

“Overlapping the Magisteria – Challenges for Christians in the Sciences”

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Introduction

For we have not followed cunningly devised fables, when we made known unto you the power and coming of our Lord Jesus Christ, but were eyewitnesses of his majesty. - 2 Peter 1:16 (KJV)

The territorial war fought by intellectuals over the domains of religion and science¹ spans the entirety of two millennia, and no end appears in site. None of this escaped prescient St. Peter who declared, within decades of the resurrection, that, in effect, Christians weren't stupid. I have borne witness to the 'stupid Christian' sentiment; first, when someone was astounded that I, a known chemist, could be religious, and second, when one of my colleagues said to me, "You mean you believe he (Jesus) actually rose from the dead?"

The social perception that Christians are inadequate thinkers and followers of mythology is common. Mark Noll outlines one reason superbly in *The Scandal of the Evangelical Mind*, wherein he discusses the anti-intellectual nature of certain protestant groups in the United States. I affirm Noll's thesis and will avoid retracing his arguments here since they pertain to all aspects of academia. Instead this paper focuses on a second challenge which has arisen from within science. In this paper, I use the term science to mean the fields of biology, biochemistry, chemistry, physics and cosmology; the term scientific, on the other hand, is not exclusive to science but rather describes a type of inquiry. The fundamental basis of the aforementioned fields should be experimental verification of hypotheses and their object of study entirely material. I make no attempt to analyze or characterize the material or experiment character of mathematics and the social sciences, as their implications for the Christian religion, while no less significant, are different.

¹ An excellent overview is I. G. Barbour, *When Science Meets Religion*, (Harper, San Francisco, 1999).

The challenge within science to the Christian Faith comes primarily in two forms. The first seeks to thoroughly discredit religion as a meaningless phenomena, void of all truth and ripe for extinction. This ideology, referred to in this paper as "The Active Supremacy of Science," uses positivist arguments to promote science as the ultimate truth, using quasi-scientific arguments to discredit all other fields and methods of inquiry.

The second challenge is the purported existence of a simple fact-value dichotomy separating the worlds of science and religion, which I call "The Passive Supremacy of Science." While claiming that this fact-value dichotomy preserves the integrity of religion and promotes tolerance and understanding, this oversimplification leads to the rejection of fundamental principles of Christian belief. An analysis of Christian truth claims in the New Testament immediately demonstrates the insufficiency of this dichotomy.

In this paper, I will present a new typology of truth claims which allows a more complete understanding of the conflict between science and the Christian Faith. This scheme also serves as a method of analysis for different scientific fields and may inform us as to why certain fields of science have a greater tendency to clash with Christianity than others.

Active Supremacy

Voltaire said both, "Nothing can be more contrary to religion and the clergy than reason and common sense," and, "If God did not exist, it would be necessary to invent Him." Voltaire's appeals to the primacy of reason and his suggestion that God must be an invention encompassed the basic ideas behind supremacy of science ideology years before those ideas were borne out in the scientific community. In Voltaire's time, some scientists *were* clergy, and many more found nothing contrary about religion and reason. In the modern era, however, Voltaire's claims appear to have more substance because of the extension of biology into the realm of religion.

Peter Atkins, a physical chemist at Oxford known mostly for his textbooks, stated recently,

Reductionist science is omniscient. Science has never encountered a barrier it has not surmounted or that we can reasonably suppose it has the power to surmount and will in due course be equipped to do so...Religion has failed, and its failures should be exposed. Science, with its currently successful pursuit of universal competence through the identification of the minimal, the supreme delight of the intellect, should be acknowledged king."²

Although I have great confidence in the ability of medical science to treat disease and in technology to provide ever more amazing tools for work and pleasure, I cannot think of a more false statement than the omniscience of science.

First, while science has been remarkably competent with respect to, say medical technology, it has been far from competent with respect to the utilization of such resources. Science has greatly benefited those who can afford its miracles of healing, but no internal mechanism exists for the complete utilization of scientific resources. Science cannot cure the disparity that it has created because it is incapable of dealing with the social issues surrounding itself. This will be common theme in the proof of the limited competence of science.

Second, science has never operated conservatively with respect to natural resources. One byproduct of scientific advancement is the nearly ubiquitous pollution of air, water, soil and organisms with both natural and unnatural contaminants common to the product of advanced technology. While the application of the positive outcomes of science has been limited among the world's population, the consequences of its negative byproducts have no bound.

