

ETHICS AND DARWINISM [PART II]

Trevor Major

[EDITOR'S NOTE: Part I of this two-part series appeared in the January issue. Part II follows below and continues, without introductory comments, where the first article ended.]

ALTRUISM AND THE SELFISH GENE

Soon after Edward O. Wilson published *Sociobiology*, Richard Dawkins generated an equal amount of controversy (and many more sales) for his book, *The Selfish Gene* (1989). Neither book devoted much space to human society specifically. It was clear, nonetheless, that Wilson and Dawkins each saw an important application—indeed, a reason for their books' existence—in what they had to say about Darwinian evolution and human culture.

Unlike Wilson, Dawkins was concerned not so much with the biological basis of behavior in general, but rather with the biological basis of selfishness and altruism in particular. He argued, as the title of the book suggests, that genes are selfish: they will do whatever it takes to ensure that their carrier—the individual—makes more copies of these genes (Dawkins, 1989, p. 19). Evolution, therefore, has ensured that our behavior brings about the preferential survival of the genes we carry. Those behaviors are “selfish” because they preserve our genes at the expense of competing genes contained in other “survival machines.”

What, then, can we say about unselfish behavior? There are times when creatures seem to act for the benefit of others at the expense of their own survival. This has been a problem for sociobiology because traditional Darwinism has emphasized the individual—it is the individual's own traits that will determine whether it leaves a greater number of viable offspring. If a bird helps a breeding pair build its nest and feed its young, without breeding itself, then it would seem to be a loser in the struggle for life. While this individual is busy helping others, it is missing out on the opportunity to produce heirs of its own. One response is to tell some sort of just-so story that extols the benefits of altruistic behavior for the entire species. However, this idea of “group selection” is highly contentious, even among the closed ranks of evolutionary biologists. For a start, it does not explain how the gene for altruism can survive over the long term. If an individual carrying this mutation behaves unselfishly and, as a result, leaves fewer or no offspring, then the mutation will die out. Also, the group needs to discourage cheaters—individuals that take advantage of altruists to further their own selfish interests, and thus neutralize the benefits of altruism for the species as whole. Dawkins (1989) suggests this might be avoided if altruism were directed only toward individuals, such as close relatives, who are likely to carry the same gene. Under this “kin selection,” genes for altru-

ism cause their carriers to act in a way that enhances the survival of the same genes in other carriers. Cheating still is possible. A mutation could arise that mimicked the identifying features of individuals that carried the gene for altruism. This introduces the need for some sort of policing strategy. It might not rid the group of cheaters, but it will make the cost high enough to limit their numbers. The problem now is that the difficulties have multiplied. The evolutionists sought to explain a highly complex social behavior in biological terms, and ended up having to explain other complex behaviors, such as cheating and policing.

Even so, it is not altogether clear that they have explained anything. This is not to say that altruism might not have a biological cause in social animals (although we have yet to find the gene for altruism, and no one knows how that gene would work to produce altruistic behavior). It is just that Darwinian accounts face a number of difficulties. The real issue, especially when we consider human societies, is how Dawkins defines altruism. He starts out with the individual (1989, p. 4), but ends up at the level of genes. So although the individual's behavior seems to defy Darwinian selection, the gene for altruism will be selected if it increases the survival chances of the same gene in close relatives. Sure, the altruistic behavior costs the individual, but if all its siblings and cousins act altruis-

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Annual Subscription Rates:
\$6.00 Domestic
\$11.00 Canada & Overseas Airmail

Mailing Address:
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230 Landmark Drive
Montgomery, AL 36117-2752

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tically, then the gene will increase its long-term prospects of survival.

This sleight-of-hand is typical of reductionism. We were asked to think of one thing, but were shown another. We were expecting an explanation of an individual's altruism, but were given a story about a gene's selfishness. If this is the case—if altruistic behavior just is selfishness—then it hardly seems fair to call this an explanation of altruism. If I continue to act for the benefit of others, only if they continue to act for my benefit, then that is not altruism as we normally construe the word. This behavior is more like "selfish benevolence" than altruism (Nunney, 1998, 281:1619).

Dawkins might respond that the "selfish gene" is just a metaphor. After all, genes are neither good nor bad in a moral sense. Still, Dawkins wants to say that altruistic behavior is not real—it is only apparent. Surely the reverse is true—it is the selfishness of the gene in Dawkins' model that is only apparent.

