

SCIENCE AND RELIGION
GRADED PAPER 2 REVIEWS
BEN MILLER

Paper 1

Now that I have seen it, this form of providing feedback is intolerably annoying. Endnote numbers are out of order, making the recipient (author) jump between the text and the endnotes themselves. Worse, given an interesting endnote, the author must scan the entire text to find instances of that endnote. All problems appear to be of equal import, and feedback on different levels (grammar vs. argument vs. structure) are hopelessly intermingled. It's too late now for this course, but in the future, put in more work to make your review easily read by its recipient. This form is awful.

Overall, you've clearly read this paper carefully and thoughtfully. You've provided feedback on nearly every level intended to help the author improve the paper. You could have addressed the persuasive power of the arguments themselves more directly—did anything in this paper force contemplation? Or were the arguments easily refuted?

Grade: A

Paper 2

OK, on this paper, the footnotes are closer to being in order, and the format doesn't strike as being as horrid. Footnotes might still have been better, because then the recipient would not have to bounce between pages to absorb the commentary. I still dislike, though, that the result of this format is a text-ordered commentary, rather than feedback structured by significance and common theme (e.g., problems with the argumentation, problems with grammar, etc.).

On content, this review is an excellent one. You particularly highlight the substantial weaknesses of the arguments presented.

Grade: A

Inevitable Changing of Church Doctrines

As the world becomes more scientifically advanced, our understanding of the natural world changes considerably. New scientific observations contradict the doctrines of the church¹² and therefore the church is inevitably forced to adapt and change its conceptions and understanding³ of its doctrines. Although the church might have been wrong on⁴ its previous ideas of the world, so also were the notions of science⁵ such as geocentric model of the universe.⁶ It makes it difficult for one to ultimately choose what the truth is and which side of the spectrum is the correct.⁷ In stating this, it can be said that the differences in certain doctrines between science and Christianity can be explained when looking at the details and there is a possible explanation as to why such differences are reached.⁸ It may seem that Christians change their doctrines just to conform to the conflicting views of science, but these discoveries help create new interpretations of scripture and show previous ideas as a simple misunderstanding.^{9 10}

12
out of
order?
Ugh!

¹¹A popular¹² area of controversy between the church and scientists dealt with the idea of the universe and the earth. The idea of understand¹³ the world we live in has been a topic of debate numerous times and over plentiful sub-issues. According to White,¹⁴ one of the Christian church's first doctrines dealing with Earth stated that the world was flat. There was a thought that stated is one sailed to¹⁵ far they would fall off the edge of the world.¹⁶ This idea seemed conceptually sound at the time until Magellan sailed around the world to prove the world was no longer flat.¹⁷ Here is the first example of a Christian doctrine being disproved by science. The Church received loads of¹⁸ repercussions¹⁹ for being incorrect. Immediately following there became²⁰ a problem about the contradiction between the church doctrine and scientific evidence. However, the doctrine could be changed if scripture was looked in a different perspective.²¹

²²This leads one to wonder why or how such a discrepancy could be reached.²³

In Christianity, there often are times where the way things are interpreted need context to support their meaning.²⁴ A specific text could support a certain belief if²⁵ one situation, but without perspective no definitive conclusion can be reached. For example, in Matthew chapter 18 verse 20²⁶ it says, “For where two or three come together in my name, there I am with them.” (New International Version). This is God speaking to the people of Jerusalem. Many Christians falsely use this verse as an example as to²⁷ why people worship in congregations or as to why prayers are sometimes said aloud and in groups. When looking at this verse without context, this explanation can definitely apply and see²⁸ why it is used in support of the previous statements. However, when looking at the context of the scripture, it is obvious that these interpretations are not what the verse was intended to suggest. It talks about²⁹ casting down judgment on people in the previous verses. Therefore it can be concluded that the verse was used to say that human judgment is acceptable and that he will support these decisions.³⁰ This proves that honest mistakes in taking scripture out of context can provide alternative implications. So a possible explanation as to why the church’s doctrine was incorrect³¹ was because of the misunderstanding of scripture and as people became more educated, the alternative description prevailed.

