepting SN is that it gives the most explanatory power of the workings of our world. But there is at least one thing that it does not explain: scientific naturalism. I have yet to find any explanation on how science or physics gives explanatory power to the definition of scientific naturalism. Thus, when the standards of SN are applied to itself, SN comes up empty.

finger? If the neuroscientist is a scientific naturalist, then the only explanation of the finger being raised is a physical explanation. The philosopher may conjecture: Sure, if one were solely to adhere to MN, then a physical explanation is the only explanation you can accept. The, neuroscientist (again, adhering to SN) should quickly agree; chiming in that a methodological naturalistic explanation is the *only* explanation for such an action—no other options are on the table. Thus, leaving no room for an immaterial explanation of the bodily movement.

Philosopher Jaegwon Kim explains, “Most physicalists [those who claim that human beings are merely physical beings] . . . accept the causal closure of the physical not only as a fundamental metaphysical doctrine but as an indispensable methodological presupposition of the physical sciences . . . If the causal closure of the physical domain is to be respected, it seems *prima facie* that [nonphysical] mental causation must be ruled out.”<sup>40</sup> But if one were to reduce all phenomena to physical causes, how would one go about proving that philosophical supposition that the universe is closed? One is arguing in circles if he claims the universe is closed because we have never detected anything outside of the universe while using MN. How can a method used to study and detect physical causation disprove nonphysical causation? This seems to be the fatal move of the scientific naturalist: one cannot use MN to claim or show that the universe is causally closed. To do so, one would not be using MN, one would merely be using philosophical argumentation. Thus, the claims of scientific naturalism seem self-referentially incoherent. Therefore, the scientific naturalist is hedged off from truly exploring the veracity of immaterial souls before the investigation has even begun.

The same goes for scientism. By what measure does one show that science is the only viable method of inquiry? To say one can prove scientism with science, is begging the question. To say that one can prove scientism by philosophy is to make scientism self-defeating. Roger Trigg writes,

The practice, and success, of science depend on the power of human reason to understand the nature of a world that was not constructed by humans. Metaphysics without science may not have its feet on the ground. So far, though dealing with meaningless abstractions, it provides the necessary and indispensable rational framework in which empirical science can be seen to succeed. Science without metaphysics flounders, as if lost in a vast and featureless ocean. It loses all sense of direction or purpose.<sup>41</sup>

One, however, need not jettison science in a denouncement of scientism. Science is a boon to humanity; the likes of which have been accentuated over the last three or four centuries. This, however, does not mean that science

<sup>40</sup>Jaegwon Kim, *Philosophy of Mind* (Boulder: Westview, 1996), 147–48.

<sup>41</sup>Roger Trigg, *Beyond Matter* (West Conshohocken: Templeton, 2015), 148.

is the solution to all of mankind's problems or inquiries. Richard Williams writes,

Scientism is, in its basic form, a dogmatic overconfidence in science and "scientific" knowledge. But, more importantly, it is overconfidence in science, defined by, constructed around, and requiring that, the world must be made up of physical matter following particular lawful principles, and that all phenomena are essentially thus constituted.<sup>42</sup>

### Conclusion

So what can science tell us about the soul? Well, if one holds to the tenets of scientific naturalism, science cannot tell us anything about the soul.<sup>43</sup> Scientific naturalism is beholden to a method of inquiry that shields its advocate from detecting or refuting the existence of an immaterial soul. Furthermore, scientific naturalism cannot show that the belief in an immaterial soul is irrational. If one is arguing from the grip of a system that is inadequate or inept at determining the existence or non-existence of an immaterial entity, then all arguments given from said system against the non-existence of the soul are ineffective at eroding belief in the soul.

<sup>42</sup>*Scientism: The New Orthodoxy*, edited by Richard N. Williams and Daniel N. Robinson (New York City: Bloomsbury, 2015), 10.

<sup>43</sup>Granted, if one does not hold to methodological naturalism, then one would have to find a way to fairly and accurately determine and incorporate some nonphysical causation into scientific explanations. I will leave it to others to figure out how to do that.