It is no wonder that Dawkins asks us to separate the biological from the psychological. He does not want us to worry about hopes, desires, and beliefs. It does not matter, in his view, whether our donation was motivated by expected tax write-offs, or whether we saved a drowning enemy. But can we do this? Does our mental state at a particular time make no difference? If so, why have human societies drawn a distinction between selfishness and altruism, or between manslaughter and murder? If Dawkins wants to explain human behavior in terms of human biology, he had better not ignore human psychology.

At best, Dawkins has given us a hypothetical explanation of why social animals might act with the most charity toward their closest relatives. However, the biological causes underlying this behavior remain completely unexplained, and we have no reason to think that altruism is only "apparent" in human societies.

FROM GENES TO MEMES

Despite trying to explain one aspect of human behavior (altruism) in genetic terms, Dawkins wanted to use something other than genes to explain cultural evolu-

tion. At this point he introduced the term "meme." Just as genes are passed from one generation to the next and acted upon by natural selection, so memes are copied from one brain to the next and are acted upon by cultural selection (Dawkins, 1989, p. 192). Under this newly coined word, Dawkins listed uniquely human concepts such as "tunes, ideas, catch-phrases, clothing fashions, ways of making pots or of building arches." Successful memes, like successful genes, are better at making more copies of themselves. Examples would be denim jeans and Beethoven's 5th Symphony.

Actually, Dawkins does not intend to produce a theory of cultural evolution; he invented memes to show the universality of Darwinism (Miele, 1995; also Hurst and Dawkins, 1992; Dawkins, 1994). In other words, he wants to show that if Darwinism works on anything that can be copied, even ideas, then it must have worked on our genes. Unfortunately, others have taken his rhetorical device seriously. Following the mass suicide of Heaven's Gate members, an article in *Newsweek* drew on the "new science of memetics" to suggest that their self-destructive ideas, or "mind viruses," could find new hosts through the popular media (Cowley, 1997). There is now a *Journal of Memetics*.

However, the analogy between genes and memes, and viruses and ideas, fails completely. Dawkins acknowledged some of these criticisms (1982, p. 112), although they did not perturb him. Here are some reasons why we should be skeptical:

- *Changes in genes (mutations) occur randomly, whereas changes in ideas are not random.* An apple's falling from a tree is a random event; Isaac Newton's theory of gravity, inspired from such an event, is itself nonrandom. His ideas on calculus and gravity did not emerge randomly from shapes and figures on a page.
- *Genes store information, whereas cultural features may or may not store information.* A book is a meme that carries complex, specified information. Blue jeans are a meme, too, but it is hard to say how they carry information. Obviously we can study the jeans and, depending on our current state of knowl-

edge, we might be able to determine where and how they were made, and what materials were used. Whereas the information we gather from blue jeans is subjective (it depends on us), the information in a strand of DNA is objective (it is there regardless of any intelligent observers).

- *Genes exist only in the organism, whereas cultural elements may exist outside the human brain.* Although Dawkins credits the brain with inventing memes, and although memes can travel directly from brain to brain, they can reside on other media such as books, tapes, or digital media. This means that a tune, say, can be stored on a compact disc before it reaches another human brain. Dawkins likes to talk about memes as a kind of “mind virus” because a virus contains information and can exist outside the cell. However, a virus depends totally on transmission into the cell before copying occurs, whereas someone can make a million copies of a music CD without ever listening to the tunes it carries.
- *Cells copy genes exactly, whereas minds copy cultural elements with changes.* Whenever a cell undergoes division, it makes a new copy of the entire genetic code, and rarely makes any mistakes. It is the nature of the human mind, however, to filter just about everything it absorbs. We take in very few ideas and repeat them verbatim. Sometimes we don’t even bother to repeat them. Fashions and technologies, by their very nature, change at a much higher rate than the genetic copying mechanisms of living cells.
- *Genes are discrete, whereas cultural elements can blend.* Through his experiments on peas, Mendel showed that the units of heredity are separate and occur in pairs. This means, for instance, that you could inherit a gene for black hair from your father, and a gene for blonde hair from your mother (assuming, for the sake of simplicity, that there is just one pair of genes for hair color). But your hair is not going to be a mixture of black and white; it may turn gray later on in life,

but that is another matter. The actual color will reflect whichever variety of the gene is most dominant (probably black in this case). However, two totally different ideas can come together to form a third. The English language is a hodge-podge of other languages. Weddings, funerals, and holiday activities can be a blend of traditions from both sides of the family.

