



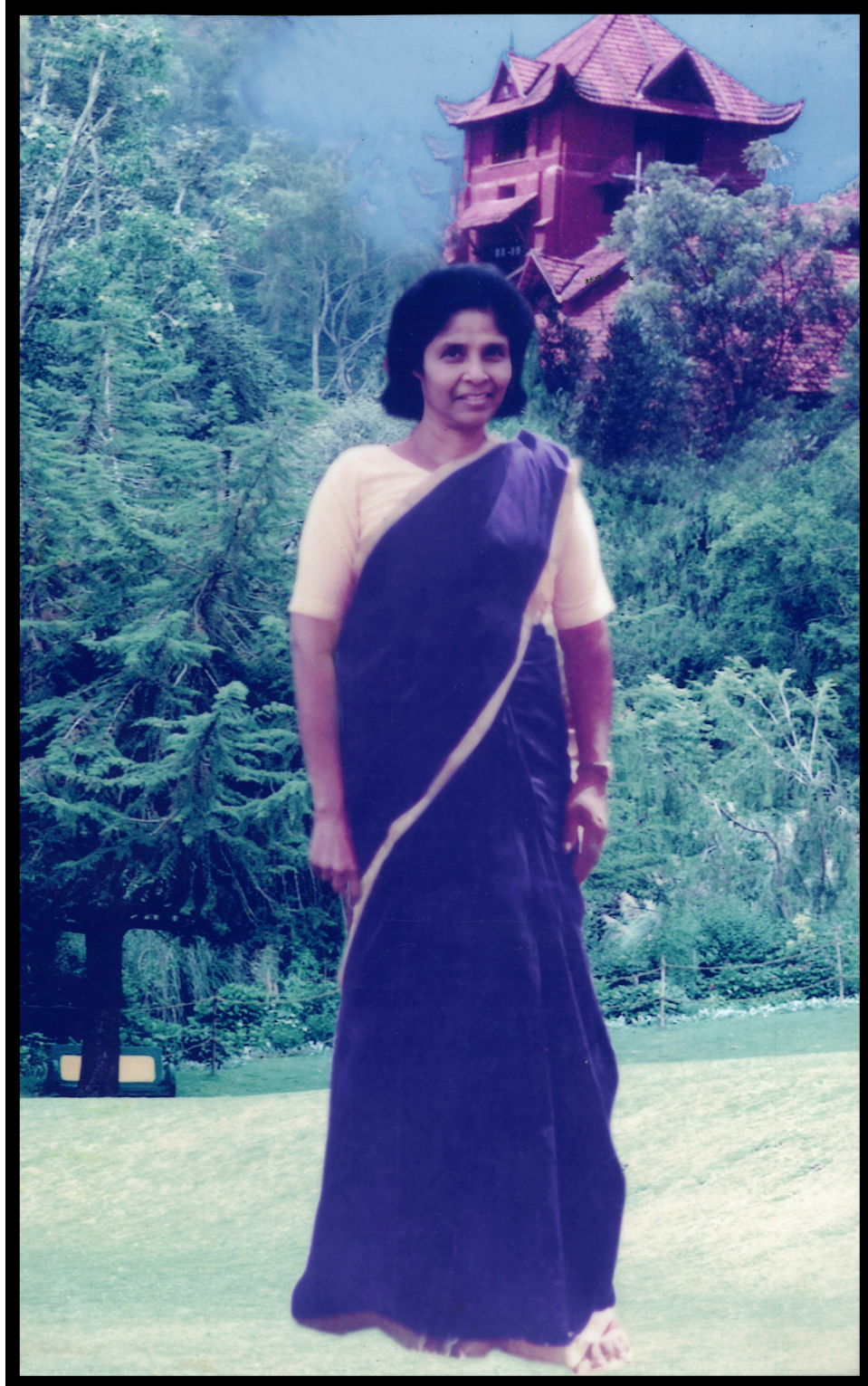
# I Used to be a Darwinist ...but I changed my mind!



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Book cover compiled and edited by Salma Carunia Carter



In the Summer of 2017, Salma traveled to Italy and stayed in Rome, near the Vatican. She presented her scholarly husband's books and writings to the Vatican Library. In September of 2017 she received a thank you letter from Pope Francis expressing appreciation, acknowledging the gift of inscribed copies of Dr. Ben Michael Carter's writings with his personal photo with the Papal seal.





mike carter

*I used to be a Darwinist*

Wed Jan 23 06:25:33 2002

I was not raised in a religious home. When I was a little boy, I had a little boy's fascination with dinosaurs, and when I was in the sixth grade (I believe it was), I was introduced to the theory of evolution via a television program on science for children. The idea electrified me and I read everything I could find on the subject. By the time I started the eighth grade I had read -- and taken copious notes (which I still have somewhere) on -- Darwin's "On the Origin of Species." I planned to take biology when I went to the university, and in fact did so, though I later switched to economic history (that is another story).

Now please be aware that during much of this time, especially when I was younger, I lived in a small town in the Bible-belt. I made no secret of my belief in evolution and was ostracized and bullied as a result. Even some of the teachers in my junior high school critized my beliefs in front of the class, and I was assured by my geography teacher that I was destined for Hell. Of course being by this time a self-aware atheist, I thought that was ridiculous, but it was also upsetting. During those years I went home in tears on more than one occasion.

As I entered early adulthood, my interest in the life sciences and evolution waned. For me evolution was a settled question and I could not imagine ever doubting the truth of the theory. Then in my 28th year several things happened and I became less satisfied with my secular answers.

I am not sure why but I began to become aware of what one might think of as a "supernatural" element in life. Things that I could not account for began to happen to me. These things were odd, various, and often subtle but they were none-the-less real, at least to me. I did not seek these experiences, they just started to happen. I began to become very interested in Tarot and magic. I also began to become aware of a presence in my life, a presence I gradually began to identify as "god" though I disliked the term and was sure that whatever this was, it was not any "established religion" deity.

Later while I was living in Puerto Rico I had an experience with an entity I believe to be the risen Christ. At this time I spent a week alone in a room in Las Lomas reading the New Testament. I was not prepared for this. In fact, I was totally surprised.

I became a member of the Wesleyan Church and started reading a lot of philosophy (to which I already had some exposure) and theology. Later I went to Wheaton College graduate school and became acquainted with the Christian doctrine of creation. I found this far more intriguing and profound than I expected. Incidentally, Wheaton required that I sign a statement of faith, part of which entailed a belief in a literal Adam and Eve. I did not at the time have such a belief, but I signed anyway, telling myself that I would make no issue of this while at the school. In fact, I did not.

The world I was becoming acquainted with was far different from the world as I had imagined it to be when I was an atheist and a Darwinist. Indeed, it was so different that in the end my Darwinism went the way of my atheism. In the spring of 1993 while working on my PhD at the University of Edinburgh, I realized I no longer believed in evolution.

However, it was later as I read Daniel Dennett and Richard Dawkins that I became "radicalized". To me these men represented all that I perceived was wrong with Darwinism. This led me to the MSNBC science board and to a regime of study as I spent several years catching up on Darwinist thought. The end result was my book "The Defective Image."

Obviously there was much more to this conversion process than I have described, but I did want to share some of the general outlines of it with you since I have dialogued with so many of you on the subject of Darwin. I hope the above will give you some idea where I am coming from.

Don

*Thanks...*

Wed Jan 23 07:23:42 2002

...for sharing with us the story of your fall from grace. :-)

Sorry, couldn't help myself.

Actually, I think its unfortunate that you have confused your religious conversion with the veracity of science. But its not unusual, people have been doing this for centuries. Heck, I live close to a community of people who believe an attractive blond woman is channeling the musings of a 35,000 year old Atlantean warlord. Science be damned.

I respect your religious beliefs. But I think you are way off on your critique of evolution. You cannot falsify a science by alluding to metaphysical arguments.

Likewise, you cannot promote another "theory" simply by criticizing another. In order for creation "science" or intelligent design to find a credible chair on the stage of science, you must make a case for it by demonstrating how observed evidence supports the hypothesis. Absent this, notions of intelligent design are no better than believing that a 35,000 year old Atlantean warlord speaks through rich blonde women.

Therein lies the problem with creation "science." Its supporters are not offering hypotheses to be tested to build a case. They are merely criticizing something else, often with incomplete and inaccurate information. But even if they were capable of falsifying "darwinism," as you call it, they would still not make the case for creation "science" or intelligent design.

Your anti-evolution remarks are tired and worn out. They are essentially no different than they were a hundred years ago. The metaphysical argument effectively rolls up to one statement: "I can't believe I'm a monkey." That's about it. That's all Behe and Dembski are really saying.

What I'd like to see you do for once is actually present the empirical evidence in favor of intelligent design. Not just metaphysical speculation and hypothetical interpretation, but the actual hard evidence. Please cite a single instance where the "theory" of intelligent design is formulated into a testable hypothesis and subjected to an experimental test that can be observed by multiple parties to produce unambiguous results.

This is not the same thing as saying that because we cannot yet explain consciousness, evolution must be false. What you need to do is make a positive hypothesis ... say "god made consciousness in human beings" ... and then devise a repeatable means to empirically test it.

mike carter

*Don*

Wed Jan 23 08:03:12 2002

My whole experience is empirical evidence. Darwinism is simply too improvised a theory to account for the world as I have come to experience it. I think that is one of the problems. Every sentient being experiences life. Those who are self-aware reflect on their experiences. Theories that make sense of the experiences are adopted, those that do not are rejected. In my case, Darwinism no longer made sense. That is empiricism, Don.

**From:** <Cartersalma@aol.com>  
**To:** <benc@dfwhc.org>  
**Date:** 7/23/2004 2:41:48 AM  
**Subject:** The Defective Image

1. Science is divided into two major branches: the physical sciences and the life sciences. The most successful science, indeed the paradigmatic science, is physics. Physics of course enjoys pride of place among the physical sciences. And physics is all about matter in motion. Science of whatever stripe is reductionistic, that is, it attempts to reduce complex phenomena to a few easily comprehensible theorems. And because physics is the most success science, other sciences have modeled themselves after physics. Indeed, the reductionistic tendency of science drives other sciences to idealize themselves as species of physics. The goal of theoretical science is the construction of an explanation of the world that can be understood solely in terms of matter in motion, that is solely in physical terms. That is monism, that is the idea that everything can be reduced to one ultimate thing, in this case matter.

2. To fully explain a thing, one needs to explain it from a neutral perspective, an outsider's perspective, if you will. Because mathematics has been so successful in quantifying physics, it has become the gold standard for all science. If something cannot be quantified mathematically, it cannot be considered science in its truest form. Mathematics of course is predicated on reason, and the laws of reason are presumed to be true whatever form the universe takes. They remain valid even if the universe never existed. This conceit derives from the idea that the principles of reason are secured in the mind of God. But it also means that the universe cannot be explained fully in terms of itself, that is, it requires a standard outside itself. That is dualism, which is a form of pluralism.

3. Darwinism is a species of evolution that posits that all life can be reduced to matter in motion, that is, can be ultimately explained in terms of physics. To make that claim, Darwinism asserts that phenomena like life and awareness are emergent properties, that is, they are novel properties created by the interaction of complex systems, i. e., chemical and biological systems. The idea is that chemical systems based on carbon, when they become complex enough, will spontaneously live, and biological systems based on certain types of protein, when they become complex enough, will spontaneously become aware. Eventually awareness, as it is selected for and becomes more complex and nuanced, will spontaneously create self awareness. The motor driving this process is natural selection, but the final standard assumed is physics, matter in motion. Darwinism, it is argued, is the key for understanding life in the universe in purely physical terms.