Thirdly, science cannot be self-limiting. The essence of science is perpetual progress without regard to ethics. As such, science could not oppose its development of nuclear

² Peter Atkins, "The Limitless Power of Science," in *Nature's Imagination*, ed. John Cornwall (Oxford University Press, Oxford, 1995), p. 157.

weapons; only after the use of nuclear weapons against humans did scientists speak out against their use. Even then these arguments are on philosophical grounds and are not based upon the supposition of limits to scientific discovery. I read recently that God's prohibition from eating the tree of the knowledge of good and evil goes against the experimental foundation of science. If scientific inquiry is the basis for original sin, how then can it be allowed to act independently?

In contrast, the Christian religion provides ample justification for the wide dissemination of medicine, conservation of natural resources, abstinence from destructive technology and resolution of world economic and social disparity. While there are perhaps many other methods of justifying this kind of ethical behavior, the words of the New Testament have been used throughout two millenia to justify peace and charity, a record which science cannot match.

One attempt at creating scientific theories for social behavior (striving for the omni omniscient) is the extension of Darwinian mechanisms to psychology and sociology. This extension is known as sociobiology, and its proponents, many virulent atheists, frequently use it to belittle religion. Harvard biologist Edward O. Wilson elucidated the essence of sociobiology when he predicted a victory of science over religion in 1978, "The final decisive edge enjoyed by scientific naturalism will come from its capacity to explain traditional religion, its chief competition, as a wholly natural phenomenon. Theology is not likely to survive as an independent intellectual discipline."³ Sociobiology uses evolutionary theory to explain all observable phenomena, not just the biodiversity Darwin originally intended it for. Because sociobiology holds that religion exists solely as an evolutionary mechanism, arising only out of a competitive need, it has no independent reality and must disappear upon the arrival of more

³ E. O. Wilson, *On Human Nature* (Harvard University Press, Cambridge, MA, 1978), p. 192.

competitive options.

Sociobiology attempts to reconcile ethics with evolution, "A science of sociobiology, if coupled with neurophysiology, might transform the insights of ancient religions into a precise account of the evolutionary origin of ethics and hence explain the reasons why we make certain moral choices instead of others at particular times."⁴ However, the precise account of the evolutionary origin of ethics does not exist. Neither has sociobiology offered any coherent explanation for the *ex nihilo* belief of God. It is not surprising that sociobiology has failed to come up with satisfactory explanations for such phenomena. Edward O. Wilson, prime expositor of sociobiology, attempted to understand human altruism by studying bird flocks and ant colonies!

Richard Dawkins, renowned atheist and sociobiologist, pronounces the meaningless of life as a necessary consequence of such overgeneralized evolutionary principles, "Nature is not cruel, only pitilessly indifferent. This is one of the hardest lessons for humans to learn. We cannot admit that things might be neither good nor evil, neither cruel nor kind, but simply callous - indifferent to all suffering, lacking all purpose."⁵ Continuing on the emotional consequences of such a view, Dawkins says, "I don't feel depressed about it. But if somebody does, that's their problem. Maybe the logic is deeply pessimistic, the universe is bleak, cold, and empty. But so what?"⁶

Sociobiology thus presents a threefold attack on the Christian religion: faith is meaningless, ethics is meaningless, life is meaningless; the first two are nothing more than evolutionary tools to propagate the third. Christians must hold this ideology in contempt as it opposes a basic principle of Christian belief: the meaningfulness of life through faith in Jesus

⁴ E. O. Wilson, *Sociobiology: The New Synthesis* (Harvard University Press, Cambridge, MA, 2000), p. 129

⁵ Richard Dawkins, *River out of Eden* (1995).

⁶ Brian Appleyard, *Times Review*, April 25th, 1992, p.12.

Christ manifested through obedient living.

Christians should not be ignorant of such ideas since the scholarly acceptance of the sociobiological understanding of religion would do great harm to all forms of religion. Should we accept that our belief in God is nothing more than an acquired 'meme' or social gene that makes us superior breeders? It has been claimed by one sociobiologist that elements of religion, such as the prohibition of masturbation, are evolutionary mechanisms to enhance reproductivity, but I can hardly see the Christian religion as a whole enhancing evolutionary prowess. "The meek shall inherit the earth," is perhaps the most anti-Darwinian statement that can be made.