- *Gene copying is Mendelian, whereas transmission of cultural elements is Lamarckian.* Darwin’s main competitor was the Chevalier de Lamarck (1744-1829). He advanced a theory of evolution which said that changes acquired during a lifetime will pass to the next generation. If a giraffe strengthens its leg and neck muscles to reach higher branches, then the next generation will inherit these characteristics. If you cut the tail off each generation of rats, eventually rats will be born with no tails. Thanks to Mendel, we know this theory is not true. The traits are passed on in discrete, heritable units we call genes. The offspring will have these traits, not the traits we accumulated during our lifetime. However, Lamarck’s theory is true for ideas. We **do** acquire ideas during our lifetime, and we **do** pass them on to our children. If a father acquires a belief in God, he can talk to his children about it, but they cannot inherit this belief genetically.

BACK TO EVOLUTIONARY ETHICS

Dawkin’s unsuccessful analogy highlights the inherent problem in applying biological principles to aspects of human culture. Nonetheless, there is a tremendous push to popularize Darwinism—to take it beyond stuffy labs and dusty fossils—and show everyone that it is not “just another” scientific theory. That is why, I suspect, evolutionists end up meddling in ethics. How did this happen? Sociobiology was supposed to be nothing more than a description of why we value certain behaviors. Dawkins, in particular, has been very emphatic about not wanting to make **ought** out of **is** (Miele, 1995; Dawkins, 1989, pp. 2-3).

Nonetheless, these writers really do seem to have a larger “vision” for an evolutionary ethic. Listen to Wilson’s sense of frustration in the following passage: “Scientists and humanists should consider together the possibility that the time has come for ethics to be removed temporarily from the hands of the philosophers and biologized” (1980, p. 287). He concludes that a deeper understanding of human biology “will make possible the selection of a more deeply understood and enduring code of moral values” (Wilson, 1978, p. 196). So he seems to have changed his mind: he really does want to do more than describe ethics in biological terms.

To his credit, Richard Dawkins shies away from framing an evolutionary ethic. Like Thomas Huxley, Dawkins believes we should resist evolutionary forces and subvert our genetic heritage (Dawkins, 1989, pp. 200-201). He is keen to explain how evolution molded tree-swinging ancestors into lumbering, humanoid robots, as long as he does not have to live next to them. “My own feeling,” Dawkins cautions, “is that a human society based simply on the gene’s law of universal ruthless selfishness would be a very nasty society in which to live” (Dawkins, 1989, p. 3). Having said that, I guess we can all breathe a sigh of relief. He goes on to suggest two values: “Let us try to teach generosity and altruism, because we are born selfish. Let us understand what our selfish genes are up to, because we may then at least have the chance to upset their designs, something that no other species has ever aspired to.” In other words, let the robots arise and overthrow their genetic masters! Dawkins does not explain why we should swim against the tide of our survival instincts. Apparently, Dawkins just thinks that a world of generous, selfless people would be a better place in which to live.

ANYTHING BUT GOD

Honestly, Wilson and Dawkins really seem to want as many Christian neighbors as possible. As we have seen already, one of Christ’s most important messages was to put others first; this is the altruism desired by Dawkins. Further, the Bible balances the concerns of groups and

individuals that Wilson would like to see within human societies (1978, pp. 196-199). In the New Testament, we find that the church is to form a unified body, while each member plays a crucial role (1 Corinthians 12:27). It sets high standards for husbands and wives, parents and children, employers and employees, and governments and citizens (1 Peter 2:12-3:7), yet these ties do not come ahead of our personal relationship with God (e.g., Luke 14:25-27; Matthew 22:21).

Daniel C. Dennett, a philosopher and fan of Dawkins, has made an interesting comment along these lines. He points out that biblical ethics is a case of going from what the Bible says, to what we should or should not do. Whether you can make this move depends on your view of Scripture. If you claim that the Bible contains wise sayings, but is the product of human hands, then you are on no better ground than an evolutionist who derives his ethical precepts from Darwin's *Origin of Species*. "Now," Dennett points out, "if you believe that the Bible (or some other holy text) is **literally** the word of God, and that human beings are put here on Earth by God in order to do God's bidding, so that the Bible is a sort of user's manual for God's tools, then you do indeed have grounds for believing that the ethical precepts found in the Bible have a special warrant that no other writings could have" (Dennett, 1995, p. 476, emp. in orig.). In other words, it is reasonable to go from God's ought ("Thou shalt") to our ought ("I should"), as long as you believe that God communicated directly to man.

The only valid Christian ethics, then, is a Christian ethics based on accepting the divine inspiration and authority of God's Word. Espousing a "Christian ethic" without these beliefs will not work any more than espousing an evolutionary ethic based on Darwinism.

