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eaders of this journal are accustomed to reading a wide variety of articles about the relationship between Christian faith and the scientific pursuit. We have read papers in these pages from those who claim irrefutable scientific evidence for intelligent design (ID). We also hear from Christians who affirm design in creation, but believe that God may have worked (and is yet working) consistently through natural laws to bring about life on Earth ("evolutionary creationism," "teleological evolution," "robust formational economy principle," etc.). In presenting a variety of opinions and providing a forum for open discussion, this journal provides a great service to the community of Christians interested in science in particular, and to the wider Christian community in general.

I find this breadth of viewpoints refreshing compared to what I find in other Christian periodicals. It seems like most popular conservative and evangelical Christian media present only one viewpoint. Pick up any copy of *Christianity Today, First Things, Books and Culture,* etc. and you may notice what I have noticed. (I am not in a position to comment on the content of more liberal publications such as *The Christian Century.*)

If you find any theoretical discussion at all of science and faith in these magazines, it will almost certainly be about intelligent design. Moreover, if you find an individual who is active in the science/faith conversation on the editorial board of one of these publications, that person is likely a leading proponent of the ID movement.

It seems that everywhere one looks in the Christian press one sees articles advocating ID, while evolutionary creationism is seldom seen. Why is that?

I have a hypothesis. I contend that the audience and editors of these publications are concerned primarily with apologetics and not with broader theological insights into and implications of scientific inquiry. They are concerned more with demonstrating the existence of God and less about how God has interacted with the natural order throughout time. That God is seems to be more interesting to them than who God is—at least regarding the subject of creation.

If we look at two distinct ways of integrating science and faith today, ID and evolutionary creationism, we see that only one of them provides apologists with new arguments. ID is both a way of understanding how God has interacted with the natural world and is also a novel component in an argument for the existence of something supernatural (though not necessarily a personal God). Evolutionary creationism, on the other hand, while just as compatible with Christian faith (so its proponents claim), and perhaps just as compelling on intellectual grounds, is of more value in the theology of creation or the philosophy of science than it is for apologetics.

To put it bluntly, most readers of *Christianity Today* are very interested in apologetics and may not be otherwise interested in the doctrine of creation—let alone the philosophy of science.

This leads to an interesting problem. Permit me to establish a potentially false dichotomy. Let us imagine that either ID or evolutionary creationism is the only correct way of relating Christian faith to science. One is completely right and the other is completely wrong. Lots of very bright people are working hard to decide which of these is correct: scientists, philosophers, and theologians. Unfortunately, because of the preference of conservative Christian magazines for apologetics, their curious and engaged Christian readers will be kept abreast of only one of the two options, regardless of the intellectual merit of other possible viewpoints.

Let us now imagine that the correct understanding turns out to be the one that does not focus on an argument for the existence of a supernatural reality. (Note that this obviously would not imply that there is no supernatural reality! It only would mean that the existence, let alone the nature, of the supernatural reality could not be proven from scientific investigations of the natural order.) If that turns out to be the case, most of the Christian public today is being informed only about a false theory. This would be tragic, even if the true theory does not constitute a bullet-proof argument for the existence of God.

Perhaps ID is the correct option, and my worries are unfounded. However, if my worries are justified, we need to find a way to avoid this tragedy. Perhaps responsible Christian readers are obligated to pursue other theories wherever they can find them. Perhaps editors should be

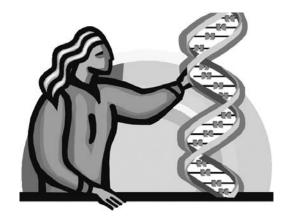
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more aware of what is happening at the Christianity/science interface and present alternative viewpoints. Perhaps the proponents of ID themselves need to be extra vigilant in providing a fair summary of different ideas in their articles.

Given the nature of the problem, none of these potential solutions is likely to occur to a great extent, nor is it fair to hold the involved parties responsible to fix the problem (except, perhaps, the editors). Ultimately, it is incumbent on those of us who do have exposure to a broad range of ideas to keep reading, writing, and talking about all the options. For the time being, this vigorous discussion may have to occur only in more specialized venues. However, over time, the best model will slowly emerge, and once generally accepted by our community, it will come to the attention of the broader Christian community.

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## Creation Versus Creationism

Graeme Finlay,\* Bernard Choong, John Flenley, Nishi Karunasinghe, Graham O' Brien, Ross Prestidge, Cris Print, Andrew Shelling, and Mark West

any religious people think that evolutionary science and Christian faith are enemies. In the USA, they expend energy, time, and good will by attacking the teaching of evolution in schools. Recent battles have raged in Louisiana, Kansas, and Ohio.<sup>1</sup>

The issue simmers in New Zealand, too. The *NZ Listener* (in 1995) commented that "God and Darwin are still battling it out in New Zealand schools" and (in 2000) that "the teaching of evolution remains under siege from Creationists."<sup>2</sup>

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We are Christians who work in the sciences, and regard this controversy as a tragedy. We are committed both to the scientific enterprise (including evolutionary science) and to the Good News that God has revealed himself as a person, Jesus of Nazareth. The issue is resolvable by accepting two considerations:

- 1. We are an evolved species. Unprecedented developments in genetics show beyond reasonable doubt that we and other primates are the descendants of common ancestors. Just as DNA is used in courts to establish paternity, or to identify people involved with crimes, so particular features of DNA sequences establish evolutionary relatedness.
- 2. The science of evolution and the theology of creation differ in their vocabularies, subject matter, and concerns. Evolutionary science and the biblical concept of creation (regardless of whether someone believes in it) should be seen to address different aspects of human experience. They are not mutually exclusive.

Today we are witnessing momentous scientific developments. An international consortium has determined the order of (most of) the 3 billion DNA bases (chemical units of information) that comprise the chimpanzee genome. Comparison of the base sequences of chimp and human DNA shows that they are very similar. This indicates that humans should be classified as a species of ape. Our closest relatives (in order) are chimps, gorillas, and orangutans. The differences between chimp and human genetic sequences reflect natural genetic processes. Bases have been changed, and segments of DNA rearranged.

Genetic history is inscribed in DNA sequences. Our DNA sequence includes thousands of derelict genes. These are either ancient relics of once-active genes, or randomly generated copies of genes.<sup>3</sup> It is extraordinary to view large segments of chimp and human DNA, aligned side-by-side, and see the same sequence of genes and derelict genes. Both species are products of the one lineage in which these scrambled genes were generated.<sup>4</sup> Fascinating examples are known. Most mammals make their own ascorbic acid (vitamin C), but higher primates like us need ascorbic acid in their diet. This is because a gene required to make ascorbic acid became inactivated in an ancestor of the higher primates. Chimps, humans (and other higher primates) retain in their DNA derelict copies of this gene.<sup>5</sup>

Most mammals wage war and make love in response to chemical signals (pheromones) that they detect with the vomeronasal organ. But Old World primates (including chimps and humans) lack this structure. The gene for a key signaling protein is defunct, although still present in our DNA (and containing the original inactivating mutation). Pheromone-sensing receptor proteins cannot now signal, and their genes (about 100 of them) have fallen into disrepair.<sup>6</sup>