SCIENCE AND RELIGION
GRADED PAPER 2

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The thesis and arguments

Your thesis is clearly and directly stated, and it is a compelling one. Your arguments remain, for the most part, focused on the thesis. Each argument is stated clearly, and serves to lead the reader towards your conclusion. You support your claims with appropriate quotes and citations. Overall, the structure of the content is excellent.

There is but one fatal flaw. Your argument turns on the eventual possibility of a scientific experiment into the validity of free will. If such an experiment were performed, it would drive an undeniable wedge between science and religion, making their mutual exclusion rationally enforceable. For some reason, you separate free will from devine existence and immortal souls as the one "religious truth" that could, in principle, be scientifically investigate. You offer no justification for that separation. Free will (and determinism) are not scientific questions—they cannot be empirically tested. To scientifically eliminate the possibility of free will, science would need to assert that there is **no type of interaction** in the universe that cannot be explained causally. Such a claim would require a completeness that the scientific method, in principle, can never provide. Thus, your key supposition is false, and your argument falls apart.

Nonetheless, this is a good paper and an example of good argumentation. Nice job.

The writing

You write well. There are a few moments at which extra terms and phrases can be eliminated to simplify and clarify your point. Good work.

Items marked on the paper

(1) Certainly that persecution was a problem in Galileo's time, but that problem does not exist now. While religious institutions and individuals currently can seek to suppress scientific exploration, sometimes effectively (e.g., embryonic stem cell research), that supression is rarely applicable to an individual, and even in modest form. No scientists of which I am aware have been on the rack at the hands of any Christian church for some time.

(2) That seems harsh. First, some religious groups seek little or no suppresion of science. Second, why are you presenting an either-or situation? Are churches unable to oppose science **while also** spreading hope and morality?

(3) Can you support this claim? Perhaps the conflict keeps both science and religion balanced, vigilant, and on their best behavior. Neither is able (as the Roman Catholic Church once was) to run rampant, unchecked, with its explanations and arguments. Both must be prepared to justify

their claims against criticism. It is not obvious that the conflict is all bad, or even that it is a net negative.

(4) *Truth* is a difficult word in these contexts. What is it? How can it be determined? Does it correspond to some objective reality? If not, it is not truth at all? How can we know if that objective reality exists?

I would think your text would better if it referred to *knowledge* instead of *truth*. This alternative term is not without its own complications, but they each fit easily into both scientific and religious domains. *Truth*, on the other hand, may have no place in science (which never proves anything, and thus produces no *truth*), and its meaning is difficult to ascertain in religion.

(5) That last part is a difficult assertion to support. Religion and science **have** coexisted since the inception of science. At times, sparks have flown between the two, but neither is in danger of non-existence. So, in what way are they "unable to coexist"?

(6) Is it really a societal choice? There's hardly a single, societal answer for those in mostly-Christian-western nations, nor this country, nor even within a particular community within this country. There's no force involved here, and while an individual may have to come up with some psychologically consistent view, there's nothing compelling groups of people to settle the question.

(7) What if that first question addresses (and all subsequent questions also address) strictly supernatural issues? For example, what if religion only addressed questions of creation, afterlife, and God's composition and nature? These are not physical issues, and thus they cannot be subject to empirical evaluation.

(8) What does the word *continuously* contribute to this phrase? Does it matter whether the space in which we are operating is continuous or discrete? If the latter, would the situation be different if the two fields were *discretely adjacent?* I think that the *adjacency* is what matters here, and continuousness is irrelevant.

(9) Since when do scientists adopt a duty to pursue *all unknowns?* One could argue (without much difficulty) that a scientists responsibility is to pursue *all empirically accessible unknowns*. It would be irresponsible of a scientist to apply her methods to supernatural topics.

(10) Why propose this problem and then immediately go on to argue its impossibility? If this problem is the obstacle to adopting a synthesis of the type you describe, then it is no obstacle at all.

Free will is equally unamenable to emprical evaluation. Science would need to be complete—all causality would need to be discovered and explained—for there to be no room for one to postulate a mechanism by which free will can be asserted by the mind/soul. Even now, with little room for such non-determinism, believers in free will have hardly been dissuaded of its possibility.

(11) Why? Or more to the point, why would **this** experiment question the validity of Biblical interpretation **more** than scientific investigation into **any** topic on which the Bible contains material? We have left, as a possible scientific topic, the source of morality. Even though morality is not one of the three "religious truths," is not scientific investigation into this topic just as threatening?

Grade: A

Kristy Gardner

Religion as a Limiting Factor for Scientific Potential

Galileo spent the end of his life in exile at the hands of the Inquisition, forbidden to speak of his work, and indeed forced to renounce what he knew to be true (White 151). This was the result of his effort to modify a religious truth. When religion denies science so vehemently, science cannot advance because of the persecution its practitioners suffer. Similarly, religion turns its attention to silencing its opponents rather than to spreading hope and morality. When science and religion cannot coexist peacefully, both suffer, and the world suffers. Scientists find truth by using empirical evidence to answer ~~any and all~~ questions regarding the ~~nature of the~~ universe. Theologians derive truth through analysis and interpretation of the Bible. Presumably, ~~then,~~ religion might further science by providing an alternative lens through which to observe the world. Both science and religion strive for truth, but not the same kind of truth. All scientific truths have the potential to be modified and extrapolated as new discoveries are made, while certain religious truths are unchangeable. Because of this contradiction, today's religious scientists are promoting temporary reconciliations that cannot endure. Ultimately, because of the differences in both the method each uses and the nature of the truth each seeks, religion limits science, rendering the two unable to coexist.