What are the alternatives? Obviously, for evolutionists, Christianity is out of the question. This leaves only one live option: secular humanism. Although Wilson, Dawkins, and Dennett would have you believe that they can offer a scientific view of ethics, they all end with the humanist's plea to fulfill our potential as autonomous, thinking beings (Wilson, 1978, pp. 195-196;

Dawkins, 1989, pp. 200-201; Dennett, 1995, pp. 468,476-477,481). The "evolution" in evolutionary ethics seems nothing more than a nod to nature for creating a brain mysteriously capable of moral judgments, and a body predisposed to self-preservation. There really is no basis—no set of facts—from which to defend or justify secular humanism, except the assumption that we must look to ourselves, and ourselves alone, for what is right.

Although these writers offer only a vague outline of evolutionary ethics, and offer no reasonable support, they are most definite about their intense dislike of Christianity. Wilson hopes that scientific materialism—a bringing together of humanism and evolution—will replace religion as "the more powerful mythology" (1978, p. 207). His attack is two-fold (1978, pp. 191-192).

First, he wishes to overcome the seemingly invincible idea of a Creator God by using scientific materialism as his siege machine. He is confident that humanistic scientists will come up with more ideas to explain the origin of life or the Universe without God, and eventually will undermine the foundations of a belief in divine creation. And second, he wishes to explain away religion. If scientific naturalism can "explain traditional religion, its chief competitor, as a wholly material phenomenon," then theology will not survive as an independent intellectual discipline.

In Dawkins' opinion, the "God meme" survives because "it provides a superficially plausible answer to deep and troubling questions about existence. It suggests that the injustices of this world may be rectified in the next. The 'everlasting arms' hold out a cushion against our own inadequacies which, like a doctor's placebo, is none the less effective for being imaginary" (Dawkins, 1989, p. 193). Responding to the success of religion, he says: "Religion is a terrific meme. That's right. But that doesn't make it true and I care about what's true. Smallpox virus is a terrific virus. It does its job magnificently well. That doesn't mean that it's a good thing. It doesn't mean that I don't want to see it stamped out" (Miele, 1995). He calls religion a "bore" and God a "naive personification" (Thomas, 1997, p. 11).

Finally, like Wilson, Dennett believes that evolutionists should engineer the extinction of religion as a vital force in society. Darwin's "dangerous" idea (i.e., Dennett's view that evolution has implications for every part of our existence) will create a "toxic" cultural environment for fundamentalist religion (1995, p. 515). The only place for religion will be a kind of cultural zoo; churches will become museums. "Save the Baptists! Yes of course," Dennett says, "but not **by all means**. Not if it means tolerating the deliberate misinforming of children about the natural world.... Misinforming a child is a terrible offense" (1995, p. 516; emp. in orig.). His "final solution" is a promise to undo a child's religious training:

If you insist on teaching your children falsehoods—that the Earth is flat, that "Man" is not a product of evolution by natural selection—then you must expect, at the very least, that those of us who have freedom of speech will feel free to describe your teachings as the spreading of falsehoods, and will attempt to demonstrate this to your children at our earliest opportunity (1995, p. 519).

The agenda, then, is quite clear: there is no proven biological basis for an evolutionary ethic; there is no reasonable connection between Darwinism and culture or values; but anything will do as long as it is couched in the language of science or nature, and as long as it can displace religion in general, and Christianity in particular.

CONCLUSION

Charles Darwin has left a huge legacy for the modern era. Although his theory has difficulties, many people viewed Darwinian evolution as the only reasonable solution that avoided any appeal to a Creator God. It came at a time when people were looking to shed the constraints of church authority and its influence over education and society. The existing powers had a vested interest in maintaining order and the status quo as a matter of divine economy. There was little room within that power structure for talk of change—either in nature or society. Darwin's theory challenged these conventions by implying that change, not stability, was the usual state of life on Earth. Reformers

interpreted this change as progress—specifically, progress toward a freer, stronger, wealthier society. Many of them believed that this could only occur by unconstrained competition, as outlined by Thomas Malthus. Out of these swirling social currents emerged Herbert W. Spencer’s social Darwinism (despite the name, Darwin never endorsed this application of his theory). Spencer’s idea struck a popular nerve by suggesting that social institutions should step aside and allow nature to cull the poor and destitute, thus creating a fitter race of beings.

Eventually, social Darwinism fell out of favor for several reasons: (1) many people did not want, and would not permit, large-scale starvation among the unemployed and working poor; (2) wars and the changing fortunes of industrialized nations destroyed the notion of inevitable progress; and (3) contrary to the prejudiced Victorian outlook, scientists came to realize that neither technology nor material wealth was a good indicator of a given culture’s complexity or survivability.

