

cells of the higher animals lost their freedom in rising because they had to be organized in a more complex way.

New knowledge enables man to have this freedom on a higher level. Just as he is now going or about to go out to other planets, so he may now be able to go inside into his own nature, too. And just as he may control more of the bodies of outer space, so he may control more of his own substance through such well-known processes as education and medicine and through newer physiological means and even through controlling his hereditary nature. In my opinion, the highest freedom that any being can have is to plan and work his own evolution in the direction which he feels is higher and which can absorb and utilize his energies in more integrated and creative ways.

One of the main lessons that we have learned from biology is the greatness that man may have if he uses his powers to better his own nature. He has gone so far in evolution, and there is no evidence that he has reached any necessary limit. He may go very much further, but now only by his own efforts.

COMMENTARY ON THEOLOGICAL RESOURCES FROM THE BIOLOGICAL SCIENCES

by Robert B. Tapp

It seems to me what Wald is suggesting here is something like this: "Hail to thee, blithe bird, spirit thou never wert." In the seeming reduction of spirit to man, or life to man, the usual things that theologians over the centuries have felt were that all sorts of things were going to get left out along the way, and that you are just going to lop off crucial realities one by one as you go through this reduction process, and in the end there will be nothing left. I think it is clear from the prospectus that our committee agrees that there may now be rich things in the sciences for religion, whatever may have been the case in the eighteenth century or the nineteenth century. What Wald has given is a beautiful setting forth of this rich lode.

There are several gambits that theologians use in their encounters

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with scientists that now seem ruled out. The theologian's argument runs something like this, "Well, that may be true, but by your methods you will never be able to know life or creation," and this gives him a little preserve that science, no matter what its evidence, can never completely undermine. I think, from the picture of the world viewed biochemically as we have had it here, that ploy will work no longer. Theologians will no doubt continue to use it, but I suggest that the peril is very great.

Or take this gambit which is very typical in the history of theology and science, "You take the How's and we will keep the Why's." Theologians are inclined to let science talk "how" all night. You can pile up these genetic variations with infinite subtlety, but you cannot touch the really important question: Why did God do this? The more one looks at the How's, the less critical it is to ask this supposedly great big "Why," and I suspect maybe in time theologians may become sufficiently humbled to stop thinking that the Why question is separate from the How question.

Or the third gambit that it seems to me is now ruled out—"Wherever you go, it's beyond you"—that somehow you can explore space but God is further out and, therefore, you cannot destroy God. Khrushchev put this, you remember, in his characteristically blunt way. His astronauts went into space, and they did not find any God! This sort of a God becomes so transcendent that it is hardly worth discussing.

These gambits are minor ones, that is, minor intellectually (they may be major ones in terms of the time and effort). The most significant gambit that is now undercut is a gambit that runs like this, "You take the general, and we will handle the specifics." To translate a little bit, this means: Yes, of course, science can classify, but it does this by abstracting or reducing the uniqueness of things. It deals with a form of "gray marbles," and anyone can count those; but the really unique things are the things that make men, men. These realities are somehow in the province of the humanist or the poet. They are the ones who can deal with the uniqueness and, of course, science can never presume to that preserve. The fact is that now there is not only a biochemical basis for uniqueness, but modern biology necessarily embraces the uniqueness of the individual.

If I am correct that such gambits are undercut by contemporary science, as illustrated by Wald, then we come to an interesting function for religion, or more specifically, for theology. If theology is the intellectual side of any religion, can the theological disciplines of the West, taking science seriously, turn to their appropriate matter, that

is, the life and belief and practices of the various church communities, can they turn to this matter and perform a vital function? We have used the phrase in our statement for this conference: "Can credibility be restored to religion?" I do not think we need to argue that credibility is largely lost. In America, where people are still joining churches, it is perfectly clear that this joining does not involve committing themselves to something specific and unique that begins to mark them off from the rest of the population but that it has other motivations. (In most of the Western world they are not even joining!)

How do you restore credibility? I think there might be three pigeonholes that the theologian conversant with the sciences should be sorting things into. The first pigeonhole let us call the pigeonhole of *corroboration*. You might well say, looking quite selectively at the mythology of our own past or any other religious past, "There was a fascinating idea taught long ago and now underscored in terms of empirical science." Take the problem of brotherhood. In some of the high religions, in some of their best moments, there was a vision of universal brotherhood, regardless of race, color or creed (on very rare occasions even sex was included). This has now been very well underscored by biology. In this sense we might say credibility could be restored by careful theological assessment of the data of the sciences. In a sense, we are saying that brotherhood is now an even firmer vision, no more true because corroborated but certainly more credible. That is pigeonhole number 1, the most obvious one. I mention it first because some people look at liberal religion and say its main concern has been to take the sciences as a support of this kind.

The second pigeonhole is for *irrelevant* doctrines. The only harm they do is to waste people's time. Here a number of ideas of the past must be filed. In some religions people have believed in angels, for instance. I cannot see any behavioral consequences here that get very specific. This is a rather ambiguous kind of belief and a basically harmless type of belief.

The third pigeonhole is the crucial one. This is the pigeonhole for *pernicious* beliefs. It seems to me that the modern theologian has to be perfectly well aware that not only does modern science render some beliefs more credible than others and some more irrelevant, but it also points up the perniciousness of other beliefs. A prime example here would be the belief in a "soul." Now this might seem to be a harmless belief, and sometimes it is, but during the Inquisition, for instance, its pernicious function emerged in propositions like this: "It does not really matter what you do to him; after all it is only his body that you

are hurting, you can't hurt his soul (which is non-material, immortal, etc.)." A second example of the pernicious belief might be the belief in demons, the belief that some sort of mysterious spiritual entities enter and possess people and cause illness, both physical and mental. Modern medicine would obviously have been impossible had people not functionally dropped this pernicious feeling.

These three pigeonholes might serve the theologian as he, on the one hand, takes seriously the knowledge function of the scientist and, on the other hand, gives up his belief that somehow religion and science are separate—that there are two kinds of knowing. If there is a single knowing enterprise, then the theologian has no special tracks, no special pipelines, and no special insights. He may have a certain kind of historical knowledge that would be wrong to abandon prematurely or wrong not to bring to bear upon the human dilemma. But this is all. He has no other things up his sleeve or in his back pocket. Given the variety of cosmologies that he might have had from ancient India or ancient China, Palestine, or modern Cambridge—which of these gives the greatest sense of wonder, of dignity, of excitement, to the human quest? Which can afford greater motivation for man's furtherance of the evolution of the human quest? By such criteria must the modern theologian begin to evaluate the choice among the myths, or among the vast cosmic pictures—not in terms of their antiquity but in terms of essentially heuristic principles. What do they do for man now—in history?

When Wald began to talk about the history of matter, he was striking a very fresh, and a very relevant and unnoticed note in a good deal of our discussion of religion and science. We can easily say, "Science is great but it is so ahistorical, you know; it simply deals with particles, or it simply classifies, or it simply uses some universal category that never deals with the specifics; or it is helpless before man, it can only talk about cells and particles." The fact is that modern cosmology both sets the stage for human history *and* illumines the subsequent scenes and acts.