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A Beginner's—and Expert's—Guide to the Big Bang: Separating Fact from Fiction

Hugh Ross

Abstract:
The case for the big bang (creation) event rests on compelling scientific evidence. While there are still astronomers and others who oppose the theory, the reasons for skepticism are primarily metaphysical and theological. This article provides a summary of the accumulated data supporting the big bang—honing in on eight of the most recent and important confirmations—and concludes by noting that the big bang supporting evidences point to the God of the Bible.

Big bang cosmology is an explosive topic. Heated reactions—and bitter resistance—have arisen from opposite directions in the last century but, ironically, for the same type of reasons: religious reasons. One group of big bang opponents includes those who understand the theory's implications, and the other, those who misunderstand them.

People in the first group understand that the big bang denies the notion of an uncreated or self-existent universe. Big bang theory, based on the accumulated data of centuries, points to a supernatural beginning and a purposeful (hence personal), transcendent (beyond the boundaries of space, time, matter, and energy) Beginner. Those who reject the reality of God or the knowability of God would, of course, find such an idea repugnant, an affront to their philosophical worldview. Similarly, it would offend those who want to spell *universe* with a capital *U*, who have been trained to view the universe itself as ultimate reality and as the totality of all that is real. Again, their response is religious.

People in the second group hate the big bang because they mistakenly think it argues *for* rather than *against* a godless theory of

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origins. They associate "big bang" with blind chance. They see it as a random, chaotic, uncaused explosion when it actually represents exactly the opposite. They reject the date it gives for the beginning of the universe, thinking that to acknowledge a few billion years is to discredit the authority of their holy books, whether the Koran, the book of Mormon, or the Bible.[1,2] Understandably, these people either predict the theory's ultimate overthrow or choose to live with a contradiction at the core of their belief system.

Despite opposition from outspoken enemies, the fundamentals of the big bang model, which is actually a cluster of slightly differing models, stands secure. In fact, it stands more firmly than ever with the aid of its most potent and important allies: the facts of nature and the technological marvels that bring them to light, as well as the men and women who pursue and report those facts.[3] The following comments offer a summary of the accumulated data supporting the big bang, giving special attention to eight of the most recent and significant confirmations.

A Problematic Term

The big bang is *not* a big "bang" as most lay people would comprehend the term. This expression conjures up images of bomb blasts or exploding dynamite. Such a "bang" would yield disorder and destruction. In truth, this "bang" represents an immensely powerful yet carefully planned and controlled release of matter, energy, space, and time within the strict confines of very carefully fine-tuned physical constants and laws which govern their behavior and interactions.[4] The power and care this explosion reveals exceeds human potential for design by multiple orders of magnitude.

Why, then, would astronomers retain the term? The simplest answer is that nicknames, for better or for worse, tend to stick. In this case the term came not from proponents of the theory but rather, as one might guess, from a hostile opponent. British astronomer Sir Fred Hoyle coined the expression in the 1950s as an attempt to ridicule the big bang, the up-and-coming challenger to his "steady state" hypothesis.

He objected to any theory that would place the origin, or Cause, of the universe outside the universe itself, hence, to his thinking, outside the realm of scientific inquiry.[5]

For whatever reasons, perhaps because of its simplicity and its catchy alliteration, the term stuck. No one found a more memorable, short-hand label for the "precisely controlled cosmic expansion from an infinitely or near infinitely compact, hot cosmic 'seed,' brought into existence by a Creator who lives beyond the cosmos." The accurate but unwieldy gave way to the wieldy but misleading.

A Multiplicity of Models

The first attempts to describe the big bang universe, as many as a dozen, proved solid in the broad simple strokes but weak in the complex details. So, they have been replaced by more refined models. Scientists are used to this process of proposing and refining theoretical models. News reporters—even textbook writers—sometimes misunderstand, though, and inadvertently misrepresent what is happening.

Reports of the overthrow of the "standard big bang model" illustrate the point. That model, developed in the 1960s, identified matter as the one factor determining the rate at which the universe expands from its starting point. It also assumed that all matter in the universe is ordinary matter, the kind that interacts in familiar ways with gravity and radiation. Subsequent discoveries showed that the situation is much more complex. Matter is just one of the determiners of the expansion rate, and an extraordinary kind of matter (called "exotic" matter) not only exists but more strongly influences the development of the universe than does ordinary matter.

The reported demise of the "standard big bang" led many to view the big bang as fiction rather than fact. On the contrary, the discoveries that contradicted the standard model gave rise to a more robust model, actually a set of models attempting to answer new questions. More than once, as one of these models has been replaced with a more refined variant, news articles heralded the overthrow of *the* big bang theory when they should have specified *a* big bang model.

Currently, cosmologists (those who study the origin and characteristics of the universe) are investigating several dozen newer variations on the big bang theme. Scientists expect still more to arise as technological advances make new data accessible. This proliferation of slightly variant big bang models actually speaks of the vitality and viability of the theory.

It makes sense that the first models proposed were simple and sketchy. The observations at that time, while adequate to support the fundamental principles of the big bang, were insufficient to explore and account for the details. As the evidences have become more numerous and more precise, astronomers have discovered additional details and subtleties, features previously beyond their capability to discern.

New details, of course, mean more accurate "reconstructions" of what actually occurred "in the beginning." Each generation of newer, more detailed big bang models permits researchers to make more accurate predictions of what *should be* discovered with the help of new instruments and techniques.

As each wave of predictions proves true, researchers gain more certainty that they are on the right track, and they gain new material with which to construct more accurate and more intricate models. The testing of these models, in turn, gives rise to a new level of certainty and a new generation of predictions and advances. This process has been ongoing for many decades now, and its successes are documented not only in the technical journals but in newspaper headlines worldwide.

Overview of Big Bang Evidences

Most textbooks currently in use at middle schools, high schools, and colleges describe only three or four evidences supporting big bang cosmology. The short list makes sense to a scientist, who sees no need to reiterate evidences for a roundish earth or for protons and electrons. But scientists who write textbooks may lack an appreciation for the clouds of doubt and confusion still hovering in the minds of non-scientists.

One purpose of this article is to help bridge the gap between the frontiers of science and popular awareness. This purpose, however, can be only partially realized in the scope of a magazine. Space does not permit an explanation or even an adequate description of each discovery supporting the big bang. It does permit two things, however. First, it allows a simple listing of thirty evidences (with one or two primary sources cited and a secondary source that gives an extensive list of other primary sources) demonstrating the breadth and depth of that evidence. Second, it allows for a more detailed description of the most powerful new findings that support a big bang creation event.

Summary List of Evidences for a Big Bang Creation Event

1. Existence and temperature of the cosmic background radiation[6]

Ralph Alpher and Robert Herman calculated in 1948 that cooling from a big bang creation event would yield a faint cosmic background radiation with a current temperature of roughly 5° Kelvin (-455°F).[7] In 1965 Arno Penzias and Robert Wilson detected a cosmic background radiation and determined that its temperature was about 3° Kelvin (-457°F).[8]

2. Black body character of the cosmic background radiation[9]

Differences between the spectrum of the cosmic background radiation and the spectrum expected from a perfect radiator measured to be less than 0.03 percent over the entire range of observed wavelengths.[10] The only possible explanation for such an extremely close fit is that the entire universe must have expanded from an infinitely or near infinitely hot and compact beginning.

3. Cooling rate of the cosmic background radiation[11]

According to the big bang, the older and more expanded the universe becomes, the cooler its cosmic background radiation. Measurements of the cosmic background radiation at distances so great that we are looking back to when the universe was just a half, a quarter, or an eighth of its present age show temperature measures that are hotter than the present 2.726°K by exactly the amount that the

big bang theory predicts.[12] That is, astronomers actually witness the universe growing cooler and cooler through time.

4. Temperature uniformity of the cosmic background radiation13

The temperature of the cosmic background radiation varies by no more than one part in ten thousand everywhere astronomers look from one direction in the heavens to another.[14] Such high uniformity can be explained only if the background radiation arises from one extremely hot primordial creation event.

5. Ratio of photons to baryons[15]

The ratio of photons to baryons (protons and neutrons) in the universe exceeds 100,000,000 to 1.[16] This ratio means that the universe is so extremely entropic (efficient in radiating heat and light) it can only be explained as a rapid explosion from an infinitely or nearly infinitely hot, dense state.

6. Temperature fluctuations in the cosmic background radiation[17]

For galaxies and galaxy clusters to form out of a big bang creation event, temperature fluctuations in maps of the cosmic background radiation should measure at a level of about one part in a hundred thousand. The predicted fluctuations were detected at the expected level.[18]

7. Power spectrum of the temperature fluctuations in the cosmic background radiation[19]

For a big bang universe with a geometry suitable for the formation of stars and life supporting planets, the temperature fluctuations in the cosmic background radiation must peak at an angular resolution close to one degree with a few much smaller spikes at other resolutions. In other words, the power spectrum graph will look like a bell curve with a few sub-peaks to the side of the main peak. The Boomerang balloon experiment this past April confirmed this big bang prediction.[20] (See section in this article on deuterium and lithium abundances for another confirmation of this discovery.)

8. Cosmic expansion rate[21]

A big bang creation event implies a universal expansion of the universe from a beginning several billion years ago. The most careful measurements of the velocities of galaxies establish that such a cosmic expansion has been proceeding for the past 14.9 billion years,[22] a cosmic age measure that is consistent with measurements made by other means.[23] (Some of the other measurements are described in the paragraphs to follow.)

9. Stable orbits of stars and planets[24]

Our universe allows stable orbits of planets about stars and of stars about the nuclei of galaxies. Such stable orbits are physically impossible unless the universe is comprised of three very large and rapidly expanding dimensions of space. (An explanation of this proof follows.)

10. Existence of life and humans[25]

Life and humans require a stable star like our sun. However, if the universe cools down too slowly, galaxies trap radiation so effectively as to prevent any fragmentation into stars. If the universe cools too rapidly, no galaxies or stars can condense out of the cosmic gas. If the universe expands too slowly, the universe collapses before solar-type stars reach their stable burning phase. If it expands too rapidly, no galaxies or stars can condense from the general expansion.

11. Abundance of helium in the universe[26]

(explained in the following paragraphs.)

12. Abundance of deuterium (heavy hydrogen) in the universe[27]

(explained in the following paragraphs.)

13. Abundance of lithium in the universe[27]

(explained in the following paragraphs.)

14. Evidences for general relativity[28]

Recent measurements of the theory of general relativity affirm it as the most exhaustively tested and best proven principle in all of physics.[29] The solution to the equations of general relativity demonstrate that the universe must be expanding from a beginning in the finite past.

15. Space-time theorem of general relativity[30]

A mathematical theorem developed by Stephen Hawking and Roger Penrose in 1970 establishes that if the universe contains mass, and if its dynamics are governed by general relativity, then time itself must be finite and must have been created when the universe was created.[31] It proves there must exist a CAUSE responsible for bringing the universe into existence, a cause that exists and operates "transcendently," outside and independent of matter, energy, and all cosmic space-time dimensions.

16. Space energy density measurements[32]

Albert Einstein and Arthur Eddington sought to escape the big bang by altering the theory of relativity to include a cosmic space energy density term (a.k.a. the cosmological constant) and by assigning a particular value to that term. Recently, astronomers determined that indeed a cosmic space energy density term does exist.[33] Its value, however, proves that Einstein's and Eddington's alternative models are incorrect. The measured value actually increases the evidence for the big bang, establishing that the universe will continue to expand at an ever-increasing rate.

17. Ten-dimensional creation calculation[34]

In 1995, a team of scholars led by Andrew Strominger demonstrated that only in a universe framed in ten space-time dimensions, six of which stopped expanding when the universe was a ten millionth of a trillionth of a trillionth of a trillionth of a second old, is it possible for gravity and quantum mechanics to coexist.[35-37] Their demonstration also successfully confirmed both special and general relativity and solved a number of outstanding problems in both particle physics and black hole physics. This finding implies that the big bang

and the laws of physics are valid all the way back to the creation event itself.

18. Stellar ages[38]

According to the big bang theory, different types of stars form at different epochs. The colors and surface temperatures of stars tell astronomers how long the stars have been burning. These measured burning times are consistent with the big bang. They also are consistent with all other methods for measuring the time back to the cosmic creation event. (See this article for the latest measurements.)

19. Galaxy ages[39]

According to the big bang theory, nearly all the galaxies in the universe formed early in its history, within about a four billion year window of time. Indeed, astronomers measure the galaxies to be as old as the model predicts.[40]

20. Decrease in galaxy crowding[41]

The big bang predicts that galaxies spread farther and farther apart from one another as the universe expands. Hubble Space Telescope images show that the farther away in the cosmos one looks (and, thus, because of light's finite velocity, the farther back in time) the more closely packed the galaxies are.[42] In fact, looking back to when the universe was but a third of its present age, the Space Telescope images reveal galaxies so tightly packed together that they literally are ripping spiral arms away from one another.

21. Photo album history of the universe[43]

Since the big bang predicts that nearly all the galaxies form at about the same time (see #18), and since galaxies change their appearance significantly as they age, images of portions of the universe at progressively greater and greater distances (and, because of light's finite velocity, farther and farther back in time) can be expected to show dramatic changes in the appearance of the galaxies. Hubble Space Telescope images verify the predicted changes.[44] (For more details see paragraphs to follow.)

22. Ratio of ordinary matter to exotic matter[45]

In a big bang universe, galaxies and stars can develop as suitable life-support sites only if the cosmos exhibits a certain ratio of exotic matter (matter that does not interact well with radiation) to ordinary matter (matter that strongly interacts with radiation). That crucial ratio is roughly five or six to one. Recent measurements reveal such a ratio for the universe.[46]

23. Abundance of beryllium and boron in elderly stars[47]

Long before the first stars form, during the first few minutes after it bursts into existence, the big bang fireball generates tiny amounts of boron and beryllium–that is if, and only if, the universe contains a significant amount of exotic matter. Astronomers have confirmed that primordial boron and beryllium exist in the amounts predicted by the big bang theory and by the measured amount of exotic matter.[48]

24. Numbers of Population I, II, and III stars

(See paragraphs to follow.)

25. Population, locations, and types of black holes and neutron stars.[49]

After many billions of years of star burning, a big bang universe with the right characteristics for life support produces a relatively small population of stellar mass black holes and a larger population of neutron stars. Large galaxies produce supermassive (exceeding a million solar masses) black holes in their central cores. Astronomers, in fact, observe the predicted populations, locations, and types of black holes and neutron stars.[50]

26. Dispersion of star clusters and galaxy clusters[51]

The big bang predicts that as the universe expands, different types of star clusters and galaxy clusters will disperse at specific (and increasing) rates. It also predicts that the densest star clusters hold together, but the stars' orbital velocities about the cluster's center "evolves" toward a predictable randomized condition known as virialization. The virial times depend on the cluster mass and size

and on the individual masses of the stars. Astronomers observe the dispersal rates and virial times predicted by the big bang.

27. Number and type of space-time dimensions[52]

A big bang universe of the type so that a site suitable for the support of physical life will be possible must begin with ten rapidly expanding space-time dimensions. At about 10-43 seconds (about a ten millionth of a trillionth of a trillionth of a trillionth of a second) after the creation event six of the ten dimensions must cease expanding while the other four continue to expand at a rapid rate. Several experiments and calculations confirm that we live in such a universe.

28. Masses and flavors of neutrinos[53]

All currently viable big bang models require that the dominant form of matter in the universe be a form of exotic matter called "cold dark matter." Astronomers and physicists already know that neutrinos are very plentiful in the universe and that they are "cold" and "dark." Recent experiments establish that neutrinos oscillate (that is, transform) from one flavor or type to another (the three neutrino flavors are electron, muon, and tau).[54] This oscillation implies that a neutrino particle must have a mass between a few billionths and a millionth of an electron mass. Such a range of masses for the neutrino satisfies the requirement for the viable big bang models.

29. Populations and types of fundamental particles.[55, 56]

In the big bang the rapid cooling of the universe from a near infinitely high temperature and a near infinitely dense state will generate a zoo of different fundamental particles of predictable properties and predictable populations. Particle accelerator experiments which duplicate the temperature and density conditions of the early universe have verified all the types and populations of particles predicted that are within the energy limits of the particle accelerators.

30. Cosmic density of protons and neutrons

(See paragraphs to follow.)

A Big Bang Picture Album

The simplest-to-grasp evidence in support of the big bang comes from pictures. With the help of various imaging devices, one can actually enjoy a kind of time-lapse photo of the big bang. The images show the universe in its various "growing up" stages, much as a time-lapse camera captures the opening of a flower, or as a photo album documents the development of a person from birth onward.

Such an album is made possible by light (or radiation) travel time. Observing a distant galaxy, for example, some 5 billion light-years distant is equivalent to seeing that galaxy 5 billion years ago, when the light now entering an earth-based telescope began its journey through space. In one sense, astronomers can only capture glimpses of the past, not of the present, as they peer out into space.

Thanks to the Keck and Hubble Space Telescopes, astronomers now have a photo history of the universe that covers nearly 14 billion years. It begins when the universe was only about half a billion years old and follows it to "middle age," where it yet remains. The sequence of images [images not available online] presents highlights from this cosmic photo album. Photo (a) shows the universe at the equivalent of infancy, before galaxies exist; (b) depicts the "toddler" stage, when newly-formed galaxies are so tightly packed as to rip the spiral arms off one another; (c) shows the youthful universe, a time when most of the galaxies are still actively generating new stars and galaxy collisions are frequent; and (d) captures the universe's entrance to middle age, a time when nearly all galaxies have ceased forming new stars and galaxy collisions are rare.

Figure X deserves special attention. It captures that moment in cosmic history when light first separated from darkness, before any stars or galaxies existed. It shows us the universe at just 300,000 years of age, only 0.002 percent of its current age.

These images testify that the universe is anything but static. It expanded from a tiny volume and changed according to a predictable pattern as it grew, a big bang pattern. A picture is still worth a thousand words, perhaps more.[57]

Helium abundance matches big bang prediction

The big bang theory says that most of the helium in the universe formed very soon after the creation event. According to the big bang, the universe was infinitely or nearly infinitely hot at the creation moment. As the cosmos expanded, it cooled, much like the combustion chamber in a piston engine.

By the time the universe was one millisecond old it had settled down into a sea of protons and neutrons. The only element in existence at that time was simple hydrogen, described by a single proton. For about 20 seconds, when the universe was a little less than four minutes old, it reached the right temperature for nuclear fusion to occur. At that point, protons and neutrons fused together to form elements heavier than simple hydrogen.

According to the theory, almost exactly one-fourth of the universe's hydrogen, by mass, was converted into helium during that 20-second period. Except for tiny amounts of lithium, beryllium, boron, and deuterium (which is hydrogen with both a proton and a neutron in its nucleus), all other elements that exist in the universe were produced much later, along with a little extra helium, in the nuclear furnaces at the cores of stars.

One of the ways astronomers can test the big bang theory is to measure the amount of helium in objects that are so far away (and, hence, are being viewed so far back in time) that they predate significant stellar burning. A second way is to examine objects in which little stellar burning has ever occurred. That is, astronomers can find and make measurements on relatively nearby objects in which star formation shut down quickly, too quickly to contribute significantly to the total helium abundance.

In 1994 astronomers measured for the first time the abundance of helium in very distant intergalactic gas clouds.[58] These measurements, recently confirmed by additional measurements,[59] revealed the presence of helium in the quantity predicted by the big bang model.

In the last 1999 issue of the *Astrophysical Journal*, a team of American and Ukrainian astronomers published yet another proof for the hot big bang creation event.[60] The six researchers used the Multiple Mirror and Keck telescopes to check the quantity of helium in two of the most heavy-element-deficient galaxies known (blue compact

galaxies I Zwicky 18 and SBS 0335-052). They determined that helium comprised 0.2462 ± 0.0015 of the total mass of those galaxies. After subtracting the tiny amount of star-produced helium in the two galaxies, they derived a primordial helium abundance of 0.2452 ± 0.0015, consistent with the findings in distant, ancient objects. This value is so close to the big bang prediction that the team concluded it "strongly supports the standard big bang nucleosynthesis theory."[61]

During the months since that publication was released, Canadian astronomers have refined the data of the American-Ukrainian team.[62] Their correction (based on the elimination of data from hot-star-excited nebulae within the galaxies) yielded a primordial helium abundance 1.5 percent higher and 20 percent more accurate than the first set of figures. The new value is so very close to the theoretically expected value as to be indistinguishable.[63]

Deuterium and lithium abundances match big bang prediction

Whatever quantity of deuterium (heavy hydrogen) and lithium exists today was produced during the first four minutes of creation, the big bang theory tells us. Not all that deuterium and lithium remains, however, for stellar burning gobbles up those elements, rather than producing more. In seeking to measure the abundance of deuterium and lithium and to compare that amount with the amount predicted by the big bang model, astronomers focused again on extremely distant systems, also on nearer systems in which little stellar burning has occurred. With significant help from the Keck telescopes [64-66] and from the "Hubble Deep Field" image (a "picture" assembled from layers upon layers of Hubble Space Telescope exposures to the same part of the sky),[67] five different teams produced measurements.[68, 69] In their words, the deuterium and lithium abundances fit the big bang predictions "extremely well." [70]

Density of protons and neutrons

The big bang theory fails to produce the stars and planets necessary for life and the elements necessary for life unless the cosmic density of baryons (protons and neutrons) takes on a specific value. This value is about four or five percent of the mass density that would be necessary, by itself, to bring the expansion of the universe

to an eventual halt, what astronomers refer to as the critical density. Therefore, an obvious test of the big bang would be to see if the baryon density is close to this 4-5 percent of the critical density.

Until recently, the determination of primordial helium, deuterium, or lithium abundances was the only reliable way to get a measure of the density of baryons in the universe. The best results came from the five teams mentioned in the section above. They determined that the cosmic baryon density is equal to 0.04 to 0.05 of the critical density.

During the last year astronomers have developed three new and independent methods for measuring the cosmic baryon density. The most spectacular and accurate of these three new methods comes from the Boomerang maps of the temperature fluctuations in the cosmic background radiation (see the last issue of *Facts for Faith* for details). From the North American test flight of the Boomerang high altitude balloon, the cosmic baryon density was measured at 0.05 of the critical density.[71] The other two methods gave an average value of roughly 0.03.[72-74] These independent confirmations of the cosmic baryon density deduced from primordial helium, deuterium, and lithium abundances give yet more evidence for a big bang creation event.