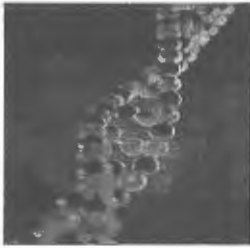
4. Notice, however, that Darwinism is all about survival and reproduction. A brain created by such a process would revolve around those goals: securing its own survival and reproducing a version of itself within a particular kind of environment. A turtle brain is all about the survival of turtles in a turtle environment, a human brain all about the survival of humans in a human environment. To secure their survival and reproductive success, these brains create virtual images of their environments. Because humans are self aware, we can project our virtual image against the backdrop of the entire universe. This helps us imagine what the universe might be like. But the brain we have is not designed to grasp what the universe is like any more than a turtle's brain is. It evolved just like the turtle brain did: to facilitate its own survival and reproduction in its own environment. It gives us no assurance that we can

grasp the universe in any exhaustive way, that is, it provides no assurance that we can understand the universe.

5. And Darwinism cannot appeal to reason as an outside standard for that would imply that more was involved than the universe itself, that there was something outside the universe that secured the validity of reason. All that Darwinism could assume is that reason and mathematics are compelling to us because they are the way we think, but we think to that we can survive in our environment. Mathematics and reason are simply tropes for the way our brains happen to work. But of course our brains evolved contingently. They did not have to be this way. Indeed, the late Stephen Gould specifically claimed there was nothing necessary in our appearance. If we could "run the tape again," as he put it, we would get an entirely different outcome.

In my book, I argue in part one that all Darwinism can guarantee is the survivor's mind, but that mind can give us no guarantee that it sees the universe as it truly is. But Darwinism explicitly claims to be able to see the universe as it truly is. It places us in the position of God if there were a God. Therefore it is self contradictory. In the second part of the book I argue that, because it is predicated on the ability to create and understand encoded meaning, to abstract, communication is an example of an irreducible phenomena that cannot be explained by Darwinism.





## Communication

*The Problem of Epistemology and Cosmic Models*

# The Problem of Epistemology and Cosmic Models

*Cosmic models are themselves not accurate depictions of the universe but humanizations of it.*

In 1975 Gunther S. Stent, then professor of molecular biology at the University of California at Berkeley, published in *Science* an article in which he argued that (a) the influence of positivism which informed the first centuries of the natural scientific enterprise is waning; that (b) structuralism (of which conceptualism is a type) has become a plausible alternative to positivism; and that (c) the theory of evolution can resolve the dilemma inherent in structuralism's assertion of innate ideas.<sup>1</sup> He then concluded that because the brain has evolved as a survival organ to process information in a particular way, its innate structures are not particularly adept at scientific inquiry insofar as that inquiry attempts to grasp reality on scales much beyond the brain's immediate experience, and that certain areas will be forever closed to the scientific method.<sup>2</sup>

While Stent focused primarily on questions revolving around the human self, I will attempt to expand his insight to include all cosmic models. I will argue that such models are not based primarily on objective evidence but instead project the innate substructure of human consciousness. Ludwig Feuerbach once argued in *The Essence of Christianity* that theology is really anthropology. In the same way, I will argue that cosmic models are themselves not accurate depictions of the universe but humanizations of it. Indeed, as creations of the human mind from the perspective of the conceptualist or the structuralist, they can

express nothing beyond sense perceptions manipulated by innate ideas and cultural presuppositions. Thus current scientific models, including models of origin, share more with ancient models, including models of creation, than they do with any actual events. They are merely the tales we tell ourselves when confronted with that great mystery. They are the way we make an alien universe seem human.

In the west, subsequent to Plato, reason served an architectonic function. It was generally assumed that knowledge was made possible by forms, whether those forms existed apart from God or in the mind of God, and that the forms were universal. In the later Middle Ages, however, this general consensus began to break down in favor of alternative positions. One of these alternative positions was what we know as conceptualism or structuralism. The conceptualists or structuralists argue that knowledge is made possible not by universal forms but by mental structures that either are peculiar to a species or even peculiar to a subgroup within a species. Thus in the view of the structuralist, knowledge of the world is particularized. Creatures see a world that is appropriate to them and their needs, but there is no reason to assume that various creatures see the same world. For example, a robin and a human being might see a car, but when they see that car, they do not see the same thing. From the perspective of the structuralist or conceptualist, this presents no problem to the species since each species survives quite well in its version of the world, but it would present a problem if species tried to claim exclusive validity for their versions. Of course, robins are not inclined to debate with humans on the nature of a car, but humans are inclined to assume that the world they see is the world as it is. The

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structuralist or conceptualist would insist that there is no reason to assume that the human sees the world as it is. All that can be assumed is that the human sees a human world. In the popular mind, this perception finds expression in the parlor debate, based upon the enumeration of rods and cones, as to whether cats and dogs see color.

In a nutshell, structuralism subverts the architectonic function of reason since from a structuralist standpoint there is no rationale for assuming that the mind, as it constructs its models of reality, employs perceptions that have universal validity. The most influential modern structuralist/conceptualist was Immanuel Kant.

## The Kantian Critique

In his *Critique of Pure Reason* published in 1781, Kant maintained that reason, unassisted by experience, would eventually generate contradictory conclusions.<sup>3</sup> Logic, he argued, is successful only insofar as it is limited to exhibiting and proving formal rules of thought.<sup>4</sup> It teaches nothing regarding the content of knowledge.<sup>5</sup> That content must be provided by the empirical sciences.<sup>6</sup> But empiricism or, as Kant called it, "sensuous knowledge" is an incoherent manifold unless structured by reason.<sup>7</sup> To forge coherent knowledge, reason and empiricism must be employed together, each correcting the other's deficiencies.

Kant understood knowledge as the result of a synthesis of various representations given either a priori or empirically.<sup>8</sup> Since knowledge is not possible without a concept, a general something that could serve as a rule,<sup>9</sup> this general something must be given a priori.<sup>10</sup> Kant called this a priori given "pure intuition."<sup>11</sup> It was not itself an object, but the formal condition for perceiving an object.<sup>12</sup>

To account for pure intuition, Kant introduced the idea of Categories. These Categories he defined as pure concepts of the understanding, by which he meant that they were given to the mind not empirically but a priori.<sup>13</sup> Kant discussed these Categories at great length. For our purposes, it is not important to look at them in detail, but we should note the following point. The Categories were roughly analogous to Platonic Forms but with this difference: In Plato's system of knowledge, the Forms were universal and made universal knowledge possible whereas in Kant's system, the Categories existed solely in the human mind. There is no way to know for certain if they correspond to objective reality, but we can know for certain that they correspond to subjective reality.<sup>14</sup> Thus Kant embraced a type of conceptualism, a philosophical tradition that goes back at least as far as Abelard. The Categories (or pure knowledge) made it possible for the mind to receive representations (or sensuous knowledge).

The faculty in the mind for receiving representations, Kant called "sensitivity"; the effect it produced, he called "sensation"; and intuitions about the objects of sensation,

he called "empirical intuitions."<sup>15</sup> Discussing sensuous knowledge, Kant argued that all intuition was the representation of phenomena.<sup>16</sup> The phenomena themselves cannot exist apart from our knowing them. Hence, we do not know what they are in themselves. We know them only as our mind, through our senses, constructs them for us.<sup>17</sup> They are sensuous representations only and must not be confused with the object apart from that representation, that is, as the object is in itself.<sup>18</sup> Kant then argued that intuition and the concepts associated with it are the basis of all our knowledge.<sup>19</sup> Indeed, he believed that the faculty of imposing an a priori unity upon the manifold of given representations was the highest principle of human knowledge.<sup>20</sup> Thus, the synthetic unity of consciousness is the objective condition of all human knowledge and all human thought.<sup>21</sup>

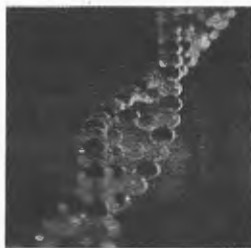
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*According to Kant, the world we see is a fundamentally human world, and therefore a limited one. Other beings might perceive and interpret it differently and just as validly.*

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Knowledge, of course, makes judgments possible. Judgments, according to Kant, are generalizations that compass the many under a single representation. They are expressions of the mind's ability to think in terms of concepts. They make explicit the mind's understanding.<sup>22</sup> Understanding, in Kant's view, is the ability to perceive patterns, categories, and order.

Thus Kant constructed a critical epistemology which, though fundamentally subjective, allowed for the apprehension of objective reality in terms of that very subjectivity.<sup>23</sup> Such an epistemological model can be diagrammed this way: *the event itself/the event as perceived/the event as interpreted*. Perception structures the event, making it accessible to the mind, but perception, by structuring the event, also alters it, investing it with the structure of consciousness itself. Thus, according to Kant, the world we see is a fundamentally human world, and therefore a limited one. Other beings might perceive and interpret it differently and just as validly. As long as we are dealing with practical questions, that limitation on our knowledge is of no particular consequence. We learn by trial and error, by tests that produce predictable results. We apply what we learn. We adopt those applications that produce the results we seek. However, when we attempt to expand our knowledge from those practical issues to metaphysical ones, when we attempt to answer ultimate questions, such as "What is the universe really like?" then those limitations



# Communication

## *The Problem of Epistemology and Cosmic Models*

become extremely important. They mean that all we can do is construct a picture of what the universe might look like to a cosmic human limited by the kind of knowledge we possess at any particular moment in history. The principles under which we operate may be quite sound. After all, we use them because they prove serviceable in our daily lives. But the world view we derive from those principles may not be valid because our way of knowing means that we cannot apprehend a thing as it is, we can only apprehend it in human terms.

### **The Kantian Critique Today**

In his Whidden Lectures delivered in January 1975 at McMaster University, Noam Chomsky argued that human knowledge was founded on the mind's "innate capacity to form cognitive structures,"<sup>24</sup> and that such a property could be accounted for in terms of "human biology."<sup>25</sup> The use of the term human biology is significant here since Chomsky suggests that although such structures doubtless evolved, it is a mistake to believe that some universal capacity for learning unites the various species. Instead he seems to see species as having abilities that are distinct.<sup>26</sup> Of course, as one who accepts evolution, he imagines that complex mental abilities developed over time in the same way that complex organs did.<sup>27</sup> Thus he argues: "The human mind is a biologically given system with certain limits and powers."<sup>28</sup> He also notes that there is no evolutionary pressure leading humans to possess minds fitted to abstract theorization and that when human cognitive capacity is well matched to a particular field of inquiry, it is purely accidental.<sup>29</sup> He writes:

Among the systems that humans have developed in the course of evolution are the science-forming capacity and the capacity to deal intuitively with rather deep properties of the number system. As far as we know, these capacities have no selective value, though it is quite possible they developed as part of other systems that did have such value.<sup>30</sup>

Thus Chomsky is supposing a kind of Kantian epistemology that, by the very structure which makes human intellectual achievement possible, sets limits on that achievement. He believes that Darwinism offers a

"biological underpinning" for such an epistemology.<sup>31</sup> He writes:

[T]here is no reason to suppose that the capacities acquired through evolution fit us to "fathom the world in its deepest scientific aspects."<sup>32</sup>

Nor is he alone in this assessment. Steven Pinker writes:

Given that the mind is a product of natural selection, it should not have a miraculous ability to commune with all truths; it should have a mere ability to solve problems that are sufficiently similar to the mundane survival challenges of our ancestors. ... [R]eligion and philosophy are in part the application of mental tools to problems they were not designed to solve.<sup>33</sup>

Indeed, he appeals specifically to Chomsky when he writes:

Maybe philosophical problems are hard ... because *Homo sapiens* lacks the cognitive equipment to solve them.<sup>34</sup> ... [T]here are indirect reasons to suspect this is true. ... [T]he species' best minds have flung themselves at the puzzles for millennia but have made no progress in solving them. [T]hey have a different character from even the most challenging problems of science.<sup>35</sup>

And while Stephen Hawking is critical of Kant's argument that theories about the origin of the universe are self-contradictory<sup>36</sup> and contends that the reasoning abilities bequeathed to us via evolution should at least prove sufficient to develop "a complete unified theory that will describe everything in the universe,"<sup>37</sup> he is also aware that scientific theories are no more than mathematical models existing only in our minds,<sup>38</sup> and that our sense of time's direction is a psychological phenomenon based in the fact that "we must remember things in the order in which entropy increases."<sup>39</sup> But this twin admission, it seems to me, robs Hawking's original reason for dissent of much of its power. After all, if our sense of time is purely psychological, purely a creation of the way we remember events, then Hawking's thesis that the reasoning abilities we inherited through evolution should be sufficient to develop a theory explaining everything in the universe collapses. If our sense of time is

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circumscribed by the structure of our psychology, how can we be sure that the same is not also true of our grasp of reason? Thus how much credit can we assign to those mathematical models that (as he says) exist only in our minds? And with this question, the limits imposed by Kant's critique of all such models reemerges as forcefully as ever.