The latter quarter of the twentieth century has seen a revival of cultural Darwinism, especially in the form of Edward O. Wilson’s sociobiology. Ostensibly, this field of study differs from Spencer’s view in wanting to describe, rather than prescribe, human behavior. Some of these accounts are proving highly controversial, especially those that attempt to describe adultery, rape, domestic violence, infanticide, and other abhorrent behaviors in terms of evolutionary theory. The usual explanations include motivations of self-

preservation and an unstoppable urge to multiply one’s genetic heritage at almost any cost. However, these accounts resemble Rudyard Kipling’s *Just So Stories*. In fact, there is a great lack, if not an outright absence, of solid evidence showing the causative relationship between genetics and complex human behavior.

Richard Dawkins has taken a different approach by proposing that human culture evolves apart from biology, but still according to Darwinian principles. He has coined the term “meme” to describe units of cultural inheritance, and intends to draw a strong analogy with genes. However, ideas, tunes, fashions, and other so-called memes follow neither Darwinian selection nor Mendelian rules of inheritance and transmission.

Despite the promise of merely describing behavior, the popularizers of Darwinian orthodoxy give the impression that evolution can (and will) point toward a system of ethics based on biology. Certainly this is the case with Wilson. He believes that a greater knowledge of genetics will reveal a moral code more suited to our genetic constitution. Apart from the poor prospects of finding such a connection, there seems to be no adequate justification for going from what **is** the case in biology, to what **ought** to be the case in human culture.

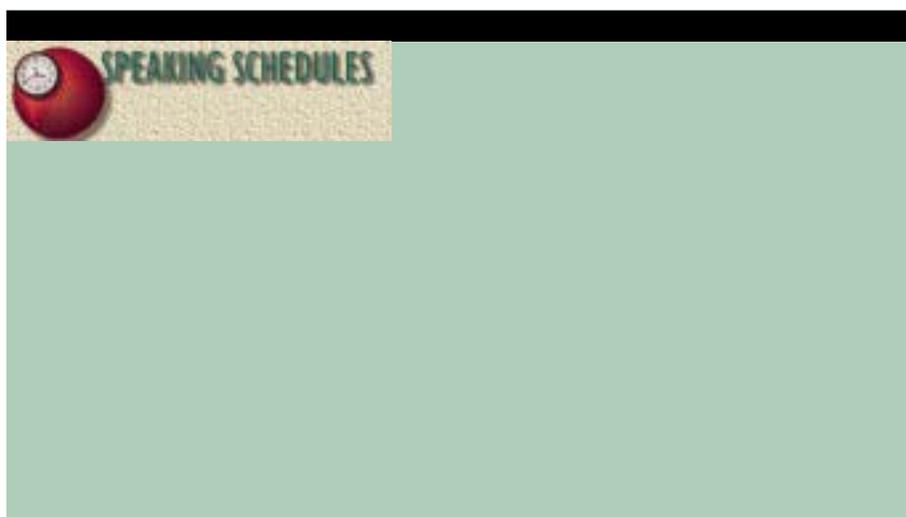
Dawkins believes evolution created a brain capable of making moral judgments, but avoids proposing an evolutionary ethic. If anything, Dawkins views our evolutionary heritage as a peculiarly human challenge. We are in a unique position, he believes, to act against our selfish genes.

Although couched in scientific terms, all these writers have a humanistic agenda. Specifically, they envision values and morals having a basis in whatever makes us human (apart from our spiritual self, of course). There is a sense of urgency in their appeals because they wish to bring an end to Judeo-Christian ethics and any other religious influences on society.

Yet, as Dennett points out, if God exists and the Bible is His Word, then a Christian ethic is on the firmest ground of all. God has provided principles and rules by which we are to act, and has promised to enforce those laws. But there is more. The Incarnation brought us a message of purpose, self-discipline, selflessness, and love for all mankind. Dawkins and company want a reason to be good, but it is not to be found in their world view.

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HAS NASA DISCOVERED JOSHUA'S "LOST DAY"?

Bert Thompson, Ph.D.

[EDITOR'S NOTE: This year marks the nineteenth year of continuous publication for *Reason & Revelation*. To the best of my knowledge, not once during all those years have we repeated an article, due mainly to the fact that we wanted each issue to be relevant, current, and fresh. However, with this issue we are veering from that long-established policy—an action that we do not take lightly. I believe an explanation is in order.