Cosmic expansion velocity matches big bang prediction

An obvious way to test the big bang is to affirm that the universe is indeed expanding from an infinitesimal volume and to measure the rate of its expansion from the beginning up to the present moment. While this task may seem simple in principle, in practice it is not. Measurements of adequate precision are enormously difficult to make. Only in the last few years have measurements as accurate (or nearly so) as the other big bang proofs become possible.

Five methods (some independent, some slightly dependent) for measuring the cosmic expansion rate have now been developed and applied (see Table 2). The average of the five yields a rate of 64 kilometers per second per megaparsec (a megaparsec = the distance light travels in 3.26 million years). Running the expansion backward at this rate implies that the universe is approximately 14.6 billion years old.

The newly discovered "energy density term" adds another half billion years, suggesting that the universe is about 15.1 billion years old.[75, 76] This figure serves as a confirmation of the model because of its consistency with other age indicators, including the cosmic background radiation, the abundance of various radiometric elements,[77] and the measured ages of the oldest stars (see below).

Table 1: Latest Measurements of the Cosmic Expansion Rate

Astronomers have developed and refined five measuring tools for determining the rate of expansion for the universe, or what they call the "Hubble constant." A megaparsec = the distance light travels in 3.26 million years.

Method	**Hubble Constant Value**
gravitational lensing	66 km/sec/megaparsec[78-82]
Tully-Fisher	61 km/sec/megaparsec[83-86]
cepheid distances to galaxies	62 km/sec/megaparsec[87-90]
type Ia supernovae	61 km/sec/megaparsec[91-94]
geometric distance measures	71 km/sec/megaparsec[95-98]
average of measured values	64 km/sec/megaparsec
age calculation based on average of values	14.6 billion years
correction for energy density term	+0.5 billion years
corrected age calculation	15.1 billion years

Star populations fit big bang scenario

Big bang theory proposes that three distinct generations of stars formed at certain intervals after the creation event. Astronomers creatively refer to these generations as Population III, Population II, and Population I stars. The numbering system seems reversed, since Population III stars are the oldest, but the latter were the last to be discovered and studied; hence, the confusing numbering system.

According to the big bang, Population III stars formed when the universe was barely a half billion years old. By that time, matter had condensed adequately for stars to begin coalescing. However, since the universe had expanded so little as yet, the average density of gases was much higher than today's observed density. Thus, the

earliest stars were mostly supergiant stars. Such stars burn up very quickly (astronomically speaking), in less than ten million years. They end with catastrophic explosions, dispersing their ashes throughout the cosmos.

Given the brief burning time and early formation of such stars, big bang theorists conclude that few, if any, Population III stars should still be observable. However, their remains should be. Population III stars leave a distinctive signature of elements in their scattered ashes. This signature is found in all the distant gas clouds of the universe.

Recently, there has emerged evidence that some of the rare low-mass Population III stars may have been found.[99, 100] Their low mass means that they can burn long enough for astronomers to be able to find them today. They have been difficult to detect, though, because they absorb the ashes of the giant Pop IIIs, thus taking on a disguise. Recently, however, stellar physicists have developed tools for distinguishing Population III survivors from the younger Population II stars that form from the ashes of Population III supergiants.[101, 102]

The big bang theory makes three major predictions about Population II stars: 1) this group should be the largest of the star populations, given that it formed when galaxies were young and at their peak star-forming efficiency; 2) they should be more numerous in certain locations, such as globular clusters, where early star formation proceeds most efficiently, and 3) they should come in all sizes, all mass categories from low to high, not favoring one category over another. All three predictions are borne out by astronomers' observations over the last few decades.

The third generation of stars, the Population I stars (including Earth's sun), formed from the scattered ashes of the largest Population II stars. These ashes are easy to distinguish from Population III ashes because they are at least 50 percent richer in heavy elements (those heavier than helium). The gaseous nebulae (or gas clouds) scattered throughout the spiral arms of the Milky Way and gas streams the Milky Way galaxy steals from nearby dwarf galaxies are actually "ash heaps" of giant Population II stars.

The big bang theory says that star formation shut down for the most part shortly after the formation of Population II stars. Thus, most galaxies are devoid, or nearly devoid, of Population I stars. The

big bang also says that in the few galaxies where Population I stars do form, the most intense period of star formation was the past few billion years, and the most intense regions of star formation are the densest areas, such as the nuclei and spiral arms. (Some also would have formed in what astronomers call "irregular" galaxies.) All these characteristics have proved true, confirmed by observations.

Does the big bang allow for Population IV stars to form in the future? Yes, it does. But, it predicts that this population should be tiny compared to the other three. Everywhere astronomers look in the universe, they see signs that star formation will soon shut down totally, even in those galaxies still active in forming stars. ("Soon" to an astronomer is not tomorrow or next year but a few billion years hence.) Astronomers anticipate, for example, that the Milky Way galaxy will experience a "brief" burst of star formation when it pulls the Large Magellanic Cloud (its companion galaxy) into its core region some four or five billion years from now. Already the universe is old enough to make such incidents rare.

Oldest stars tell their story

Since the big bang theory indicates when the Population II stars formed—the era when galaxies began to take shape, roughly .5 billion to 1.5 billion years after the creation event—astronomers can test the theory by determining the age of the oldest visible stars. By adding .5 to 1.5 billion years to that age, they can compare the sum with the creation dates suggested by other independent measures.

One difficulty of this seemingly simple test is that stars, like some people, sometimes hide their age well. Stars in dense clusters, however, can be more easily dated than others, and globular clusters appear to comprise the oldest of the Population II stars. Table 3 lists the most accurate dating of globular cluster stars in five different galaxies. It also includes the limit researchers recently placed on the oldest white dwarf stars in Earth's galaxy.

Table 2: Latest Measurements of the Oldest Population II Stars

Star Group	Measured Ages (billions of years)
average of all globular clusters in our galaxy	12.9 ± 1.5[103]
47 Tucanae (oldest globular cluster in our galaxy)	14.1 ± 1.0[104]
Large Magellanic Cloud globulars	same as for Milky Way[105]
globular cluster in WLM dwarf galaxy	14.8 ± 0.06[106]
globular clusters in Fornax dwarf galaxy	same as for Milky Way[107]
average of all globulars in our galaxy	less than 14.0[108]
oldest white dwarfs in our galaxy	more than 12.6[109]
average of all globular clusters in M87 (a supergiant galaxy)	13.0[110]

* average of all results = 13.5 billion years

The numbers indicate that globular clusters formed within a two- to three-billion-year time window, roughly consistent from galaxy to galaxy.[111] If one adds to their ages the years prior to Population II star formation (1 billion ± 0.5 billion years), the derived age fits remarkably well all other methods for determining how long the universe has been expanding from the creation event.

Stability of stars and orbits fits big bang picture

Stable orbits and stable stars are possible *only* in a big bang universe. Their existence ranks among the most clear-cut proofs for the big bang. (Incidentally, life would be impossible unless planets orbit with stability, stars burn with stability, and stars orbit galaxy cores with stability.[112, 113])

Such stability demands gravity, not just any force of gravity, but gravity operating according to the inverse square law. Gravity operating at that level demands three dimensions of space—the big bang universe.

In two dimensions of space, gravity would obey a different law (objects with mass would attract one another in proportion to the inverse of the distance separating them). In four space dimensions, gravity would obey a different law (massive bodies would attract

one another in proportion to the inverse of the cube of the distance separating them).

Stability under the influence of gravity in turn demands that the three space dimensions be large (significantly unwound from their original tight curl). Otherwise galaxies would be so close together as to wreak havoc on stellar orbits, and stars would be so close together as to wreak havoc on planets' orbits. When galaxies are too close together, galaxy collisions and close encounters catastrophically disturb stars' orbits. Likewise, when stars are too close together, their mutual gravitational tugs catastrophically disturb the orbits of their planets.

The three dimensions of space must be expanding at a particular rate, as well. A universe that expands too slowly will produce only neutron stars and black holes. A universe that expands too rapidly will produce no stars at all and thus no planets and, of course, no stable orbits.

The simple fact is this: humans do observe that galaxies, stars, and planets exist, and that they exist with adequate stability to allow humans to exist and observe them. This fact, in itself, argues for the big bang, In fact, it argues for a specific subset of big bang models. Even this narrowing and refining of the original theory serves as evidence that the theory is correct.

Apologetics Impact of Big Bang Cosmology

Though the case for the big bang, or "creation event," rests on compelling evidence, the theory still has its critics. Some skepticism may be attributable to the communication gap between scientists and the rest of the world. Some of the evidences are so new that most people have yet to hear of them. Some of the evidences, including the older ones, are so technical that few people understand their significance. The need for better education and clearer communication remains. In fact, it motivates the publication of this article.

However, communication and education gaps explain only some of the skepticism. Spiritual issues are also involved. The few astronomers who still oppose the big bang openly object not on scientific grounds but on personal grounds.

The Fingerprint of God tells the story of astronomers' early reaction to findings that affirmed a cosmic beginning, hence Beginner. Some openly stated their view of the big bang as "philosophically repugnant." For decades they invented one cosmic hypothesis after another in a futile attempt to get around the glaring facts. When all their hypotheses failed the observational tests, many of those astronomers conceded, perhaps reluctantly, the big bang's veracity.

Today, only a handful of astronomers still hold out against the big bang. Their resistence, seems based not on what observations and experiments can test but rather on that which observations and experiments cannot test. Though their articles appear in science journals, they engage in metaphysics rather than in physics, in ideology rather than in science. The supporting evidences clearly point to something more than the "superior reasoning power" Einstein acknowledged or some ill-defined "intelligent Designer." The physical evidence points clearly and consistently to the personal, purposeful God of the Bible.

General relativity theory, which gave rise to the big bang, stipulates that the universe had a beginning, more specifically, a "transcendent" beginning. The space-time theorems of general relativity state that matter, energy, and all the space-time dimensions associated with the universe began in finite time and that the Causal Agent of the universe brings all the matter, energy, and space-time dimensions of the universe into existence from a reality beyond matter, energy, space, and time. An even more powerful theorem developed by Arvind Borde, Alexander Vilenkin, and Alan Guth demonstrates that any universe that expands, on average, throughout its history must possess a space-time beginning attributable to a Causal Agent beyond space and time.[114]

The extreme fine-tuning of big bang parameters essential for life in the universe exceeds by many orders of magnitude the design capabilities of human beings. Further, this fine-tuning is not limited to the universe as a whole, as Stephen Hawking and Leonard Mlodinow claim in their recent best-selling book, The Grand Design. Rather, it is observed on all scales within the universe—including that of our supercluster of galaxies (The Virgo Supercluster), our local galaxy cluster (the Local Group), our galaxy, our solar system, our moon, our planet, our planet's surface—as well as in our planet's

life history. Therefore, to say that God is an impersonal entity, as Hawking and others assert, is illogical. Everywhere we look, on all size and complexity scales, we see what physicist Paul Davies sees: "[T]he impression of design is overwhelming."[115] In the words of another renowned physicist, Freeman Dyson, "The more I examine the universe...the more evidence I find that the universe in some sense must have known we were coming."[116]

The significance of these observations and conclusions cannot be avoided. For the universe on all size scales to manifest exquisite design for the specific benefit of human life demands not just any transcendent Causal Agent, but one who possesses immeasurably great power, intellect, and love. No philosophical system or religious teaching in the world, other than the Bible, points to such a Creator. No other system or teaching anticipated by several thousand years all four of the fundamental features of big bang cosmology.

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Evangelical Anabaptism—Historical Disproof of Quinn's Tolerance through Uncertainty

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Abstract:
Bequeathing philosophical sophistication to a position taken by many Westerners as self-evident since the Enlightenment, Philip Quinn argues that uncertainty about religious convictions is the necessary foundation for religious tolerance. While this view has received philosophical refutation from William Lane Craig and James Kraft, the myriad examples of religious violence down through history convince many that Quinn is *de facto* correct (i.e., accurately hitting upon a contingent fact of human psychology) even though *de jure* incorrect (*i.e.,* wrongfully suggesting that uncertainty and tolerance are logically connected). This piece aims to dismantle Quinn's de facto case through the dramatic counterexample of sixteenth-century evangelical Anabaptism. Unique among Reformation groups, evangelical Anabaptists showed tolerance toward Jews, Catholics, Lutherans, and the Reformed precisely on the basis of their certainty about Jesus' teachings, saving death, resurrection, and demand for self-denying discipleship on their lives. This is true despite the fact that evangelical Anabaptists had the motive and means to exact violence upon Catholics, Lutherans, and the Reformed, all of whom massacred thousands of Anabaptists. Rather, evangelical Anabaptists, owing to their absolute belief in the Lordship of Jesus, refused to exact violence upon their religious adversaries but willingly suffered martyrdom at their hands.

The late contemporary philosopher Philip Quinn (1940-2004) has given potent expression to the often unstated assumption, permeating Western culture since the Wars of Religion and the Thirty Years' War, that the only workable basis for religious tolerance is uncertainty regarding the truth of one's own religious beliefs.[1] Arguably the driving force behind the Enlightenment,[2] this presupposition has gained wide currency since the mid-seventeenth century and is now taken for granted by most Americans, especially following the events

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of September 11, 2001. Read with a hermeneutic of charity, Quinn's argument can assume two forms. First is the logical form, which maintains that the only possible moral justification for anyone to violently coerce others to subscribe to some belief is if that person were certain about its truth, and that the only possible moral justification for anyone to violently persecute others for subscribing to some belief is if that person were certain about its falsehood. Hence uncertainty regarding the truth or falsity of all religious beliefs is necessary for ensuring the objective immorality of religious intolerance.[3] This logical form has been successfully refuted by William Lane Craig and James Kraft.[4] Second, however, is the pragmatic form, according to which it is a contingent fact of human psychology that if persons are certain about their religious beliefs, then, given the means and opportunity, they will inevitably resort to violence in spreading their beliefs and eliminating dissenters.[5] Notice that the modesty of this claim renders it impervious to philosophical refutation, for it asserts that religious certainty leads to intolerance not via logical necessity (*de jure*) but via the contingencies of human cognitive development and access to political resources (*de facto*). Rather, what is needed to disprove this claim is a clear historical counterexample of a group that held their religious beliefs with certainty and, though possessing the means and opportunity to violently coerce agreement and quash disagreement, displayed tolerance toward persons of different religious persuasions, nonbelievers, and dissenters. Presenting such a counterexample will occupy the burden of this piece.

As a historian of Christianity whose areas of expertise include Reformation studies, I submit the evangelical Anabaptists as a notable counterexample to Quinn's pragmatic argument. This immediately raises the question of definition: what identifies an individual or community as belonging to the evangelical Anabaptist movement? Reformation scholars have separated the broad phenomenon of Anabaptism, an umbrella covering any early modern individual who received and advocated believers' baptism over against infant baptism, into three distinct branches.[6] First, revolutionary Anabaptism fused the legitimate socio-economic grievances of the late medieval central European peasantry with a millenarian reading of biblical apocalyptic to wage religiously authorized armed revolt against Catholic and

Protestant rulers alike, who in turn drowned out the movement in blood through the 1525 quelling of the Peasants' War and the 1535 dismantling of the Kingdom of Münster. While statistically comprising less than five percent of sixteenth-century Anabaptists, revolutionary Anabaptism bred terror in the hearts of the European bourgeoisie and aristocracy, who proceeded to brand all Anabaptists as dangerous fanatics who must be exterminated.[7] Revolutionary Anabaptism is, of course, precisely the kind of movement whose actions Quinn deems representative of all persons with the same spiritual certitude and worldly might. Second, separatist Anabaptism regarded the socio-political order as the kingdom of Satan and therefore quit the world for a pacifist and apolitical existence in small, self-sufficient conventicles practicing economic communitarianism.[8]Despite the unfettered aversion of the Amish, Hutterites, and other separatist Anabaptists toward religious violence, they would not constitute a counterexample to Quinn's thesis, because their voluntary disavowal of worldly power rendered them incapable of carrying out violent acts of religious intolerance. Third, evangelical Anabaptism attempted to implement Jesus' gospel of the Kingdom of God within European society. Lamenting how many laypeople interpreted Luther's and Zwingli's doctrine of *sola fide* as an "easy believism," evangelical Anabaptists sought a return to New Testament principles in their entirety, including the ethics of the Sermon on the Mount and church discipline administered according to Matthew 18:15-20. Though it would be inaccurate to call this movement "normative Anabaptism," evangelical Anabaptism did comprise the largest branch of the sixteenth-century Anabaptist movement and received capable leadership from Balthasar Hubmaier (1480-1528) in south Germany and Bohemia, Hans Denck (1500-1527) and Pilgram Marpeck (1495-1556) in south and central Germany, and Menno Simons (1496-1561) in the Netherlands and north Germany.[9] This essay will demonstrate that, despite having the means and the opportunity to employ religious violence, the evangelical Anabaptists advocated religious tolerance and used their socio-political power to implement it in the regions where they labored, even in the face of intense persecution from dissenters. In the process, this piece will explain the evangelical Anabaptists' theological rationale for their nonviolent treatment of religious "others," thereby disclosing the true

basis for tolerance and proposing a different root for intolerance than that suggested by Quinn.

The Relationship of Evangelical Anabaptism to Political Authority

It is a little-appreciated fact outside specialist circles on Anabaptism that the evangelical Anabaptists believed Christians could serve in positions of political authority and would make the best leaders, since they would govern not for the sake of their own fame or fortune but for the sake of the good of their constituents. Moreover, evangelical Anabaptists fostered positive relations with their local magistrates and sought the magistrates' protection against Catholic and Protestant authorities who threatened their lives. At the same time, however, evangelical Anabaptists made a sharp distinction between church and state and insisted that magistrates could not legislate on matters of religion by, for example, demanding adherence in thought, word, or deed to a particular faith or issuing edicts that privileged one confession over another. This nuanced perspective, which affirmed the possibility of Christians serving in government but denied the possibility of a Christian government, is frequently overshadowed in church history surveys by the Separatist conflation and subsequent rejection of both possibilities, as enshrined in the 1527 Schleitheim Confession.[10] We shall unpack evangelical Anabaptist doctrine and praxis on civil authority by considering the contributions of its representative thinkers.

Adhering to the taxonomy introduced by Jesus, evangelical Anabaptists differentiated between the kingdom of the world (or "world" for short) and the kingdom of God, both fundamentally spiritual domains which attempt to gain control over the physical universe and the persons therein. The kingdom of the world is the realm of sin and death characterized by hatred and ruled by Satan, while the kingdom of God is the realm of righteousness and life characterized by *agapē* and ruled by God the Trinity. Thus Menno Simons stipulated: "The Scriptures teach that there are two opposing princes and two opposing

kingdoms: the one is the Prince of peace; the other the prince of strife. Each of these princes has his particular kingdom and as the prince so is his kingdom."[11] Based on Romans 13:1-7, 1 Peter 2:13-17, 1 Timothy 2:1-2, and Titus 3:1, evangelical Anabaptists argued that civil government was neither part of the kingdom of the world nor part of the kingdom of God. Rather, it comprised an instrument graciously created by God to protect citizens of the godly kingdom from citizens of the worldly kingdom and citizens of the worldly kingdom from one another as well as to ensure social justice for all humanity. As Balthasar Hubmaier, the theologian *par excellence* for evangelical Anabaptism, explained: "Therefore the government is obliged to shield and to free all oppressed and subjugated people, widows, orphans, friends, and strangers without regard to persons according to the will and earnest command of God."[12] That government is a divinely instituted *tertian quid* distinct from the worldly and godly kingdoms but safeguarding the citizens of both was underscored by Pilgram Marpeck:

> God has ordained the governing power for this time and for the sake of godly men; as a protection, arbiter, and punishment. . . . and mediators between goodness and evil, between the just and the unjust, established to provide physical rest and peace and to restrain evil and protect the good. For evil and good now exist together in this physical life undifferentiated and unseparated until the day when judgment takes place and good and evil are separated. This will take place when the last person to be saved is brought in. Then all worldly authority will be dissolved.[13]

Thus civil authority will retain its divine authorization and legitimacy from now until Christ's second coming, during which time it promotes social tranquility and serves as a deterrent to crime. With these assessments Menno, from whom the Mennonites take their name, agreed. Adding that force is necessary to carry out these tasks, Menno amiably exhorted the northern coastal rulers of Holland and Germany:

> Therefore, dear sirs, take heed; this is the task to which you are called: namely, to chastise and punish, in the true fear of God with fairness and Christian discretion, manifest criminals, such as

> thieves, murderers, Sodomites, adulterers, seducers, sorcerers, the violent, highwaymen, robbers, etc. Your task is to do justice between a man and his neighbor, to deliver the oppressed out of the hand of the oppressor. . . . O highly renowned, noble lords, believe Christ's Word, fear God's wrath, love righteousness, do justice to widows and orphans, judge rightly between a man and his neighbor, despise no man's littleness, hate all avarice, punish with reason, allow the Word of God to be taught freely, hinder no one from walking in the truth, bow to the scepter of him who called you to this high service. Then shall your throne stand firm forever. . . . you may enlarge, help, and protect the kingdom of God with gracious consent and permission, with wise counsel and a pious, unblamable life.[14]

Three features of this pastoral summons deserve emphasis as windows into evangelical Anabaptist ideology on government. First, it is clear that Menno regarded holding political office as a Christian vocation, notwithstanding the apoliticism of many Mennonite groups after Menno's time. On this score, Walter Klaassen comments that Menno "did not see himself as separated from the world of the use of political power as many of his followers have. It is this recognition . . . that rulers could be Christians . . . that enables him to appeal to the rulers as passionately as he does and at such length."[15] A distinguishing mark of evangelical Anabaptism as opposed to their separatist brethren, this is a point on which the movement's leaders concurred. Thus Hans Denck, styled by Martin Bucer as "the pope of the Anabaptists," reasoned by analogy: "A master of the house should treat his wife and child, menservants and maidservants as he desires that God treat him; that is not incompatible with love. And insofar as it is possible for a government to act in this way, a Christian could well serve in its office."[16] Marpeck, who was employed by the city of Augsburg as an engineer for the last eleven years of his life, averred that both Christians and non-Christians may serve in civil government: "[T]he worldly power . . . to whom everyone should be subject according to Paul's teaching in Romans 13 . . . had been and still is everywhere in the world whether they [*i.e.* its leaders] are believing or unbelieving."[17] To drive the point home, Hubmaier used Paul's identification of political

leaders as "God's servants" (Rom. 13:6) to construct the following *reductio ad absurdum*: "For if a Christian could not be a servant of God, could not fulfill the mandate of God without sinning, then God would not be good. He would have made an order which a Christian could not fulfill without sin. This is a blasphemy."[18]