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*Science [for Kant] had validity as a vehicle for addressing specific issues that could be resolved via direct observation and experimentation. It was not to be a vehicle for building cosmic models for such models would inevitably draw science into the transcendental realm.*

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Plainly when Pinker raises the epistemological issue, he applies it to intractable philosophical problems, and when Chomsky discusses the possible limits on what human intelligence can achieve, he refers to specific kinds of problems, like in-depth accounts of our normal use of language.<sup>40</sup> After all, both men are evolutionists and would not see evolution, because it is "scientific," as falling under the purview of a Kantian critique. Hawking seems more aware of the problem but does not address it adequately.

The problem is this: Kant understood his epistemology to exclude cosmic questions and to invalidate the models we construct when attempting to answer such questions. For example, he writes:

Human reason is by its nature architectonic, and looks upon all knowledge as belonging to a possible system. ... The propositions of the antithesis, however, ... render the completion of any system of knowledge quite impossible.<sup>41</sup>

Kant points out that transcendental philosophies assume that reason is qualified to answer those questions that occur to it, but that all such questions to which transcendental philosophy leads are cosmological.<sup>42</sup> He then analyses such questions and concludes that the "cosmical idea" which gives rise to them "is either too large or too small for the empirical regressus, and therefore for every possible concept of the understanding."<sup>43</sup> This is the fault not of the empirical regressus but of the cosmological idea itself since it cannot be resolved by an appeal to experience. After all Kant argues: "It is possible experience alone that can impart reality to our concepts; without this, a concept is only an idea without truth, and without any reference to an object."<sup>44</sup> Kant's purpose, as we noted

above, was to defend empirical science against Hume's radical skepticism. To do this, he limited the scope of human inquiry to immediate practical problems instead of abstract and ultimate ones. Science had validity as a vehicle for addressing specific issues that could be resolved via direct observation and experimentation. It was not to be a vehicle for building cosmic models for such models would inevitably draw science into the transcendental realm. Evolution, of course, is a cosmic model.

## Conclusion

Here is the dilemma: If a mind grasps its world by means of mental categories that have evolved solely to ensure the survival of that mind, there is no reason to assume that the world the mind grasps is the world as it is. Many minds survive in this world, yet see the world in fundamentally different ways. There is robin-world, bullfrog-world, woodchuck-world, and housefly-world. And there is human-world. The world of each of these creatures is validated insofar as it ensures the survival of the creature, but no further. The positivist assumes that a human mind grasps the world as it is, but from an evolutionary standpoint, there is no reason to make such an assumption. Instead there are many reasons to assume an observed world differs from the world as it is.

The observer is neither neutral nor passive. Rather, the observer, by the very act of observing, participates in and structures the world. For the positivist, this dilemma is fatal. Yet from a Darwinian perspective there is no reason to assume it is not true. Ironically Darwinism leads to a logical cul-de-sac. If the Darwinist is right, there is no reason to assume that the Darwinist can accurately model the world. If the Darwinist is wrong, there is no reason to assume that the Darwinist can accurately model the world.

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## Notes

<sup>1</sup>That dilemma being, how do those innate ideas happen to match so well with the world in which we find ourselves?

<sup>2</sup>Gunther S. Stent, "Limits to the Scientific Understanding of Man," *Science* 187, no. 4181 (March 21, 1975): 1052-7. *Structuralism* embraces any theory that embodies structural principles. In philosophy, structuralism posits the brain as possessing innate structures which, by processing information, make knowledge possible. *Conceptualism*, of which there are several varieties, is a branch of structuralism that attempts to forge some common ground between nominalism and realism and regards universals as concepts rather than Platonic forms.

<sup>3</sup>Immanuel Kant, preface to *Critique of Pure Reason*, 1st ed., (1781), xxiv.

<sup>4</sup>*Ibid.*, preface to 2d ed. (1787), xxix.

<sup>5</sup>*Ibid.*, I. "The Elements of Transcendentalism," second part, sub-part IV, "Of the Division of Transcendental Logic into Transcendental Analytic and Dialectic," 50; first division, bk. I, chap. 1, section 3: "Of the Pure Concepts of the Understanding, or of the Categories," 60; Book II: "Analytic of Principles," 117-8.

<sup>6</sup>*Ibid.*, preface to 2d ed., xxx; I. "The Elements of Transcendentalism," first division, bk. I, chap. 2, section 1: "Of the Principles of a Transcendental Deduction in General," 79.



# Communication

## The Problem of Epistemology and Cosmic Models

<sup>7</sup>Ibid., first division, bk. I, chap. 1, section 3: "Of the Pure Concepts of the Understanding, or of the Categories," 60.

<sup>8</sup>Ibid.

<sup>9</sup>Ibid., bk. I, chap. 2, section 2, subsection 3: "Of the Synthesis of Recognition in Concepts," 104.

<sup>10</sup>Ibid., 102.

<sup>11</sup>Ibid., I. "The Elements of Transcendentalism, first part, "Transcendental Aesthetic," p; Ibid., subsection 3: "Of the Synthesis of Reproduction in Concepts," 102.

<sup>12</sup>Ibid., I. "The Elements of Transcendentalism," bk. II, chap. 3, appendix, "Of the Amphiboly of Reflective Concepts, owing to the Confusion of the Empirical with the Transcendental Use of the Understanding," 219.

<sup>13</sup>Ibid., first division, bk. I, chap. 1, section 3, 60.

<sup>14</sup>The debate as to whether the Categories are universally human, or cultural constructs, or some mixture of both is a debate we need not get into here.

<sup>15</sup>Kant, *Critique of Pure Reason*, I. "The Elements of Transcendentalism," first part, 21.

<sup>16</sup>Ibid., Part I: "The Elements of Transcendentalism, General Observations on Transcendental Aesthetic," 35–6.

<sup>17</sup>Ibid., p. 36; I. "The Elements of Transcendentalism," bk. II, chap. 3, appendix, 217.

<sup>18</sup>Ibid., first division, bk. I, chap. 2, section 2, subsection 3, 103.

<sup>19</sup>Ibid., Part II: "Transcendental Logic," introduction, "The Idea of Transcendental Logic," 44.

<sup>20</sup>Ibid., I. "The Elements of Transcendentalism," first division, bk. I, chap. 2, section 1, 79.

<sup>21</sup>Ibid., 81.

<sup>22</sup>Ibid., chap. 1, section 1: "Of the Logical Use of Understanding in General," 54–5.

<sup>23</sup>It is worth noting here that Popper, though he sharply distinguishes his own "critical rationalism" from Kant's epistemology, claims that, when applied to the philosophy of science, his approach completes the critique Kant began (*Conjectures and Refutations*, Introduction, section xv, 26–7). Kant was correct, Popper believes, when he argued that the human intellect imposes laws upon nature rather than discovering laws of nature, but Kant was wrong, Popper thinks, to believe that the laws humans imposed are necessarily true (Part I, chap. 1, section v, 48; chap. 2, section x, 95). Here, Popper argues, Kant proved too much and that to be glean the truth in Kant's idea, the problem he addressed must be reduced to its proper dimensions. Popper believes that instead of asking with Plato: "How do we know?" Kant should have asked: "How are successful conjectures possible?" Later Popper affirms in agreement with the idealist that theories are not forced upon us but are human creations, conceptual instruments we design for ourselves to assist us to think about things (chap. 3, section 6, "The Third View: Conjectures, Truth, and Reality," 117). Thus Popper modifies Kant in the following way: Believing that Kant's assertion that we impose laws upon nature is too radical, Popper argued that it must be modified to stress that our impositions are free creations of our minds and meet with varying success (chap. 8, section 1, "Kant and the Logic of Experience," 191).

<sup>24</sup>Noam Chomsky, *Reflections on Language* (Pantheon Books, 1975), 23.

<sup>25</sup>Ibid., 32.

<sup>26</sup>For example, he points out that white rats are better than college students at learning to negotiate mazes (pp. 18–9, 158–9), a phenomenon that suggests to him that, given the obvious superiority of human intelligence to rat intelligence, there is no general theory of learning that applies to rats as well as humans. He also argues that the mental structures enabling humans to learn languages are unique to humans (p. 40), that they are "a species-specific, genetically determined property" (p. 79). Also see p. 11 for more on language as a species specific property.

<sup>27</sup>Ibid., 10.

<sup>28</sup>Ibid., 155.

<sup>29</sup>Ibid., 25.

<sup>30</sup>Ibid., 58–9.

<sup>31</sup>Ibid., 123–4.

<sup>32</sup>Ibid., 124.

<sup>33</sup>Steven Pinker, *How the Mind Works* (New York: W. W. Norton & Company, ), 525.

<sup>34</sup>Ibid., 561.

<sup>35</sup>Ibid., 562.

<sup>36</sup>Stephen W. Hawking, *A Brief History of Time* (Bantam Books, 1988), 7–8. He challenges Kant based on Kant's unspoken assumption that time is distinct from the universe and continues backward forever whether or not the universe has existed forever. Hawking agrees with Augustine that the concept of time apart from the universe has no meaning (p. 8). He has a point in that Kant does distinguish between space and time, claiming, "Time is the formal condition, a priori, of all phenomena whatsoever. Space, as the pure form of all external intuition, is a condition, a priori, of external phenomena only" (*Critique of Pure Reason*, I. "Elements of Transcendentalism," First Part, second section, subsection 5 "Transcendental Exposition of the Concept of Time," p. 31). However, in saying this, Hawking implies that Kant thought of space and time as objective realities. He did not (see footnote 38)

<sup>37</sup>Ibid., 12–3.

<sup>38</sup>Ibid., 139. Hence Hawking concludes there is no distinction between real and imaginary time, a judgment with which Kant would have had no fundamental argument. Kant says: "Time ... is ... the real form of our internal intuition. Time therefore has subjective reality. ... Time is nothing but the form of our own internal intuition. Take away the peculiar condition of our sensibility, and the idea of time vanishes, because it is not inherent in the objects, but in the subject only that perceives them" (*Critique of Pure Reason*, I. Elements of Transcendentalism, first part, second section, subsection 5, p. 33).

<sup>39</sup>Ibid., 147. Such a realization, he notes, means that the Second Law of Thermodynamics is trivial.

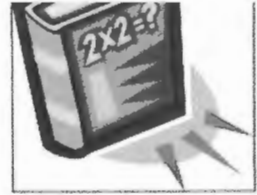
<sup>40</sup>Chomsky, *Reflections on Language*, 25.

