

September 29, 2008  
Paper 2, Round 1

### **The Harmony and Discord of Religion, Science, and Determinism**

Human beings study religion and science as methods of explaining reasons for existence, the meaning of life, and the physical and metaphysical world.<sup>1</sup> Several<sup>2</sup> choose to explain their world solely through scientific theories and investigation, some<sup>3</sup> solely through faith and theology, but many find a middle ground between the two. As long as one does not interpret science or religion too narrow-mindedly, the two seemingly opposite viewpoints can be consistent and logically fit together.<sup>4</sup> One hypothesis of science that is not compatible with religious views is Determinism.<sup>5</sup> It is not possible to be a Determinist and religious, as the scientific hypothesis of Determinism is the direct opposite of free will,<sup>6</sup> a principal pillar of religion. Not all scientists accept Determinism as true, however, so it is still possible to accept religion and science without accepting Determinism.<sup>7</sup>

One example of scientific and religious beliefs coinciding is found in the beliefs of Francis Collins. He is an evangelical Christian and head of the Humane<sup>8</sup> Genome Project, which mapped the human genome. He explains to us that science is a way of understanding how nature works, but is unable to answer<sup>9</sup> questions about the existence of God and the meaning of life. For Collins, science and religion go hand in hand, not clashing, but together being able<sup>10</sup> to make sense of the physical and metaphysical world. Collins says that approximately forty percent of scientists are believers and that science allows us to view a “hint of God’s mind.”<sup>11</sup> President Clinton backed up Collins in this belief in a speech in 2000. He said that the human genome project<sup>12</sup> is “the first glimpse of the instruction book formerly known only to God.”

The reason many scientists turn to religion as well as science for explanation is because science falls short of explaining the metaphysical. Dawkins<sup>13</sup> argues that science can establish<sup>14</sup> a

probability value to the existence of God, but science cannot actually disprove the existence of a God. In *Religion and Science*, Russell argues that God can be proven by human reason alone.<sup>15</sup> Collins also argues that science has no net to catch God in, and that science has no way of explaining human's<sup>16</sup> free will<sup>17</sup> and sense of morality. He also discusses the reason so many Christians find science and religion incompatible. Many devout Christians fear that<sup>18</sup> if they begin to learn about evolution they could end up completely losing their faith. A number of the most devout Christians were ones who were not born into their faith but found it themselves, such as Collins. And hand in hand with that idea,<sup>19</sup> many scientists who would not even consider a religious interpretation of the world are those that were raised religious and shied away from the beliefs they were raised in, such as Dawkins.<sup>20</sup> Too narrow of<sup>21</sup> an interpretation of science or religion can cause them to appear disjunctive, but if one remains open-minded<sup>22</sup> to all ideas and understands that Genesis shouldn't<sup>23</sup> be taken as a literal reading, Collins believes that science and religion can be complementary.<sup>24</sup>

One of the fundamental beliefs of religion is the doctrine of free will, which is contradictory to the scientific hypothesis of Determinism. In *Religion and Science*, Russell talks of three doctrines of religion which<sup>25</sup> science can neither prove nor disprove: God<sup>26</sup> immortality, and freedom. According to Thomas Aquinas and other philosophers<sup>27</sup> these three ideas can be proved true by human reason and are part of "natural religion." Under the doctrine of free will, Christians believe that humans have the ability to choose the course of their lives, between right and wrong, which determines whether they go to heaven or hell. This conflicts with the scientific hypothesis of determinism, which is the opposite of free will. Determinism is a scientific hypothesis that says that with the knowledge of causal laws and the happenings in a certain sphere, humans can predict what will happen in the center of this sphere within the time it takes

light to get from the exterior of the sphere to the center.<sup>28</sup> Basically, the doctrine of determinism suggests that all actions and thoughts by every human being have been predetermined by the events in one's life and surroundings, and that every action could be predicted,<sup>29</sup> it would just take more than a lifetime of calculations to achieve this prediction. As belief in determinism gives people no reason or motivation to act morally good or bad, it undermines basic religious principles.<sup>30</sup>