Second, despite his general aversion to violence, Menno insisted that the government enforce civil law by punishing criminals, though not with unrestrained vengeance but with fairness, Christian discretion, and reason. As Helmut Isaak points out, for Menno legal correction could range all the way up to capital punishment.[19] Positing the necessity of penalties for the maintenance of law and order, Hubmaier expressed the same sentiment in his exegesis of Romans 13:3: "Consequently, a Christian may also, according to God's order, carry the sword in God's place over the evildoer and punish him. Because of the evil ones it is ordered in this way by God for protection and shielding of the godly."[20] Here "the sword" refers broadly to the ability of those in power to inflict punishment on those who defy the law, which may or may not involve a literal sword. But like God, who takes no pleasure in chastising the wicked (Ezekiel 18:30-32), a Christian magistrate, remarked Hubmaier, "does not hate those he punishes. He is sorry from his heart at the offences of such evil folk. Whatever he does is by the order and solemn command of God. . . . His sword is nothing else than the beneficent rod and scourge of God, with which he is commanded to chastise the evil."[21]

Third, the government, while separate from God's kingdom, assists in its expansion by protecting its members from the evils instigated by the world. In this way, the civil authority provides the church with the security necessary to complete the task of world evangelization. To summarize this protective role, elsewhere Menno drew an analogy between King Cyrus' insurance of Jewish life, limb, and freedom of movement as the children of Israel made their way to the physical Promised Land and the magistrates' insurance of Christian life, limb, and freedom of movement as the children of God make their way to the spiritual Promised Land. Just as Cyrus allowed the Jews to gather up all who would identify with the people of God for the journey to Jerusalem (Ezra 1:3), so the magistrates must not hinder the spread of the gospel but allow Christians to gather up all who believe it for

the journey to the new Jerusalem. Consequently Menno charged: "[W]ith king Cyrus. . . . it becomes you, O you highly renowned lords and princes . . . that you no longer obstruct by your mandates and powers, the journeying of the people of God to the eternal promised land; but you should . . . prosper their journey by your gracious permission."[22]

Accordingly, evangelical Anabaptists cultivated friendships with the government officials in their regions. Hubmaier dedicated twelve of his twenty-six treatises to nobles, some of whom even enter as characters into his dialogues.[23] A representative example is his foreword to the 1527 treatise *Grund und Ursache* (The Ground and Reason): "To the wellborn and Christian Lord H. Jan von Bernstain of Helffenstain, highest governor of the Margraviate of Moravia, my gracious Lord. Grace and salvation in God."[24] From January 1523 to December 1525 Hubmaier served as advisor to the Waldshut City Council, all of whose members he had by April 1523 converted to evangelical Anabaptism,[25] and attended all their weekly meetings. After converting Nikolsburg's Lords von Lichtenstein to Anabaptism in June 1526, from then until January 1528 Hubmaier occupied the same counseling role to the Lichtenstein brothers as Luther famously held with Frederick the Wise.[26] In 1527 Denck participated in the so-called Augsburg "Martyrs' Synod," where he sided with the City Council on the legitimacy of civil government against revolutionary Anabaptist Hans Hut, despite his knowledge that this would inevitably lead to the execution of Hut and his followers for treason.[27] Marpeck, as we have seen, worked as an Augsburg government employee from 1545 to 1556 and was highly favored by the City Council, who paid him the relatively high annual salary of 150 florins and refused to give him anything more than verbal reprimands (which they knew would be ignored) when the Holy Roman Empire periodically protested his Anabaptism.[28] Menno, mirroring Hubmaier, dedicated two sections of his *magnum opum*, the 1540 *Das Fundament des Christelycken leers* (Foundation of Christian Doctrine) or *Fundamentboek* for short, to "you great ones of the earth, whom we, through the mercy of God, acknowledge in all temporal things before our gracious Lord," and proceeded to give them "a Christian and affectionate exhortation."[29] In 1543 Menno endeared himself and his followers to the East Frisian Countess Anna of Oldenburg, who in 1545 distinguished them as "the

peaceful party among the Anabaptists" in contradistinction to the Münster radicals and so gave them legal toleration as a separate church apart from the established Reformed church.[30]

Although the evangelical Anabaptists themselves refused to fight, the aforementioned leaders were prepared to take up arms in defense of their evangelical subjects, sometimes at the behest of those subjects. When the Habsburg imperial authorities demanded the extradition of Hubmaier's followers from Schaffhausen, a city just northeast of Waldshut, in 1524, Hubmaier and the Waldshut City Council implored the neighboring City Council to forcibly protect the brethren. When Habsburg officials entered the city on Pentecost Day 1524, an armed militia assembled by Mayor Gutjahr marched on the town square to block the delegation and demand that the Anabaptist congregation remain in the city, a revolt which proved successful.[31] Similarly, in spite of Holy Roman Emperor Charles V's bounty of 500 gold guilders on Menno's head and demand that his followers be executed, Countess Anna of Oldenberg founded East Frisia's police force largely to slay those who would endanger the Anabaptists.[32] This move was subsequently praised by Menno, who urged the police to "execute judgment and justice, assist against the violent."[33] Seven years after his death, moreover, Menno's congregation (the *Doopsgezinden* or "Waterlanders") sent the Prince of Orange a considerable sum to help in the war against the Spanish, who were trying to capture the Netherlands for Roman Catholicism, as the congregation rightfully feared the wrath of the Spanish Inquisition which would inevitably befall them were Spain successful.[34] Not surprisingly, Hubmaier insisted that the best rulers were Christian, for only they could responsibly take up the sword without rancor toward the wicked or self-serving motives:

> You must, must, must all confess that a Christian in government can perform and do so much better than a non-Christian. . . . it is evident that the more pious they are, the better and more orderly they will bear the sword according to the will of God for the protection of the innocent and for a terror to evildoers . . . having a special sympathy for all those who have transgressed, wholeheartedly wishing that it had not happened. . . . But a non-Christian takes to heart neither Christ nor God

> nor blessedness, only thinking and plotting to remain in power, pomp, and circumstance.[35]

Menno concurred with this verdict, which prompted his attempt to convert non-Christian rulers to the faith: "O you high-renowned noble lords and princes. . . . Obey, believe, fear, love, serve and follow your Lord and Savior, Jesus Christ, for he it is before whom every knee shall bow. . . . Seek his honor and praise in all your thoughts, words, and actions, and you shall reign in eternity."[36]

From the foregoing evidence, it follows that the evangelical Anabaptists had more than sufficient political engagement and patronage to propagate their convictions through force. Moreover, the abundance of non-Anabaptists, including Catholics, Protestants, and Jews, in their midst furnished ample opportunity for religious coercion. But did the evangelical Anabaptists, as Quinn's pragmatic argument demands, resort to such violence?

The Evangelical Anabaptist Case for and Practice of Religious Tolerance

While often touted by secularists as the product of the Enlightenment,[37] it was in fact evangelical Anabaptism which over a century earlier laid the foundation of and established the safeguards for the principle of religious liberty. The first early modern treatise defending freedom of thought[38] came from the pen of Hubmaier in 1524, entitled *Von Ketzern und ihren Verbrennern* (On Heretics and Those Who Burn Them). Appealing to the Sermon on the Mount and the Johannine discourses, Hubmaier insisted that Jesus himself taught religious tolerance, which directly contradicts the notion of a state religion: "For Christ did not come to murder, execute, or burn, but for those who live to live even more abundantly. . . . Thus while burning heretics appears to be following Christ, it is rather to deny him indeed and be more abominable than Jehoiakim, the king of Judah."[39] Here Hubmaier suggested a theological basis for tolerance more profound than is generally recognized: to persecute a person for heresy amounts

to an implicit denial of the incarnation, since the God revealed in Christ is the God of the invitation, not of coercion.[40] This concept is expanded elsewhere in Hubmaier's analysis of the relationship between the character of God and human freedom:

> [T]he heavenly Father, who now looks at humanity anew by the merit of Jesus Christ our Lord, blesses and draws him with his life-giving Word which he speaks into the heart of a person. This drawing and call is like an invitation to a marriage or to an evening meal. Through it God gives power and authority to all people insofar as they themselves want to come; the free choice is left to them. . . . But whoever does not want to come, like Jerusalem and those who have bought oxen and houses and have taken wives—these he leaves out as unworthy. . . . He wants to have uncoerced, willing, and joyous guests. . . . For God does not force anyone. . . . In the same way Lot was not compelled by the two angels in Sodom.[41]

Thus if not even God compels people into his kingdom but offers them an invitation which they can freely accept or deny, it follows that humans have no right to compel people into the godly kingdom either.

Consequently, God has not placed in human hands—neither those of lay Christians nor clergy nor government officials—the right to persecute heretics, whether they truly be heretics or not. Contra the widespread medieval and early modern notion, stemming back to Aquinas,[42] that heretics amounted to spiritual murderers who must (even more than physical murderers) be slain for the common good, Hubmaier convicted of spiritual murder precisely those who demand the execution of heretics. This is because the latter condemn potential heretics to perdition before the end of their natural lifetimes, which God had mercifully granted to furnish them further opportunities to repent and be saved (Romans 2:4). As Jesus explained in the parable of the wheat and the tares (Matthew 13:36-43), believers and nonbelievers must live together peacefully in society until the day of the Lord's judgment. Only God, and not any human, has the authority to uproot the tares and consign them to punishment.[43] From this it follows,

declared Hubmaier, that the inquisitors are themselves "the greatest heretics of all" in burning alleged heretics "contrary to the teaching and example of Christ," thereby "uprooting the wheat with the tares before the appointed time."[44] Hence, while "it is proper for secular authorities to execute the wicked (Rom. 13:4) who cause bodily harm to the defenseless. . . . they must not judge the godless."[45] Denck summed up the evangelical Anabaptist conviction with this statement: "No Christian who wishes to boast in his Lord may use power to coerce. . . . For the realm of our King consists alone in the teaching and power of the Spirit."[46]

Due to their insistence on freedom of conscience, Hubmaier and his evangelical Anabaptist coreligionists promoted the use of apologetics in winning unbelievers to the gospel. As one of the preeminent apologists of his day,[47] Hubmaier explained that those who disagree with sound doctrine "should be overcome with holy dialogue, not quarrelsomely but gently" with "statements of authority and gospel evidences. . . . having debated the truth with them"; should they refuse to listen, we "with patience and supplication. . . . should pray and hope for their repentance."[48] Echoing this sentiment was Denck, who pointed to Jesus' use of careful exegesis of and logical argument from Scripture vis-à-vis the Jewish religious authorities as a model for Christians to follow: "Whoever truly acknowledges Christ as Lord ought to do nothing but what he commands him. Now he commands all his disciples to teach transgressors. . . . [in] his scripture . . . which, in all references, must be held up in perspective, compared and integrated, if we are to find a basis for truth."[49] Menno styled this apologetic use of Scripture as "wielding the sword of the Spirit."[50] Unfortunately, as the evangelical Anabaptists lamented, such did not constitute standard procedure for most sixteenth-century Protestants and Catholics. Instead, they fell into the same trap as the first-century Jewish religious leaders; just as the Jewish leaders sought a religio-political messiah who would violently throw off the yoke of Rome and make Judaism the dominant faith in the Ancient Near East, so Protestants and Catholics clung to the church-state Christendom amalgam and its "holy violence" for ensuring their expansion and survival. As Marpeck remarked, this pseudo-Christian move could only be made at the expense of denying the true redemption offered by Jesus:

> Far be it from us that we should seek to be redeemed like the Jews and these present alleged Christians who comfort themselves and hope to be redeemed by human power and the arm of man. The Jews, contrary to Christ and His own, claim to expect a Messiah or Christ who will redeem them from all power of the Gentiles by means of the arm of man and carnal weapons. . . . Thus also the alleged Christians are now blinded by this Jewish error (contrary to the bright light and Word which they claim to have and of which they boast), and assume that with the carnal sword and the arm of man Christ will release and redeem them from those who . . . frighten them. . . . The old Latin Roman Church, which is ruled by imperial power, also hopes that the emperor will achieve the victory in the semblance and name of Christ against all those who resist her. . . . It will happen in order that all those will be punished who, in the semblance of Christ, suppose that they will decide with the carnal sword.[51]

This quotation reveals a common understanding among the evangelical Anabaptists: the messiahship of Jesus, who refused to usurp the duly constituted political roles of king (John 6:15) and judge (Luke 12:13-14) but insisted that his kingdom, namely the Kingdom of God, was not of this world (John 18:36), demanded the separation of church and government. To see why, we note that, for evangelical Anabaptists, the church and God's Kingdom were one and the same, an identification which followed inescapably from their definition of the church as the invisible body comprising God and the company of all his redeemed rather than any visible institution. As Menno affirmed, "The Prince of peace is Christ Jesus; his kingdom is the kingdom of peace, which is his church."[52] Thus if Jesus explicitly separated the Kingdom of God from the state, and the Kingdom of God is the church, then the separation of church and state is mandatory. On such grounds it follows that, for evangelical Anabaptism, the most devastating tragedy in all of church history proved to be the recognition of Christianity as first favored and then official religion of the Roman Empire respectively under Constantine (313) and Theodosius I (381).[53] This is because, in attempting to fuse church,

which is invisible, with the visible government, the church loses its essential spiritual character and ceases to be the church over which Christ rules. But if, as evangelical Anabaptists maintained, church and state must remain separate but Christians should take part in politics, then how could they do so without unwittingly melding the two? Their answer came from the Apostle Paul (Acts 16:17-39; 21:37-39; 22:25-29; 23:17-35; 24:10-22; 25:10-12; 28:16, 30-31) and the ante-Nicene apologists,[54] who, on the one hand, used their status as Roman citizens to seek such basic human liberties as protection and religious freedom for themselves and their communities but, on the other hand, never aimed to make the empire Christian or encourage the empire to pass laws favoring Christians over others.

In this way, evangelical Anabaptists employed their political influence to foster religious tolerance and proscribe laws concerning religion in the places they labored. For instance, as advisor to the Waldshut City Council, Hubmaier exhorted its members, who had previously maltreated Jews and persons deemed to be witches, to cease persecution of religious dissenters; the Council consented to Hubmaier's request.[55] In an age of such virulent anti-Semitism (and having formerly been, as a Catholic priest, a persecutor of Jews himself), Hubmaier's championing of philo-Semitism as the only Christian stance is quite remarkable: "Yes, in fact I should show friendship toward Jews and heathen. . . . [doing] works of necessity . . . such as the need to give food, to give drink, to give shelter. . . . so that they might be drawn by a Christian example to Christian faith (which issues in such friendly works, Gal. 5:23)."[56] If they do not respond to such kindness, we must patiently continue to show it, coupled with the careful use of Scripture and prayer, throughout their lives, regardless of whether or not they ever convert.[57] Hubmaier was able to implement this same policy of toleration in Nikolsburg as advisor to the Lords von Lichtenstein.[58]Denck also successfully worked for this policy in the cities of Augsburg and Basel, preventing the establishment of a state church in both cities from 1525 to his death in 1527, despite the respective attempts of Luther and Zwingli to institute such.[59] Based on Micah 4:5, which avers that in the last days "all the nations may walk in the name of their gods; we will walk in the name of Yahweh our God forever and ever," Denck declared that the gospel demands a

truly religiously plural society where not only varieties of Christians but also Muslims, nonreligious people, and Jews would live together unmolested. With words that seem far ahead of their time, Denck asserted:

> Such a security will exist also in outward things, with practice of the true gospel that each will let the other move and dwell in peace—be he Turk or heathen, believing what he will—through and in his land, not submitting to a magistrate in matters of faith. Is there anything more to be desired? I stand fast on what the prophet says here. Everyone among all peoples may move around in the name of his God. That is to say, no one shall deprive another—whether heathen or Jew or Christian—but rather allow everyone to move in all territories in the name of his God. So may we benefit in the peace which God gives.[60]

Marpeck labored to engender such security in Augsburg, exploiting his close relationship with its Council as the city engineer to make the city a religiously tolerant city for all between 1545 and 1556, to the dismay of first Luther and then Melanchthon.[61] As previously indicated, Menno's irenic relations with Countess Anna of Oldenburg sparked a governmental policy of religious tolerance in East Frisia from 1545 to 1554; even greater was the result in Fresenburg, where his friendship with Baron Bartholomew von Ahlefeldt yielded the banishment of all religious laws from 1555 until the 1618 start of the Thirty Years' War, making it a safe haven for Jews and other persecuted minorities for over half a century.[62]

Even though evangelical Anabaptists sought the protection of secular government and occasionally requested military action to be taken against their hunters, when arrested by duly sanctioned authorities they refused to take up arms in self-defense and would not call upon either their free coreligionists or sympathetic governments to make war against those authorities. This behavior was predicated on their respect for the state as instituted by God regardless of whether composed of just or unjust rulers (Romans 13:1-7) and the "good confession" (1 Timothy 6:13) of Jesus, who told Pilate that his disciples would not fight to prevent his crucifixion (John 18:36). Looking to the apostles

and the ante-Nicene martyrs for inspiration, evangelical Anabaptists, after having exhausted every biblically sanctioned channel to preserve their lives, embraced martyrdom as a privilege of God's counting them worthy to share in the sufferings of Christ (Acts 5:41). As Menno insisted, authentic disciples literally and voluntarily take up their crosses and follow Jesus when called upon to do so, going like their Lord like peaceful lambs to the slaughter and displaying *agapē* toward their slaughterers.

> True Christians do not know vengeance, no matter how they are mistreated. In patience they possess their souls. . . . And they do not break their peace, even if they should be tempted by bondage, torture, poverty, and besides, by the sword and fire. They do not cry, Vengeance, vengeance, as does the world; but with Christ they supplicate and pray: Father, forgive them; for they know not what they do.[63]

Such a model was followed by Hubmaier, who suffered prison and torture at the hands of Zwingli from December 1525 to April 1526 in Zurich after defeating the latter in a public debate over believers' baptism. After his release and flight to Nikolsburg, Hubmaier sent an entreaty to Zwingli marked by genuine concern and compassion for his tormentor's soul. Despite pleading for the lives of his fellow evangelical Anabaptists, some of whom Zwingli had drowned in the Limmat River, conspicuous by its absence is the slightest tinge of rancor or retribution toward Zwingli:

> Stop also the miserable imprisoning . . . of pious brothers, the exiling out of the territory, imprisoning, throwing into the dungeons, putting in stocks and blocks, drowning, and the like. . . . Aye, my dear Zwingle, do so for the sake of God and the truth, then the cause will soon come right everywhere. May God give you his grace and help you so that you again grasp his bright, clear, limpid Word as before and walk according to the same. May the dear merciful God the Father in heaven through Jesus Christ his most dear Son, our only Savior, grant

> that to you and to us all. . . . Recognize yourself and live well in Christ.[64]

Likewise, when Hubmaier and wife Elizabeth were captured by the forces of Habsburg monarch Ferdinand I at Vienna in 1528 and thereafter sentenced to death, Hubmaier displayed tremendous love toward his murderers. Just before the stake on which he would be burnt was lit, Hubmaier cried, "I forgive all those that have done me harm. . . . O Lord, into thy hands I commit my spirit."[65]

Although Denck, Marpeck, and Menno died natural deaths, many of their parishioners did not, especially during the years before they obtained tolerance from their respective city governments and in the surrounding regions which were not subject to those governments' jurisdiction. Over 10,000 evangelical Anabaptists were martyred by Catholic and Protestant authorities alike in the sixteenth century, as both Holy Roman Emperor Charles V (Second Diet of Speiers, 1529) and the Austrian Habsburg King Ferdinand I (Diet of Worms, 1527) placed Anabaptists under the sentence of death, free to be harassed and killed by anyone without penalty.[66] Even a casual reading of the accounts of their deaths in the *Martyrs' Mirror* reveals the magnitude of persecution they faced, matched only by their boldness, courage, and fortitude. A representative example saw between ten and seventeen evangelical Anabaptists slain by the Dominicans at the Dutch city of Vucht in 1538, seven years before Menno could procure their liberty in that region.

> In this year 1538, in the month of August, ten, or seventeen persons, male and female, were apprehended in the town, who were accused of rebaptism. These were principally of the poorer class, except one, a goldsmith, called Paul von Drusnen, of whom it is reported that he was their teacher. Paul, and three others, were put to death at Vucht, in the theatre, then afterwards burnt on the 9th of September.
>
> Paul's wife said: O Lord! Enlighten those who inflict such sufferings upon us, that they may see what they are doing. I thank thee, O God! That thou didst think me worthy to suffer for thy name's sake.

> The Dominican said to another woman: Will you not stay with the holy church? She replied: I will remain with God; is this not a sufficient holy church?
>
> Then spoke the Dominican to a man, John van Capelle: Pray that he may forgive you, because you have set us a bad example. He replied: I did not err, but I have engaged in the word of God and I am sorry that I remained so long in darkness. I entreat you, brothers, read the gospel, and live according to its precepts, and leave off your debauchery, roguery, and cursing.
>
> . . .
>
> The third woman said, O, Almighty God! Lay no greater burden on me than I can bear. Thus they died cheerfully.[67]

This record bears eloquent testimony to the evangelical Anabaptist understanding of the church as the invisible Kingdom of God and their desire for the salvation of their executioners. Other accounts like this one often give the time and place of execution but rarely a complete list of the names, such as these members of Denck's flock slain two years after their shepherd's death: "Wolfgang Brand-Huber, Hans Niedermaier, and about seventy others, A.D. 1529."[68] George Huntston Williams summarizes their theology of martyrdom well: "The Christian should pray for this particular cross and be glad when it comes, for amidst tribulation comes . . . the oil of the Holy Spirit, the healing grace that makes even judicial torture and martyrdom an occasion for joy and divine benediction."[69]

Concluding Reflections

With the evangelical Anabaptists we encounter a direct and massive contradiction to Quinn's pragmatic argument of tolerance through uncertainty. For here we have a group who believed with absolute certainty in their religious convictions (as certified by their willingness to die for these convictions), who participated in civil government, who possessed the political leverage to exhibit intolerance toward those in their regions who did not share their religious convictions, and who acted in precisely the opposite fashion.