I note that forceful opposition to sociobiology is a burden not exclusive to Christians. Richard Lewontin, Marxist atheist and world-renowned zoologist, on sociobiological ideas: "Dawkins' vulgarizations of Darwinism speak of nothing in evolution but an inexorable ascendancy of genes that are selectively superior, while the entire body of technical advance in experimental and theoretical evolutionary genetics of the last fifty years has moved in the direction of emphasizing non-selective forces in evolution."⁷ Nonetheless, Lewontin still espouses the supremacy of science:

We take the side of science in spite of the patent absurdity of some of its constructs, in spite of its failure to fulfill many of its extravagant promises of health and life, in spite of the tolerance of the scientific community for unsubstantiated just-so stories, because we have a prior commitment to materialism. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counterintuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door.⁸

The a priori and absolute adherence to counterintuitive and mystifying explanations

⁷ Richard Lewontin, "Billions and Billions of Demons," *The New York Review*, January 1997.

⁸ Richard Lewontin, *ibid.*

despite the patent absurdity of their constructs sounds more like Scientology than science. While material explanations must be a priority in order to do science properly, at worst, science must be agnostic when faced with its own limitations. Science should not tolerate patently absurd constructs or counterintuitive and mystifying explanations any more than it tolerates experimental fabrication.

It is important to note that each of the individuals I quoted are on the faculty of Harvard or Oxford and each is a household name in his field. Despite the overconfidence with which they promote these tenuous ideas, their influence over mainstream scholarship is great, and their ideas undermine Christian Faith in the many forms they take.

Passive Supremacy

In the first half of the 17th century Galileo battled with Pope Urban VIII over the Copernican view of the solar system, an event which has largely been used to justify the independence of religion from science. What is not popularly recognized is that the controversy was not really about the church's holding to Ptolemaic views but rather that Galileo had challenged the authority of the church itself. The church forced Galileo to renounce his views and live out the rest of his life under house arrest. However, the Copernican view ultimately became irresistible; no small part of which was due to devoted Christian Isaac Newton proof of the planetary laws of Johannes Kepler, also a Christian. Clearly, planetary dynamics was not an issue of faith but rather Catholic authority.

A long-term consequence of the Galileo debacle is the widely accepted notion that the Bible should not be used as an authority in science. A further extension of this idea is that science and religion are distinct, unrelated disciplines. However, it should become clear that the reality behind this mundane separation is the “passive supremacy of science” and ultimately materialism. The passive supremacy ideology is quite explicit in its conditions for separation:

science encompasses all truth, religion can say anything, provided “anything” doesn't violated science's rules.

Reductionism of this kind is appealing to scientists because it makes for the simplest test of validity, that of falsification. One can test truth claims for scientific veracity and upon not finding any, immediately place this in the "other" category. This procedure degrades religion and many other fields of inquiry, as it requires material existence for validity. This position is tenuous with respect to material grey areas such as history or psychology, wherein the material reality of a given hypothesis may not be accessible.

Stephen Jay Gould⁹ presents the above thesis, known as the doctrine of non-overlapping magisteria, or NOMA, where magisteria means a domain of teaching authority. Therein, Gould divides the world of truth claims into those of science (material) and those of religion (incorporeal¹⁰). I contest Gould's NOMA doctrine, but my point is not to suggest that religion and science should overlap, but rather that his binary typology is insufficient to understand the spectrum of truth claims in religion.

The Christian faith does not fall entirely within the realm of Gould's religious category as it is based upon very material claims. The Bible is full of historical truth claims which either did or did not happen. The truth of these claims is an integral part of the Christian religion, and well understood by the Apostle Paul, who writes in 1 Corinthians 15, “And if Christ has not been raised, then your faith is useless...” One should immediately recognize that the resurrection is not accessible to science. The inadequacy of science to evaluate any history – religious or otherwise – does not discredit the truthfulness of that history. However, neither is any historical event devoid of existential reality; it cannot be accurately categorized by incorporeal notions such as ethics, which Gould would have us believe religion is exclusively.

⁹ S. J. Gould, *Rock of Ages – Science and Religion in the Fullness of Life* (Ballantine, New York, 1999).

¹⁰ I avoid the use of immaterial because it could be understood to mean “of no consequence.”

Gould claims that religion cannot hold any truth that does not agree with science, particularly those related to the nature of God. While Gould initially claimed that science and religion were disentangled, he uses science to evaluate the validity of religious views. The preference for materialism immediately undermines the premise of NOMA which suggests an indifferent perspective with respect to religion. But what are the exact consequences of this bias upon Christianity? Gould says, "...but what about a more subtle violation of NOMA commonly encountered among people whose concept of God demands a loving deity, personally concerned with the lives of all his creatures..."¹¹ Certainly one of the defining traits Christianity is the existence of a loving and personally knowable God. Whereas 500 years ago, Christianity exercised veto power over science, it now appears that science, or at least NOMA, has vetoed Christianity. Gould provides little rationale for his prohibition of personal and loving gods; one can only assume Gould objects on the grounds that personal concern connotes supernatural miracles.