The Christian Church was wrong on the idea of Earth being flat, but as for the model of the universe, science ultimately suffered a misunderstanding.³² The geocentric model of the universe was first explained³³ by the philosophers Aristotle and Ptolemy. Scientist proved³⁴ this concept to be “true”. Although the Christian Church adopted this belief, it was ultimately science that came to this formation of principle. When scientist eventually arrived at the realization of the claim to false,³⁵ all science was not put to shame or deemed “unbelievable”. Just because one facet of science seemed to be incorrect, people still continue to pursue it and believe all things in that area to be true. So it becomes difficult to decipher the differences between the mishaps of

the church and those found in science. It is impossible to state that because either one suffers misconceptions and falsities, that there is an obvious wronging of the other.³⁶ A scientist cannot blame the Christian Church and vice-versa to be true.^{37 38}

Another idea involving science and the adaptation of the Christian Doctrine is due to the evolving or discovery of animals in remote or new locations. This is one of inevitable scientific evidence deals with the logical contradictions of animals.³⁹ First, Bertrand Russell presents an idea that logically does not make sense in the scientific eye but is a Christian doctrine. This issue is the gathering of animals on Noah's ark. Russell argues that how⁴⁰ is it physically possible to fit all species of animals on a boat and also how does a sloth reach the place in time before the flooding of the world. This logically does not make sense,⁴¹ however, Christians believe that all animals were on the ark. It does not necessarily conflict because the bible does not state how or why the animals got there, but that they just did. It could have happen by latching on to other animals or some divine intervention. So consequently,⁴² there is no evidence that shows how this highly improbable thing is⁴³ done, but possibly adds to the mystery and majesty of God.⁴⁴ This example proves⁴⁵ that a Christian belief that does not automatically make sense in the scientific realm, irrefutable.⁴⁶

There are instances where Christianity and science have been wrong, and also circumstances where neither side is wrong nor right. However, the church has been much more reluctant to change than science. This can have explanations that do no demean the value of the religion itself, but the people operating or running the organization. The reluctance to change was due to the scare of losing power. The church ventured as far as to say that you were condemned if you did not believe in these certain doctrines, although there was no scriptural evidence. These statements are erroneous and give a bad image for the reliability of the doctrines, but to no compromise the actual beliefs of Christianity.

The issue becomes whether or not that church deserves to be criticized for false or misleading doctrines. It is unfair for science to say that beliefs cannot evolve and learn⁴⁷ from previous experiences because science participates in the exact same procedure. Scientists who say that the change in the doctrines were⁴⁸ only due to science and were invalid but they actually were adaptations that make sense in scripture. The argument that only science is true is disproved through the false belief in the geocentric theory. Also, as scientists become more educated, so also do theologians. Therefore the context of the scripture used to derive their beliefs can be better understood when looking at greater depth in the context surrounding the verse. The context can provide alternative meanings that could lead to original doctrines. Although there are scientific probabilities that seem highly unlikely to occur, it cannot be disproved that it would not happen. So arguments like that of Noah's ark cannot be used to diminish the Christian doctrine because it has not been proved as untrue. The church has been much more reluctant to change, but this is not because of the lack of solidity in the faith, but fear for lack of power, which shows the doctrines to remain true even if there is an evolution. There is nothing that proves that Christian doctrines cannot change and yet still be true.

¹ A comma is needed between two independent clauses. There are numerous instances of this problem throughout your paper.

² Be consistent in your capitalization. If you're going to say "the Christian Church," then it's "the Church." Make sure it's "Christian doctrine" and "Noah's Ark" throughout. I suggest using Word's "find and replace" function.

³ Avoid redundant modifiers.

⁴ Right preposition?


⁵ I'd put a comma here for clarity.

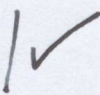
⁶ This seems to be a competing secondary thesis of your paper, which you discuss in the fourth paragraph (see note at the end of that paragraph). The inclusion of this argument, however, interrupts the flow and direction of your paper, as it does not directly relate, as far as I can tell, to your main thesis. If this double standard regarding the false conclusions of science and religion relates to your thesis of how science has led to better interpretations of scripture, you should figure out how to incorporate it into your main thesis. Otherwise, it's just confusing.

⁷ You can't have "the" and then no noun. Change this to either "correct" (without "the") or "the correct one."