They successfully (albeit temporarily) carried out the experiment of genuinely religiously tolerant and pluralistic societies in their cities and regions, where they lived together with Jews, Catholics, Lutherans, Reformed, and the occasional Muslim in peace and with the free exchange of ideas. An evangelical Anabaptist innovation, William R. Estep perceives that their "view of the state was to prove their most far-reaching contribution to the modern world."[70] Further foreshadowing the modern age, the evangelical Anabaptists viewed apologetics among the essential ingredients of evangelism, mixed with prayer, compassion, and holy living. In sum, the evangelical Anabaptists' basis for religious tolerance was not uncertainty, but certainty in Jesus' proclamation of the Kingdom of God, a kingdom which demanded unconditional love and non-coercion toward those who had not yet entered it. Hence, contra Quinn, the true basis for religious tolerance is certainty in the reality of the *agapē*-centered Kingdom of God.

Moreover, the intolerance and barbaric violence all too typically displayed against the evangelical Anabaptists suggests the real root of religious intolerance: the unholy alliance of religion and government. Thus certainty concerning one's religious convictions simply has nothing to do with intolerance. Logically extrapolating upon the evangelical Anabaptists' convictions, it is easy to see why, for the Christian tradition, the combination of church and state has tragically spawned religious violence. When the church identifies itself with the state, the church ceases to be the Kingdom of God and so cuts itself off from God's supernatural power, which alone can internally transform people's lives. Bereft of this divine power, the now pseudo-church has nothing to draw upon in its attempt to grow and preserve its societal influence except the human coercive power of the state to compel, at least externally, the beliefs and behavior of persons under the state's governance. Having abandoned the fruit of the Spirit (Gal. 5:22-23), the pseudo-church possesses no means for regulating faith and morals but coercion under pain of law, such that its charges at best evince merely a cultural acceptance of various Christian doctrines (*assensus*) without a personal commitment to Jesus (*fiducia*) and involuntarily perform actions which Scripture teaches true believers will voluntarily undertake. Against such a pseudo-church, Jesus' words to its first-century counterpart stand in condemnation:

> Woe to you, scribes and Pharisees, hypocrites, for you cleanse the outside of the cup and dish, but inside they are full of greed and self-indulgence. Blind Pharisee, first cleanse the inside of the cup, in order that its outside may also be clean. Woe to you, scribes and Pharisees, hypocrites, for you are like graves having been whitewashed, which on the outside indeed appear beautiful, but on the inside are full of the bones of dead persons and every kind of impurity. Thus also you yourselves on the outside appear righteous to human beings, but on the inside you are full of hypocrisy and lawlessness (Matthew 23:25-28).

If this analysis is correct for the Christian faith, the truth which God has once for all entrusted to the saints (Jude 3), then how much more accurate it is for other world religions which lack such a divine starting point!

All in all, the case of evangelical Anabaptism not only demolishes Quinn's pragmatic argument but also throws valuable light on the true source of intolerance, which knowledge proves increasingly necessary in understanding and effectively responding to religious factionalism in the contemporary world.

Notes

1. As defended in Philip L. Quinn, "Toward Thinner Theologies: Hick and Alston on Religious Diversity," *International Journal for Philosophy of Religion* 38 (1995): 145-64; "Religious Diversity and Religious Toleration," *International Journal for the Philosophy of Religion* 50 (2001): 57-80; "Epistemology in Philosophy of Religion," in *The Oxford Handbook of Epistemology,* ed. Paul Moser (Oxford: Oxford University Press, 2002), 513-38; "On Religious Diversity and Tolerance," *Daedalus* (Winter 2005): 136-39.
2. M. Byrne, *Religion and the Enlightenment* (Louisville: Westminster John Knox, 1996), 28.
3. Quinn, "Religious Diversity and Religious Toleration," 68-73.
4. William Lane Craig, "Is Uncertainty a Sound Foundation for Religious Tolerance?" in *Religious Tolerance through Humility*, eds. James Kraft and David Basinger (Aldershot, England: Ashgate, 2008), 13-27; James Kraft, "Philip Quinn's Contribution to the Epistemic Challenge of Religious Diversity," *Religious Studies* 42.4 (2006): 453-65.

5. Quinn, "Religious Diversity and Religious Toleration," 57; "Epistemology in Philosophy of Religion," 513.
6. Sigrun Haude, "Anabaptism," in *The Reformation World*, ed. Andrew Pettegree (New York: Routledge, 2000), 252.
7. George Huntston Williams, *The Radical Reformation*, 3rd ed. (Kirksville, MO: Truman State University Press, 2000), 161-74, 556-82.
8. C. Arnold Snyder, *Anabaptist History and Theology*, 2nd ed. (Kitchener, Ontario: Pandora Press, 1997), 193-95.
9. Thomas G. Sanders, *Protestant Concepts of Church and State*, 2nd ed. (New York: Holt, Rinehart, and Winston, 1985), 84.
10. "[O]ne can see in the following points that it does not befit a Christian to be a magistrate: the rule of government is according to the flesh, that of the Christians according to the Spirit. Their houses and dwelling remain in this world, that of the Christians is in heaven. Their citizenship is in this world, that of the Christians is in heaven. The weapons of the Christians are spiritual, against the fortification of the devil. The worldly are armed with steel and iron, but Christians are armed with the armor of God, with truth, righteousness, peace, faith, salvation, and with the Word of God....For any kingdom which is divided within itself will be destroyed" (*The Legacy of Michael Sattler*, trans. and ed. John H. Yoder [Scottdale, PA: Herald Press, 1973], 41).
11. *The Complete Writings of Menno Simons*, trans. and ed. J. C. Wenger (Scottdale, PA: Herald Press, 1956), 554.
12. *Balthasar Hubmaier: Theologian of Anabaptism*, trans. and ed. H. Wayne Pipkin and John H. Yoder (Scottdale, PA: Herald Press, 1989), 499.
13. *The Writings of Pilgram Marpeck*, trans. and ed. William Klassen and Walter Klaassen (Scottdale, PA: Herald Press, 1978), 537-38.
14. *Simons*, 193-95.
15. Walter Klaassen, "The Relevance of Menno Simons; Past and Present," in *Menno Simons: A Reappraisal*, ed. Gerald R. Brunk (Harrisonburg, VA: Eastern Mennonite College and Seminary, 1992), 28; for the authoritative demonstration of this fact see Helmut Isaak, "The Heavenly Jerusalem has Descended upon this Earth: Spiritual, Apocalyptical or Eschatological Anticipation of the Kingdom of God" (Ph.D. dissertation, University of Amsterdam, 1989).
16. "Wer aber eyn haußvatter ist, der handle mit weib und kind, knecht und mägd, wie er wolt, das Gott mit im handlet, das weret im die liebe nit. Und soferr es müglich were, eyner oberkeyt auch also zu handlen, so möcht sie auch wol christlich in irem stand sein" (*Hans Denck Schriften*, 3 vols., ed. Georg Baring and Walter Fellmann [Gütersloh: C. Bertelsmann Verlag, 1955-60], 2:85).
17. *Marpeck*, 557.
18. *Hubmaier*, 521.
19. Helmut Isaak, "Menno's Vision of the Anticipation of the Kingdom of God," in *Menno Simons: A Reappraisal*, 70.
20. *Hubmaier*, 503.

21. Balthasar Hubmaier, "Concerning the Sword," in *Anabaptism in Outline: Selected Primary Sources*, ed. Walter Klaassen (Scottdale, PA: Herald Press, 1981), 249. Here Klaassen's translation is a more faithful rendering of the German than that of Pipkin and Yoder (*cf. Hubmaier*, 511).
22. Menno Simon, *A Foundation and Plain Instruction of the Saving Doctrine of our Lord Jesus Christ*, trans. I. Daniel Ruff (Lancaster, PA: John Herr, 1835), 128.
23. Kirk R. MacGregor, *A Central European Synthesis of Radical and Magisterial Reform: The Sacramental Theology of Balthasar Hubmaier* (Lanham, MD: University Press of America, 2006), 11.
24. *Hubmaier*, 367.
25. While the "birthday" of Anabaptism is often fixed at 21 January 1525 when Conrad Grebel baptized George Blaurock at the home of Felix Manz in Zurich, this date holds only for separatist Anabaptism, which started with these Swiss Brethren. For it has been demonstrated that Hubmaier, though not himself rebaptized until Easter Saturday 1525, began the practice of baptizing believers no later than January 1523. For the details behind this situation see MacGregor, *Central European Synthesis*, 104-24.
26. MacGregor, *Central European Synthesis*, 243-47.
27. Williams, *Radical Reformation*, 282-86.
28. Ibid., 1213; William R. Estep, *The Anabaptist Story: An Introduction to Sixteenth-Century Anabaptism*, 3rd rev. ed. (Grand Rapids: Eerdmans, 1996), 124-25.
29. Simon, *Foundation*, 27, 126; also see *x*, where Menno includes the nobles in his dedication of the entire work.
30. Williams, *Radical Reformation*, 734.
31. Johann Loserth, *D. Balthasar Hubmaier und die Anfänge der Wiedertaufe in Mähren* (Brünn: Verlag der histor.-statist., 1893), 95-99.
32. Johann Peter Müller, *Die Mennoniten in Ostfriesland vom 16. bis zum 18. Jahrhundert: aktemässige kulturgeschichtliche Darstellung* (Emden: W. Haynel, 1887), 72.
33. *Simons*, 526.
34. Estep, *Anabaptist Story*, 176.
35. "Jr můest, můest, můest ye bekhennen, das ein Christenliche Oberkhait solhs vil baß vnd ernstlicher verbringen mũg vnd thon werde, denn ein vnchristenliche.... ist wissentlich, das ye frommer sy seind, ye baß vnnd ordenlicher sy das schwert nach dem willen Gotes zů beschützung der vnschuldigen vnd zů einer forcht.... aber tregt ein sonder mitleiden mit allen denen, die sich vbersehen haben. Sy wolte von hertzen, das es nit beschehen were....ein vnchristenliche, dero weder Christus, Got, noch Gotseligkhait zů hertzen geet, sonder allain gedenckt vnd synnet, darmit sy in irem gwalt, pomp vnnd bracht pleybe" (*Balthasar Hubmaier Schriften*, ed. Gunnar Westin and Torsten Bergsten [Gütersloh: Gütersloher Verlagshaus Gerd Mohn, 1962], 437, 439, 447).
36. Simon, *Foundation*, 148-49.

37. Representative of this sentiment is the assertion of atheist New Testament scholar Gerd Lüdemann: "The origin of the idea of tolerance...is not rooted in the Bible. The idea of tolerance has a very different root. It is a non-Christian root; it's rooted in the Enlightenment....We have to realize that for eighteen hundred years, no Christian had the idea of being tolerant to others" (*Did Jesus Rise from the Dead? Boston College Debate on 9/18/97 between William Lane Craig and Gerd Lüdemann* [Orlando: Integrated Resources, 1997], VHS recording). However, as this article proves, every part of Lüdemann's assertion is historically inaccurate.
38. This designation is often incorrectly given to Sebastian Castellio's 1554 *De haereticis, an sint persequendi* (Concerning Heretics and Whether They Should Be Persecuted), written on the heels of the Servetus debacle in Geneva. In point of fact, *De haereticis* did not go nearly as far as *Von Ketzern*. While Castellio argued that someone could be executed for heresy only if that person undermined (or threatened to undermine) the commonweal, Hubmaier claimed that secular authority cannot execute or even punish someone for heresy under any circumstances.
39. "Dann Christus ist nit kommen, das er metzge, vmbringe, brenne, sonder das die, so da lebend, noch reychlicher lebind....Darumb ketzer verbrennen ist Christum im schein bekennen, aber in der that verlöugnen vnd greülicher sin dann Joachim, der könig Juda" (*Hubmaier Schriften*, 98, 100).
40. MacGregor, *Central European Synthesis*, 145.
41. *Hubmaier*, 444.
42. Thomas Aquinas, *Summa Theologica* (Westminster, MD: Christian Classics, 1981), 2.2.3.
43. Amplifying the argument, Menno highlighted that Paul and John implicitly taught the same ethic as Jesus: "Say, my dear people, where do the holy Scriptures teach that in Christ's kingdom and church we shall rule the consciences and faith of others by force of the sword, violence, and tyranny of the magistracy—something which is left entirely to the judgment of God? Where have Christ and the apostles acted thus, advised thus, commanded thus? Ah, Christ says merely, Beware of false prophets; and Paul ordains that we shall avoid a heretical person after he has been admonished once or twice. John teaches that we shall not greet or receive the transgressor into our houses, who does not bring the doctrine of Christ, Matt. 7:15; Tit. 3:10; 2 John 1:9; they say not: Down with the heretics, accuse them before the magistrates, imprison, exile and cast them into the fire or water, as the Romans have done for many years, and as many of you would do, you who pretend to preach the word of God" (*Simons*, 537).
44. "So volgt nun das die ketzermayster die allergrösten ketzer sind, in dem das sy wider Christus leer vnd exempel die ketzer in das feür verurtailen vnd vor der zeyt der zeyt der ärnd außrauffend den waitzen zů samt dem vnkraut" (*Hubmaier Schriften*, 98). Menno stated precisely the same thing: "Reader, understand it rightly. Christ, the Son of man, sows his seed (God's word), through his Spirit, in the world; all who hear, believe and obey it, are called the children of the

kingdom. In the same manner the opponent sows his tares (false doctrine), in the world, and all that hear and follow him are called the children of evil. Now, both wheat and tares grow together in the same field, namely, in the world. The husbandman does not want the tares to be plucked out before their time, that is, he will not have them destroyed by rooting them up, but wants them left until the harvest, lest the wheat be destroyed with the tares, Matt. 13:29, 30" (*The Complete Works of Menno Simon*, trans. I. Daniel Ruff [Elkhart, IN: J. F. Funk, 1871], 88).

45. Darumb so tödt der weltlich gwalt die boßhafften billich vnd wol, Romm. 13 [V. 4], welche die werlosen am leib letzend....Der gwalt richtett...nit die gotloßen" (*Hubmaier Schriften*, 99).
46. Hans Denck, "Concerning True Love," in *Anabaptism in Outline*, 270.
47. Surveying the reformer's stellar debating record against the likes of John Eck (his erstwhile *doctor vater*), Huldrych Zwingli, and John Oecolampadius, Anabaptist specialist Eddie Mabry dubs Hubmaier "a kind of apologist *par excellence*" (*Balthasar Hubmaier's Understanding of Faith* [Lanham, MD: University Press of America, 1988], *vii*).
48. "Welche söllich sind, sol man mit hailigen kuntschafften, nit zänckisch sonder senfftlich überwinden....mit gwaltsprüchen oder Euangelischen vrsachen.... mit geduldt vnd schreyen....sol ouch bitten vnnd hoffen vmb bůßwirckung" (*Hubmaier Schriften*, 97-98).
49. *The Spiritual Legacy of Hans Denck*, trans. and ed. Clarence Bauman (Leiden: Brill, 1991), 198, 165.
50. *Simons*, 94-95, 200.
51. *Marpeck*, 539.
52. *Simons*, 554.
53. MacGregor, *Central European Synthesis*, 11.
54. Earle E. Cairns, *Christianity through the Centuries*, 3rd rev. ed. (Grand Rapids: Zondervan, 1996), 103-07.
55. Carl Sachsse, *D. Balthasar Hubmaier als Theologe* (Berlin: Trowitsch und Sohn, 1914), 132.
56. *Hubmaier*, 419.
57. Thus Hubmaier wrote, "Allow them to continue ranting and raging (Titus 3:10) so that those who are filthy may become more filthy still (Rev. 22:11)" ("so gang iren müssig vnd laßs sy die weil toben vnnd wütten, Tit. 3 [V. 10], damit die so ietz psudlet sind, noch baß psudlet werdind. Apoc. vlt. [V. 11]"; *Hubmaier Schriften*, 97).
58. MacGregor, *Central European Synthesis*, 263. Although the Lichtensteins' 1527 arrest of revolutionary Anabaptist Hans Hut is sometimes cited as a counterexample, Hut was arrested not for his religious beliefs but for exhorting the Nikolsburg populace to take up arms and overthrow their lords, a fact repeatedly emphasized by Hubmaier in the wake of this incident.
59. Ludwig Keller, *Ein Apostel der Wiedertäufer: Hans Denck* (Leipzig: Hirzel, 1882), 138.

60. Hans Denck, "Commentary on Micah," in *Anabaptism in Outline*, 292.
61. Jan J. Kiwiet, *Pilgram Marbeck* (Kassel: J. G. Oncken Verlag, 1957), 125-27.
62. John Horsch, *Mennonites in Europe*, 2nd ed. (Goshen, IN: Mennonite Historical Society, 1942), 204.
63. *Simons*, 555.
64. *Hubmaier*, 232-33.
65. Henry C. Vedder, *Balthasar Hübmaier: The Leader of the Anabaptists* (New York: G. P. Putnam's Sons, 1905), 243.
66. Estep, *Anabaptist Story*, 74, 101.
67. Thieleman J. Van Braght, *The Bloody Theatre or Martyrs' Mirror of the Defenseless Christians*, trans. I. Daniel Rupp (Lancaster, PA: David Miller, 1837), 374.
68. Ibid., 360.
69. Williams, *Radical Reformation*, 276.
70. Estep, *Anabaptist Story*, 257.

Science as the Servant of Theology: An Appraisal of Alister McGrath's Critical Realist Perspective

James K. Dew, Jr.

Abstract:
In the last fifty years, scholars have witnessed a massive amount of writing on the relationship between science and theology from both an evangelical and non-evangelical perspective. Alister E. McGrath's completion of the trilogy *A Scientific Theology* represents one of the most significant treatments of the relationship between theology and science by an evangelical in recent time.[1] The significance of his work is partially found in the fact that McGrath is considered by some to be one of the most productive theologians of evangelicalism in the 21st century. Moreover, McGrath's enters this discussion as one who holds doctorates in the natural sciences as well as theology.[2] This article argues that McGrath's approach makes a valuable contribution to evangelical theology, as well as the relationship between theology and science.

Brief Summary of McGrath's Scientific Theology

As McGrath explains, a Scientific Theology (ST) is based on the contention that "the relationship of Christian theology to the natural sciences is that of two fundamentally related disciplines, whose working methods reflect this common grounding in responding to a reality which lies beyond them, of which they are bound to give an ordered account."[3] He goes on to describe ST:

> [ST] an attempt to explore the interface between Christian theology and the natural sciences, on the assumption that this engagement is necessary, proper, legitimate and productive.

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> Its three volumes set out to explore the manner in which the working assumptions of the natural sciences can serve as a dialogue partner to the theological enterprise, in which there is a genuine interaction and interchange between the two disciplines, to the mutual benefit of both. It is fundamentally a sustained essay in theological method, in the sense of an attempt to explore the contours of a potentially interesting dialogue, not without its difficulties, which promises to be one of the more significant intellectual conversations of the twenty-first century.[4]

He later adds that the "concern throughout this work is to explore the methodological parallels between Christian theology and the natural sciences. How is knowledge gained, correlated and conceptualized?"[5] Thus, one must realize that McGrath is not primarily concerned with how the different theories and claims of theology and science fit together. Rather, he contends that the basis for dialogue between the two comes from the epistemological assumptions that they share.

McGrath presents the natural sciences as the ideal *ancilla theologiae*: that is, the handmaiden of theology. As he notes, the church has a long standing tradition of making use of various disciplines outside of Christianity, when they serve as helpful tools for theological inquiry. He says, "There is a long tradition within Christian theology of drawing on intellectual resources outside the Christian tradition as a means of developing a theological vision."[6] While previous generations made use of Platonic and Aristotelian philosophy, McGrath believes that the natural sciences are now the preferred dialogue partner for theology.[7] As he explains, "It is entirely understandable why the natural sciences should be considered a highly attractive dialogue partner for other intellectual disciplines. Wearied by the distortion of theory by prejudice in so many areas of intellectual activity, many have found the objectivity sought by the natural sciences to offer stability and sanity to their reflections."[8]

In volume one (*Nature*), McGrath offers a critique of the socially constructed concept of nature by showing how it is variously understood by different groups throughout history. For example, McGrath shows how the ancient Greek philosophers' understanding of

nature included the idea of matter being eternal. In more recent history, nature has been portrayed as a theater and as a mother. Thus, McGrath considers nature to be a highly ambiguous term that is beneficial for neither science nor theology. In its place, McGrath presents the Christian doctrine of creation as a viable alternative for both theology and science, by highlighting the implications of this doctrine for both disciplines. It is here that McGrath begins to unpack his important contribution to a revived and revised natural theology.

The discussion of volume two (*Reality*) centers around the realism/antirealism debate. Here McGrath defends and carefully distinguishes his realist approach from the classical foundationalist, Postliberal coherentist, and postmodern antirealist perspectives. McGrath does this by adopting Roy Bhaskar's critical realist understanding of a stratified reality. In this volume, natural theology receives further development and McGrath ends by outlining his proposed theological method. Generally conceived, ST should be understood as: (1) a response to reality as that which exists objectively, (2) an *a posteriori* discipline, (3) an approach that sees theology as response to its distinctive object, (4) an approach aimed at giving an explanation of reality, and (5) as a postulate, McGrath argues that ST is, and should be, Christocentric.[9]

In volume three (*Theory*), McGrath explores and defends the development and use of theories. He then defends the theological enterprise itself and explains how theology, like natural science, is an *a posteriori* discipline. According to McGrath, theology is an *a posteriori* discipline since it is a response to divine revelation.