Gould presents the first commandment of NOMA, "Thou shalt not mix the magisteria by claiming that God directly ordains important events in the history of nature by special interference knowable only through revelation and not accessible to science."¹² The ordination of such events he defines as miracles in the supernatural sense, and excludes miracles of providence which do not, in principle, violate science. Later Gould discusses a crucial point to the definition of science, "the status of miracles as necessarily outside this magisterium."¹³ Gould holds that miracles are inaccessibility in the material sense, which while true, is a non-unique property of many historical claims. Numerous scientific and historical phenomena are inaccessible to direct material investigation but are no less real. A Christian scientist might

¹¹ Gould, p. 93.

¹² Gould, p. 84.

¹³ Gould, p. 89.

prefer the more modest perspective of the National Academy of Sciences, "Science cannot comment on the role that supernatural forces might play in human affairs."¹⁴ In the same way that it is wise to say that the Old Testament has nothing to say about planetary order, it is not wise to presume the laws of physics upon historically unique phenomena for which experimental data is wholly inadequate for analysis.

Perhaps Gould's NOMA is sufficient to preserve the integrity of the Christian tradition, the culture in Western thought based upon Christian ideals, but it butchers the basis of the Christian faith, wherein Jesus Christ, as God's son, redeemed the world through his witnessed resurrection from the dead following crucifixion. Gould's NOMA does not allow a fair and proper understanding of religion as long as it fails to recognize the fullness of its claims. Many who follow the Christian faith proclaim on Easter, "Christ is risen, he is risen indeed." This is not an immaterial claim. Regardless of the existence of sufficient historical evidence to test the validity of this claim, it is nonetheless a claim of historical truth and also a claim of great significance.

A New Typology

Let me now define my typology, starting with what are essential Gould's two categories, science and the incorporeal, followed by the introduction of the new category of historical truth claims. A general principle in truth claims is Karl Popper's falsifiability criteria, outlined in *Science as Falsification*, "Every genuine test of a theory is an attempt to falsify it, or to refute it. Testability is falsifiability; but there are degrees of testability: some theories are more testable, more exposed to refutation, than others; they take, as it were, greater risks."

I base my three categories on Popper's notions of risk and exposure to refutation. Truly scientific claims take the greatest risk by claiming that they are universal physical laws

¹⁴ *Science and Creationism: A View from the National Academy of Sciences, Second Edition* (National Academy Press, Washington DC, 1999).

true in all space and time. Historical claims take less risk by pointing to a single event in time and space, which, while fully material in nature, may be less testable by virtue of uniqueness. The words scientific and historical categorize the nature of material truth claims, but these terms do not denote specific fields. The incorporeal may be categorized by its lack of falsifiability in the material sense. God may ordain an absolute ethical system although one cannot claim it is accessible by physical methods. As I will show in a more thorough enumeration of my typology, scientific fields may be full of truth claims of a historical nature.

Popper directly addresses scientific truth claims in *Science as Falsification*, "A theory which is not refutable by any conceivable event is non-scientific." By simple logic we understand that science is directly falsifiable by some conceivable event. It is important to recognize that the working definition of "some conceivable event" in science is a future experiment. The nature of future experiments divide scientific truth claims into three types. I present examples of each from my own experience as demonstration of the diverse meaning of scientific truth.

The claim that quantum mechanics describes the dynamic behavior of gaseous atoms and molecules is one that is infinitely testable. The correspondence principle may be used to extend classical mechanical operators to the quantum regime, wherein the quantum mechanics equations of motion may be derived. By solving the Schroedinger equation, the energy levels of a given system may be enumerated to arbitrary accuracy, often exceeding that of the experimental apparatus to be used. By performing the experiment, these laws may be tested. I performed this experiment personally and confirm the validity of this method. This type of scientific truth claim takes a great risk and to date, I am not aware of any contradictions.

A second claim, that certain particles will, upon reaching sufficiently low temperature, collapse into a new state of matter called the Bose-Einstein condensate (BEC) was theoretically

proposed in the 1920's by the scientists whose names it bears. However, the nanoKelvin temperatures required to test their theory were not available until 1995, when the BEC was experimentally observed, earning three scientists a Nobel Prize. The lack of a means to falsify this claim does not diminish its character as a scientific truth claim. Unlike the former case, where the theory followed the experiment, this theory preceded the experiment by decades and took a much greater risk by virtue of its detailed predictions. No one doubted the scientific nature of this claim in the 1920's because this claim still took the risk of making universally valid predictions that could conceivably be tested at later date.