For years a story has been circulated by well-meaning people whose intent is to defend the accuracy and inspiration of the Bible. The story **sounds** great, and is quite impressive in the telling. The problem is: it is false—from beginning to end.

In the May 1991 issue of *Reason & Revelation*, I wrote an article documenting the incorrect nature of the account, and urging our readers not to use it. Now, almost eight years later, the story is being circulated again—most likely due to the fact that it recently has been published on the Internet. While there are many positive aspects of the Internet and the World Wide Web, one negative aspect is that error can be disseminated rapidly, and widely, with little more than the click of a mouse button. Apparently that is exactly what has happened here.

Some well-intentioned soul posted the story on the Internet. Another saw it, and sent it to a few (or a few hundred!) people via an electronic address book. Those people then forwarded it to others, who sent it to still others. *Ad infinitum!* Over the past several weeks our offices have been deluged with requests regarding the story. Because of the serious nature of the situation (i.e., the fact that false information is being used—albeit probably unwittingly—to defend God's Word), I have decided to break with our policy of not re-running articles in *R&R*, and to reprint (with modification) my May 1991 article exposing the false nature of this account. As those whose lives and teachings revolve around the importance of truth, we, of all people, should do all we can to avoid the dissemination of erroneous material, regardless of how "good" it may sound, or the "evidential value" it may appear to have. Yes, we should defend God's Word. But no, we should not use error to do it. "Faithfully teaching the Faith" is not merely an awesome privilege, but an awesome responsibility as well. It is my hope that this article will be of use to our readers in doing just that.]

Q In the tenth chapter of the Old Testament book of Joshua, it is recorded that the Sun "stood still." The story often circulates that NASA scientists, using computers to calculate orbits for the Earth and Sun, discovered that there was a "lost day." Upon further examination, so the story goes, these scientists used their computers to find this missing day, proving the biblical record to be accurate. Is this story true?

A From time to time stories such as the one described above appear—in church bulletins and religious publications, or even on the Internet—as factual and true. No doubt those who propagate such information mean well, and have as their ultimate goal a defense of the Bible against the slings and arrows of infidelity. However, the story is untrue. An investigation reveals the following details.

Similar stories have been around for more than half-a-century. In his 1936 book, *The Harmony of Science and Scripture*, Harry Rimmer devoted the entire last chapter to "Modern Science and the Long Day of Joshua." In his discussion, Rimmer recounted the biblical story of how God made the Sun stand still (Joshua 10), and then made the following statement concerning this miracle: "The final testimony of science is that such a day left its record for all time. As long as time shall be, the record of this day must remain. The fact is attested by eminent men of science, two of whom I quote here" (1936, p. 280). Dr. Rimmer then mentioned two scientists—Sir Edwin Ball, a British astronomer, and Charles A.L. Totten, a Yale professor. He credited Ball with being the first to notice that "twenty-four hours had been lost out of solar time." Rimmer then asked the questions: "Where did that go, what was the cause of this strange lapse, and how did it happen" (p. 280)? In the very next paragraph, he wrote: "There is a place, however, where the answer is found. And this place is attested by a scientist of standing. There

is a book by Prof. C.A. Totten of Yale, written in 1890, which establishes the case beyond the shadow of a doubt" (p. 281). Rimmer then offered what he called a "summary" of Totten's book where, he said, information could be found to prove exactly how the "lost day" had been discovered. Rimmer even gave the exact day and month on which Joshua's battle was fought—Tuesday, July 22 (p. 266).

Before responding to the question about NASA scientists allegedly having found the "lost day" of Joshua, let me make several observations about this older version (from which the newer one obviously has been fashioned—with considerable embellishment). First, Rimmer specifically stated that he intended to "quote from" Ball and Totten, yet none of the statements he offered was placed in quotation marks. Second, the 1890 book that Totten wrote (*Joshua's Long Day and the Dial of Abaz*) never was named by Rimmer, which seems a bit odd considering that Rimmer devoted an entire chapter to this subject in his own book. Third, no bibliographic references were provided by Rimmer to the works of either Ball or Totten—again, quite unusual, seeing as how Rimmer based his entire argument on the validity of their respective cases. Fourth, numerous other writers have made serious efforts to determine the validity of Rimmer's claims, as well as those of Ball and Totten, but with no success. For example, Bernard Ramm, in *The Christian View of Science and Scripture*, discussed Dr. Rimmer's viewpoint and his reference to Totten. Ramm couched his personal conclusion regarding the documentation offered by Rimmer, Totten, and Ball in well-chosen terminology. He observed: "This I have not been able to verify to my own satisfaction.... Dr. Kulp has tried to check this theory at Yale [Totten's employer—BT] and in England [Sir Edwin Ball's home—BT], and has found nothing to verify it" (1954, pp. 109,117).