Epistemological Value of ST

The philosophical developments of modernity had enormous consequences for the relationship between science and theology in that it sharply divided the two disciplines from each other. As J. Wentzel van Huyssteen puts it, "The dialogue between theology and the sciences has been forced into a rather radical conflict, a kind of modernist 'duel' where 'objective', universal scientific claims were starkly contrasted to conflict with subjective, 'irrational' theological beliefs, resulting in

a relentless pressure toward the absolute polarization of religion and science."[10] In modernity, the natural sciences spoke with tremendous epistemological authority while religion was marginalized. The famous physicalist John Searle also notes the marginalization of religious belief. In *Mind, Language and Society*, he dismisses the "God question" altogether as unimportant and distasteful. He says, "In earlier generations, books like [his] would have had to contain either an atheistic attack on or a theistic defense of traditional religion. Or at the very least, the author would have had to declare a judicious agnosticism . . . Nowadays nobody bothers, and it is considered in slightly bad taste to even raise the question of God's existence. Matters of religion are like matters of sexual preference: they are not to be discussed in public, and even the abstract questions are discussed only by bores."[11]

As the Western world moved from a modern to a postmodern perspective, absolute objective truth was denied and relativism became all pervasive. In this intellectual environment, neither science nor theology could claim to speak of truth. As Andreas Köstenberger notes, in postmodernity, the "notion of truth has largely become a casualty of postmodern thought and discourse . . . Hence truth is simply one's preferred, culturally conditioned, socially constructed version of reality."[12]

Epistemologically speaking, a critical realist perspective, such as McGrath's, is preferable to the modern and postmodern epistemological perspectives for a number of reasons. First, in contrast to a postmodern perspective, critical realism affirms the existence of an objective reality that is independent of individual human minds, as well as the possibility of gaining knowledge of this reality.[13] With this, critical realism affirms what is largely accepted as common sense by most people. As David Clark notes, most people "assume that various sorts of entities, beings, properties, or relations actually exist outside a speaker's mind. Most people, in other words, are metaphysical realists."[14] Searle believes this is one of the "default positions" which "we hold prereflectively so that any departure from them requires a conscious effort and a convincing argument."[15] This seems to explain why a realist understanding of reality has been assumed throughout most of history. As Mortimer Adler puts it, "In the history of Western

thought . . . a profound understanding of truth has prevailed from the time of Plato and Aristotle to the present. This understanding rests upon a single supposition; namely, that there exists, quite independent of the human mind, a reality which the human mind thinks about and tries to know."[16] Furthermore, these affirmations have been given substantial intellectual support by the success of modern science. As Benjamin Myers contends, "A basic assumption of both natural science and theology is that there is a reality independent of the human mind, which is intelligible in spite of the 'inescapable historicity' of the human subject."[17]

Second, McGrath's critical realist approach affirms a correspondence theory of truth.[18] As McGrath explains on multiple occasions, all theories and doctrines must be accountable to reality. His ST offers "a view of the world, including God, which is both internally consistent and which is grounded in the structures of the real world. It aims to achieve *extra-systemic correspondence* with *intra-systemic coherence*, regarding both these criteria as of fundamental importance."[19] A truth claim is not merely a matter of social construct, but is determined by how well a given proposition fits with reality. Clark describes the validity of this position when he says, "Virtually all people, including those who have never studied epistemology, typically assume something like this notion of truth, it is a *pretheoretic* intuition regarding truth. . . This is pretheoretic in that it is not an idea that *results from* complex theory building about the nature of truth but a belief that people *bring* to their theorizing about truth. It is a basic assumption, rooted in experience. It is something people philosophize *with*, not something they philosophize *to*."[20]

A third strength of McGrath's critical realist approach is that it acknowledges the mediated nature of human knowledge, which allows him to avoid the dangers of modern/Enlightenment perspectives that naïvely assumed an absolutely objective perspective of reality. That is, he affirms that "reality or realities can be known, however approximately, and that statements which are made concerning it cannot be regarded totally or simply as subjective assertions concerning personal attitudes or feelings. It is possible to gain at least some degree of epistemic access to a reality which exists 'objectively', while at the same time conceding that the manner in which this is

apprehended or conceptualized may, to some extent, be conditioned by cultural, social and personal factors."[21] By affirming critical realism and a correspondence theory of truth, McGrath avoids the dangers of postmodernism that lead to relativism. On the other hand, he avoids the naïveté of modernism by acknowledging the mediated nature of knowledge.[22] He says, "Theology does not just address history, nor does it just address nature—it addresses *and is addressed* by these and other strata of reality, and has the responsibility of coordinating these different levels of being, and showing how they are coherent with its overall vision of reality."[23] His ST recognizes the subjective factors that shape human understanding and explanation of what it apprehends. With this, McGrath shows how a critical realist navigates between modernity and postmodernity by accepting the valuable lessons of both periods, without falling prey to the dangers of either.

A fourth strength of McGrath's ST is found in his acceptance of Roy Bhaskar's notion of a stratified reality.[24] This allows McGrath to affirm a unified theory of knowledge (UTK), while at the same time avoiding reductionism. He says, "A scientific theology is motivated by the quest for a unified explanation of reality . . . the reality that requires to be explained is complex, multilayered and often opaque. We do not experience that reality as neatly divided into separate compartments. . . . Rather, we experience reality in its wholeness and interconnectedness before we develop particular disciplines and techniques to study different aspects of it."[25] Alan Padgett agrees saying, "If there exists a real world, independent of human experience, then our worldview should be aimed at understanding that world as fully as possible. For this fuller understanding we need all the disciplines of the university, including the human sciences and theology. We will expect greater coherence in our worldview because we believe that at bottom there is one reality, which is whole and connected."[26]

McGrath's ST does more, however, than simply affirm a UTK. By accepting Bhaskar's notion of a stratified reality, his approach avoids the problematic reductionism of other theorists like E. O. Wilson, who also calls for unity of knowledge, but does so at the expense of philosophy, theology and many other important domains of human inquiry.[27] In short, McGrath's approach is better than other theorists arguing for a UTK since it embraces a UTK while at the same time

affirming the stratification of reality. Because of this, each discipline will develop its particular mode and methods of investigation in keeping with the nature of its particular strata of reality. McGrath embraces a UTK that does not result in reductionism and is thus commendable to evangelicals.

Finally, McGrath's critical realist approach is also favorable to a modern perspective since it does not require Cartesian certainty for a given belief to be counted as knowledge. He says, "Traditionally, Christian doctrine has been well aware of its limits, and has sought to avoid excessively confident affirmations in the face of mystery. Yet at the same time, Christian theology has never seen itself as totally reduced to silence in the face of divine mysteries."[28]

The demands for certainty by modernism can now be seen as highly problematic since very little of what men claim to know can be established with absolute certainty.[29] As Davis explains, the "search for absolutely certain statements from which one can (through an absolutely reliable method) warrant statements that were uncertain has indeed thus far proved to be a will-o'-the-wisp. The prospects for Cartesian foundationalism or Lockean foundationalism do not look particularly promising."[30] Furthermore, as Daniel Taylor notes, as fallen creatures "our knowledge of any absolute is not only partial, it is distorted. Even if by some stretch of the imagination we could extrapolate the infinite from the finite, arguing that partial knowledge of an absolute demonstrates the existence of the whole, we confront the claim of Christian orthodoxy itself that all our perceptions are at least partially flawed as well as limited."[31] Instead of accepting the demands for certainty, McGrath proposes a balanced way of dealing with the issue by noting that one can gain varying degrees of closure (certainty) given the nature of the object under consideration.[32]

Because of these constructive aspects of McGrath's ST, I suggest that his theological method holds advantages to theologies developed from a modern or postmodern perspective. This is an important consideration since some evangelicals have been willing to embrace postmodernism or revert to a modern perspective. Rightly so, some evangelicals have expressed concern with the postmodern rejection of a correspondence theory of truth and metanarratives. Douglas Groothuis, for example, notes the importance of maintaining

a correspondence theory of truth when it says, "the correspondence view of truth is not simply one of many options for Christians. It is the only biblically and logically grounded view of truth available and allowable. We neglect or deny it to our peril and disgrace. Truth decay will not be dispelled without it."[33] Mohler makes a similar point, suggesting that "postmodernists believe all truth to be socially constructed, all claims of absolute, universal, and established truth must be resisted. All meta-narratives—that is, all grand and expansive accounts of truth, meaning, and existence—are cast aside, for they claim far more than they can deliver."[34] J. P. Moreland and William Lane Craig agree. They say, "In claiming that there are no metanarratives, postmodernists mean that there is no way to decide which among competing worldviews is true, and more importantly, there is no single worldview true for everyone. There are no metanarratives, only local ones."[35] Richard Tarnas also notes the self-defeating nature of the postmodern perspective at this point when he says, "By virtue of that self-relativizing critical awareness, it is recognized that a quasi-nihilist rejection of any and all forms of 'totalization' and 'metanarrative' . . . cannot on its own principles ultimately justify itself any more than can the various metaphysical overviews against which the postmodern mind has defined itself. Such a position presupposes a metanarrative of its own, one perhaps more subtle than others, but in the end no less subject to deconstruction criticism."[36]

On the other hand, there are also problems with evangelicals returning back to a modern perspective. As Tim Morris and Don Petcher point out, in their avoidance of postmodernism, some evangelicals have reverted to a modern perspective. They say, "While some have gone too far in the postmodern direction, most Christians rightly recognize the dangers of postmodern relativism. But many Christians, in their strong rejection of relativism, end up siding with modernism by default."[37] A few possible examples[38] of this may be noted. In an essay entitled "The Premature Report of Foundationalism's Demise", J. P. Moreland and Garrett DeWeese argue that "the rejection of foundationalist epistemology is a serious mistake."[39] Likewise, claiming that the postmodern critique of modernity is overreached, Mohler suggests that evangelicals should retain a soft form of foundationalism.[40]

In fairness to Moreland, DeWeese and Mohler, however, two points should be made. First, the concerns they raise with postmodernism are certainly valid and show the problems with this epistemological perspective.[41] Second, they are not necessarily advocating a return to the classical foundationalism of the Enlightenment.[42] Nevertheless, the term foundationalism—whether soft or hard, broad or narrow, modest or strong—comes with philosophical baggage that evangelicals may not wish to carry. The term foundationalism, however it is modified, seems to suggest an affirmation of Enlightenment ideas that are now seen to be epistemologically hollow. This becomes even more problematic when and where evangelicals fail to show how their approach differs from classical foundationalism. In Mohler's case, for example, he contends for a foundationalist approach without discussing or acknowledging the social and subjective factors of human knowledge. In the end, his affirmation of soft foundationalism is not adequately distinguished from classical foundationalism. Thus, affirming a foundationalist approach without careful clarification and qualification seems to be problematic. As Morris and Petcher put it, "While Christians rightly believe that the postmodern 'anything goes' relativism is on the wrong track, combating postmodern relativism by simply reaffirming modernist convictions about scientific objectivism is not the solution."[43]

As a third alternative to the modern and postmodern perspective, I suggest that a critical realist model, such as McGrath's, offers a preferable epistemological approach. As Myers notes, this is because McGrath's theological method is "able to appropriate the valid insights of both Enlightenment objectivism and postmodern social constructivism, without capitulating to the one-sidedness of either."[44]

Ontological Value of McGrath's ST

In addition to the epistemological strengths just mentioned, McGrath's ST also makes a significant contribution in the area of ontology. In volume one of *A Scientific Theology*, McGrath gives special attention to the Christian doctrine of creation and shows how it is not only essential to the Christian faith, but that it holds significant

advantages for the natural sciences as well. He suggests the concept of creation is preferable to the concept of "nature" since nature is a prime example of a socially constructed concept which is variously understood by different groups.[45] In his view, replacing the concept of nature with the Christian doctrine of creation is, not only consistent with Christian theology, but also provides an ontological basis for natural science and the dialogue between science and theology.[46] To be sure, McGrath's preference for creation is more than just a mere exchanging of terminology. McGrath points to the ontological significance of positing God as the creator of the universe. That is, if the universe has been created by God, then one can expect the universe to posses a genuine rationality which is discernable by the natural sciences and that also partially reveals the divine rationality behind it.

There are at least two distinct benefits of McGrath's approach. First, from a theological perspective, McGrath's emphasis on the ontological implications of creation allows theologians to gain insights from creation in the development of doctrine. However partial or incomplete this revelation may be, theologians can affirm that creation reveals God to mankind since there is a correspondence between the works of God and the being of God.[47] Because of this, natural science—the study of God's creation—can serve as the handmaiden of theology. In addition to the common assumptions and methodologies that are shared between theology and science, McGrath thinks that natural science can be especially helpful to theology hermeneutically. That is, the "natural sciences can be seen as offering a stimulus to Christian theology, to consider whether it has, in fact, achieved a correct interpretation of its foundational resources on points of importance."[48] Thus, McGrath believes that an emphasis on the Christian doctrine of creation reinforces the fact that theology can be informed from the natural sciences.

Second, McGrath suggests that there are also important benefits for the natural sciences in the doctrine of creation. Here McGrath notes how natural scientists assume certain things that they cannot find support for without something like the Christian doctrine of creation.[49] That is, things like the rationality of the universe along with humanity's ability to comprehend that rationality is incredibly difficult for natural science to explain on its own. If the Christian doctrine of creation is

posited, however, McGrath shows how natural science is given the ontological basis for some of these assumptions.

As John Polkinghorne says, "A metaphysical question such as why the universe is so deeply intelligible to us, with mathematics the key to the unlocking of its secrets, does not lend itself to knock-down answers of a logically coercive kind. The most we can require is an interpretation that is coherent and persuasive. Theism provides just such a response to the metaquestion of intelligibility."[50] By grounding natural science in a Christian understanding of creation, McGrath and Polkinghorne think that natural science is given an ontological basis for some of its most essential assumptions.

Accordingly, McGrath's emphasis on the Christian doctrine of creation shows how theology and science can be mutually enhanced and encouraged by a dialogue with one another. Therefore, with the use of CR and the emphasis on the doctrine of creation, McGrath's ST offers the epistemological as well as the ontological basis for a UTK.[51]

Apologetic Value of McGrath's ST

McGrath's ST also makes a valuable contribution to evangelicalism with its reintroduction of natural theology as a legitimate aspect of Christian theology. To be clear, McGrath has done more than simply rehash the natural theology of the modern period with all of its problems.[52] McGrath's revised natural theology is quite consistent with a premodern approach that allows it to function within the Christian tradition[53] and emphasizes creation's ability to reveal the glory of God.[54] In fact, his natural theology might be seen as an extension of the doctrine of creation and its ability to reveal the creator.[55] Because of this, McGrath's approach enjoys considerable biblical support.[56]

McGrath's approach has other advantages as well.[57] By repositioning natural theology within the Christian tradition, he abandons the foundationalist approach of the Enlightenment. During this period, philosophers and theologians used natural theology as the basis of justification for Christian theism.[58] In other words, one had to establish the existence of God before one was justified in holding to theistic beliefs, and natural theology was often used in an effort to

accomplish this. Added to this, the Enlightenment approach demanded certainty from the arguments of natural theology. McGrath rejects this approach and argues that, historically speaking, natural theology is better understood as the "enterprise of seeing nature as creation, which both presupposes and reinforces fundamental Christian theological affirmations."[59] Thus, natural theology is not required to yield absolute certainty for Christian beliefs. Instead, it simply gives confirmation to an already existing belief. Therefore, in McGrath's approach, the unnecessary and impossible requirement of certainty is removed allowing natural theology to play a significant role in Christian theology once again.[60]

Furthermore, even though it is allowed to function from within the Christian tradition—in light of an already present belief in God's existence—McGrath shows how natural theology has appeal to those outside the faith since it offers "both intra-systemic and extra-systemic insights."[61] He states, "Christian natural theology is a tradition-specific construal with universal applicability."[62] The universal applicability comes by way of the fact that natural theology, according to McGrath, is able to give an explanation of the natural sciences as well as other religious belief systems. Thus, McGrath's natural theology gives the Christian tradition explanatory power and a point of contact with the non-believer.[63] Thus, even though it begins within the Christian tradition and does not require absolute certainty, McGrath's natural theology has apologetic value for evangelical theology. As Alan Padgett points out, "Evangelical theologians and church leaders would do well to reflect upon McGrath's defense of natural theology. . . McGrath rightly points out that learned non-Christians will demand some Christian response to the natural sciences and to the ever-popular scientific atheists of our day. To be true to its mission, the church must contend in public for a Christian understanding of the natural order and of natural science."[64] McGrath's approach offers an acceptable way of doing this by reestablishing natural theology as a legitimate and helpful aspect of Christian theology.

Conclusion

Alister McGrath's ST—which is developed in *A Scientific Theology* and *The Science of God*—makes a valuable contribution to evangelical theology. Though very little has been written in response to his ST, the response so far has been quite positive. For example, Keating says, despite the areas "in which one could wish more exactitude, there can be no doubt that McGrath has moved the discussion over the theological value of dialogue with the natural sciences in a new and most welcome direction. In particular, he insists with clarity and sophistication that dialogue with the sciences must and can be in service of theology's ongoing quest to remain subordinated to God's revelation in Jesus Christ."[65] Myers concurs, saying:

> With immense learning and considerable sophistication, McGrath's *Scientific Theology* presents a theology of nature, a defense of the objectivity and knowability of the real world, and an account of the theoretical representation of reality. The whole work develops its argument through extensive engagement with the history of theology and the philosophy of science, while its most decisive formulations remain grounded in the witness of scripture. McGrath's passionate concern to integrate scientific and theological methods is balanced and enriched at every point by his concern to maintain the integrity of theology and by his commitment to an evangelical orthodoxy deeply rooted in the ecumenical faith of Christian tradition. What emerges is a uniquely sustained and wide-ranging demonstration of the methodological value of natural science as a dialogue-partner for and aid to theological reflection.[66]

Myers later adds, "McGrath's *Scientific Theology* is one of the most sustained and sophisticated theological engagements with natural science yet produced, and one of the most important works on theological method to have appeared in recent years. Its nuanced critical realist vision of the nature and task of theology will offer a valuable stimulus to theological reflection in the future."[67] Likewise,

Snyder argues that "McGrath's work in scientific theology and critical realism, in concert with the tradition of classical Christian theology, has much to recommend it. This approach opens up new avenues for study and discussion in Christian theology, without abandoning historical theology."[68] Finally, Edward Oakes says, "Taken together, the trilogy proves that McGrath can now claim to join the ranks of the most significant theologians of this new century."[69] Indeed, those who have considered McGrath's ST so far see it as an extraordinary achievement and valuable contribution to evangelical theology.

Indeed, McGrath's work stands out as a monumental achievement among evangelicals concerned with developing a theological method that takes the dialogue with natural science seriously. Furthermore, with the adoption of Roy Bhaskar's CR, McGrath's ST is better than theological methods that adopt a modern or postmodern perspective. Unlike these perspectives, McGrath's critical realist approach offers a balanced treatment of the objective and subjective aspects of human knowledge. In addition to this, it regains a UTK without yielding to reductionism. McGrath does all of this by observing the common epistemological assumptions and methods of theology and science. Based on these similarities, McGrath brings theology and science back into dialogue and shows how they can be mutually enhanced by this renewed relationship.

McGrath's ST also offers important ontological insights for theology and science. By affirming that God is the Creator of the universe, McGrath shows how creation gives theologians an important source of revelation. Likewise, McGrath's ST shows how the doctrine of creation provides the ontological basis for scientific investigation and demands a UTK.

Finally, McGrath's ST recasts natural theology in such a way that it is once again allowed to function in a confirming role for Christianity. It is freed from the Enlightenment's stifling demands for absolute certainty and is now used to support the prior belief that God exists. This, along with the fact that natural theology allows Christianity to offer an explanation of alternative belief systems, gives natural theology explanatory power and apologetic appeal. Therefore, though there are areas that would benefit from further clarification or development, McGrath's ST offers evangelicalism an appropriate

theological method and shows how science can be used as the *ancilla theologia.*

Notes

1. Alister E. McGrath, *A Scientific Theology*, 3 vols. (Grand Rapids: Eerdmans, 2001–2003).
2. McGrath earned his first doctorate (D. Phil) from Oxford in December of 1977 in molecular biology and his second doctorate (Doctorate of Divinity) from Oxford in 2001.
3. McGrath, *A Scientific Theology*, vol. 1, xvii-xix.
4. Ibid., xvii.
5. Ibid., 45.
6. McGrath, *Science of God*, 18.
7. His reason for this is not arbitrary. In his view, the tremendous success of the natural sciences over the last few hundred years suggest that they can be helpful in navigating through changing philosophical climates.
8. McGrath, *A Scientific Theology*, vol. 1, 18.
9. McGrath, *A Scientific Theology*, vol. 2, 246. McGrath gives four distinct reasons for this postulate: (1) Jesus Christ is the historical point of departure for Christianity; (2) Jesus Christ reveals God; (3) Jesus Christ is the Bearer of Salvation; (4) Jesus Christ defines the shape of the redeemed life. See McGrath, *A Scientific Theology*, 298–300.
10. J. Wentzel Van Huyssteen, *Duet or Duel?: Theology and Science in a Postmodern World* (Harrisburg: Trinity Press, 1998), 2.
11. John R. Searle, *Mind, Language and Society* (New York: Basic Books, 1998), 34.
12. Andreas Köstenberger, Editor's Introduction to *Whatever Happened to Truth*, ed. Andreas Köstenberger (Wheaton: Crossway, 2005), 9.
13. Alister E. McGrath, *A Scientific Theology*, vol. 2 (Grand Rapids: Eerdmans, 2002), 71–74, and 199.
14. David K. Clark, *To Know and Love God* (Wheaton: Crossway, 2003), 353.
15. Searle, *Mind, Language and Society*, 9.
16. Mortimer J. Adler, *Truth In Religion* (New York: Macmillan, 1990), 116.
17. Benjamin Myers, "Alister E. McGrath's Scientific Theology," in *The Order of Things: Explorations in Scientific Theology*, by Alister E. McGrath (Oxford: Blackwell Publishing, 2006), 11.
18. Alister E. McGrath, *A Scientific Theology*, vol. 3 (Grand Rapids: Eerdmans, 2003), xiv, and 194.
19. McGrath, *A Scientific Theology*, vol. 2, 56. This does not mean that McGrath denies the requirement of coherence. He affirms the need for both in determining truth. For our purposes at this point, however, it is necessary to focus on his acceptance of correspondence.