<sup>41</sup>Kant, *Critique of Pure Reason*, I. "Elements of Transcendentalism," second division, bk. II, chap. 2, section 3: "Of the Interest of Reason in these Conflicts," 336.

<sup>42</sup>Ibid., section 4, "Of the Transcendental Problems of Pure Reason, and the Absolute Necessity of their Solution," 338.

<sup>43</sup>Ibid., section 5, "Sceptical Representation of the Cosmological Questions in the Four Transcendental Ideas," 344 (italics in the original).

<sup>44</sup>Ibid.



# Mathematics and Metaphysics

Ben M. Carter

In this paper, I argue that metaphysics, logic, and mathematics, as systematic investigations into the nature of order and knowledge, have much in common, and that mathematics as the way science quantifies data can be the vehicle science uses to investigate ultimate questions. Then referring to the work of George Lakoff and Rafael Núñez, I ask whether mathematics expresses something innate in the universe or something innate to the structure of the human brain. In raising this question, I argue that if the universe itself is mathematical, then dualism is affirmed and materialism falsified. However, if mathematics only expresses the cognitive structure of the human brain, as Lakoff and Núñez maintain, then it is compromised as a reliable guide for understanding the ultimate nature of the cosmos. In the latter case, it follows that science will be unable to address metaphysical questions in any compelling way.



Physicist Brad Keister has observed that while the Reformers made significant contributions to the development of the scientific method, secularists have appropriated that method as their own in their struggle against a religious world view. Therefore, he argues, it is incumbent upon secularists to construct a world view which is not only consistent but "allows for a system of inquiry based on rational thought."<sup>1</sup>

Secularism, because it rejects transcendent reality in favor of an immanent one, adopts de facto a materialistic world view. In this paper I wish to examine one of the significant problems a thoroughgoing materialist would confront in constructing a world view that is both consistent and allows for rational inquiry. The problem is this: as a philosophical theory, materialism regards all phenomena in the universe, including those of mind, to be composed solely of matter in motion.<sup>2</sup> However, to quantify its observations and generalize about such matter in motion, science employs reason and more specifically mathematics. To compel assent, reason and mathematics must be universal, but the universality of both is precisely what materialism undermines.

## The Question of Order

Metaphysics, logic, and mathematics are all investigations into the nature of order and the principles of knowledge.

Metaphysics involves the exploration of the ultimate tenets of knowledge, the ultimate causes of existence and change, and the principles of order that determine the interrelations of the universe.

Logic is the science that investigates the principles of correct (deductive) or reasonable (inductive) inference.

Mathematics is the systematic investigation of magnitude, the relationships between figures and forms, and the relationships between quantities expressed symbolically.

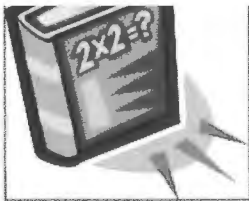
A mathematical formula displays in symbolic form a relationship whereby the value of one variable can be found from one or several other variables. Many mathematical theorems are exhibited as formulas, and many scientific conclusions are embodied in mathematical formulas as well. Thus the use of mathematics in science supposes that at some basic level, the material cosmos operates according to mathematical principles.

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## Mathematics and Metaphysics

In metaphysics, mathematics, and logic, the axioms must be true within the system employed, that is, they must be at a minimum non-contradictory, otherwise the conclusions based on those axioms will not be compelling.

mathematical, has a strong metaphysical component. Both mathematics and logic are problem-solving systems and may be used to unravel issues that appear in either physics or metaphysics.

In metaphysics, mathematics, and logic, the axioms must be true within the system employed, that is, at a minimum, they must be noncontradictory, otherwise the conclusions based on those axioms will not be compelling. Ideally, once the premises are granted or established, the argument that follows must be necessarily true providing no errors are made as one unfolds the argument. Hence the truths of metaphysics, mathematics, and logic are system-dependent truths. However, there is this important difference: while metaphysics purports to be about the universe, mathematics and logic do not. Both are constructs of pure abstraction. Mathematics, like pure reason, gives no set of data preference. When doing pure mathematics, a mathematician does not profess to say anything about physical reality. Mathematics is instead an exploration of relationships between concepts. Thus mathematics and pure reason are not dependent on the universe in whatever form it might take.<sup>3</sup>

The universe is a contingent reality. It unfolds in an orderly way (thus meaningful generalizations can be made about it), but the particular forms it assumes cannot be fully grasped apart from their history. The universe is as it is, but within certain limits it might have been different. We have discovered that the universe is far more complex than we initially supposed, but we also have discovered that the principles underlying that complexity seem to be fairly simple. Modern empirical science, to study the complexities of the universe, attempts to reduce them to modules that it can investigate piecemeal in an effort to determine the simple principles underlying the selected phenomenon. In this investigation, mathematics has become increasingly important.

Mathematical models do not provide complete descriptions of natural phenomena. Rather they are attempts to establish the boundary conditions of phenomena.<sup>4</sup> In doing this, mathematics forces us to make our assumptions explicit and allows us via calculations to extrapolate those assump-

tions beyond our immediate perceptions.<sup>5</sup> Thus mathematics, because it allows us to explore relationships between conceptualized quantities even if they can be expressed only symbolically, enables us to model phenomena that exist beyond our everyday experience.<sup>6</sup> This process can seem very mechanical as the psychologist Thomas Gilovich points out. He observes that to protect a researcher from manipulating the meaning of data, the scientific method is designed to make the researcher "rigid and 'unintelligent,'" and he writes: "As scientists we willingly sacrifice some 'intelligence' and flexibility for the benefit of objectivity."<sup>7</sup> In this way, mathematics allows science to draw conclusions that, while they may be counter-intuitive, are quite reasonable given the data, the automatic nature of the calculations, and the assumptions made while establishing the data's boundary conditions. Hence, if the principles of mathematics are not necessarily true, then its use as an investigative tool is severely compromised.

There are two key points I wish to make here. First, like metaphysics, science is interested in the principles of order that determine the interrelationships of the universe, but insofar as science relies on empiricism, it is unable to plumb ultimate causes. As a conceptual tool, mathematics helps science move toward more ultimate explanations, that is, mathematics can enable science to address metaphysical concerns. We see this happening as scientific findings are applied to questions of origin (e.g., whence the universe, whence life, whence ethics) or the nature of existence itself.

Second, mathematics and logic, precisely because they deal in necessary truths, suggest that reality cannot be reduced to the physical since the physical exists contingently. John Barrow describes this in another way, as mathematics being bigger than physical reality,<sup>8</sup> since "mathematical existence allows anything to 'exist,'"<sup>9</sup> but what is logically possible need not exist physically.<sup>10</sup> Thus, attempts to use mathematics and logic to explain the physical mean that science, because it assumes a necessary/contingent dichotomy, implicitly models reality in a dualistic way. We see then that pure materialism cannot provide a rational account of the universe, and, insofar as it tries, it is self-refuting.

## The Problem of the Particular

Within a pluralistic framework, being or existence is expressed in many particular and distinct ways, that is, things exist within limits and each limited thing's existence is not necessarily identical with any other limited thing's existence. Rather the essence of each thing, if a thing can properly be considered to have an essence, is defined by its limitations. Its essence is the limiting principle of both a limited thing's being and accidents. Our universe with its quasars, wasps, planets, tobacco smoke, and chocolate would seem to constitute a pluralistic framework. Given such a framework, an obvious question occurs to philosophers: how does one attain to certain knowledge of a thing within that environment?

To resolve that problem, Plato (427-347 BC) proposed that the universe was created as an immaterial formal realm interfaced with a material chaotic one. When Plato introduced the idea of Forms, he was not trying to address ontological concerns as much as epistemological ones. The question that concerned him was how he knew a thing is what it is. Plato also recognized that without the ability to generalize, knowledge would be reduced to a mere catalogue of particulars. The idea that a formal realm gave coherence to a disorderly chaos of particulars was his solution to the problem. His proposal meant not only that he could give an account of identity, it also meant that he could justify generalizations. In this elucidation of identity and generalization, Plato created a viable theory of knowledge.

In Chapter 26 of his *Republic*, Plato emphasizes the eternal character of mathematical objects and describes geometry as the study of the eternally existent. He includes both geometry and solid geometry among the five sciences that turn the soul's eye from the material world to objects of pure thought. Certain elements of geometry had been mastered by the Egyptians and Babylonians, and Pythagoras (c 582-c 500 BC) did much to advance the subject. Alfred North Whitehead in *Science and the Modern World* remarked that "the generality of mathematics is the most complete generality consistent with the community of occasions which constitutes our metaphysical situation."<sup>11</sup> As such mathematics describes general conditions that transcend any set of particular entities, and it is these absolutely general conditions that concern logic.<sup>12</sup> Whitehead went on to argue that abstract logic "is nothing else than the exhibition of the whole pattern of general conditions involved in the pattern derived from [one's] selected postulates."<sup>13</sup> And this, Whitehead argued, meant that the harmony exhibited by logical reasoning is established as a general aesthetic in the prevailing conditions that comprise any specific event.<sup>14</sup> Whitehead credited Pythagoras as the first person "who had any grasp of the full sweep of this general principle."<sup>15</sup>

Plato was one of those philosophers who built on the work of Pythagoras as did Plato's most famous student

Aristotle. Around 300 BC, Euclid, a mathematician who lived in Alexandria, published his *Elements*, a systematic arrangement of the geometry of his day based on postulates that held true in ordinary three-dimensional space. Thus Plato's realm of Forms was given extensive rigorous definition and geometry's meta-physical dimensions were secured.

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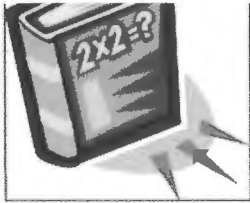
The metaphysical side of reason and mathematics was made even more explicit when the neo-Platonists identified reason with the universal logos, and Christians incorporated that concept into the person of Christ. Mathematics and reason became a window into the mind of the Christian God. Galileo Galilei, voicing a perspective that spanned the mid-sixteenth to the mid-seventeenth century, is very categorical in his assessment here. Believing that, in certain areas, the human intellect was capable of a level of knowledge that was on a par with the divine, he wrote:

I say that the human intellect understands some things so perfectly and it has such absolute certainty of them that it equals nature's own understanding of them; those things include the pure mathematical sciences, that is, geometry and arithmetic about which the divine intellect knows infinitely more propositions since it knows them all, but of those few understood by the human intellect I believe that its knowledge equals divine knowledge in its objective certainty.<sup>16</sup>

Mathematics, according to Galileo, symbolically expressed the conceptual framework of the universe and did so in a way that was necessarily true via a process that was necessarily reliable.

In urging science to abandon the idea of Formal reality, Francis Bacon undermined Plato's achievement and reintroduced the epistemological dilemma Plato had resolved. However, by measuring and quantifying, and by employing the automatic processes of mathematics and reason, science allowed for meaningful generalizations and in effect retained formal reality. In its systematic investiga-





## Mathematics and Metaphysics

What if mathematics itself were embodied in the structures of the human brain but not expressed in any fundamental way in the cosmos? What if mathematics, like other forms of human reasoning since Kant, might have only limited abstractive value?

tion of magnitude expressed in science's concern for accurate mensuration, mathematics resolved the problem of identity. In its systematic investigation of relationships, mathematics resolved the problem of generalization. In modern empirical science, mathematics in effect took the place of Plato's Forms.