No doubt Rimmer himself believed the story to be true. But the documentation that should have provided the proof was seriously and obviously lacking. How such stories **originate** is far more difficult to ascertain than how they **circulate**. When a story has been “corroborated” with what appear to be credible names and relevant facts, people often do not go to the trouble of investigating it any further. Once accepted, it then is used in what the Bible-believer sees as a reasoned defense of God’s Word. From all evidence now available, the story of Ball, Totten, and Rimmer simply is not true, and should not be used in defending the Bible as the Word of God.

The same can be said about the modern-day version of the story. Again, some historical background is necessary. When the account, as told by Dr. Rimmer, first was published, apparently it caused quite a bit of excitement, and was accepted uncritically by those anxious to show how science “proved” the Bible true. After the initial excitement subsided, the story was forgotten, or overlooked, and eventually relegated to the relic heaps of history. Its stay there, however, was brief. Someone (to this day, no one knows who) rediscovered the story, “dusted it off,” gave it some embellishment (no doubt to make it more appealing to the modern scientific mind), provided names (of individuals, companies, and cities), and then, for good measure, threw in a reference to a popular government agency that was/is very much in the public eye (the National Aeronautic and Space Administration—NASA). With this “remake” of the story now complete, it had built-in credibility that few thought to doubt or question.

The modern version of the story suggests that NASA scientists at the Goddard Space Flight Center in Greenbelt, Maryland were using sophisticated computers to plot positions of the Sun, Moon, and other planets 100, and 1000, years in the future in order to calculate spacecraft trajectories. Suddenly the computers ground to a halt. As it turns out, the computers had discovered a “lost day” in time. Repairmen did not know how to correct the problem. But one of the scientists present had attended Sunday school as a child, and recalled a story in which God made the Sun stand still for about a day. When he suggested this as a possible solution, the other

scientists ridiculed him. However, the scientist turned to Joshua 10 and read the story. The repairmen then fed the new data into the computers (carefully factoring in the “lost day” of Joshua), and the machines once more whirred along perfectly—almost. The computers suddenly stopped again because they had not discovered a **whole** day; something still was missing. Apparently (so the story goes) the computers found only 23 hours and 20 minutes. In other words, 40 minutes still were unaccounted for. But the Sunday-school-going scientist suggested the answer to this conundrum. He remembered 2 Kings 20, which indicates that King Hezekiah, upon being promised a reprieve from imminent death, had requested a sign from Heaven. God then made the Sun move backwards ten degrees—or exactly 40 minutes! This information was fed into the computers, and they once again worked perfectly.

This tale became widely circulated in the late 1960s and early 1970s as a result of the efforts of Harold Hill, then-president of the Curtis Engine Company in Halethorpe (Baltimore), Maryland. In his 1974 book, *How to Live Like a King’s Kid*, Mr. Hill devoted an entire chapter to the story (pp. 65-77), and explained how it became so widespread. He stated that on occasion he spoke to high school and college students regarding Bible/science matters, and that the story of NASAs “missing day” was one he “told often” (pp. 65-66). Somehow (even Mr. Hill never knew how), Mary Kathryn Bryan, a columnist for the *Evening Star* of Spencer, Indiana, received a written account of Mr. Hill’s story and ran it in her column. Afterwards, Hill noted, “Various news services picked up the story and it appeared in **hundreds** of places” (p. 69, emp. in orig.). The account no doubt was afforded a certain amount of built-in credibility when Mr. Hill suggested regarding the space program at Goddard: “I was involved from the start, through contractual arrangements with my company” (1974, p. 65). [As it turns out, Mr. Hill’s connection to NASA was tenuous at best; his company had a contract to service some of the government agency’s electrical generators. He never was connected in any way with mission operations or planning.]

All efforts to confirm the origin of the story have failed. After an article about it appeared in the April 1970 *Bible-Science Newsletter*,

several readers of that magazine wrote Mr. Hill. A subsequent article in the July 1989 *Bible-Science Newsletter* made mention of the fact that after the 1970 article, some readers finally received a form letter from Mr. Hill in which he stated that he did not originate the tale. In his 1974 book, he acknowledged that he did not witness the incident at NASA personally, and said that he could not remember where he first heard it, but insisted that “my inability to furnish documentation of the ‘Missing day’ incident in no way detracts from its authenticity” (p. 71).