20. See Clark, *To Know and Love God*, 354.
21. McGrath, *A Scientific Theology*, vol. 1, 75.
22. McGrath, *A Scientific Theology*, vol. 2, 196.
23. McGrath, *A Scientific Theology*, vol. 2, 196.
24. See Roy Bhaskar, *The Possibility of Naturalism* (New York: Routledge, 1998); and *A Realist Theory of Science* (New York: Verso, 2008).
25. McGrath, *A Scientific Theology*, vol. 3, 133.
26. Alan G. Padgett, *Science and the Study of God* (Grand Rapids: Eerdmans, 2003), 30.
27. Edward O. Wilson is a case in point. See Edward O. Wilson, *Consilience: The Unity of Knowledge* (London: Abacus, 2006), 9.
28. McGrath, *A Scientific Theology*, vol. 3, 49.
29. McGrath makes this point as well. See Alister McGrath, *Doubting* (Downers Grove: InterVarsity, 2006), 24–25.
30. Stephen T. Davis, *God, Reason & Theistic Proofs* (Grand Rapids: Eerdmans, 1997), 93.
31. Daniel Taylor, *The Myth of Certainty* (Downers Grove: InterVarsity, 1992), 92.
32. McGrath, *A Scientific Theology*, vol. 3, 43–46.
33. Douglas Groothuis, *Truth Decay* (Downers Grove: InterVarsity, 2000), 110.
34. R. Albert Mohler, "Truth and Contemporary Culture," in *Whatever Happened to Truth,* ed. Andreas Köstenberger (Wheaton: Crossway, 2005), 59.
35. J. P. Moreland, and William Lane Craig, *Philosophical Foundations for a Christian Worldview* (Downers Grove: InterVarsity Press, 2003), 149.
36. Richard Tarnas, *The Passion of the Western Mind* (New York: Ballantine Books, 1991), 401–402.
37. Tim Morris, and Don Petcher, *Science & Grace* (Wheaton: Crossway, 2006), 6.
38. At this point I am not actually accusing these men of being modernists. Rather, I simple cite them as examples of some who continue using modernistic language. I want to urge evangelicals to refrain from such language.
39. J. P. Moreland Garrett DeWeese, "The Premature Report of Foundationalism's Demise," in *Reclaiming the Center,* ed. Millard J. Erickson, Paul Kjoss Helseth & Justin Taylor (Wheaton: Crossway, 2004), 81.
40. Mohler, "Truth and Contemporary Culture," 68.
41. Moreland and DeWeese critique the postmodern rejection of (1) the referential theory of language, (2) the correspondence theory of truth, and (3) metaphysical realism. See Moreland and DeWeese, "The Premature Report of Foundationalism's Demise", 85–90. Mohler, on the other hand, offers a strong critique of postmodern antirealism. See Mohler, "Truth and Contemporary Culture," 68–69.
42. See Moreland and DeWeese, "The Premature Report of Foundationalism's Demise", 90–93. Here they suggest that reliablism in some form may offer the key to a modest form of foundationalism.
43. Morris and Petcher, *Science & Grace*, 7.
44. Myers, "Alister E. McGrath's Scientific Theology," 10.

45. McGrath, *A Scientific Theology*, vol. 1, 88; and McGrath, *The Science of God*, 36–38. As noted earlier in the chapter, nature is an ambiguous concept which can be understood in a wide variety of way, depending on the social background of its use.
46. McGrath, *The Science of God*, 44–45.
47. McGrath, *A Scientific Theology*, vol. 1, 193.
48. Ibid., 61.
49. McGrath, *The Science of God*, 59–71.
50. John Polkinghorne, *Science & Theology* (London: SPCK, 1998), 73.
51. McGrath, *A Scientific Theology*, vol. 1, 21.
52. During the Enlightenment, Natural Theology seemed to operate autonomously from the Christian tradition.
53. McGrath, *The Science of God*, 113.
54. McGrath, *A Scientific Theology*, vol. 1, 273–274.
55. Ibid., 297; and McGrath, *The Science of God*, 72.
56. I am thinking specifically here of Ps 19 and Rom 1:18–20.
57. One might note at least six specific advantages. His approach (1) affirms creation as a source of divine revelation, (2) focuses on the laws of nature, (3) abandons classical foundationalism, (4) removes the requirement of certainty, (5) has great explanatory power, and (6) can be used as a point of contact with the non-believer. All of these points will not be rehearsed here. Instead, the most significant contributions are mentioned.
58. McGrath, *A Scientific Theology*, vol. 2, 71.
59. Ibid., 73.
60. McGrath, *A Scientific Theology*, vol. 3, 198; and McGrath, *The Science of God*, 89.
61. McGrath, *A Scientific Theology*, vol. 2, 76.
62. McGrath, *A Scientific Theology*, vol. 3, 195.
63. McGrath, *A Scientific Theology*, vol. 1, 303–304.
64. Alan G. Padgett, "A Scientific Theology, vol. 1, Nature," *Word & World* 23, no. 1 (Winter 2003): 110.
65. Keating, "The Natural Sciences as an *Ancilla Theologiae* Nova: Alister E. McGrath's *A Scientific Theology*," 149.
66. Myers, "Alister E. McGrath's Scientific Theology," 19–20.
67. Ibid., 20.
68. Snyder, "A Scientific Theology, Volume 2: Reality," 356–357.
69. Edward T. Oakes, "A Scientific Theology: Volume 3: Theory," *Theological Studies* 67, no. 1 (March 2006): 200.

Personal Identity and the Jehovah's Witness View of the Resurrection

Steven B. Cowan

Abstract:
It is commonly known that the Watchtower Society (Jehovah's Witnesses) espouses a materialist view of human beings, denying the existence of a substantial soul. This leads them to hold as well that at the point of physical death, the human "soul" (the self or life-force) sleeps—that is, it ceases to exist. Nevertheless, Jehovah's Witnesses believe that at the end of history human beings will be bodily resurrected. Presumably, they believe that the individuals who are resurrected are the same persons who died. In this paper, I intend to challenge this presumption. More specifically, I will question the coherence of the Watchtower's view of resurrection given their materialist view of human persons. In what follows, I will first rehearse the relevant aspects of the Jehovah's Witness (JW) view of human nature and bodily resurrection, providing supporting documentation. Then I will lay out the major theories of personal identity open to the materialist and show that none of these can provide the JW with a coherent account of bodily resurrection given their peculiar views of personhood and the general resurrection.

The Jehovah's Witness View of Man and Resurrection

Jehovah's Witnesses explicitly teach not only a materialist conception of human beings, but also that human beings cease to exist at the point of physical death. Appealing to God's words to Adam in Genesis 3:19 ("For dust you are and to dust you will return"), as well as other texts, one well-known JW book states that "the dead cannot do anything or feel anything. . . . At death man's spirit, his life-force, . . . 'goes out'. It no longer exists."[1] The same work later reiterates that "when a person is dead he is completely out of existence. He is not conscious of anything."[2] Another JW work elaborates:

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> A man might say that his dog 'lost its life' when it was hit by a truck. Does mean that this animal's life left the body and continued existing? No, he is simply using a figure of speech indicating that the animal died. The same is true when we speak of a man as 'losing his life.' We do not mean that his life exists independently of the body. Similarly, 'to lose one's soul' means 'to lose one's life as a soul' and carries no meaning of continued existence after death.[3]

Elsewhere, we read, "The Bible clearly teaches that the dead are unconscious and lifeless in the grave"[4] and that at the point of death "the life force eventually leaves all the body cells and the body begins to decay. All conscious thought and actions end."[5]

It is clear from these and other references that the official teaching of the Watchtower Society is that death results in the (temporary) extinction of the human person. The person once alive no longer exists. This belief is closely connected with and is explained by the JW view of human nature. In the book *Let God Be True*, we are told:

> Man is a combination of two things, namely, the 'dust of the ground' and the 'breath of life.' The combining of these two things (or factors) produce a living soul or creature called man. . . . So we see that the claim of religionists that man has an immortal soul and therefore differs from the beast is not scriptural."[6]

Another work asks, " Are you, in effect, two persons in one—a human body with a brain, heart, eyes, ear, tongue, and so forth, but also having within you an invisible spiritual person completely separate from your fleshly organism and that is called the 'soul'?"[7] The answer comes in the negative: "There should be no question in the mind of any sincere investigator that what the Bible speaks of as 'soul' is not some immortal part of man that continues conscious existence after death."[8]

So, it is clear that JWs are committed to a materialist view of human constitution. Human beings are physical entities who literally cease to exist at the point of physical death. Of course, JWs also believe

that these material beings will be bodily resurrected on the day of judgment: "The Holy Scriptures assure us that the dead in general will live again. . . . Jehovah God has empowered His Son Jesus Christ to resurrect them."[9] Elsewhere, the Watchtower Society asserts that after death, some of those who were saved by God "receive a resurrection to heavenly glory as spirit creatures, even as did Jesus Christ. . . . However, the vast majority of mankind will be brought back to enjoy life on a restored earthly paradise."[10] To such people Jesus "gives a new physical body."[11] The resurrection is thus a *bodily* resurrection.

However, another significant point is that the Watchtower authorities who developed this view of human nature and resurrection were aware that human bodies, even while alive, undergo constant change. And at death the atoms that compose any particular body are dispersed widely. So, the question is asked, "Will God have to reassemble all the atoms that once formed their bodies so that their bodies are identical in every respect to what they were at the moment of death?"[12] The Watchtower answers with a firm (and wise) "no." Why? Because:

> it would not be reasonable to insist that precisely the same atoms be regathered to form their restored body. After death, and through the process of decay, the human body is converted into other organic chemicals. These may be absorbed by plants, and people may eat these plants or their fruit. Thus the atomic elements making up the deceased person can eventually come to be in other people. Obviously, at the time of the resurrection the identical atoms cannot be reassembled in every person brought back from the dead.[13]

The Watchtower Society rightly recognizes that a bodily resurrection cannot involve the reassembly of the numerically identical atoms that composed a person's body at the point of death. They take this to mean (rightly or wrongly) that God cannot resurrect the same body. Thus, he must give the person resurrected "a *new* physical body." This conviction influences the JW view of personhood. Since God cannot resurrect the body that died, what is "brought back to life

[is] the same *person*."[14] But what is meant by "person" here? The JW has a specific answer to this question as we will see in the next section.

But let's pause and take stock. What we have seen so far is that the Watchtower Society is committed to four doctrinal points: (1) human beings are purely physical or material organisms, (2) at death those organisms cease to exist, (3) there will be a future day in which some of those persons who once existed will be raised bodily from the dead, and (4) they will be raised not as the same bodies that died, but as new ones. Notice, then, that the JW clearly envisions a *temporal gap*—a period of time—between death and resurrection. This is the crucial point, coupled with his particular view of human personhood to be discussed below, that will prove problematic for the Watchtower Society. What I will argue is that this combination of beliefs, on at least their specified definition of personhood, is incoherent.

Personal Identity and Resurrection

What makes a person the numerically same person from one moment to the next? This is the question of *personal identity*. It is a metaphysical question about what (if anything) constitutes continuity of personhood through time. And there have been many different answers given to this question.

One simple and naïve answer is that personal identity is constituted by *sameness of body*, where sameness of body is understood as the body's having and maintaining the same physical parts from one moment to the next. To my knowledge, no philosopher holds this view. Even the JW sees that this view is untenable. The reason, as we have seen, is that the body undergoes constant change. The atoms that compose the body at any time t1 are numerically different at any later time t2. In fact, about every seven years or so the body is composed of completely different atoms than it had seven years prior.

The traditional Christian answer to the question is given by *substance dualism*. The substance dualist believes that human beings are composed of two distinct components, two substances: body and soul. The body is a material substance that undergoes constant change as it gains and loses atoms (and even smaller particles, such

as gluon, quarks, and so on). The soul is an immaterial substance that causally interacts with the body and that remains constant and unchanging as a substance throughout all bodily changes. According to substance dualism, personal identity is determined by sameness of soul. Regardless of the changes in my body, on substance dualism, I am still the same person, or substantial self, at t2 as I was at t1 because at both times (and every time in between) I have (or am) the same soul.

Substance dualism, if true, also makes unproblematic a bodily resurrection after death and a temporal gap. For the substance dualist believes that the soul (and thus personal identity) survives the death of the body and exists in a disembodied state between death and resurrection. At the point of resurrection, the soul is reunited with the reconstituted body. There is no difficulty here in terms of identity believing that the person who is raised is numerically identical to the person who died. Of course, this view of personal identity and resurrection is not open to the JW because he or she explicitly denies the existence of an immaterial soul that survives the death of the body. Whatever view of personal identity and resurrection the JW espouses, it will have to be one consistent with a materialist view of human personhood.

Laying aside the obviously incorrect sameness-of-body view mentioned above, what other options are open to a materialist like the JW? One possible option is the view of Christian materialist Peter van Inwagen. His is a version of the causal continuity view that I'll call the *living system view*. Van Inwagen understands that personal identity cannot be constituted by sameness of body (since the body constantly changes), but he nevertheless believes that personal identity is closely associated with sameness of body. How so? For van Inwagen sameness of body and personal identity are properties of living organisms which are systems of physical parts (atoms) organized and integrated into a single, continuous life. Though the human body is continuously in flux, losing and gaining new atoms, those atoms are "caught up" in the biological activity of a single living organism that persists through time. In van Inwagen's words, "The life of an animal is a kind of storm of atoms that is constantly, and very rapidly, changing its 'membership.'"[15]

Let us suppose, though it may be doubted,[16] that van Inwagen's view provides an adequate account of personal identity. What about the resurrection? Van Inwagen himself believes that the doctrine of resurrection is compatible with the living systems view of personal identity only if there are no temporal gaps between death and resurrection. The reason is that the possibility of "gappy" existence is highly suspect. Imagine a human being named Fred. If a living system like Fred dies and ceases to exist completely, then what would happen on the day of resurrection? God apparently would gather together a collection of atoms and reconfigure them in the qualitatively same structure and activity that comprised Fred's life before he died. In other words, God would recreate the storm of atoms that once was Fred. But why should we consider this recreated organism to be Fred rather than merely a duplicate of Fred? For us to have any reason to think that this "new" Fred is numerically identical to the old Fred, there would seem to have to be some kind of causal connection between the first storm of atoms and the second. After all, it was (partly) the causal connections between the atoms that comprised Fred's "storm" while he was alive that constituted his personal identity in the first place. Without some causal continuity between the first Fred and he second Fred, there simply is no basis on this view for their numerical identity.

For his part, van Inwagen solves the problem by denying an absolute temporal gap between death and resurrection. In what has to be one of the strangest (perhaps bravest) moves in the philosophy of religion, van Inwagen suggests that perhaps when a person dies, God secretly preserves some relevant part of his brain intact—a crucial part of his "life storm"—and on the day of resurrection rebuilds a body around that identity-preserving core.[17] Van Inwagen has gained very few followers for this theory. Nevertheless, we do have to acknowledge that it is at least logically possible. For our purposes here, all we need to recognize is that this view will not help the JW because the JW is committed to a "gappy" existence for the resurrected dead.

There are, however, some materialist views of personal identity that some philosophers think might allow for "gappy" existence and thus make coherent a materialist conception of resurrection. Dean Zimmerman, for example, has proposed a theory in which God, just prior to a person's death, causes that person's atoms to fission into two

distinct, though causally related paths. One set of the fissioned particles "remains behind" (so to speak) and composes a corpse. The other set of particles persist (or travel) through a temporal gap to the time of the resurrection where they are reassembled into a human person numerically identical to the person who's atoms fissioned.[18] The reason for thinking that the resurrected person is the same person is because (unlike the reassembly of Fred above) there is an apparent immanent causal connection between the "first" person and the "second."

But, this theory, even if it works to make sense of personal identity and resurrection, will not work for the JW either. There are two reasons. One, the JW view of resurrection would seem to rule out any immanent causal connections between the body of the person that dies and the one who is raised. The JW emphatically insists that the dead person "no longer exists." Moreover, his body doesn't fission, but is "converted into other organic chemicals" that are "absorbed by plants" and "can eventually come to be in other people." Further, the resurrected body is not, on their view, related causally to the original body such that it is reassembled according to causal properties placed in the fissioned atoms prior to death. Rather, God simply and miraculously creates a *new* body out of "whole cloth."

A second reason the JW cannot use this theory (or any other we have cited) is that the Watchtower Society has explicitly stated a particular view of personal identity and its relation to resurrection. Here is one statement of their view:

> And what makes an individual the person he is? Is it the chemical substance making up his body? No. . . . What really distinguishes him from other people, then, is his general physical appearance, his voice, his personality, his experiences, mental growth and memory. . . . The resurrected person will have the same memory that he had acquired during his lifetime and he will have the full awareness of that memory. The person will be able to identify himself, and those who knew him will also be able to do so.[19]

Though certain physical traits are mentioned here, it appears that memory is the primary criterion necessary for the survival of

personal identity at the resurrection. The same work goes on, however, to describe how God will store in his own memory a record of the "life patterns" of deceased people which includes their memories and other psychological traits. These life patterns are elsewhere described as "the personal life-long record of the creature built up by his thoughts and by the experiences in the life he has lived from certain habits, leanings, mental abilities, memory, and history. It is also the register of . . . one's personality."[20]

What the Watchtower is espousing here is either John Locke's memory view of personal identity or perhaps the "Soul-as-Information-Bearing-Pattern view" developed by John Polkinghorne.[21] Each view suffers from serious problems. For one thing, both views suffer from the so-called "duplication problem." Lynne Rudder Baker explains:

> The problem is that two people (B and C, say) may both be psychologically continuous with (or run the same software, or exhibit the same information-bearing pattern) as a single earlier person, A. If B and C bear exactly the same relationship to A, and if B and C are distinct, then the relation that they both bear to A cannot be identity. A cannot be identical with two distinct objects, and it would be arbitrary to suppose that A is identical to one but not the other. . . . So, sameness of . . . memories, software, or information-bearing-patterns cannot suffice for sameness of person.[22]

So, imagine a case in which God, on resurrection day, takes the "pattern" or memories of Fred that he has in his own memory and creates two new bodies that both have Fred's "pattern" (and it seems evident that God could do this). Which is Fred? There is no clear answer. Indeed, this case gives us strong reason to believe that personal identity must include more than memory or psychological patterns as JWs claim.

Another reason to doubt the JW view of personal identity is something mentioned earlier. Their view, unlike some of the other possible materialist views, does not leave room for immanent causal connections between the person who dies and the person who is raised. The existence of the temporal gap between death and resurrection, for

them, is absolute. There is no physical, causal continuity that links the dead one to the resurrected one. And this is what seems to make it implausible or at least questionable that there is numerical personal identity at the resurrection.

Conclusion

I have argued that the Watchtower Society's materialist view of human persons (together with their specific view of personal identity) makes their belief in general resurrection implausible at best. Now one might wonder if this conclusion is all that significant. After all, their view of human persons and their view of the resurrection are not doctrines as central as their views on the Trinity and the deity of Christ. Granted. But insofar as the Watchtower Society claims to be a divinely inspired prophet, and insofar as their views sketched here are the official teaching of the organization, then this critique has the potential to contribute to undermining the authority of the Watchtower Society for those who might be willing to think about these issues.

Notes

1. *You Can Live Forever on Paradise Earth* (Brooklyn: Watchtower Bible and Track Society [hereafter WBTS], 1982), 77.
2. Ibid., 88.
3. *Is This Life All there Is?* (Brooklyn: WBTS, 1974), 43.
4. *The Truth that Leads to Eternal Life* (Brooklyn: WBTS, 1968), 34.
5. Ibid., 40.
6. *Let God Be True* (Brooklyn: WBTS, 1952), 68
7. *Is This Life All there Is?*, 35.
8. Ibid., 47.
9. Ibid., 167.
10. *The Truth that Leads to Eternal Life*, 45.
11. *You Can Live Forever on Paradise Earth*, 174.
12. *Is This Life All there Is?*, 170-71.
13. Ibid., 171.
14. Ibid. (emphasis theirs).
15. Peter van Inwagen, *Metaphysics* (Boulder, CO: Westview Press, 1993), 177.

16. For example, all causal continuity views like van Inwagen's are subject to a "fission problem" in which a person splits into two different person streams or "storms of atoms" both of which are causally continuous with the original storm. One person, of course, cannot be numerically identical to two persons.
17. Peter van Inwagen, "The Possibility of Resurrection," in *The Possibility of Resurrection and Other Essays in Christian Apologetics* (Boulder, CO: Westview Press, 1998), 45-51.
18. Dean Zimmerman, "The Compatibility of Materialism and Survival: The 'Falling Elevator' Model," *Faith and Philosophy* 16:2 (April 1999): 194-212.
19. *Is This Life All there Is?,* 171-72.
20. *Make Sure of All Things* (Brooklyn: WBTS, 1953), 311.
21. John Polkinghorne, *The Faith of a Physicist: Reflections of a Bottom-Up Thinker* (Minneapolis: Fortress Press, 1996).
22. Lynne Rudder Baker, "Persons and the Metaphysics of Resurrection," *Religious Studies* 43:3 (2007): 333-48.

Eucharistic Origins as Evidence for Jesus' Resurrection

Glenn B. Siniscalchi

Abstract:
The earliest and most pertinent evidences concerning the church's celebration of the Eucharist are shown to be relevant to the apologists' arguments in support of Jesus' resurrection: the antiquity and rapid rise of Eucharistic praxis, the change that took place from various ceremonial meals in Judaism to the specifically Christian understanding of the Eucharist, the fact that the Eucharist was celebrated on a weekly basis on Sundays, and the symbolic liturgical actions that accompanied the earliest Christian assemblies will all serve as examples. Jewish and Greco-Roman religious influences seem incapable of accounting for these relatively undisputed practices. By contrast, I argue that Jesus' resurrection best resonates with them.

In recent years Christian theologians and apologists have focused almost exclusively on establishing the historicity of the empty tomb and the post-mortem appearances of Jesus at the expense of considering the early church's celebration of the Eucharist as a legitimate source of evidence for Jesus' resurrection. Relevant are Larry Hurtado's comments on N. T. Wright's latest argument: "the most remarkable innovation in first-century Christian circles was the inclusion of the risen/exalted Jesus as recipient of cultic devotion. For historical analysis, this is perhaps the most puzzling and most notable feature of the earliest Christian treatment of the figure of Jesus. Yet Wright has scarcely anything to say about this, and I find that curious."[1]

Because of the scarcity of works dedicated to early Christian worship and how it relates to the resurrection, I will describe and explain the origins of Eucharistic praxis to supplement the apologists' traditional arguments in support of Jesus' resurrection.[2] These unprecedented practices can only be accounted for by taking the resurrection appearances seriously as historical events. The appearances produced such powerful transformative experiences in the earliest disciples that

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the first Christians saw it as an act of disobedience to not worship the Risen Christ within the Eucharistic context with other believers.