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- ⁸ This sentence is confusing, and it's not clear how it leads your reader from what you've been saying to your thesis.
- ⁹ Agreement of number: "simple misunderstandings"
- ¹⁰ This seems to be your primary thesis: that science has shed light on misinterpretations of scripture, and therefore Church doctrine has only changed to the extent that science has revealed these mistakes and shown how scripture ought to be interpreted. The rest of your paper should be directed at illustrating this. ✓
- ¹¹ Don't put extra spaces between your paragraphs (shown corrected here from when I converted this document to Word).
- ¹² Word choice?
- ¹³ Verb form: "understanding"
- ¹⁴ It's customary to refer to someone by their full name when you first mention them in a paper.
- ¹⁵ Should be "too"
- ¹⁶ There are serious grammatical problems with this sentence.
- ¹⁷ It was flat before and then became not flat? This is a classic (and rather humorous) misplaced modifier.
- ¹⁸ The phrase "loads of" is too informal.
- ¹⁹ What repercussions? Be specific.
- ²⁰ Ungrammatical: should be something like "there arose..."
- ²¹ "looked in a different perspective": ungrammatical. Should be "looked at from..."
- ²² How was scripture "looked at from a different perspective"? What exactly was reinterpreted?
- ²³ What are you referring to here? What discrepancy? Between scripture and what science shows to be true?
- ²⁴ This sentence is grammatically confusing. You're trying to say that consideration of the context is required for certain passages to be interpreted correctly?
- ²⁵ Should be "in"
- ²⁶ Abbreviate as "Mat 18:20"?
- ²⁷ "example as to": wordy and confusing. Try simply "explanation of why..."
- ²⁸ The antecedent of "see" seems to be "explanation." It should be something like "this explanation can definitely apply, and one can see why..."
- ²⁹ "It talks about": This abstract "it" is too colloquial. "The previous verses" should be the subject of the sentence.
- ³⁰ "It talks about casting down...support these decisions": I don't understand. What does this quote have to do with human judgment and God's support for it, and how does the context show that the verse does not explain group worship?
- ³¹ About the shape of the earth? Your analogy with Matthew is interesting, but I'd be more convinced if I could see directly how a false idea about the shape of the earth arose from a misinterpretation of scripture, and how exactly this scripture was reinterpreted to allow for a spherical earth. ✓
- ³² The second half of this sentence is confusing. You're saying it was science that was originally responsible for the error? The phrase "suffered a misunderstanding" makes it sound like someone misunderstood science rather than science being wrong about something in nature.
- ³³ Right word? "Set forth"? "Articulated"?
- ³⁴ This is not true. As we have discussed in class, science does not "prove" anything.

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- ³⁵ “realization of the claim to false”: ungrammatical. Do you mean “realization that this claim was false”?
- ³⁶ A subordinate clause (“because...”) must be set off by commas, and you should only have one instance of the conjunction “that.” So it should read: “It is impossible to state that, because either one suffers misconceptions and falsities, there is an obvious wronging of the other.
- ³⁷ This sentence makes no sense.
- ³⁸ You present an interesting argument in this paragraph – that there’s a double standard when it comes to religion and science arriving at false conclusions – but it doesn’t seem to serve to support your thesis that science has revealed misinterpretations of scripture. If you cannot figure out how to better incorporate this notion of a double standard into your main thesis, I would cut this paragraph entirely.
- ³⁹ There are serious grammatical problems with this sentence. It makes no sense. What is “the logical contradictions of animals” supposed to mean?
- ⁴⁰ This sentence needs to be rewritten. You can’t follow the conjunction “that” with an indirect question (“how is it physically possible...”). You must either say something like, “Russell argues that it would have been physically impossible...” or, if you want to keep the indirect question (though I wouldn’t recommend it), “Russell asks how it would have been...”
Notice that the tense must be past subjunctive (“would have been...”).
- ⁴¹ A semicolon or period must separate two independent clauses.
- ⁴² Redundant: just use “consequently”
- ⁴³ Tense (Noah’s Ark happened in the past): “was done”
- ⁴⁴ This seems to be a very weak argument you present in this paragraph. A doctrine (Noah’s Ark) makes no sense in the light of science, but Christians believe it is true, therefore it must be true anyway? That is an assertion, not an argument. Furthermore, this paragraph again does not support what seems to be your thesis about science leading to better interpretations of scripture, but rather makes the separate argument that science cannot disprove religious doctrines.
- ⁴⁵ Be careful of the word “prove.” Proof implies deductive certainty. An example or illustration is not a “proof,” and claiming that it is undermines your credibility.
- ⁴⁶ You need a main verb in this sentence. “...a Christian belief that does not...*is* irrefutable”?
- ⁴⁷ Again, be careful of antecedents. Beliefs cannot learn, which is what is grammatically implied here.
- ⁴⁸ Verb-subject agreement: “the *changes*...were...”