Since its origin, Determinism has been challenged by religious folk,<sup>31</sup> but now is also being challenged by scientists on scientific grounds. According to quantum physics, there are causal laws to predict the probability of what an atom will do in certain circumstances,<sup>32</sup> but no law to determine how a single atom will act in certain circumstances and to determine how a single atom behaves and why it behaves how it does. As Russell said, "We do not know any law determining the choice in an individual instance."<sup>33</sup> This principle seems to hold true for humans as well: we can predict the probability of what groups of human beings will do, but no reason for what one person will do in a situation or why they do what they do.<sup>34</sup> Russell also tells us that we do not have "any strong reason to believe in determinism." It has been discovered that laws that determine how bodies move may be "merely statistical" and have an appearance of regularity, but these laws cannot tell you what a single body will do.<sup>35</sup> People cannot be both a Determinist<sup>36</sup> and religious, because Determinism goes against both Christianity and "natural religion." With non-literal reading of the scripture and want for a more metaphysical explanation of the universe, belief in both religion and science can be consistent with each other. Determinism, on the other hand, can not<sup>37</sup> be consistent with religious views.

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<sup>1</sup> "worlds"?

<sup>2</sup> Word choice?

<sup>3</sup> I would say, "and others"

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- <sup>4</sup> This is an abrupt transition without a “however” somewhere in the following sentence.
- <sup>5</sup> Don’t capitalize “determinism.” It’s not a proper noun.
- <sup>6</sup> Free will and determinism aren’t exactly opposites, because they do not have the same scope: determinism deals with all phenomena, free will only with human decision-making. More precisely, determinism *precludes* free will.
- <sup>7</sup> This is clearly your thesis, but it is too much of a continuation from the previous sentence and not enough of a stand-alone assertion. Try making the “not all scientists are determinists” point first and then stating your thesis – that a scientist can be religious as long as he reject determinism – in a separate sentence.
- <sup>8</sup> “Human”
- <sup>9</sup> “but is unable to answer...”: unclear antecedent. It sounds like you’re saying *Collins* is unable to answer these questions. Try something like “...how nature works, but that it is unable...”
- <sup>10</sup> “not clashing, but together being able...”: awkward/wordy. Consider revision.
- <sup>11</sup> Listen again. I think the quote might have been slightly different, though I could be wrong. Also, you need a citation here, as with all your quotes/paraphrases.
- <sup>12</sup> Be consistent in your capitalization.
- <sup>13</sup> It’s customary to refer to someone by their full name when you first mention them in a paper.
- <sup>14</sup> Wrong word. One “assigns” a probability to something.
- <sup>15</sup> No, he doesn’t. On pp. 144-45, Russell says that this was Thomas Aquinas’ view and that he disagrees with it.
- <sup>16</sup> “humans”
- <sup>17</sup> I don’t recall Collins ever mentioning free will. And even if he did, saying science “can’t explain our free will” assumes that we indeed have free will, which begs the question. (“Begging the question” is philosophy-speak for assuming what you’re trying to prove or argue.)
- <sup>18</sup> “if they begin to learn about evolution”: this subordinate clause should be set off by commas.
- <sup>19</sup> “And hand in hand with that idea”: too conversational. Try something like, “Conversely,...”
- <sup>20</sup> I find these descriptions of why some scientists believe in God and some don’t logically irrelevant. They are interesting on a psychological level, but, fundamentally, the circumstantial reasons why people might be inclined to see things this way or that are not relevant to determining what is actually true.
- <sup>21</sup> “of” is unnecessary here.
- <sup>22</sup> One cannot be “open-minded to” something. One is either “open-minded” or “open to” something.
- <sup>23</sup> Avoid contractions in formal writing.
- <sup>24</sup> I find your first two body paragraphs thoroughly unconvincing. You discuss what Collins says about the compatibility of science and religion, but merely stating that one scientist, Collins, believes science and religion are complementary is not an argument that that is the case. You don’t do much in the way of offering a substantive defense of his claims or comparing the merits of his arguments with those of people who disagree with him. Thus, in a sense you don’t give the opposite side a chance to respond. For example, you say that Collins says science cannot explain our sense of morality, but you do not address Dawkins’ account of how, in fact, it can. You even misrepresent Russell’s view (see corresponding note) and overemphasize Dawkins’ concession that science cannot “disprove” God, making it seem as though they agree with people like Collins more than they actually do. You then engage in