The Antiquity of the Eucharist

One of the most significant difficulties scholars face as they discuss the origins of the Lord's Supper is determining how much of the Last Supper narratives in the Gospels are historical rather than legendary. Following Joachim Jeremias's major study, *The Eucharistic Words of Jesus*, many scholars today who have studied the subject affirm that although the Gospel narratives were influenced by various liturgical practices, they are nevertheless historically reliable at their core. According to Jeremias: "the common core of the tradition of the account of the Lord's Supper—what Jesus said at the Last Supper—is preserved to us in an essentially reliable form."[3] Stylistic and verbal characteristics within the Gospels do not prevent historians from making inferences that describe and explain the central events under consideration. It is generally recognized among Evangelical scholars that the various theological emphases within the Gospels do not provide sufficient reason to question the events reported and described therein.

Now this line of argument undeniably takes as its assumption that the New Testament writings draw from independent sources. I submit that there are at least *three* sources underlying the Gospel material. While we cannot delve into the intricacies of source criticism here, we can outline what commentators have said about the topic.[4] First, Mark's material is commonly thought to have an early Palestinian origin. Matthew, in turn, closely followed Mark; Luke draws from Paul's source material and another source that is different from Mark. That source is the second source. Luke's account is shaped by material that is not exclusively Pauline. While John's Gospel does not contain a Last Supper scene, it presents us with a different sacrament of the Lord's supper—the washing of feet in chapter thirteen. John's material comes from another source of unidentified origin.

Let us turn our attention from the Gospels to Paul's writings which would count as a *fourth* source. Using the technical standard terms for "received" and "passed on" in ancient Judaism, Paul

indicates in passages such as 1 Corinthians 11:23-25 that he is handing down sacred tradition about the Eucharist.[5] Critics almost unanimously recognize that this tradition reaches back to within a few months or years after Jesus' death. According to New Testament historian John Meier:

> Naturally, we begin with the earliest written document, Paul's first letter to the Corinthians, written around the year A.D. 55, some 25 years after the Last Supper took place. But, when it comes to Paul's narrative of the Eucharist, we are not even 25 years removed. Paul introduces this narrative with a solemn formula stressing that the tradition of which he is now reminding the Corinthians is a tradition he first taught them when they were converted to Christianity, around A.D. 50 or 51. But even at that time the Eucharistic tradition was nothing new. What Paul taught his converts was what he himself learned when he became a Christian, somewhere between A.D. 30 and 34. The narrative Paul repeats thus has its roots in the cradle of Christianity; the basic shape of the Eucharistic narrative that Paul recounts in the year 55 had already crystallized soon after the year 30. All this is intimated by the deceptively simple declaration: 'For I received from the Lord what I also handed down to you . . .' (v 23). We find similar formulas among the rabbis and the philosophers of the ancient world when they want to stress that a particular teaching has been carefully preserved and handed down.[6]

It is noteworthy that Paul uses the same terminology (i.e., "received" and "passed on") in the ancient creed of 1 Cor. 15:3b-5 which lists in chronological order the original percipients of the Risen Jesus.[7] Like 1 Cor. 11:23-25, the information contained relayed in these passages is also thought to go back to the earliest days of the Christian movement. As N.T. Wright states, it "was probably formulated within the first two or three years after Easter itself" and is "the earliest Christian tradition."[8] James D.G. Dunn dates it to "within months of Jesus' death."[9] Thus the clear and programmatic inclusion of Jesus within the context of Eucharistic praxis was easily identifiable from

within and outside the earliest Christian communities and began as a well-established worship pattern almost immediately after Jesus was executed and buried.

Thus there are least *four* independent sources that need to be considered in any serious analysis of the origins of the Eucharist. By employing the traditional criteria of multiple attestation, we have good reason to think we can know about the general aspects of the Last Supper meal that Jesus had with his disciples which later formed the basis of the Christian Eucharist. According to Xavier Léon-Dufour: "Another fact that argues for an attribution of Eucharistic institution to Jesus is that when the gospels report other meals taken by Jesus during his ministry or by the risen lord during the appearances, they never date these events. In the case of the Supper, however, Paul specifically says that the action attributed to Jesus took place 'on the night he was betrayed,' and all the synoptic accounts say the same thing in their own way."[10] Thus scholars are generally agreed that the Eucharist was celebrated at an exceptionally early date; the practice reaches back to Jesus himself.

Considering that most facts within ancient history are deduced from only one source of information, two or three sources generally renders the event probable. For ancient historians rarely have more than one or two sources to substantiate their claims. While historians generally do not speak in terms of *proving* anything about the past (for historical conclusions are generally tentative and capable of revision), the most reasonable explanation that we have is that Jesus shared meals with his disciples during his earthly ministry and that Jesus and his disciples celebrated the culminating meal of the Last Supper which was later repeated by his followers when they met together, celebrating the victory of the Lord's death and Exaltation.

The Transition from Jewish Ceremonial Meals to Christian Eucharist

Unlike the Jewish understandings of their various ritual meals, the earliest Christians believed that the Risen Jesus presided over the

celebration of the Eucharistic meal.[11] Receiving the Eucharist was the means by which the Risen Jesus renewed the members of the church, taking her sufferings upon himself. Redemption was not found by obeying the written commands of the Torah; but rather all people, regardless of their race, gender, class, or ethnicity, could find salvation through Jesus, expressed in the communal participation in the sacred meal.[12]

Perhaps the most distinctive historical mutation that took place from Second Temple Jewish meals to the Christian understanding and practice of the Eucharist had to do with the Christians' belief that the Eucharist was the culminating expression of the new covenant in the person of Christ. The conviction of the New Testament writers is that Jesus inaugurated a new covenant by providing his disciples with a radical reinterpretation of common Jewish rituals. IN part, the Eucharist was seen as a celebration of the *Messiah's death*. All the New Testament accounts of the Last Supper regard the Lord's Supper as a new covenant. Therefore, the first major mutation surrounding the paradigmatic shift from the Jewish ritual meals to the Christian Eucharist had to do with *the change of meaning* that the earliest believers poured into their new ritual meal.

During the Second Temple Jewish period there were many common family, social, and religious meals in Judaism. Indeed, the meals of the context of Christian origins were already complex cultural symbols. Determined in pattern by Jewish culture, these meals were also seen as events in which Jewish identity was constituted by bread, prayer, ritual purity, and teaching and narrative memory. Among these were the *Kiddush*, the *Haburah*, and the *Essene* meal. Also included are the Passover meal, and other common Jewish festive meals. Recent investigation has also uncovered the *todah* meal and the *todah* theme prayer after other meals as well.[13] Even though scholars are uncertain about which of these meals Jesus actually modified for at the Last Supper, it is noteworthy that the early Christians excluded all other ritual celebrations of Judaism when celebrating the Eucharist.

Although the New Testament authors do not employ the term "Eucharist," the verb form "to give thanks" is clearly embedded in their writings (Mark 14:23; Matt. 26:27; Luke 22:17, 19; 1 Cor. 11:24). Other expressions, such as "Holy Communion" (which comes from

the Greek word *koinōnia* in 1 Cor. 10:16), "The Lord's Supper" (1 Cor. 11:30), and "The Breaking of the Bread" (Luke 24:35; Acts 2:42) were instrumental for the theology of the Eucharist in the early church. By the time of Ignatius of Antioch (110 A.D.) and Justin the Martyr (150 A.D.), the term "Eucharist" was regularly being used by Christian believers.

Although the Christians remained within the Jewish spectrum of understanding the symbolic meals, their views about participating in these rites of passage had transformed in a way that had no parallel in Jewish religion. Not only did the meaning of the ritual meal drastically change from Judaism to early Christianity, but it also congealed from the many different meals taken by Jews to a singular celebration which excluded all other meals.

From the Jewish Sabbath to the Christian Sunday

One of the earliest customs in Christianity was the meeting that the believers held on every Sunday (Matt. 28:1; Mark 16:2,9; John 20:1,19; Acts 20:7; 1 Cor. 16:2; Rev 1:10). Despite the variation of the liturgical celebration, the basics of Eucharistic praxis were generally agreed upon by these early believers. All of the earliest evidence that we have—as seen in the Acts of the Apostles, Paul's first letter to the Corinthians, and the Didache—refers to the weekly *Sunday* celebration (and not any other day). Since Sunday was the day in which the disciples found the tomb empty (and possibly saw what they believed was the Risen Jesus), it was viewed as a sacred day by the earliest community of believers.

It would have been just as easy for the disciples to celebrate the Eucharist on Thursday (the day the Lord supposedly celebrated the Passover meal with them) or Saturday (the Sabbath). Willy Rordorff asks the same kinds of questions in his analysis of the origins of Sunday worship: "Why did they not, like the Jews, also meet on the Sabbath for their own worship either in the morning or in the afternoon or, if some of them still went to the synagogue, towards evening? That

would certainly have been the simplest solution, for the Sabbath was in any case a work-free day."[14]

The Christians, who were scattered throughout the countryside (cf. Acts 8:1), left the mother church in Jerusalem to establish local churches not only with a set of doctrines to be believed, but also with a set of practices for all persons to participate in (and this included, of course, the practice of the Eucharist). Throughout this process of inculturation, it would have been easy for the early believers to accommodate the practice of the Eucharist to non-Christian religious practices.[15] But there is simply no such accommodation; Eucharistic praxis remained constant as the surrounding cultures were increasingly converted to Christ.

The Symbolic Liturgical Actions that Accompanied the Earliest Eucharistic Celebration

Early Christian devotion did not take place in decorative temples; nor did it consist of sacrifices made to the God of Israel through the intercessions of a hereditary priesthood. "Along with the lack of temples or cult images," says Larry Hurtado, "the earliest Christians offered no sacrifices to their God, and in this as well seemed to their pagan neighbors an odd sort of religious group." Elsewhere, he adds that "Their lack of these important 'normal' components of religion is part of the reason why some outsiders regarded Christian groups as more like philosophical associations than religious groups."[16] Worship within the context of the Eucharistic celebration was so unique in the beginning of the church that it "transcended the lines of differentiation and marginalization operative in their life outside of the worship setting."[17]

Early Christianity was also accompanied by the belief that God was active in the midst of the ritual action. For these Christians, worship was not seen as "merely a religious exercise by its participants, an opportunity to re-affirm their beliefs and to engage in ritualized behaviour; it was an occasion for the manifestation and experience of

divine power."[18] The attitude in worship was not passive, but was one in which the believer could expect to be changed by the Spirit. Judaism in first century Palestine forbade the apotheosis or the divinization of human persons. This makes Christian devotion to Jesus all the more remarkable, especially considering that Christianity was seen as another sect of Second Temple Judaism.

Further, the early Christians took their novel form of worship one step further by giving Jesus cultic devotion—which is the best indication that they saw Jesus as divine. These mutations are, in the words of Hurtado, "a direct outgrowth from, and indeed a variety of, the ancient Jewish tradition. But an earlier stage it exhibited a sudden and significant difference in character from Jewish devotion."[19]

The Christians were strict monotheists. But what made them different from the Jews was that they introduced a binitarian devotional pattern of worship directed to God *and* Christ exclusively. This was heretical in Second Temple Judaism because it contravened the prayers, hymns, and devotion reserved for the God of the biblical tradition alone. There is simply no analogy in the Second-Temple period to accommodate this binitarian pattern of worship that was expressed in the Eucharistic celebration (worship to a human being who once walked and talked on earth!). According to many scholars, this was the single most innovative feature in early Christianity.

The Rapid Rise of Eucharistic Practice

Despite the varied expression of Christian devotion in the earliest decades of the church, it is generally recognized that the Church attracted unbelievers to embrace Jesus as Lord at an alarmingly rapid pace (cf. Acts 2:41, 47, 4:4, 6:1). The early conversion of Jewish priests (Acts 6:7) and other enemies of the "Way" (e.g., Paul: Phil. 3:4-6) corroborates the boldness of this testimony.

One of the reasons why Christianity spread at such a quick rate has to do with its adversarial encounter it had with respect to the practices of other religions (which served to drive and shape the growth of the Christian faith). For Gentile Christians, "it represented a *replacement cultus*. It was at one and the same time both a religious

commitment and a renunciation, a stark and demanding devotional stance with profound repercussions."[20] Despite the opposition that the early Christians faced, the religious power of the message--coupled with experience of worship and the relational bonding it provided them with—kept Eucharistic praxis alive and ongoing for many centuries within the Christian communities. This exclusivist approach to worship, as expressed in the Eucharist, obligated converts to abandon certain aspects of common life, and in some cases this created tensions in families and in other relationships. The sustenance of Christian worship as expressed in the Eucharist in the face of the Roman religion was a striking feature in early Christianity. So what made the rapid growth of Christian practice so astonishing was not merely that it grew quickly, but that it grew quickly in the face of *opposition.*

As mentioned earlier, the first Christians did not just bring their cognitive beliefs to the unevangelized; they also brought a specific pattern of liturgical practices with them (including the celebration of the Eucharist). Moreover, the first believers were willing to die for these practices.[21] Martyrdom indicated to the public on a large scale that some Christians were willing to go to any length of penalty to remain faithful followers of Jesus. Passages such as 1 Cor. 10:16, 11:27, John 6:51, and Luke 24:30, 31 reflect the earliest community's understanding of Jesus' words at the Last Supper in a certain way: they were supposed to be construed realistically with prophetic symbolism.

Explaining the Evidence

Perhaps the most important factor to consider when analyzing the origins of the Eucharist is to pinpoint the cause (or causes) of what brought the practice into being. The real challenge in historical understanding is to discover not only what happened, but also why (and how) the events occurred. For all of the historical mutations that have been discussed are significant and beg for some sort of explanation. There are a few causes that are able to account for it.

The first causal theory that may account for the origins of the Eucharist has to do with pagan influences. The uniqueness of Eucharistic practice may have borrowed from pagan thought in its utility

to articulate specific theological concepts surrounding the practice, but the essence of the Christians' devotion was fundamentally different from paganism or the mystery religions inhabiting the Mediterranean world. As I. Howard Marshall concludes, "It emerges that the pagan background has nothing to do with the origins of the Lord's supper. The one point where a parallel can be seen is in the pagan meals after sacrifices to which Paul explicitly refers in 1 Corinthians 10, but these meals were the ones which had parallels in Judaism, including above all the Passover meal itself. But we cannot use the mystery religions to throw light on the Lord's supper since we have no reliable information about any aspects of them which would provide parallels to the Christian meal."[22]

Marshall's point is exhibited by the earliest historical evidence within the Pauline corpus itself. Paul emphatically rejects pagan religion along with endorsing an exclusive worship of the one true God. "Both in theology and in practice," Hurtado claims, "Greco-Roman Jews demonstrate concern for God's supremacy and uniqueness with an intensity and a solidarity that seem to go far beyond anything else previously known in the Greco-Roman world."[23] Even for those Jews who were living in the diaspora at the time, they cannot be attributed with bringing their religious ideas back into Palestine to create and sustain the new Christian heresy. For the earliest tradition of the Christian Eucharist can be traced back to within weeks or months after Jesus' execution. Thus *the antiquity of Eucharistic practices* and the *consistency of the practice from Jerusalem outward* precludes the idea that worship evolved under the direct influence of the mystery religions.

Second, these historical mutations cannot be attributed to mere Jewish explanations either. The most significant distinction in earliest Christianity was its insistence on worshipping a person who at one time walked the earth, expressed in the memory invoking meals of the Eucharist. This in itself was a huge mutation and also has neither a praxis nor a linguistic parallel in Judaism. Worship of Jesus was not in competition for the devotion given to God. Rather, Jesus was seen as divine, or, at the very least, as participating in the divine nature of the God of Israel. Judaism, moreover, forbade the apotheosis or the divinization of any person. This makes devotion to Christ all the more

remarkable given that Christianity was seen as an early sect of Judaism which viewed Messiah Jesus as a divine figure to be worshipped.

In contrast to these two causal theories, the best explanation seems to be that offered by the church. Jesus offered communion with his disciples in the symbols of bread and wine; he was soon crucified and buried, and later seen by his earthly followers at different times and places and under different circumstances. Soon afterwards these experiences provided them with the necessary ingredient to keep up the feast, re-presenting the living Lord as he taught them before he departed from them. It does not seem likely that the Christians would have celebrated the *death of Israel's Messiah* unless he had indeed appeared to them.

Conclusion

Christian apologists have focused almost exclusively on establishing the empty tomb and the appearances of Jesus when arguing for the resurrection of Jesus. I hope to have shown how the church's earliest celebration of the Eucharist should at the least complement the apologists' traditional arguments. The church's beliefs coincided with her practices, and her practices were expressed by what she believed (*Lex orandi, Lex credendi*). It is unfortunate that so many apologists have never considered the rich resource of the Christian Eucharist in defense of the faith.

This is precisely the reason why the evidences for the origins of the Eucharist have been presented. Various aspects of the evidence were outlined and discussed: the antiquity of Eucharistic practices, the rapid rise of celebrating the Eucharist, the change that took place from various ceremonial meals in Judaism to the specifically Christian understanding of Eucharist, the fact that the meal was celebrated on Sundays, and the symbolic liturgical actions that accompanied the Christian meal were all exposited and discussed.

These practices cannot be explained by either pagan or Jewish influences, but must be accounted for by taking Jesus' earthly ministry, the resurrection appearances, and the charismatic character of the early

community's worship seriously. Because evidence is qualitative in scope, those Christian apologists who have already utilized the empty tomb and the historicity of the post-resurrection appearances now seem to have an even more persuasive case for Easter faith.

Notes

1. Larry W. Hurtado, "Jesus' Resurrection in the Early Christian Texts: An Engagement with N.T. Wright," *Journal for the Study of the Historical Jesus*, vol. 3, no. 2, (2005): 205.
2. In this essay I understand Eucharistic praxis as one of many elements that constitute the early church's liturgical form of worship.
3. Joachim Jeremias, *The Eucharistic Words of Jesus*, (New York: Scribners Publishers, 1966), 203.
4. John Meier, "The Eucharist at the Last Supper: Did it Happen?," *Theology Digest*, Vol. 42, No. 4 (Winter 1995): 340, 341.
5. Joachim Jeremias, *The Eucharistic Words of Jesus*, 101-103.
6. John Meier, "The Eucharist at the Last Supper: Did it Happen?," 339, 340.
7. Joachim Jeremias, *The Eucharistic Words of Jesus*, 101.
8. N.T. Wright, *The Resurrection of the Son of God*, (Minneapolis: Fortress Press, 2003), 319.
9. James D.G. Dunn, *Jesus Remembered*, (Grand Rapids: William B. Eerdmans Publishing Company, 2003), 855.
10. Xavier Léon-Dufour, *Sharing the Eucharistic Bread: The Witness of the New Testament*, trans. Matthew J. O'Connell, (New York: Paulist Press, 1981), 162.
11. Jerome Kodell, *The Eucharist in the New Testament*, (Collegeville: Liturgical Press, 1988), 63, 64.
12. Larry W. Hurtado, *Lord Jesus Christ: Devotion to Jesus in Earliest Christianity*, (Grand Rapids: William B. Eerdmans Publishing Company, 2003), 128, 132, 133. Cf. 165.
13. For a history of Judaism conceived as a history of various ritual meals, see Jacob Neusner, *A Short History of Judaism: Three Meals, Three Epochs*, (Minneapolis: Fortress Press, 1992).
14. Willy Rordorff, *Sunday: The History of the Day of Rest and Worship in the Earliest Centuries of the Christian Church*, (London: TCM Press, 1968), 179.
15. Richard Bauckham, "The Lord's Day," from *From Sabbath to Lord's Day: A Biblical, Historical, and Theological Investigation*, ed. D.A. Carson, (Grand Rapids: Zondervan Publishing Company, 1982), 236-240.
16. Larry W. Hurtado, *At the Origins of Christian Worship: The Context and Character of Earliest Christian Devotion* (Grand Rapids: William B Eerdmans Publishing Company, 2000), 25.
17. Larry W. Hurtado, *At the Origins of Christian Worship*, 46.
18. Larry W. Hurtado, *At the Origins of Christian Worship*, 56, 57.

19. Larry W. Hurtado, *One God, One Lord: Earliest Christian Devotion and Ancient Jewish Monotheism*, 2d ed. (Edinburgh: T & T Clark Publishing Company, 1998), 99.
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21. Pinchas Lapide, *The Resurrection of Jesus: A Jewish Perspective*, (Eugene: Wipf and Stock Publishing, 2002), 26; E.P. Sanders, *The Historical Figure of Jesus*, (New York: Penguin Books, 1993), 280.
22. I. Howard Marshall, *Last Supper and Lord's Supper*, (Grand Rapids: William B. Eerdmans Publishing Company, 1981), 29.
23. Larry W. Hurtado, *How on Earth Did Jesus Become a God?: Historical Questions About Earliest Devotion to Jesus*, (Grand Rapids: William B. Eerdmans Publishing Company, 2005), 130.

Book Reviews

God is Great, God is Good: Why Believing in God is Reasonable and Responsible

Edited by William Lane Craig and Chad V. Meister, IVP, 2009.
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Despite the ever-increasing stridency of New Atheists like Richard Dawkins, Christopher Hitchens, Daniel Dennet, and Sam Harris, the twenty-first century has brought with it a worldwide resurgence in belief. Alongside this stunning growth in the number of people who believe in God—especially those who confess Christ as Lord—there has been an equally stunning growth in the field of apologetics. Thanks to developments in such academic disciplines as physics, cellular-molecular biology, philosophy, textual criticism, and the history of the first century, the case for theism and for Christianity is stronger today than it has been for a century.