Lastly, the scientific claims about the detailed structure of black holes cannot be falsified in the way that the previous claims could have. Because of the aggressive nature of black holes with respect to their environment, little information can be obtained from black holes and they will consume any agent approaching them. Nonetheless, the study of black holes is a scientific endeavor and the claims made are scientific ones. The various peripheral tests of black holes are repeatable and there are ultimate physical laws that describe their behavior. A similar difficulty exists in the verification of string theory, although even defining string theory, let alone evaluating methods which might test its validity, is problematic. Nonetheless, the preponderance of testability and their universal character in space and time make these claims scientific.

In conclusion, any truly scientific claim must not depend on the observer or on time and place for validity. By this definition, the claims of the Bible that define the Christian Faith are not scientific, but then, neither are many elements of biology or cosmology, as I will later discuss.

The category of the incorporeal is quite vast and I will specifically note only relevant claims within this category. The nature of God, Christian ethics, the meaning of life, and the

origin of virtue are all incorporeal claims. All religions contain vast quantities of incorporeal claims, but many make material claims. For example, the four pillars of Islam are incorporeal, but the claim of Mohammed's miraculous journey and revelation is of the material type. Gould's fundamental mistake is that he is unable or unwilling to recognize material claims in religion nor is he able to recognize the historic nature of much work in the fields of science, especially his own.

Now I would like to create a new category of truth claims, between the scientific and the incorporeal categories already presented, that will be critical to a better understanding a truth claims in Christianity. This new category, called historical truth claims, includes claim which are falsifiable but cannot be made scientific. There are two varieties of historical claims, patterned after those in science, distinguishing the difference between readily falsifiable claim and one that is essentially untestable.

Consider this historical claim within geology:

At 8:32 Sunday morning, May 18, 1980, Mount St. Helens erupted. Shaken by an earthquake measuring 5.1 on the Richter scale, the north face of this tall symmetrical mountain collapsed in a massive rock debris avalanche. Nearly 230 square miles of forest was blown over or left dead and standing. At the same time a mushroom-shaped column of ash rose thousands of feet skyward and drifted downwind, turning day into night as dark, gray ash fell over eastern Washington and beyond. The eruption lasted 9 hours, but Mount St. Helens and the surrounding landscape were dramatically changed within moments.¹⁵

Karl Popper would be most pleased with this type of claim – it is both detailed and dramatic as well as testable on many levels. Nonetheless, the details are not universal, but rather specific to one day in history. Almost every detail of this event is falsifiable, often with experiments common to scientific experiments, but I challenge any person to reproduce this event, as one could for a scientific fact. The essential character of a historical claim is that the nature of the observer as well as space and time cannot be overlooked. No longer can the

¹⁵ <http://www.fs.fed.us/gpnf/mshnvm/> (October 23, 2005).

hotness of the ash be measured nor can the destruction of this volcanic explosion be observed, as twenty years has seen Mount St. Helens return to its green and beautiful form. Two thousand years from now, the veracity of the previous narrative will have diminished greatly and only through second hand investigation might one hope to prove or disprove this claim.

Consider now a second claim, “According to new research led by a University of Colorado at Boulder geophysicist, a giant asteroid that hit the coast of Mexico 65 million years ago probably incinerated all the large dinosaurs that were alive at the time in only a few hours, and only those organisms already sheltered in burrows or in water were left alive.”¹⁶ This claim relies on many particular assumptions and cannot be immediately falsified. There also exists an inherent uncertainty in claims of this type: “By itself, the fossil record can't distinguish between a minute and a hundred years for something that happened 65 million years ago,” said David Fastovsky a paleontologist at the University of Rhode Island.¹⁷ Clearly, if four hours can't be distinguished from 1000 years using only the physical evidence, and the dinosaurs aren't exactly available for cardiovascular examination, the Popperian quality of this claim is significantly diminished. This claim is material but almost inaccessible to material inquiry and only indirectly falsifiable.

The categories of science and history, as I defined them, pertain to things that happened in the past, and will, in the case of the former, happen again in the future. There is no claiming that such truth claims can be true and false, nor can we question their material nature. Quantum mechanics describes gaseous molecules all the time or it doesn't. Dinosaurs did become extinct at some point in history, whether quickly or slowly. Whether or not such truth claims are universal or falsifiable does not undermine their material nature. I merely distinguish two kinds based upon their uniqueness, or non-uniqueness, in time. History is

¹⁶ D. S. Robertson, et al. *Geological Society of America Bulletin*, Vol. 116, No. 5, pp. 760–768.