This should not be surprising. As the historian of myth Giorgio de Santillana has pointed out, science has its origins in the myth of invariance,<sup>17</sup> an invariance willed by God and accessible through God's mathematics. "[W]e have," he claims, "been living in the age of Astronomical Myth until yesterday."<sup>18</sup> Indeed, many mathematicians from Pythagoras to Georg Cantor (1848-1918) believed the mathematical exploration of infinity had theological significance and saw in such research a way to harmonize mathematics and religion.<sup>19</sup>

To reprise, mathematics as described above seems to imply a dualistic cosmos since it assumes the reality of mathematical integrity, an integrity that is undistorted by any configuration or expression of the material domain. The material, though structured by mathematics, cannot impact it. Mathematics must remain inviolable since its value as a means of attaining to the truth rests upon its inviolability. This classic vision of mathematics recapitulates the sacred and profane partitioning of reality with mathematics assuming the sacred role. Mathematics in such a scenario, while accessible to the human brain, is, as Galileo believed, firmly situated in the mind of God. But even if there is no God, mathematics must remain distinct from the world if it is to be useful because it provides an absolute standard against which mundane phenomena are quantified. If mathematics itself is simply another mundane phenomena, it loses its modeling value. Thus whether God does or does not exist, mathematics in this classical formulation implies dualism.

If, however, we assume that our perceptions are fundamentally conceptual in nature, as neurobiological research suggests they are, and if we assume that mathematics is fundamentally conceptual in nature, then might not the interfacing of these two orders of concepts create an illusion so powerful that we would not be able to escape from it

and might not even be aware that it is an illusion save when it generates apparent contradictions in (what would seem to us to be) extreme circumstances? To put the question another way: what if mathematics itself were embodied in the structures of the human brain but not expressed in any fundamental way in the cosmos? What if mathematics, like other forms of human reasoning since Kant, might have only limited abstractive value? And if the materialist is right, what grounds would the materialist have for asserting that mathematics enjoys a privileged position in the acquisition of knowledge?

In *Where Mathematics Comes From*, George Lakoff and Rafael Núñez make such an argument. They seek to launch the discipline of mathematical idea analysis from a cognitive perspective.<sup>20</sup> They are concerned with how the cognitive superstructure of a nexus of mathematical ideas is constructed,<sup>21</sup> and ask where mathematical ideas come from and whether they can be analyzed from a cognitive perspective.<sup>22</sup> They aspire to tell the reader what human mathematics, conceptualized via the human brain and mind, is like.<sup>23</sup> The book is not concerned just with what is true, but also with the nature of mathematical truth: what mathematical ideas mean, how they can be understood, and why they are true.<sup>24</sup> As such, the authors seem to have embarked on an intellectual voyage not unlike Foucault's attempt to exhume the archeology of knowledge. They ask the central question: "What is the cognitive structure of sophisticated mathematical ideas?"<sup>25</sup> The book is not about conscious, goal-oriented mathematical cognition, but about mathematical cognition of an automatic, unconscious sort.<sup>26</sup> The authors seek to explore how the general cognitive mechanisms used in everyday nonmathematical thought can create mathematical understanding and structure mathematical ideas.<sup>27</sup> Because the human conceptual system is known to use metaphors, much of the book is concerned with metaphor.<sup>28</sup>

Lakoff and Núñez try to make the case that human mathematical reasoning works in the way that other human abstract reasoning works: via sensory-motor grounding and metaphorical projection.<sup>29</sup> The point is not the mathematical analysis of mathematical concepts but the cognitive or conceptual

analysis of mathematical concepts.<sup>30</sup> They want to understand how mathematical ideas are conceptualized via metaphor and to give an account in terms of human cognition of the ideas the metaphors are meant to express.<sup>31</sup> They argue that their theory of "embodied mathematics" describes what mathematics really is.<sup>32</sup> Since they believe that mathematical ideas have a precise structure that can be discovered and explored, they have written *Where Mathematics Comes From* as a first step in that process of discovery and exploration.<sup>33</sup> Thus they are addressing mathematics from the perspective of conceptualist/structuralist philosophy.

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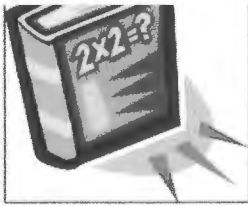
Lakoff and Núñez argue that mathematics is a human creation and that any mathematics we can know is limited and structured by the human brain and human mental capacities. Therefore all of our mathematics is human mathematics and as such must be brain- and mind-based mathematics.<sup>34</sup> Ideas can be created only by, and instantiated only in, brains [there is an assumed identity between mind and brain].<sup>35</sup> Mathematics does not exist objectively apart from the mind [brain].<sup>36</sup> It is not mind-free; instead mathematics are grounded upon a conceptual, mind-based substructure.<sup>37</sup> The human brain is not a general purpose device. Human concepts, including mathematical concepts, are highly structured and limited because of the structure of the brain itself, the human body, and the world in which we live.<sup>38</sup> The only access we have to any mathematics at all is through concepts in our minds that are shaped by our bodies and brains and realized physically in our neural systems. For any embodied beings, the only mathematics that can be known is embodied mathematics, that is, the mathematics that our bodies and brains allow us to know.<sup>39</sup>

According to Lakoff and Núñez, there is no difference between human mathematical concepts and mathematical concepts.<sup>40</sup> Human mathematics is not transcendent nor is it part of the physical universe. Rather it is a creation based on metaphors derived from our experience of external objects.<sup>41</sup> But though we create mathematics, mathematics is not arbitrary. Mathematics is based on the fundamental conceptual mechanisms of the embodied human mind as it has evolved in the world.<sup>42</sup> Every concept we have must somehow be characterized in the neural structure of our

brains, and every bit of thinking we do must be carried out by neural mechanisms of exactly the right structure to carry out that form of thought.<sup>43</sup> For example, our mathematics of calculation, and the notation we do it in, is chosen for bodily reasons. The very idea of a linearly ordered symbolic notation of mathematics arises from the peculiar properties of our bodies.<sup>44</sup>

Lakoff and Núñez note that mathematics has changed enormously over time, that forms of mathematics often vary from community to community across the mathematical world, and that mathematicians often differ in their interpretations of mathematical results.<sup>45</sup> They argue that mathematical ideas can be impacted by culture (the Greek idea of essences is one key example they use)<sup>46</sup> or by technology (floating-point arithmetic used in computers is their key example here).<sup>47</sup> They argue that subject matters in mathematics tend to have multiple versions for historical reasons and that there is no way to predict what new forms of mathematics mathematicians will invent.<sup>48</sup> Because mathematicians live at specific times and base their work on the work of earlier mathematicians, mathematics evolves over time. Thus the progress of mathematics is nonlinear, and mathematical results can be inconsistent with one another.<sup>49</sup> Such inconsistencies express the different potentials in the different metaphors mathematicians employ.<sup>50</sup> Thus human mathematics is not monolithic. It embraces distinct versions of disciplines which, though internally consistent, can be mutually inconsistent.<sup>51</sup> In all of this, they see evidence of the contingent quality of mathematical concepts. In other words, mathematics is a schematic representation of how the brain/ mind works, our mathematical models are projections of that schematic representation, and "there is no way to know whether theorems proved by human mathematicians have any objective truth."<sup>52</sup>

It would follow from this that, like logic, mathematics so conceptualized cannot really assist us in constructing any exhaustive model of reality. As Immanuel Kant and his contemporary disciples like psychologists Steven Pinker and Thomas Gilovich have pointed out, the human mind seems to be constructed so as to enable us to identify general principles that work well enough to empower us to survive and reproduce, but it does not seem particularly well adapted for tasks like detailed analysis. And indeed we do seem prone to all kinds of conceptual mistakes. Traditionally scientists have relied on mathematics to assist them in overcoming such mistakes, particularly in data analysis or in modeling conditions beyond our immediate experience. But if Lakoff and Núñez are correct, not only would mathematics be fundamentally unreliable for such a task, difficulties inherent in mathematical extrapolations would not be immediately obvious though they might become so as we began to explore possibilities (from our perspective) on the "edges" of things: while trying to make sense of data derived from the cosmic or the subatomic



## Mathematics and Metaphysics

levels, while addressing questions of divine foreknowledge, while speculating on time-travel scenarios, while puzzling over the existence of free will, and so on. We naturally ask such questions, but lack the capacity to arrive at any final resolution concerning them.

### Conclusion

This then is the dilemma to which Brad Keister pointed and which the secularist must address: if all there is, is matter in motion, and if awareness is simply a peculiar expression of certain configurations of matter, what, beyond mere pragmatism, compels us to accept any purely materialistic resolution of ultimate questions? The materialist simply has no way to address such queries. The data the materialist employs are too artificial, the process of analysis too inherently limited, to compel one solution over another. Indeed, materialism is revealed not as a rational alternative to dualistic or theological models of the universe but as an oddly irrational one, an alternative that begins by limiting its options for no obvious reason,<sup>53</sup> and then, having limited them, insists that all solutions must be subsumed under a regime so truncated that it cannot even address our questions. This represents a leap of faith that might have intimidated Kierkegaard himself! On the other hand, if one rejects the Lakoff/ Núñez model of mathematics, then one ultimately embraces a de facto dualism and falsifies materialism. Thus the materialist is tossed on the horns of a dilemma. If he is right, he cannot prove it. If he can prove it, he is wrong.

In a New York Times article on black holes, Dr. Raffael Bousso of the University of California at Santa Barbara, describing the holographic principle first articulated in 1993 by Dr. Gerard 't Hooft of Utrecht and later developed by Dr. Leonard Susskind of Stanford University, said: "We clearly see the world the way we see a hologram. We see three dimensions. When you look at one of those chips, it looks pretty real, but in our case the illusion is perfect." Susskind added as clarification for the reporter, "We don't read the hologram. We are the hologram."<sup>54</sup> This means that it is a fundamental mistake to attempt to imagine the universe as it appears to God,<sup>55</sup> and that our models of the universe, even those models based on math-

ematics, are forever doomed to reflect the holographic perspective of the observer. The materialist, if he is right, is condemned to be trapped forever within a near perfect illusion, one he may know is there, but one he cannot in principle transcend.

### Notes

<sup>1</sup>Brad Keister made this comment while addressing a conference organized by InterVarsity Graduate and Faculty Ministries and held between October 13-15, 2000, at the University of Saint Mary's of the Lake in Mundelein, Illinois. See "What Are the Research Needs in Science?" *Perspectives on Science and Christian Faith* 53, no. 4 (December 2001): 270.

<sup>2</sup>So far as I am aware, the best overall contemporary defense of this principle is Francis Crick's *The Astonishing Hypothesis* (Old Tappan, NJ: Simon & Schuster, 1994). In this book Crick argues that a person's mental activities can ultimately be reduced to the behavior of atoms, ions, and molecules as they are constituted in neurons and glial cells. The book is valuable as an insightful and critical discussion of the strengths and weaknesses of this thesis, and contains a wealth of experimental data which neuroscientists, the vast majority of whom, Crick assures us, are thoroughgoing materialists, interpret as justifying this position.

<sup>3</sup>Susanne K. Langer, *Philosophy in a New Key* (New York: A Mentor Book, The New American Library, 1951), 27-8.

<sup>4</sup>Robin Dunbar, *The Trouble with Science* (Cambridge, MA: Harvard University Press, 1995), 99.

<sup>5</sup>*Ibid.*, 113.

<sup>6</sup>*Ibid.*, 142.

<sup>7</sup>Thomas Gilovich, *How We Know What Isn't So* (Old Tappan, NJ: Simon & Schuster Inc., 1991), 58.

<sup>8</sup>John Barrow, *The Book of Nothing* (New York: Pantheon Books, 2001), 149, 164-5.

<sup>9</sup>*Ibid.*, 286.