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an *ad hominem* argument against Dawkins, implying that he's only an atheist because of how he was raised. You never actually acknowledge and logically argue against some objection raised by the opposite side. Doing this is the difference between argument and mere assertion.

<sup>25</sup> “that”

<sup>26</sup> Comma needed

<sup>27</sup> Comma needed

<sup>28</sup> This is sufficiently close to what Russell says that you should quote him directly.

Paraphrasing out of context just makes it confusing. If you want to use his formal definition, quote him, and also explain things like why the speed of light is important.

<sup>29</sup> This transition is ungrammatical. (You can't have an independent clause after a comma without a conjunction). Consider something like: “could theoretically be predicted, though it would take...” or “could theoretically be predicted if given a lifetime...”

<sup>30</sup> You were right up to this last sentence, but this sentence misunderstands the problem of determinism. It's not that determinism means that people have no reasons to be good or bad. On the contrary, it means that they indeed have these reasons/desires, but that these reasons are predetermined (see Russell pp. 163-64). The theological problem, therefore, is that, in a universe that God created, the outcome of every decision between right and wrong that a person makes was predetermined by God, and therefore whether one goes to heaven or hell was predetermined by God. In short, we may desire to do good, but whether or not we would have that desire was predetermined.

<sup>31</sup> “religious folk”: too informal

<sup>32</sup> But that's precisely not the case. Causal laws are by definition deterministic, not probabilistic. Your use of the term “causal laws” in the first part of this sentence is therefore a misuse. Just state that we know the probabilities.

<sup>33</sup> He goes on to say, however, that it would seem that the regularity of the aggregate outcomes suggests that there must be causal laws governing the individual cases (see Russell pp. 160-61). Leaving this out misrepresents Russell's view.

<sup>34</sup> The second half of this sentence is ungrammatical and confusing.

<sup>35</sup> In this second portion of your argument (the last two paragraphs), you again conveniently ignore all opposing arguments, even misrepresenting Russell's views by selectively quoting him out of context so as to avoid mentioning his objections to the idea of non-determinism at the quantum level and his rejection of the idea of free will. If you want merely to make the claim (suggested in your thesis) that one cannot believe in determinism and religion, then you need to respond to the argument that, since determinism is an assumption required for the practice of science, one cannot, therefore, be a scientist and be religious. Such an argument might include a discussion of the distinction (which Russell mentions) between determinism as a “practical maxim” and determinism as a “general doctrine.” On the other hand, if you want to be more ambitious and actually argue that determinism is false (as you do here, though that's not within the scope of your current thesis), then you need to respond to at least some of the following: a) Russell's argument that it seems implausible that statistical laws are fundamental, rather than being derived from causal laws governing individual cases (Russell pp. 157-161), b) The problem that, even if quantum randomness could affect the outcome of our decisions (something which has yet to be remotely demonstrated scientifically), this would seem to put our decisions, or reasons for our

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decisions, no more under “our” control (whatever that could mean) than if they are governed by causal laws, c) Russell’s argument that free will doesn’t make sense in light of how we usually think about what causes us to act in certain ways (Russell, pp. 164-167), etc.

Obviously, responding to all of these in great depth is beyond the scope of your paper, but simply ignoring the problems with free will and non-determinism that Russell points out is no way to make an argument.

<sup>36</sup> Agreement of number: “people” cannot be “a determinist.”

<sup>37</sup> “cannot”