¹⁷ http://www.space.com/scienceastronomy/dinosaur_death_040526.html (October 23, 2005).

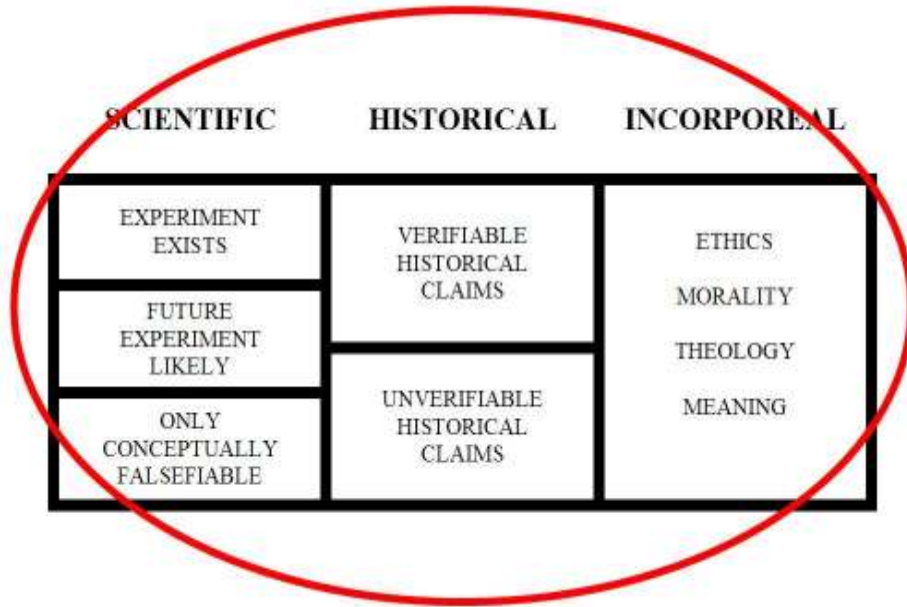
unique in time, but science is not. The following figure summarizes my typology:

SCIENTIFIC	HISTORICAL	INCORPOREAL
EXPERIMENT EXISTS	VERIFIABLE HISTORICAL CLAIMS	ETHICS
FUTURE EXPERIMENT LIKELY		MORALITY
ONLY CONCEPTUALLY FALSEIFIABLE	UNVERIFIABLE HISTORICAL CLAIMS	THEOLOGY
		MEANING

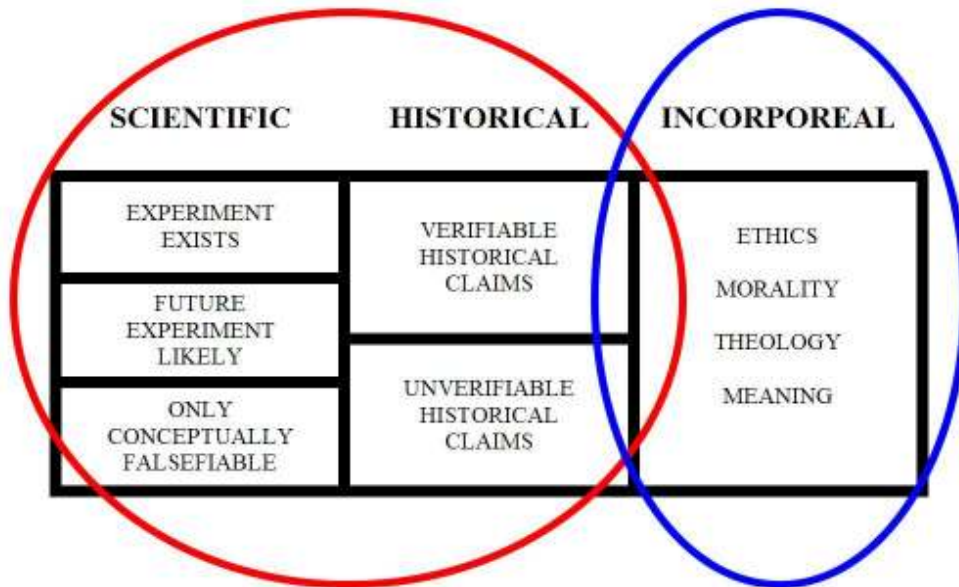
Understanding the Challenge

The first challenge to the Christian Faith I presented was the ideology of the active supremacy of science, wherein science is omniscient to deal with questions of truth, be they material or otherwise. The field of sociobiology was the tool wherein Darwinian theory allowed science to study ethics and religion as natural phenomena. While Dawkins and other unrelenting atheists do not discuss historical claims as such, the confidence with which the evolutionary biologists mentioned speak of million-year-old events suggests that the material past is unquestionable within the regime of science. The active supremacy of science view is described in the second figure.