The July 1989 *Bible-Science Newsletter* article went on to report that

Dr. Bolton Davidheiser wrote the NASA office at Greenbelt, Maryland, where all of this was supposed to have happened. They replied that they knew nothing of Mr. Harold Hill and could not corroborate the “lost day” reference.... The concluding paragraph of NASAs letter read, “Although we make use of planetary positions as necessary in the determination of space-craft orbits on our computers, I have not found that any ‘astronauts and space scientists at Greenbelt’ were involved in the ‘lost day’ story attributed to Mr. Hill” (Bartz, 1989, p. 12).

The story’s origin is dubious at best (and spurious at worst). The facts, where verifiable, are incorrect. And those allegedly involved in finding the “lost day” of Joshua admit to knowing nothing about such events. Furthermore, anyone claiming that computers somehow could “find” a lost day fails to understand how computers work. As Paul Bartz has commented: “In short, the story is technically impossible, no matter how sophisticated your computer” (1989, p. 12). The only conclusion one can draw is that this story is false and should not be circulated.

Bartz, Paul (1989), “Questions and Answers,” *Bible-Science Newsletter*, 27[7]:12, July.

Hill, Harold (1974), *How to Live Like a King’s Kid* (South Plainfield, NJ: Bridge Publishing).

Ramm, Bernard (1954), *The Christian View of Science and Scripture* (Grand Rapids, MI: Eerdmans).

Rimmer, Harry (1936), *The Harmony of Science and Scripture* (Grand Rapids, MI: Eerdmans).

Totten, Charles A.L. (1890), *Joshua’s Long Day and the Dial of Abaz* (New Haven, CT: Our Race Publishing Co.).



NOTE FROM THE EDITOR

APOLOGETICS PRESS ON THE WORLD WIDE WEB—AGAIN!

In this space in September 1997, I informed our subscribers about the new Apologetics Press site on the World Wide Web. We were, we felt, justifiably proud of both the professional appearance of the site and its information content (which included, among others things, current and selected archived issues of *Reason & Revelation*, annotated links to other Web sites, etc.). Trevor Major, our Director of Scientific Information, and Charles McCown, our Manager of Information Systems, worked long and hard to make the site a reality. And they have worked long and hard since then to maintain and improve it. For example, in my May 1998 “Note from the Editor” I announced the addition to our site of the new Apologetics Press “Web Store,” which made available for the first time on-line all of our catalog offerings (as well as a secure, encrypted system for ordering via credit card). If comments from those who have visited our Web Site may be taken at face value, it has served its purpose extremely well and has benefited our friends and customers—as it was designed to do.

But “resting on our laurels” never has been something with which we at Apologetics Press felt very comfortable. It therefore gives me a great deal of pleasure to announce the availability of the **new** edition of “A.P. on the Web.”

Approximately three months ago, I asked my staff to begin in earnest a complete “front-to-back/top-to-bottom” revision of the site. Our goal was simple and straightforward—to make the site as professional in appearance, as rich in information, and as friendly for the user as possible. Attaining that goal, however, was neither simple nor straightforward. Line after line of complicated computer code had to be generated. Unified color schemes had to be devised. Striking

(yet eye-pleasing) graphics had to be designed. More pages had to be added to accommodate the growth. In short, everything had to be “new and improved.” And to help keep costs to a minimum—in line with the non-profit nature of our work—it all needed to be accomplished “in house.”

A daunting task, to be sure—but one that went smoothly thanks to the dedication, camaraderie, and talent of people like Trevor and Charles. And the “new kid on the block.”

This past October we hired a likable, hard-working, trustworthy, twenty-year-old by the name of Sam Estabrook to serve as our Operations Manager. Sam does a terrific job of supervising the day-to-day goings-on at A.P. (putting in a lot of overtime, but without the pay to show for it). He also has a vast storehouse of knowledge about the software and hardware issues related to computers. His expertise was invaluable in writing the complex code necessary to make our new Web Site a reality. I no sooner had laid out the task before him than he began working diligently on every aspect of the Web site revision. Few there are outside our own offices (the obvious exception being those who are computer savvy in their own right) who fully can understand and appreciate the time and effort Sam invested in this singularly important project. But many there are who will benefit from his knowledge, profit from his labors, and appreciate his dedication.

The new Web site is a beauty to behold and, I think, one that successfully meets our goal of being professional in appearance, rich in information, and user friendly in operation. But don’t take my word for it. You be the judge. Come visit us—soon—at: www.ApologeticsPress.org.

— Bert Thompson