<sup>10</sup>*Ibid.*, 284.

<sup>11</sup>Alfred North Whitehead, *Science and the Modern World* (New York: The Free Press, 1925), 25.

<sup>12</sup>*Ibid.*

<sup>13</sup>*Ibid.*, 26.

<sup>14</sup>*Ibid.*

<sup>15</sup>*Ibid.*, 27.

<sup>16</sup>Quoted in Michael Hardt and Antonio Negri, *Empire* (Cambridge, MA: Harvard University Press, 2000), 72-3. John D. Barrow also quotes this passage in *The Book of Nothing*, p. 86, taking it from Galileo, *Dialogue Concerning Two World Systems*, trans. S. Drake (Berkeley: California University Press, 1963), 103-4.

<sup>17</sup>Giorgio de Santillana, *Hamlet's Mill* (Boston: Gambit, Inc., 1969), v.

<sup>18</sup>*Ibid.*, vi.

<sup>19</sup>George Lakoff and Rafael Núñez, *Where Mathematics Comes From* (New York: Basic Books, 2000), 162-3.

<sup>20</sup>*Ibid.*, xi.

<sup>21</sup>*Ibid.*, xiv.

<sup>22</sup>*Ibid.*, 2.

<sup>23</sup>*Ibid.*, 3.

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<sup>24</sup>Ibid., 8, 338.  
<sup>25</sup>Ibid., 15.  
<sup>26</sup>Ibid., 28.  
<sup>27</sup>Ibid., 29.  
<sup>28</sup>Ibid., 100.  
<sup>29</sup>Ibid., 101.  
<sup>30</sup>Ibid., 170.  
<sup>31</sup>Ibid., 273.  
<sup>32</sup>Ibid., 346.  
<sup>33</sup>Ibid., 375.  
<sup>34</sup>Ibid., 1, 4.  
<sup>35</sup>Ibid., 33.  
<sup>36</sup>Ibid., 343.  
<sup>37</sup>Ibid., 373, 376.  
<sup>38</sup>Ibid., 1, 4.  
<sup>39</sup>Ibid., 346.  
<sup>40</sup>Ibid., 3.  
<sup>41</sup>Ibid., 349, 364.  
<sup>42</sup>Ibid., 9.  
<sup>43</sup>Ibid., 347.  
<sup>44</sup>Ibid., 86.  
<sup>45</sup>Ibid., 349.

<sup>46</sup>Ibid., 107, 161, 357.  
<sup>47</sup>Ibid., 360-1.  
<sup>48</sup>Ibid., 355.  
<sup>49</sup>Ibid., 359.  
<sup>50</sup>Ibid., 265, 278, 333.  
<sup>51</sup>Ibid., 352, 354.  
<sup>52</sup>Ibid., 2.  
<sup>53</sup>Perhaps at one time the materialist could plausibly claim that the tangibly physical was the obvious place to begin if we wanted to develop a valid model of reality, but that proposition, always questionable, has become even more so. Today cosmologists claim that about seventy percent of the universe is made up of dark energy and about twenty-five percent is made up of dark matter. That means matter as we know it comprises only about three to five percent of the density of the observable universe. Thus there is no longer any justification for giving our material state central position when we construct cosmic models, indeed there is every reason not to accord it such primacy.  
<sup>54</sup>Dennis Overbye, "Hawking's Breakthrough Is Still an Enigma," *The New York Times*, January 22, 2002, sec. D, pp. 1, 4.  
<sup>55</sup>Ibid., sec. D, p. 4.

## Books Received and Available for Review

(Contact the book review editor if you would like to review one of these books. Choose alternate selections.) Richard Ruble, Book Review Editor, *Perspectives on Science and Christian Faith*, 212 Western Hills Drive, Siloam Springs, AR 72761. [ruble@tcinternet.com](mailto:ruble@tcinternet.com)

Celia Deane-Drummond, ed., *Re-ordering Nature: Theology, Society, and the New Genetics*, Continuum Books, 368 pages, 2003

Paul Copan, ed., *The Rationality of Theism*, Routledge, 290 pages, 2003

W. J. Elliott, *A Place at the Table: A Journey to Rediscover the Real Jesus*, Doubleday, 420 pages, 2003

George A. Erickson, *Time Traveling with Science and the Saints*, Prometheus Books, 177 pages, 2003

Wayne Grady, *The Bone Museum: Travels in the Lost Worlds of Dinosaurs and Birds*, Four Walls Eight Windows Publishers, 291 pages, 2003

Philip Hefner, *Technology and Human Becoming*, Fortress Press, 97 pages, 2003

Colin Humphreys, *The Miracles of the Exodus: A Scientist's Discovery*, Harper, 350 pages, 2003

C. G. Hunter, *Darwin's Proof: The Triumph of Religion Over Science*, Baker Books, 168 pages, 2003

S. T. Joshi, *God's Defenders: What They Believe And Why They Are Wrong?*, Prometheus Press, 325 pages, 2003

Paul Kurtz, ed., *Science and Religion: Are They Compatible?*, Prometheus Books, 368 pages, 2003

D. J. Lococo, *Towards a Theology of Science*, Novalis, 80 pages, 2002

Conrad Ostwalt, *Secular Steeples: Popular Culture and the Religious Imagination*, Trinity Press International, 230 pages, 2003

S. G. Post, *Unlimited Love: Altruism, Compassion, and Service*, Templeton Foundation Press, 232 pages, 2003

Samuel Powell, *Participating in God: Creation and Trinity*, Fortress Press, 238 pages, 2003

*Proceedings from the ITTEST Workshop in Sept. 2002 in Belleville, IL, Advances in Neuroscience: Social, Moral, Philosophical and Theological Implications*, Ittest Faith/Science Press, 230 pages, 2003

Wade Rowland, *Galileo's Mistake: A New Look at the Epic Confrontation Between Galileo and the Church*, Arcade, 295 pages, 2003

Victor Shane, *Book of Life: God, Cosmos and Man: A New Understanding of Human Nature*, Para-Anchors International, 300 pages, 2003

John Templeton & Rebekah Dunlap, *Why Are We Created?*, Templeton Press, 134 pages, 2003

Gustav Teres, *The Bible and Astronomy: The Magi and the Star in the Gospel*, Solum, 340 pages, 2002

Cletus Wessels, *Jesus in the New Universe Story*, Orbis Press, 240 pages, 2003

Ralph Wood, *Contending for the Faith: The Church's Engagement with Culture*, Baylor University Press, 218 pages, 2003

Todd Wood, *Understanding the Pattern of Life: Origin and Organization of the Species*, Broadman & Holman Publishers, 225 pages, 2003

Thomas Woodward, *Doubts About Darwin: A History of Intelligent Design*, Baker Books, 300 pages, 2003



Is A New Christendom Emerging in the Non-Western World?  
Philip Jenkins' and Lamin Sanneh's Contrasting Visions

Ben M. Carter

Philip Jenkins has recently argued that, within the context of globalization, a new Christendom, decidedly "conservative" in nature, is rising in the Non-Western World. Lamin Sanneh disagrees, saying that the "Southern" churches are much too varied to be classified within a now defunct framework borrowed from Europe's past. I propose to discuss and evaluate these contrasting claims, and explain why I think Sanneh is probably more nearly right than is Jenkins.

### Introduction

In 2002 Philip Jenkins, Distinguished Professor of History and Religious Studies at Penn State University, published through Oxford University Press *The Next Christendom* subtitled *The Coming of Global Christianity*. The book addressed the shift in Christian population from the so-called North to the so-called South,<sup>1</sup> discussed the generally conservative and charismatic nature of "Southern" Christianity, posited that the "South" would become the next Christendom, and predicted that the twenty-first century would see a significant increase in religiously inspired violence as "Southern" fundamentalisms across the religious spectrum clashed. Jenkins' vision was both inspiring and frightening.

For many of us, the shift of the Christian center away from Europe, though little discussed in secular educational institutions and almost completely ignored by the media,<sup>2</sup> was very old news,<sup>3</sup> as was the strength of conservative and charismatic theology in "Southern" churches. But the idea that a new Christendom is forming and that it will be a catalyst for religious violence has been controversial, even startling, and responses have not been wanting. One of the best is Lamin Sanneh's study *Whose Religion is Christianity?*, subtitled *The Gospel beyond the West*, published by William B. Eerdmans in 2003. A native of Gambia and the D. Willis Professor of Mission and World Christianity as well as professor of history at Yale University, Sanneh is well positioned to critique Jenkins' thesis. His primary objection revolves around Jenkins' contention that a new Christendom is emerging. I am sympathetic to Sanneh's position. In this paper I will explain why I think it likely that Sanneh is more nearly correct.

### Why Jenkins believes the shift away from Europe will result in the birth of a new Christendom

Jenkins is quite aware that terms like South and Third World "are enormous generalizations" that ignore all kinds of distinctions. Nevertheless, he believes that the new churches in the Third World, by which he means African independence congregations and Pentecostal movements in Asia and Latin America, share a

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<sup>1</sup> By North Jenkins means Europe and North America, by South he means Asia, Africa, and South America (Chap. 1 "The Christian Revolution," pp. 1-2). Since Asian is in the Northern hemisphere, this compartmentalization, in Dr. Jenkins' mind, reflects not geography but economic conditions (Chap. 7 "God and the World," section "Under Western Eyes," p. 160). Given this, one must wonder if Japan is included among the "Northern" elite or if it should be grouped among the "elites of the South" where the Ecumenical Association of Third World Theologians places it (see *Spirituality of the Third World* [Orbis Books, Maryknoll, New York, 1994], Lawrence Surendra's essay, pp. 24, 26, 33; George E. Tinker's essay, p. 131). And what does one do with Australia/New Zealand, the Caribbean, or Oceania? My point is that such a division is as ideologically biased as any Occidental/Oriental division decried by Edward Said, and, as such, is as misleading and unserviceable. There are simply huge differences between China and Iran, South Africa and Mexico, or Nigeria and Aruba which a North/South bifurcation misses completely.

<sup>2</sup> "Modern Western media," Jenkins notes, "generally do an awful job of reporting on religious realities, even within their own societies" (*The Next Christendom*, Chap. 7, section "Under Western Eyes," p. 162), a point I am confident we can all affirm!

<sup>3</sup> Nor is it unexpected to those familiar with the history of the faith. As Jenkins points out, "the 'Christian heartland' has repeatedly shifted" (Chap. 9 "Coming Home," p. 192).

context that make them intelligible to the outsider.<sup>4</sup> That context, of course, is poverty. The North-South economic divide, he argues, will be the key issue of the twenty-first century. It will generate enormous conflict and that conflict will be expressed in religious terms.<sup>5</sup>

The unity created by poverty will be complicated by the exotic belief systems of the emerging churches. While he readily acknowledges that, despite diverging from orthodoxy, most "Southern types of Christianity ... [remain] within very recognizable Christian traditions,"<sup>6</sup> Jenkins believes that the problem is not just that Southern Christians are more conservative than their Northern counterparts,<sup>7</sup> and distinctly Pentecostal,<sup>8</sup> but that the marked similarities between the traditional religions and the missionary gospel were so pronounced that, rather than the kind of healthy inculturation<sup>9</sup> missionaries worked and hoped for, Christianity's translatability too often resulted in a syncretistic belief system in which older beliefs were simply retained and adapted to the new message.<sup>10</sup> He also believes that the missionary churches eventually acceded to this.<sup>11</sup> In this way a myriad of pre-Christian or non-Christian traditions were baptized and welcomed into the Christian church.