Within the active supremacy view, there is no truth outside of science. No room exists for religion nor is any attempt made to distinguish claims of truth in any Popperian sense.



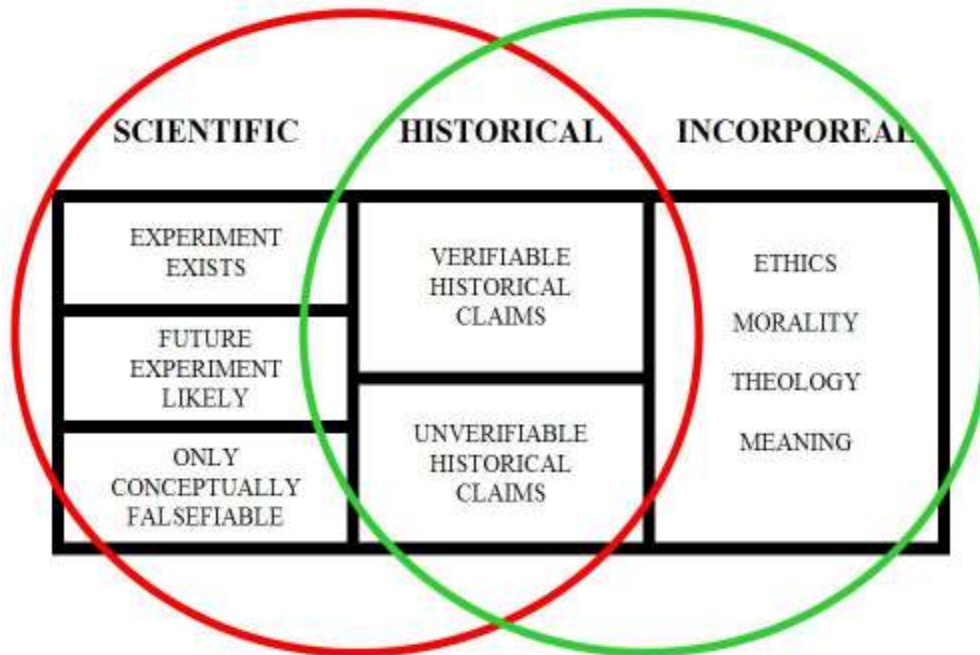
The passive supremacy perspective has a graphical interpretation as well:



Gould was certainly willing to allow religion its own category of truth, but only if religion disavowed all material claims that could not be ascertained by science.

Now I present the perspective most consistent with the claims of scientific fields and of religion, particularly Christianity. Within this new construct, the incorporeal world of religion remains distinct from the realm of scientific truth, such that the poetic words of the Psalmist

would never be mistaken for claims about planetary dynamics, but that the clearly material claims of the resurrection of Jesus Christ are dignified. The graphical representation of this construct is below.



Answering the Challenge

Within the construct of overlapping magisteria, wherein one recognizes that religion and science both make claims of the historical type, the conflict between science and religion makes more sense. Scientists wish to subsume historical inquiry into their own fields of study and claim that any material event is exclusively within the domain of science. Zoologists should recognize the claims relating to macroevolution millions of years ago are historical claims and just as inaccessible to scientific experiment as miracles of 2000 years ago. The supporting evidence should be considered equally valid. Why should we be so convinced as to the exact nature of an organism based upon its incomplete skeleton any more than we should the life of Jesus Christ, whose historical record is incomplete, even in the words of the Apostle John.¹⁸

¹⁸ John 20:30-31, 21:25.

Much of the opposition to the Christian Faith comes from scientists in the fields of biology and cosmology. Why is there so little opposition from other fields of physics or from chemistry? Consider the past winners, not necessarily Christian, of the Templeton Prize, which some consider to be the Nobel Prize of religion:

2005 - Charles H. Townes, spectroscopy and atomic physics
2004 - George F.R. Ellis, applied mathematician and theoretical cosmologist
2003 - Holmes Rolston III, ecologist and environmental ethicist
2002 - John C. Polkinghorne, mathematical/particle physicist
2001 - Arthur Peacocke, biophysical chemistry
2000 - Freeman Dyson, mathematical physics
1999 - Ian G. Barbour, physics

Of these, only Ellis deals with cosmology. The others deal with particles, lasers, molecules, etc. – all readily accessible to universal experiment. Townes finds no conflict between his work and his Christian faith, nor does Polkinghorne or Rolston. Lasers, quarks and ecosystems do not do not contradict the Bible nor do they make explicit claims about God. In contrast, scientists who studied events far in the past, such as Carl Sagan, Stephen Jay Gould, Richard Lewontin and Richard Dawkins, all could not subscribe to any faith. In their minds, their science had answered all the claims religion tried to answer. Each disproved the God of Genesis in his own mind and thus could not believe. The overlap of religion with their field causes them to discount religion completely. In contrast, those who deal only with scientific claims, the laboratory kind of science, rarely suffer doubt from their field of work.