Scientists share theologians' goal of elucidating the workings of the universe. As Francis Collins describes, science and religion are "different ways of seeking answers to important questions" (Collins). There is a considerable amount of overlap between scientific and religious questions. Indeed, early scientists derived their notions of astronomy, geology, and biology from religious texts (White 126). But as science progresses, the solutions offered by the Bible often differ from empirical observations, forcing society to choose which method arrives at truth.

Religious texts can provide rational conclusions, but the scientist seeks truth by analyzing first-hand evidence, not previously recorded texts.

Good. Nice answer to (4).

The truth that both science and religion hope to find is defined here in the loosest sense - as an understanding of the universe. However, the specific nature of this truth is vastly different between the two. As Bertrand Russell notes, religion "claim[s] to embody eternal and absolutely certain truth, whereas science is always tentative" (Russell 14). His assertion is not altogether accurate; religious truths certainly can be altered (White 122, 170, 446). However, the underlying premise that there are unalterable religious truths is correct. At its most basic level, religion includes a set of ideas that must be true; according to Russell, these "central doctrines" are "God, immortality, and freedom" (Russell 144). The entire religion would disintegrate were any of these fundamental beliefs disproved: certainly religion could not survive if God did not exist. Similarly, a Christianity lacking the concepts of immortality and free will would be unrecognizable. These immutable beliefs upon which the entire faith rests will henceforth be referred to as "religious truths," while changeable concepts will be "biblical interpretations." Scientific truth, however, requires the potential to modify any idea if new evidence is "sufficiently plausible to demand a change in the theories on the subject which were held before [this new discovery]" (Russell 163). If new data calls into question a theory that was once accepted, the theory is modified. The scientist's role thus expands to include not only using empirical evidence to reach truthful conclusions, but also constantly striving to refine these truths.

As science begins to provide explanations for that which religion once explained, biblical interpretations play a decreasing role in revealing truth. Not a good transition word. But for every question that science answers, new unknowns arise. Observations generate questions much faster than experiments

agreement in number

answers them, so science lacks the time required to evaluate every unknown. The scientist must never believe that the last question has been answered, or indeed that there is a last question. Perhaps science and religion can be reconciled by accepting scientific truths where they exist, and applying religion to all that is currently unknown. God of The Gaps? However, continuous scientific advancements would necessitate not only frequent modification of scientific truth, but also of Biblical interpretations. Due to the rapidity with which modern science is developing, changes in Biblical interpretations would have to be accepted very quickly, but historically, it has taken centuries for religion to evolve (White). This is not an insurmountable conflict, but it does create constant friction between science and religion, so this attempt at synthesis is not ideal. To provide time to accept the updating of biblical interpretations, a gap between what science explains and what religion explains can be introduced. Instead of allowing religion to address all that science has not yet explored, a number of questions can be left temporarily unresolved. OK...

If such a gap is to exist, there must be established a beginning for religion; that is, the first question that religion can address. But no matter where this beginning is established, it is possible that scientific truth might, in the future, extend that far. At that time, the same discomfort arises that exists if science and religion are continuously adjacent. (8) An alternative is to embed religion within science by adopting what Richard Dawkins calls "Einsteinian religion" (Dawkins). By this view, the fundamental laws of nature are labeled "God," thereby finding God in the simplest known explanation of the workings of the universe (Dawkins). But as science advances, a simpler model, a more unified model, or even a more accurate model might be proposed. Equating the fundamental laws of the universe with God prevents a scientist from even asking whether a further explanation could exist. Certainly Einstein, and all scientists who maintain this set of beliefs, deserves respect and admiration for his scientific achievements.

awkward wording

Relevance? Connection? This is starting to ramble.

grammar

All such scientists do?
What about scientists w/ different beliefs?
Relevance to your argument?

Nonetheless, by not acknowledging that a further examination might be possible, a scientist fails in his duty to continue pursuit of all unknowns, so Einsteinian religion is not a successful synthesis.

(9) awK. And, "remaining" "above" proposals? Huh?

The remaining two above proposals for synthesis involve continuous modification of biblical interpretations. As science progresses, the number of biblical interpretations that science has not yet addressed will dwindle. Eventually, science will attempt to investigate one of the immutable religious truths: God's existence, immortality of the soul, and free will. ~~As~~ Since God and immortality are metaphysical concepts and therefore cannot undergo empirical observation, science is incapable of commenting on them (Russell 145). It is equally difficult to envision, within modern science's limitations, a controlled experiment that could accurately evaluate free will. However, as science continues to develop, in the future, such an experiment might be conceivable. Religion derives truth from the interpretation of the Bible; the very act of conducting an experiment to examine scientifically a fundamental religious truth questions the validity of this method. To question the method is to question all conclusions formed using that method (Kuhn 2-3)[1]. To question a religious truth denies its immutability. Thus, science would be challenging *religion itself as an institution*, not just individual biblical interpretations. A religious scientist would be an oxymoron; one could not remain religious without denying science, and one could not remain a scientist without denying religion. By attempting to unite two sets of beliefs that will ultimately stand in direct conflict, the religious scientists of today are supporting the false belief that their dichotomy can endure. Ultimately, those who are devoted to the fundamentals of religion will be unable to embrace the fundamentals of science, and both science and religion will be devastatingly damaged by the resulting warfare.

(10)

No.

(11)

which method?

[1] Idea presented by Kuhn, but initially conceived by the author of this paper before reading Kuhn's work. ✓

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