Your paper is not clearly structured to support a single, clear thesis. You jump around between the idea of science shedding light on scriptural misinterpretations and forcing reinterpretation, the idea of a double standard when it comes to the false conclusions of science and religion, and the idea that science cannot disprove religion. If you want to address all these issues, you must figure out how to relate them in a single, clearly articulated thesis. Or, preferably, you must choose one of these arguments (I’d say the first, since that’s the source of your title and your strongest argument) and have all your body paragraphs support this one argument, since, as it is now, none of these issues is addressed with sufficient depth or precision to be convincing. } 

Your paper needs serious proofreading for grammatical/syntactical errors: wrong prepositions, verbs in the wrong form or tense, misused words, typos, etc. Many of your 

sentences are wordy and make little grammatical sense. I've noted a number of these in my comments above.

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.¹ Several² choose to explain their world solely through scientific theories and investigation, some³ 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.⁴ One hypothesis of science that is not compatible with religious views is Determinism.⁵ It is not possible to be a Determinist and religious, as the scientific hypothesis of Determinism is the direct opposite of free will,⁶ 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.⁷

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 Humane⁸ 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 answer⁹ 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 able¹⁰ 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.”¹¹ President Clinton backed up Collins in this belief in a speech in 2000. He said that the human genome project¹² 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. Dawkins¹³ argues that science can establish¹⁴ 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.¹⁵ Collins also argues that science has no net to catch God in, and that science has no way of explaining human's¹⁶ free will¹⁷ and sense of morality. He also discusses the reason so many Christians find science and religion incompatible. Many devout Christians fear that¹⁸ 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,¹⁹ 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.²⁰ Too narrow of²¹ an interpretation of science or religion can cause them to appear disjunctive, but if one remains open-minded²² to all ideas and understands that Genesis shouldn't²³ be taken as a literal reading, Collins believes that science and religion can be complementary.²⁴

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 which²⁵ science can neither prove nor disprove: God²⁶ immortality, and freedom. According to Thomas Aquinas and other philosophers²⁷ 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.²⁸ 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,²⁹ 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.³⁰

Since its origin, Determinism has been challenged by religious folk,³¹ 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,³² 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."³³ 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.³⁴ 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.³⁵ People cannot be both a Determinist³⁶ 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 not³⁷ be consistent with religious views.

¹ "worlds"?

² Word choice?

³ I would say, "and others"

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- ⁴ This is an abrupt transition without a “however” somewhere in the following sentence.
- ⁵ Don’t capitalize “determinism.” It’s not a proper noun. ✓
- ⁶ 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. Nice
- ⁷ 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.
- ⁸ “Human”
- ⁹ “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...”
- ¹⁰ “not clashing, but together being able...”: awkward/wordy. Consider revision.
- ¹¹ 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.
- ¹² Be consistent in your capitalization.
- ¹³ It’s customary to refer to someone by their full name when you first mention them in a paper.
- ¹⁴ Wrong word. One “assigns” a probability to something.
- ¹⁵ No, he doesn’t. On pp. 144-45, Russell says that this was Thomas Aquinas’ view and that he disagrees with it. Good
- ¹⁶ “humans”
- ¹⁷ 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.) ✓
- ¹⁸ “if they begin to learn about evolution”: this subordinate clause should be set off by commas.
- ¹⁹ “And hand in hand with that idea”: too conversational. Try something like, “Conversely,...”
- ²⁰ 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. Yes.
- ²¹ “of” is unnecessary here.
- ²² One cannot be “open-minded to” something. One is either “open-minded” or “open to” something. ✓
- ²³ Avoid contractions in formal writing.
- ²⁴ 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

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. ✓

²⁵ "that"

²⁶ Comma needed

²⁷ Comma needed

²⁸ 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.

²⁹ 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..."

³⁰ 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.

³¹ "religious folk": too informal

³² 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.

³³ 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. ✓✓

³⁴ The second half of this sentence is ungrammatical and confusing.

³⁵ 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 ✓

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.

³⁶ Agreement of number: “people” cannot be “a determinist.”

³⁷ “cannot”