The first challenge to Christian scientists is to confront the issue of truth claims within science. The current conflict over Faith pits atheistic claims of experimentally inaccessible 60-million-year-old events against experimentally inaccessible 6000 to 60-million-year-old (depending on the interpretation of Genesis) events *which may in fact not disagree at all*, at least in the material sense. C. S. Lewis' conversion was delayed by the false belief that science had

disproved God.¹⁹ The unimportance of contradictions between unsubstantiated non-exclusive historical claims must be promoted vigorously within science so that it may be accepted by the general public. This is not an easy task as the two most famous figures in the popular understanding of science, Carl Sagan and Richard Dawkins, both claim science has disproved God based upon highly tenuous claims about million-year-old events. While the work of Townes and Polkinghorne might be familiar to scientists, the average American has not heard their ideas but rather that of the Discovery Institute, defenders of scientifically questionable theories on the origins of life.

Some Christians may object to the acceptance of evolution as the explanation of the origin of life. I share grave doubts about the validity of current understanding of evolutionary mechanisms. However, a faith that relies on the a “God of the Gaps” argument and justifies God with the insufficiency of evolution is just as susceptible to refutation as Zeus with his lightning bolts upon the discovery of Maxwell's equations. A robust defense of the faith relies on what one knows, such as the historical record surrounding the Gospels or personal revelation, rather than what one currently does not know.

Most Christian scientists acknowledge some or all of the Darwinian theory of evolution to be the explanation of the origin of life on earth. None on record base their faith on the account of Genesis. Fritz Schaefer, the greatest living quantum chemist, states that he became a Christian based upon the historicity of the resurrection of Jesus Christ; only many years after he became a Christian did Schaefer question evolution as the sole explanation for life on earth.²⁰ It is the belief in Jesus Christ as savior of sinners, not Moses' Hexameron²¹, which makes us Christians.

¹⁹ C. S. Lewis, *Mere Christianity* (Harper, New York, 1980).

²⁰ H. F. Schaefer III. *Science and Christianity: Conflict or Coherence?* (Apollos Trust, Georgia, 2003).

²¹ Hexameron = six days. Gould, p. 87.

The second challenge today for Christians in the sciences is to actively redirect the contemporary dialogue focusing on the God of Genesis to the God of the Gospel. The Library of Congress cataloged an average of 211 books per year on religion and science in the 1990's.²² Despite numerous pages devoted to the subject, the topic of the resurrection of Jesus Christ was rarely addressed in the text I read. Most books exhausted themselves outlining countless n-fold typologies for the relationship between science and religion without ever considering *the relationship between science and Jesus Christ*. The intellectual challenge to Christians, all Christians, was put forth by the Apostle Paul:

If there is no resurrection of the dead, then not even Christ has been raised. And if Christ has not been raised, our preaching is useless and so is your faith. More than that, we are then found to be false witnesses about God, for we have testified about God that he raised Christ from the dead. But he did not raise him if in fact the dead are not raised. For if the dead are not raised, then Christ has not been raised either. And if Christ has not been raised, your faith is futile; you are still in your sins. Then those also who have fallen asleep in Christ are lost. If only for this life we have hope in Christ, we are to be pitied more than all men.
- 1 Corinthians 15:13-19 (NIV)

Despite my doubts about unrestrained positivism and the problem of “propagating back to zero”²³ with regards to biology and cosmology, I no longer entertain debates about the origins of life or the universe with non-believers. Any discussion of the foundation of my religion proceeds immediately to the Gospel account of Jesus Christ – his life, death and resurrection. To date, the only person to take this challenge of the historicity of the resurrection lost the argument, albeit in favor of eternal victory.

²² Barbour, p. 1.

²³ An idea I share with my agnostic colleague, Shannon Stewman, regarding the extension of well understood present day scientific principles to millions of years in the past. The problem appears in evolution, wherein the evolutionary mechanisms observed in bacteria are generalized to describe primate evolution, despite the lack of justification for such an extension. Such a procedure is highly erroneous within the context of differential equations, the underpinnings to almost all rigorous scientific phenomena.