This should lead us to ask exactly what Jenkins means by conservative. While for most of us, conservative is closely associated with orthodoxy, for Jenkins it means something different. He writes:

The types of Christianity that have thrived in the global South have been very different from what many Europeans and North Americans consider mainstream. These models have been far more enthusiastic, much more centrally concerned with the immediate workings of the supernatural ... In fact, they have differed so widely from the cooler Northern norms as to arouse suspicions that [these Southern Christians] are essentially reviving the pagan practices of traditional society.<sup>12</sup>

In other words, they are conservative primarily in the sense that they are vehicles for conserving older traditions, not in the sense that they guarantee fidelity to orthodox Christian teaching as it was conceived by the "North."

Thus, as Christianity is increasingly defined by the "South," it is possible, even likely, that the faith will come to be seen as a dangerous "jungle religion" and, as such, as something the "secular, rational, and tolerant" "North" will oppose.<sup>13</sup>

Jenkins' understands "Southern" unity as rooted in poverty and syncretism. His basis for claiming that a new Christendom is being forged lies in the emergence of this new kind of Christianity coupled with the idea that an economic disparity that is to the "South's" disadvantage will endure for generations. Both of these premises are problematic.

Jenkins' first thesis is problematic because (ironically) it fails to appreciate the flexibility and resiliency of Christian expression. Because Christianity is an incarnational faith, is it able to be translated into a wide variety of cultural forms yet remain true to its basic message. It reinterprets indigenous cultures, that is it

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<sup>4</sup> Jenkins, Philip, *The Next Christendom*, Chapter 4 "Standing Alone," section "Explaining Success," p. 72

<sup>5</sup> Ibid., Chapter 7, section "Under Western Eyes," p. 160

<sup>6</sup> Ibid., Chapter 6 "Coming to Terms," p. 108

<sup>7</sup> Ibid., Chapter 1 "The Christian Revolution," section "Back to the Future," pp. 7, 8

<sup>8</sup> Ibid., Chapter 4, section "The Catholic Response," p. 67; Chapter 6, p. 107

<sup>9</sup> Ibid., Chapter 6, section "Whose Culture," here Jenkins defines inculturation as "interpreting the Christian proclamation in a form appropriate for particular cultures, usually with the implication of non-western cultures," p. 108

<sup>10</sup> Ibid., Chapter 6, section "Beyond Christianity," pp. 120, 122

<sup>11</sup> Ibid., p. 124

<sup>12</sup> Ibid., Chapter 6, p. 107

<sup>13</sup> Ibid., Chapter 7, section "Under Western Eyes," p. 162

borrowed and “baptized” elements from them, but it never fully becomes one with them. And unlike the traditional religions it supplants, Christianity is also a missionary faith with a global vision. Hence, it is quite likely that provincial idiosyncrasies that appear as the faith is translated will disappear as adherents reach out for converts or communion beyond their localities. On the other hand, if the faiths remain idiosyncratic, they are likely to be overwhelmed by history and either disappear or endure as curiosities.<sup>14</sup> As Kevin J. Vanhoozer puts it, “Catholicity is the antidote to the tribalism and parochialism that infects Christian thinking that never leaves the ghetto.”<sup>15</sup>

Jenkins’ second thesis is problematic because it fails to appreciate the dynamism of the current economic environment. This issue strikes at the heart of the North/South division itself, and any unity that division might be expected to encourage among the haves and have nots. Since, as we have suggested, the South is by definition any economically underprivileged population, the continuation of a “South” somewhere is all but guaranteed. Even our Lord said we would always have the poor with us (Matthew 26:11). But it does not follow that poverty will remain in the locales where it exists today. For example, over the last several decades, Asia has created one of the most dynamic economies in the world and is generating wealth that, however unequally distributed, benefits a growing percentage of its population. While we cannot be certain how such growth will impact the developing world over the next twenty or thirty years, it seems problematic to claim that Asia will remain mired in poverty. It is even problematic to claim it is mired in poverty today! And if the economic conditions of Asians are improving greatly, there is no reason to assume that the economic conditions of Africans and Latin Americans will not also improve. Hence economic development in the “South,” however uneven it is, will undermine the unity of poverty Jenkins argument requires.

Jenkins’ appeal to poverty as the unifying factor of the new Christendom suggests that he is not really focusing on a geopolitical reality, and Todd M. Johnson and Sandra S. Kim agree. Though coming at the question from a different perspective, they point out that what Jenkins is not describing “a geopolitical reality but a religious and cultural one. Consequently ‘Christendom’ or ‘next Christendom’ may not be the best term to use in describing the reality of Southern Christianity or of Christianity as a worldwide phenomenon.”<sup>16</sup> Johnson and Kim are correct to point out that Jenkins is not talking about a geopolitical unity so much as he is talking about a cultural/religious one, but they seem to miss Jenkins’ point that the cultural/religious reality he describes is rooted in economic disparity.<sup>17</sup>

However, we might also wonder if such disparity, even should it continue, will be sufficient to enable the variant types of Christianity to unify around the issue of their relative economic poverty. The very fact that Christianity is such a translatable faith suggests it will not, and that is Lamin Sanneh’s point.

### **What is Christendom?**

However before reprising Sanneh’s argument, it is important to describe what is meant by Christendom and sketch briefly how Christendom came to be. Christendom means the kingdom of Christ. As such can refer either to all Christians or to the Christian world. In this second meaning, it is usually taken to designate a culture rooted in Europe and later generalized as the Christian West. Sanneh defines it as “the medieval

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<sup>14</sup> The movement of Seventh-day Adventism into the evangelical fold at the end of the 1980s and the beginning of the 1990s might serve as a paradigmatic example of what we could expect among “Southern” churches. They too, in dialogue with the larger Christian community, might shed or mute their more radical distinctives.

<sup>15</sup> Vanhoozer, Kevin J., “Lost in Interpretation? Truth, Scripture, and Hermeneutics,” *Journal of the Evangelical Theological Society*, Volume 48, No. 1, March 2005, Section IV “Truth and Interpretation: a Proposal,” subsection 1 “Gospel and truth: beyond ‘cheap inerrancy,’” p. 101

<sup>16</sup> Johnson, Todd M. and Kim, Sandra S., “Describing the Worldwide Christian Phenomenon,” *International Bulletin of Missionary Research*, Vol. 29, No. 2, April 2005, p. 81 last full paragraph in the left hand column

<sup>17</sup> Of course Johnson and Kim are quite aware of economic disparity, they simply fail to connect it to Jenkins’ thesis, at least in the article I quoted.

imperial phase of Christianity when the church became a domain of the state.”<sup>18</sup> Thus it has a specifically European, Byzantine, and Tsarist identity. This culture developed from Constantine’s Edict of Milan in January 313.<sup>19</sup> It was, in the words of George Weigel, “[t]he result of the fusion of Jerusalem, Athens and Rome.”<sup>20</sup> Alan Kreider calls this fusion “the Christendom shift,”<sup>21</sup> and says, “Christendom sought to subject all areas of human experience to the lordship of Christ.”<sup>22</sup> Constantine of course was quite aware that his embrace of Christianity would have profound social consequences,<sup>23</sup> but he recognized that the society over which he ruled was sick and needed the kind of remedy only Christianity could provide. Whatever his personal convictions about the truth of Christianity, and I do not question the sincerity of his confession, Constantine, when embracing the faith, had two related policy goals: to create a society that was safe for Christians, and to make Christianity safe for society.<sup>24</sup> As K. S. Latourette points out,

A state cult is so bound to the government and under such constraint to support the secular authorities and their programmes that it finds difficulty in criticizing or judging the state. An official cult is supposed to give the powerful undergirding of religion to the existing regime. That had been a function of the pre-Christian official cults. In supplanting them, Christianity was expected to fill their role, only more effectively. This proved a serious handicap ...<sup>25</sup>

The Muslim conquest of the Byzantine empire at the end of the fifteenth century was a serious blow to Christendom. The secularization of Europe and Tsarist Russia in the twentieth century, occasioned by an

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<sup>18</sup> Sanneh, Lamin, *Whose Religion is Christianity?*, Chapter 1 “The Wind Blows Where It Wills, Christianity as a World Religion,” Part II, p. 23

<sup>19</sup> The Edict of Milan is the traditional marker for the termination of Roman persecution of Christians, but while the edict secured not only freedom of worship for Christians but also compensation for past wrongs and the return of Christians’ confiscated property, it is more accurate to say that the era of Roman persecution of Christians actually ended in 311 with Galerius’ edict of toleration. Quoting H. L. Drake’s *Constantine and the Bishops: The Politics of Intolerance* (John Hopkins University Press, 2001) Robert Louis Wilken in “In Defense of Constantine” (*First Things*, April 2001, Number 112) calls the edict “the first official government document in the Western world to recognize the freedom of belief” (p. 37, lower left-hand column).

<sup>20</sup> Weigel, George, “Light in a New Dark Age,” *The Wall Street Journal*, Vol. CCXLV, No. 78, Thursday, April 24, 2005, p. A16

<sup>21</sup> Kreider, Alan, “Beyond Bosch: The Early Church and the Christendom Shift,” *International Bulletin of Missionary Research* Vol. 29, No. 2, April 2005, page 61, bottom of right hand column

<sup>22</sup> Ibid., bottom of left hand column. He also says immediately above this that the Edict of Milan “led to a compromise between the church and the emperor whereby ‘the emperor was to rule in “time” and Christ in “eternity,”’” so Christendom cannot be considered a true theocracy, rather it represented the kind of division between church and state Christ pointed to when presented with a coin bearing likeness of Caesar.

<sup>23</sup> As Wilken puts it, “Christianity is a culture forming religion” (“In Defense of Constantine,” p. 39, lower right-hand column).

<sup>24</sup> Cochrane, Charles Norris, *Christianity and Classic Culture* (Oxford University Press, 1980), Part II “Renovation,” Chapter V “The New Republic: Constantine and the Triumph of the Cross,” p. 197

<sup>25</sup> Latourette, Kenneth Scott, *The Unquenchable Light* (Eyre & Stottiswoode, London, 1945), Chapter 1 “The Initial Advance,” p. 3. We are not to assume here that Latourette believes that as a state religion Christianity could not perform a critical or prophetic role. Plainly the church was quite capable of asserting its authority over Christian rulers and was effective in “Christianizing” state policies. But it is to say that under Christendom, Christianity’s emphases began to shift. For example, Christ became more imperial (something Kreider points out in his essay, section 6 “The Role of Jesus,” p. 64). Theologians developed a theology to justify some wars (Kreider, section 5 “Inculturation,” p. 64, lower left hand column). Evangelical outreach became more coercive. And infant baptism became the norm (Kreider, section 4 “Sanctions,” p. 53, right hand column). Wilken argues that it is easy to overstate the coercive side of Christianity here. Distinguishing between exclusivism and intolerance, and intolerance (which he sees as a theological matter) and coercion (which he sees as political), Wilken understands Constantinianism as a significant step toward religious freedom (see “In Defense of Constantine,” p. 38).



intellectual revolution in the eighteenth and nineteenth,<sup>26</sup> coupled with the carnage of two world wars and the Russian revolution, is generally taken to represent the demise of Christendom in its cultural sense.

Several things made the emergence of this cultural matrix possible: the collapse of prior cultural paradigms; the activity of missionaries who, from within those failing paradigms, proclaimed a message that not only answered the new questions being asked but could also be inculturated or incarnated into the old ideational forms thus making the new answers comprehensible;<sup>27</sup> a unified geography; the emergence of a single institutional church with an articulable set of ideas and the means to enforce adherence to them; and an overarching system of law based on the religious belief of that church and to which everyone answered.