In *God is Great, God is Good*, William Lane Craig and Chad Meister bring together over a dozen essays that attest powerfully to the massive and growing weight of evidence in favor of theism in general and Christianity in particular. In one way or another, all of the essays respond to the charges laid down by the New Atheists (especially Dawkins), but this is by no means a defensive or polemical book. The writers are both genial and unapologetic in their apologies for faith and never sink to the kind of personal attacks, circular reasoning, and special pleading engaged in by Dawkins, et al. They set a high bar for reasonable and responsible discourse, and they live up to it.

One of the most unique and helpful aspect of the collection is that Craig and Meister have brought under one cover apologists who work in academia but have also written more popular works (Michael Behe, Alister McGrath, J. P. Moreland, Gary Habermas, Jerry Walls, Mark Mittelberg, Paul Copan, and John Polkinghorne) with apologists who are less known outside of academia but who should be better known (Scot McKnight, Paul Moser, Michael Murray, Charles Taliaferro, and Alvin Plantinga). Perhaps even more unique, the editors place side-by-side essays by Behe (one of the major Intelligent Design theorists),

Polkinghorne (who, like Frances Collins, sees ID in physics but is more reticent about seeing it in biology), and Murray (who finds much to commend in Dawkins's theories of the evolution of religion).

Craig himself writes the lead essay and effectively rebuts all of Dawkins's rebuttals of the major arguments for the existence of God: cosmological, moral, teleological, and ontological. As Craig, Research Professor of Philosophy at Talbot School of Theology, was responsible for reviving the Kalam cosmological argument and putting it at the center of apologetics ("Everything that begins to exist has a cause; the universe began to exist; therefore, the universe has a cause."), it should come as no surprise that his essay is at its strongest in working through the implications of the cosmological argument. Since science has shown that the Big Bang created time and space, Craig argues, then the cause of the Big Bang must itself transcend both time and space. And if that is the case, then that cause must be both changeless and immaterial. So far so good, but Craig goes further. If this Cause is timeless, changeless, and immaterial, then it is highly likely that it is also personal. "The only entities which can possess such properties," Craig reasons, "are either minds or abstracts objects, like numbers. But abstract objects don't stand in causal relations. The number 7, for example, can't cause anything. Therefore the transcendent cause of the origin of the universe must be an unembodied mind." (16-17)

Craig then buttresses his argument for the personal nature of the Cause of the Big Bang by noting something odd about that Cause: although the Cause is timeless and changeless, the effect (the Big Bang and the universe it gave birth to) began at a specific point in time. How can this riddle be solved? Craig suggests that there is "only one way out of this dilemma, and that is to say that the cause of the universe's beginning is a personal agent who freely chooses to create a universe in time. Philosophers call this type of causation 'agent causation,' and because the agent is free, he can initiate new effects by freely bringing about conditions which were not previously present. Thus, a finite time ago a Creator endowed with free will could have freely brought the world into being at that moment. In this way, the Creator could exist changelessly and eternally but freely create the world in time." (17)

Craig's essay is followed by an even more aggressive essay by J. P. Moreland, Distinguished Professor of Philosophy at Biola University. In a confident but non-belligerent tone, Moreland argues that the at once purposeless and deterministic "Grand Story" of scientific naturalism simply cannot account for what he calls the "five recalcitrant features of the image of God." (37) Since human consciousness could not reasonably have evolved out of brute, unconscious matter—and since one of the central laws of philosophy, logic, and science states that something cannot come out of nothing—the cause of human beings must itself possess consciousness. Of course, naturalists will "claim that consciousness simply emerged from matter when it reached a certain level of complexity," (39) but such a claim proves nothing. "'Emergence' is not an explanation of the phenomena to be explained. It's merely a label." (39) And just as naturalism cannot explain the existence of consciousness apart from God, so it cannot explain how it is that man possesses free will, rationality, unified selfhood, and intrinsic value and worth. None of these things are to be encountered in brute matter or even in the more complex animal world. They all demand a non-material, supra-natural source.

Essay three, by Paul Moser, professor and chair of philosophy at Loyola University of Chicago, takes the argument for God's existence to an even higher and more subtle level—one that threatens to lose the average reader but which will richly reward those who persist in their attempt to grapple with his provocative and original thesis. Essentially, Moser argues that most critics of theism, and even some Christians seeking a firm rational basis for the God of the Bible, are "looking for God in all the wrong places." (54) Too often we seek a "morally indefinite" God who is simply there to be discovered by inquisitive minds. But the Bible suggests something very different about God.

When Jesus praises God for hiding things "from the wise and learned" and revealing them instead to "little children" (Matthew 11:25), he suggests that God is often "intentionally elusive" to those who seek him with wrong motives—to those who oppose his moral authority and refuse to incline their hearts toward him in humble surrender. "If we take Jesus and the Hebrew prophetic tradition seriously, we should expect God to be morally righteous, perfectly loving and thus at times elusive toward wayward humans. . . . we

should expect God to be a moving target, and not an object for casual or convenient human inspection or speculation. . . . We must be wary, then, of morally neutralizing or otherwise domesticating God in our inquiry about God's existence." (55) God often hides himself from human inspection, not because he is aloof or removed (as the deists and stoics would have it), but because he hides himself from the proud.

Moser suggests that we need to ask not where God is hiding, but "what *kind* of person is inquiring about divine reality—a person willing or unwilling to yield to a perfectly loving God." (56) Perhaps the reason we lack evidence for God's existence is that we, the inquirers, are not right toward God. If we actively resist God's love, then how can we expect to be able to receive divine revelation? God's love is not coercive; therefore, unreceptive hearts that neither desire nor value God's love should not be surprised when they fail to receive direct evidence of God's existence.

Craig, Moreland, and Moser's fine attempts to prove, from a philosophical point of view, the existence of God are followed in turn by three equally fine attempts (by Polkinghorne, Behe, and Murray) to prove God's existence on the basis of recent scientific discoveries. While Polkinghorne demonstrates, in his typically supple prose, that science has "found that the universe is profoundly rationally transparent and beautiful," that the "laws of physics seem to point beyond themselves," and that the cosmos possesses a "deep intelligibility," Behe argues, on the basis of cutting edge science, that life is incredibly complex all the way down to the subatomic level and that random mutation—despite the exalted claims of neo-Darwinism—is incoherent, does not build structures, does not lead anywhere, and (thus) cannot account for life's complexity. Murray, meanwhile, takes a very different approach: he concedes many of the scientific theories proposed by naturalists to account for the origin of religion, and then argues that none of those theories need be linked to a materialistic universe.

Part Three of *God is Great, God is God* moves from defending, on philosophical and scientific grounds, the existence of God ("God is Great") to defending the moral purity of that God in the face of pain, suffering, and evil ("God is Good"). All four of the essays that make up this section are powerful and convincing—with Meister arguing

that theism alone can account for human morality, McGrath defending religion from the neo-atheist claim that it is at the root of all evil in the world, and Walls reconciling the love of God with the existence of hell—but the one that I found most original and thought-provoking was Copan's apologia for the Old Testament. Some of the strongest attacks of the New Atheists are leveled against the so-called immorality of the Mosaic Law and the Conquest of Canaan. Paul Copan, Pledger Family Chair of Philosophy and Ethics at Palm Beach Atlantic University, answers these attacks in a straightforward and honest fashion that sheds considerable light on the historical setting of the Pentateuch, Joshua, and Judges.

Copan begins his apologia by insisting that "Israel's holiness code" was not meant by God to be an "ultimate, universal ethic." When God led Israel out of slavery in Egypt, he took her where she was at. "God begins," Copan reminds us, "with an ancient people who have imbibed dehumanizing customs and social structures from their ancient Near Eastern context. Yet Yahweh desires to treat them as morally responsible agents who, it is hoped, *gradually* come to discover a better way." (138) He uses the Law to lead them slowly toward a higher moral calling, even building into the Law what Copan terms an "inherent planned obsolescence." (151)

Through a comparative analysis of the Mosaic Code with other Near Eastern codes, Copan shows that the Code that God gave to Israel was far more restrained, humanistic, and equitable than any other competing code. For example, "in Babylonian or Hittite law, status or social rank determined the kind of sanctions for a particular crime, whereas biblical law holds kings and priests and those of social rank to the same standards as the common person." (143) The Mosaic Law, Copan concludes, is not the harsh and illiberal code that the New Atheists condemn it for being; rather, it embodies "an *accommodation* to a morally undeveloped ancient Near Eastern cultural mindset—with significant ethical improvements—as well as a response to the rebellious, covenant-breaking propensity of the Israelites." (144)

Having placed the Mosaic Law in its proper cultural setting, Copan does the same for the Conquest—an event that Dawkins and company compares to the ethnic cleansings of the twentieth century. As before, Copan begins with an important reminder: "Israel (whose history

as God's Old Testament people, by the way, is unique, unrepeatable and not to be idealized or universalized for other nations) would *not* have been justified to attack the Canaanites without Yahweh's explicit command. Yahweh issued his command in light of a morally sufficient reason—the intractable wickedness of Canaanite culture." (145) And Yahweh, Copan also reminds us, has divine prerogatives over life and death, human goodness and wickedness that surpass those of any human king or philosopher or New Atheist.

But Copan's apologia is not only theoretical. He references recent archeological findings that suggest that Jericho and Ai, two cities that God had Joshua put under the ban and destroy utterly, were not centers of civilian population but military forts or garrisons. Further, a close reading of the Old Testament and a study of the time period reveals that Israel's war on Canaan was limited in its goals, allowed some Canaanites (like Rahab) to enter into covenant with God, and cleared away the land without necessarily killing whole populations. Finally, Copan argues that the Conquest, like Abraham's near-sacrifice of Isaac, can only be understood within "the clear context of Yahweh's loving intentions and faithful promises." (147)

Part Four of *God is Great, God is Good* (subtitled "Why it Matters") is more eclectic in content. Taliaferro, professor of philosophy at St. Olaf College, begins with a lucid and carefully-argued defense of the Bible as divinely revealed. While critics dismiss the central Christian claim that the Bible is uniquely inspired because they consider it unfair (why should God speak only to people living in the Middle East and ignore Asia, Africa, and the Americas), Taliaferro counters that such a claim is built on the faulty notion that a good and loving God would be rigidly egalitarian in his interactions with the world. "Insisting on some strictly equal distribution of goods makes sense if the framework is an elected official distributing a surplus, but the framework of creation does not seem to require equality or homogeneity." (178) Besides, the Bible itself teaches that God wishes to bless all people through his covenant with the Jews and through the death and resurrection of his Son.

In tandem with the charge of unfairness, New Atheists like Dennet and Dawkins have also accused the God of the Bible of being

vain and jealous. But, Taliaferro asks, should jealousy always be considered a vice? Surely a man (like Hosea) whose wife cheats on him should feel jealous! Furthermore, charges against God of jealousy don't take into account the essential goodness of God. Worship, Taliaferro explains, does not involve "paying compliments to a massive ego but reverencing the goodness that makes created goods possible." (180)

So many of the attacks leveled against the God of the Old Testament arise from a refusal to read the Bible carefully and to wrestle with it on its own terms. And the same goes for the New Testament, where critics continue to ignore or twist Jesus' messianic claims to equality with God. In an essay well titled "The Messiah You Never Expected," McKnight, Karl A. Olsson Professor in Religious Studies at North Park University, lists a number of Jesus' traits and actions that clearly point to his divinity. Most memorably, McKnight highlights Jesus' "*chutzpah*," a trait that placed him in continual enmity with the religious leaders of his day. His freedom, his compassion, his activism, and his preaching style set him apart from all other contemporary leaders and rabbis. Perhaps most importantly, McKnight brings into sharp focus one of the most unique aspects of Jesus: he "was both *at home in Judaism* and at the same time *not completely comfortable with the Judaism of his day*." (199)

Gary Habermas, Distinguished Research Professor and Chair of the Department of Philosophy and Theology at Liberty University and (to my mind at least) the greatest living defender of the historicity of the Resurrection, follows next. Even those who have read Habermas's numerous books on the subject will learn new things from his excellent essay. Here Habermas adds further evidence to substantiate that when Paul describes the Resurrection and lists its witnesses in 1 Corinthians 15:3-7, he is recording eyewitness testimony from just a few years after the event itself. From the very birth of the Church, Habermas demonstrates, the Resurrection was preached as a literal, historical event on which the entire gospel rested. And this, Habermas shows, is a position that is accepted by the majority of scholars, whether they be orthodox believers, theological liberals, or strong skeptics.

Further, despite the charges of the New Atheists, the vast consensus of scholarship rejects the argument that the Resurrection was based on mythic stories borrowed from other religions. Indeed,

Habermas argues, the "real oddity about this charge [by the New Atheists] is the very real disconnect between *popular* skeptical critiques and treatments by equally skeptical *specialists* in the relevant fields. Seemingly a large percentage of the former adopt these complaints about parallel religions as if they are simply accepted by everyone except Christians, who apparently have their heads stuck in the sand. However, while the scholarly skeptics may occasionally note this or that minor similarity, they very rarely charge that early Christianity derived its resurrection teachings from prior religions." (213) Habermas does not make this vital claim in an offhanded or tentative manner; he has read and studied all the relevant scholarship, and his claim is based on hard evidence rather than wishful thinking.

God is Great, God is Good concludes with a rousing essay by Mittelberg that presents the gospel message in a fresh new way, a postscript, and an appendix. The former provides a transcript of a dialogue between Habermas and Antony Flew, an Oxford philosopher who, until his conversion to theism at the age of 81, was long considered one of the most influential atheists of the twentieth century. The latter offers a critique of the faulty logic and arguments of Dawkins by Alvin Plantinga, a University of Notre Dame philosopher who is considered by many to be "the most important philosopher of religion now writing."

As I hope this review has made clear, *God is Great, God is Good* is one of the finest apologetical collections to appear in the new millennium. Christians who work alongside academics and other professionals need no longer feel "embarrassed" by the truth claims of their faith, for behind those claims lies a growing mountain of evidence, both historical and theoretical. No, we cannot reason ourselves into faith, but that "faith which was once for all delivered to the saints" (Jude 1:3; RSV) is itself supremely reasonable.

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The Making of an Atheist: How Immorality Leads to Unbelief

James S. Spiegel. Chicago: Moody Press, 2010.
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The so-called New Atheists get a lot of rhetorical mileage in the popular culture with their frequent charge that religious belief is inherently irrational, without evidence, and motivated by psychological needs. How refreshing, then, to read Jim Spiegel's new book, *The Making of an Atheist*, in which he turns the tables on all the speculative psycho-analyses of believers, and exposes the nonrational, psychological and (im)moral foundations of atheism. In this work, Spiegel shows that, contrary to the pretensions of contemporary atheists, their unbelief is not based on evidence (or a lack of evidence for theism), but is ultimately the result of sin and rebellion as indicated by the apostle Paul in Romans 1.

In chapter one, Spiegel briefly reviews two of the major lines of argument utilized by the New Atheists in their critique of theism: "the problem of evil and the scientific irrelevancy of God" (p. 24). Concerning the former, Spiegel mentions the major theodicies employed by theists in response, but notes that the evidence of evil can never really count for atheism because (1) it doesn't nullify all of the abundant positive evidence for the existence of God, and (2) the whole idea of evil is incoherent unless God exists (since values like good and evil presuppose God). As for the scientific irrelevancy of God, Spiegel rehearses the well-known problems with positivism and scientism, and points out that naturalism can account neither for the existence and design of the cosmos nor for the value and meaning of human life.

Interestingly, Spiegel ends chapter one with a discussion of the positive *insights* of atheism. For instance, atheists are right to point out that numerous evils have been done in the name of religion. Also, the moral complacency often displayed by professing believers as well as their tendency to engage in God-of-the-gaps reasoning in science are places where unbelievers are correct to raise concerns. These and other

problems Spiegel call "theistic malpractice." Yet he notes that while these problems do call Christians to greater consistency in Christian living, they actually confirm the Christian doctrine of sin, being what we would expect to be the case if Christianity were *true*.

Chapter two demonstrates the irrationality of atheism in two ways. First, by outlining the abundant evidence for the existence of God found in the laws of nature, the incredible fine-tuning of the universe for life, and the origin of life. Second, by describing Alvin Plantinga's argument to the affect that naturalism, coupled with Darwinism, proves to be self-defeating by undermining the very possibility of knowledge. But if atheism is so clearly false, why are there atheists at all? Spiegel offers a biblical diagnosis, namely, that atheists are morally deficient (Ps. 14:1; Prov. 18:2; Eph. 4:17-19; Rom 1:18-23, etc.). The problem is not a lack of intelligence or of evidence, but "the 'wickedness' of the unbeliever works to 'suppress' what is manifest in nature. Consequently, the unbelievers's capacity for rational thought is compromised" (p. 53). This diagnosis finds some anecdotal confirmation in the bitterness and rage displayed toward God by some of the New Atheists as well as in Spiegel's personal observation of atheists who fell into unbelief after some episode of personal rebellion. These observations seem symptomatic of nonrational factors at work in producing atheism.

The heart of the book is chapter three. Here Spiegel provides empirical evidence to support the biblical diagnosis of atheism that he offered in chapter two. First, he sketches the research of psychologist and former atheist Paul Vitz who has shown that atheists typically suffer from what he calls "the defective father syndrome." Surveying the lives of many renowed atheists, Vitz revealed that in each case they had either a father who died when they were very young, a father who deserted the family when they were young, or a father who was abusive or ineffectual, or otherwise unworthy of respect. Spiegel extends Vitz's research to show that those New Atheists who we have enough information about (Dennett and Hitchens) also suffer from the defective father syndrome. A person with a poor relationship with his earthly father is disposed to project the bitterness and resentment he has toward him onto his "heavenly Father" as well.

Combined with the defective father syndrome, Spiegel points out, there is also "a persistent immoral response of some sort, such as

resentment, hatred, vanity, unforgiveness, or abject pride. And when that rebellion is deep or protracted enough, atheism results (p. 81). The most egregious of these moral defects that lead to atheism is "chronic sexual misbehavior." To prove his point, Spiegel surveys the works of Paul Johnson and E. Michael Jones who demonstrate that prominent atheist and agnostic intellectuals lived egotistical, callous, sexually promiscuous lifestyles. And it seems evident not only to Speigel, but to many of these intellectuals themselves, that there was a direct connection between their lifestyles and their unbelief. For example, P.B. Shelley remarked that "the philosophy of meaninglessness was esentially an instrument of liberation." And Aldous Huxley admits, "Those who detect no meaning in the world generally do so because, for one reason or another, it suits their books that the world should be meaningless."

Spiegel closes chapter three by discussing the role of the will in the production of atheism. Appealing to William James's concept of the "will to believe," Spiegel argues that atheists, though traumatized by defective fathers and motivated by perverse sinful desires, ultimately *choose* to disbelieve in God. The arguments and "evidences" offered by atheists for unbelief are simply smokescreens and facades. The real reason for atheism is *rebellion.*

In chapter four, Spiegel deals with the "obstinacy of atheism." Atheists can be deeply and dogmatically entrenched in their unbelief (in the same way that believers can be entrenched in religious belief). He helpfully explains this entrenchment in terms of worldviews and Thomas Kuhn's scientific "paradigms." Appealing to Kuhn's notions of the incommensurability of paradigms, the near-impossibility of falsifying them, and the nonrational factors that play a role in paradigm shifts, Spiegel shows why believers and unbelievers seem to live in different "worlds," and why atheists cannot seem to see what appears so obvious to believers, namely, the overwhelming evidence for God. Atheist can't see that evidence because the worldview paradigms in which they have entrenched themselves (materialistic naturalism and relativism) prevent them from seeing it—Spiegel calls this "paradigm-induced blindness."

Spiegel takes the reader at this point to Calvin's notion of the *sensus divinitatis*. All human beings are born with an innate capacity

for direct and personal awareness of God. This "sense of the divine" is primarily what explains the pervasiveness of theistic belief. What is it, then, that leads to the paradigm-induced blindness that the atheist suffers from? Following Plantinga, Spiegel answers that it is the cognitive malfunction of the *sensus divinitatis*. With this, Spiegel's analysis if the psychology of atheism is complete. He summarizes it thus:

> The descent into atheism is caused by a complex of moral-psychological factors. . . . The atheist willfully rejects God, though this is precipitated by immoral indulgences and typically a broken relationship with his or her father. . . . The *hardening* of the atheistic mind-set occurs through cognitive malfunction due to two principle causes. First, atheists suffer from paradigm induced blindness. . . . Second, atheists suffer from damage to the *sensus divinitatis*, so their natural awareness of God is severely impeded. (pp. 113-14).

The fifth and final chapter, Spiegel calls "The Blessings of Theism." Perhaps a better title would be "The Blessings of Virtue." He begins by pointing out that the life of virtue lived by Christian theists is a powerful apologetic tool, especially for atheists who, because of their paradigm-induced blindness, may be incapable of appreciating the merit of our apologetic arguments. Moreover, living the virtuous life helps to maintain faith and theistic belief because it helps avoid those vices that can give one a motive for unbelief. Also, given the truth of theism and the connection between virtue and truth acquisition, "the more virtuously one lives, the more truths one is able to access, including truths about God and how to obey him" (p. 117). Spiegel goes on to show that theistic belief has some special emotional benefits unavailable to the atheist, such as the right to complain in the face of injustice and the privilege of thanksgiving. He concludes with an admonition to Christians to live virtuously for the sake of reaching atheists with the gospel of Jesus Christ.

The Making of an Atheist is a welcome addition to the growing literature responding to the New Atheism. Its unique contribution lies in its head-on attack on the root causes of atheism, turning the

tables by showing that it is not the theist who suffers from an irrational psychological wish-fulfillment, but the atheist who is in fact in the grip of a powerful, self-induced delusion. The book is written in a popular style and at a level for the lay reader. It will no doubt be criticized for its lack of philosophical rigor in places (places where Spiegel summarizes the more detailed work of others), but Spiegel effectively throws down the gauntlet before the atheist and challenges him to respond to the charge that his unbelief is unjustified and motivated by sin. It will not do for him to simply reply that Spiegel's attack is an *ad hominem* one. Spiegel has provided ample evidence that not only are atheists guilty of sinful, rebellious behavior, but that this sinfulness affects their arguments. Christians need to read this book for the encouragement it gives them and the insight it provides into the psychology of unbelief. Atheists need to read it because of the serious challenge that it makes to their unbelief, a challenge that confirms Paul's assertion that unbelievers "are without excuse" (Rom. 1:20).

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