In the present situation, we have the collapse of cultural paradigms and the activity of missionaries proclaiming an incarnational faith within those failing paradigms, but we do not have a unified geography (although describing this disparate region as “the South” represents an effort to create the impression that we do), a single institutional church, or an overarching system of law based on its religious belief. It is very likely that the differences between the present and the fifth century will outweigh their similarities and prevent the emergence of a cultural unity that will recreate, in a “southern” context, European Christendom. It is around these differences Sannah builds his argument.

### **Sanneh’s objection to Jenkins’ thesis**

Sanneh begins by distinguishing between world Christianity which he understands as comprised of indigenous responses to the gospel, and global Christianity which he believes faithfully replicates forms and patterns developed in Europe,<sup>28</sup> and which, to borrow Graham Kings’ description phrase, “has been ‘orchestrated’ by the West and is enmeshed in global structures of power and economics.”<sup>29</sup> Global Christianity, Sanneh says, bears the vestiges of colonialism and recalls the forces of economic globalization.<sup>30</sup> In this sense, he admits, “‘Global Christianity’ and ‘Christendom’ are interchangeable.” He believes, however, that they are “anachronistic.”<sup>31</sup> This is because the future belongs to world Christianity.

In Sannah’s view, world Christianity is fundamentally tribal and emerged as the scriptures were translated into indigenous languages, a development that allowed for the decolonization of Christian theology. In the

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<sup>26</sup> I understand this revolution to be represented by Darwinism, biblical criticism, Marxism, and the like, and to be based on the conceit that human ideas and institutions are the creations of historical processes and, hence, are contingent, relative (either culturally or otherwise), provisional, and psychological.

<sup>27</sup> As noted in footnote 19, Kreider in “Beyond Bosch” argues that with the emergence of Christendom, Christianity became coercive. He also argues that the emphasis on orthodoxy reflected this more coercive context as that the focus of the church shifted from evangelism and nurture to the nuances of belief (p. 64, left hand column). While there is much truth to this, (and I hasten to add that Kreider does not think this emphasis on orthodoxy was a bad thing, rather he thinks it instilled the faith with intellectual rigor [here he follows David Bosch, p. 59, lower left hand column] and addressed questions that urgently needed addressing), we are talking not about Christendom itself but about the conditions that made the appearance of Christendom possible. Mission outreach, I would argue, was the *sine qua non* of Christendom. As Wilken argues in “In Defense of Constantine,” “[S]ome form of Constantinianism is an inescapable consequence of the Church’s success” (p. 40, upper left-hand column), and the Church’s success depends on effective evangelism.

<sup>28</sup> Sanneh, Lamin, *Whose Religion Is Christianity? Christianity Beyond the West*, Chapter 1 “The Wind Blows Where It Wills: Christianity as a World Religion,” Part II “World Christianity and Christendom: Parallels and Divergences,” p. 22. It should be noted that Jenkins occasionally uses the term world Christianity to designate his own position.

<sup>29</sup> Kings, Graham, review of *Whose Religion Is Christianity? Christianity Beyond the West*, *International Bulletin of Missionary Research*, Vol. 29, N. 2, April 2005, pp. 102 - 103. The phrase “global structures of power and economics” comes for page 78 of Sanneh’s book (Chapter 1, Part III “Assessment and Feedback: Prelude to the Future”) and is used by Sanneh’s fictional interlocutor.

<sup>30</sup> Sanneh, *Whose Religion is Christianity?*, Chapter 1, Part II, p. 23

<sup>31</sup> Ibid.

process, world Christianity was “weaned of the political habits of Christendom.”<sup>32</sup> “An inculturated Christianity,” he writes, “anticipates an emancipated society.”<sup>33</sup> And of course emancipation means identity and autonomy. Thus Sanneh takes full account of the tribal nature of the world today. Indeed, he sees Christianity as contributing to this.

“Christian expansion,” Sanneh points out, “is occurring in societies marked by weak states and among impoverished populations, and where religious loyalties are stronger than political ones,”<sup>34</sup> and the striking thing about the resulting communities, he notes, is their political weakness. They comprise a persecuted, not a persecuting, movement.<sup>35</sup> Indeed, such communities present “a moral challenge to the political idolatry of the ideological state,” a challenge which lies behind the state’s decision to persecute the faith.<sup>36</sup> In this way, world Christianity shares in the persecution that was the norm for the early church.<sup>37</sup>

Sanneh stresses that world Christianity is too politically weak and too theologically and culturally diverse to replicate something even faintly resembling the old Christendom, and this will certainly remain the case for the next century or two. One or two centuries, I would argue, will provide more than enough time for economic conditions to have transformed themselves utterly, an observation that is in philosophical discourse called a “defeater” for Jenkins’ position since, if “Southern” Christendom is to emerge, regional poverty must endure long enough to allow it to develop. However, economic realities are far too dynamic for anything like that to be likely. Thus what we should expect is not the emergence of a “Southern” Christendom, but an explosion of denominationalism. And rampant denominationalism is precisely what we are seeing. If there is a model, one might seek it not in European Christendom but in the current United States.

## Conclusion

I believe Jenkins’ argument fails sociologically, theologically, and economically. It fails sociologically because it misconstrues the social dynamics currently at work. Today we are not witnessing global homogenization, though that may come in the more distant future, we are instead witnessing a revitalization of tribalism. The immediate future will be far more tribal than unified, and conflicts, though they may have religious components, will be primarily tribal. For example, the victims of Muslim terrorism have been overwhelmingly Muslim. Yet, to be credible, Jenkins must assume a unification transcending tribal distinctions. That is, after all, what European Christendom achieved: a theological, social, and ultimately an economic and historical unity forged from Europe’s tribes. To expect Christianity to forge something analogous in the “South” by the end of the twenty-first century seems wildly unrealistic.

Jenkins’ argument also fails theologically since he misunderstands both the incarnational and missionary aspects of the gospel. While the gospel may borrow to make its message more intelligible, it does not become what it borrows. When it does become what it borrows, it ceases to be the gospel. And its missionary character means that, in order to be intelligible across cultural contexts, it must shed whatever cultural distinctives it acquires. In the end, successful evangelization may Christianize a region and this may be a step toward the reestablishment of Christendom, but if history is any guide, this is a very slow process, the contours of which our grandchildren’s grandchildren might perhaps begin to discern.

Finally Jenkins’ argument fails economically because he does not appreciate the tremendous potential of the global economy to improve the lives of those in the “Southern” world. Yet for his thesis to be true, the economy must fail to do that since it is poverty, in the final analysis, that provides the glue for “Southern” Christendom. Nor is Jenkins alone in missing this point. For example, Johnson and Kim, following David Smith, distinguish between globalization from above (the bad kind of globalization) from globalization

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<sup>32</sup> Ibid., p. 24

<sup>33</sup> Ibid., p. 25

<sup>34</sup> Ibid., p. 27

<sup>35</sup> Ibid., p. 29

<sup>36</sup> Ibid., p. 74

<sup>37</sup> Ibid., Part III, p. 120

from below (the good kind of globalization) by arguing that the former is an expression of the spread of an economic system (specifically "voracious" Western capitalism) while the latter is characterized by person-to-person contacts via Non-Governmental Organizations, cultural exchange programs, and missions.<sup>38</sup> Apparently in their view capitalism fails to facilitate person-to-person contacts, or at least fails to facilitate such contacts in any healthy way! Yet, as we have argued above, the emerging post World War II global economy has significantly improved the economic lives of people all over the "South." Indeed, the areas where this improvement is not so noticeable, specifically the Muslim world and sub-Saharan Africa, have been hampered precisely to the extent they have not participated in the global economy!

While I am not convinced that Sanneh appreciates the wealth creating potential of capitalism to elevate the standard of living in the "South," and while he may not fully appreciate the ecumenical side of Christianity, Sanneh is much more aware of current cultural dynamics than Jenkins seems to be. Sanneh understands the tribal nature of our current world and appreciates how definitive it is, and he has a much more accurate grasp of the role Christianity plays in helping to preserve cultural distinctives, as his discussion on translation shows. Sanneh is also more sanguine than Jenkins about Thus I conclude that Sanneh is likely to be shown to be more nearly correct than Jenkins.

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<sup>38</sup> Johnson and Kim, "Describing the Worldwide Christian Phenomenon," *International Bulletin of Missionary Research*, Vol. 29, No. 2, Section "Choosing Terms," p. 82, second full paragraph in the right hand column

The years wrap us unevenly  
In their variegated textures.  
For time unfolds according to its order.  
But we get old a piece at a time.  
A string of gray surrounds us.  
A persistent stiffness,  
A crumb of decay, a sudden splinter of pain.  
Old age comes unevenly.  
Rapping at us like a woodpecker.

Dr. Ben Michael Carter



**Mike's library is available for viewing at 2505 W. Northgate Drive in Irving Texas.**





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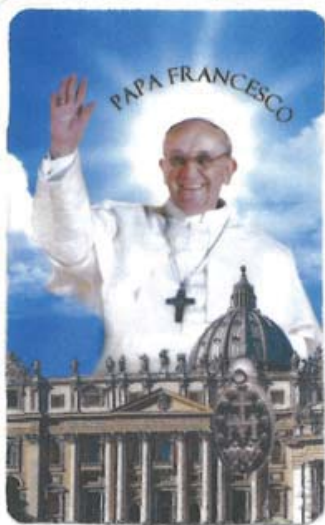
FIRST SECTION - GENERAL AFFAIRS

From the Vatican, 19 September 2017

Dear Ms Carter,

I am writing to acknowledge the gift of inscribed copies of Dr Ben Michael Carter's writings, which you presented to His Holiness Pope Francis.

In expressing appreciation for this kind gesture, I am pleased to assure you of His Holiness's prayers for your late husband and for you and your intentions.



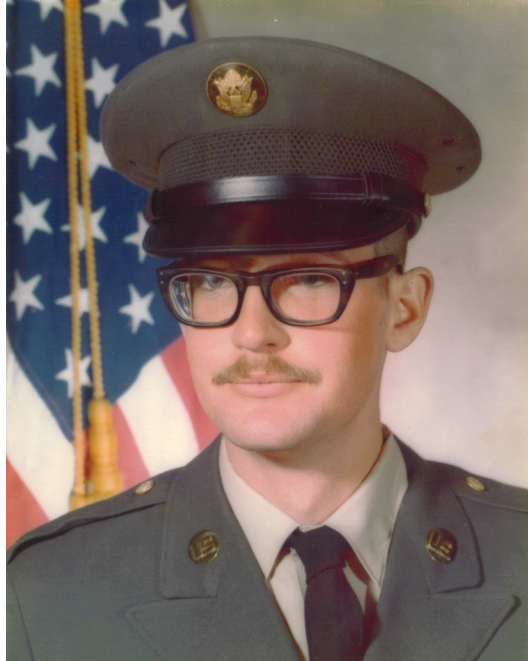
Yours sincerely,

Monsignor Paolo Borgia  
Assessor

Ms Salma Carunia Carter  
4077 N Belt Line Road, Apartment 2030  
Irving, TX 75038-8531  
USA







Ben Michael “Mike” Carter was a Renaissance man who loved writing. He authored six theology books and a novel. He also wrote for magazines, journals and newspapers, as well as poetry reviews. He earned a B.A. in Economic History from the University of Wisconsin, Milwaukee, an MA in theological studies from Wheaton College, Illinois, an M.Th. from the University of Aberdeen in Scotland, U.K., and a Ph.D. in History of Christianity in the non-western world from the University of Edinburgh in Scotland, United Kingdom. He was a member of the Irving chapter of the Texas Poetry Society, the American Scientific Affiliation, and the Evangelical Theological Society. He was married to Salma Carunia from Dohnavur Fellowship, Tirunelvel, South India.