Guest Editorials

WHAT NEEDS TO BE DONE IN ORDER TO BRING THE SCIENCE-AND-RELIGION DIALOGUE FORWARD?

by K. Helmut Reich

If one looks at the flourishing activities of the science-and-religion dialogue, one might conclude that all is well, and we need only to go on as before. However, a deeper analysis shows that often the dialogue consists in agreeing that we disagree, which diminishes its potential usefulness. Also, despite the flood of science-and-religion books for the general reader, how much has the dialogue really influenced the thinking of working scientists or of pastors and members of congregations?

This does not have to be a reason for discouragement if the issues in question are tackled appropriately. History provides helpful examples. Take the search for understanding the nature of light. For more than two centuries Newton's corpuscle theory of 1704 and the wave theory of light vied for dominance until in the 1940s the quantum electrodynamics (QED) theory unified the two. This enabled physicists to deal successfully with many previously unsolvable problems. The main steps that led to this success were: (1) New experiments were carried out and the results accepted after critical examination, even though they were extraordinary at first glance; (2) The results were expressed in mathematical terms; (3) A new theory was formulated, even though it did not fit the existing (philosophical) framework; (4) The breakthrough was interpreted in a wider context.

Correspondingly, the following procedure suggests itself for the science-and-religion dialogue: (1) Formulate *all* results, including those of religious/spiritual research, in scientific terms (natural sciences, humanities, social sciences, etc.); (2) Attempt to interpret all findings in an enlarged common framework; (3) Consider their impact on the current conceptualizations and worldviews and, if need be, amend and, most important, apply them.

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I now briefly develop these points. I claim no originality; I wish only to echo and reinforce wake-up calls heard sporadically, and specifically in recent *Zygon* issues (especially vol. 41, 2006).

A major problem with ongoing research is that it is mostly done in a single discipline—in the natural sciences, in religious studies, in psychology or sociology of religion. Deep religious and spiritual experiences usually are avoided (with a few exceptions such as The Mind and Life Institute, www.mindandlife.org), likewise faith healing and parapsychological phenomena. Even if we understand the historical reasons for this state of affairs (see Walach and Reich 2005), these no longer apply; old hurdles should be overcome in the interest of moving forward.

The formulation of the results is, in the first place, the task of those who carried out the research. However, already at this stage it would be wise to involve a multidisciplinary team with diverging basic positions. This could guard against overly hasty, premature conclusions. The members of the team need to state clearly their presuppositions and the logic they use in their argumentation (Reich 2000; 2002).

Placing study results into an enlarged common framework requires considerable knowledge and creativity. Individuals have achieved this, for example Antje Jackelén in her study of time and eternity (2006). In other cases multidisciplinary teams (with partly changing membership) have been able to do this work. Examples are the volumes produced by the Vatican Observatory and the Center for Theology and the Natural Sciences (CTNS) in Berkeley (Russell et al. 1988–2002). From the present perspective, a main characteristic of these works is that their insights go markedly beyond those of the literature at that time.

Predicting the potential impact of the new insights on worldviews and societal concerns is difficult but necessary. It is needed because, in the history of humankind, religion as well as science and technology have crucially contributed to the survival and progress of our species (occasionally also in a detrimental sense). In Europe we see religion taken seriously (= to do God's perceived will) from the fifth to the twelfth century, including the proceedings of legal courts (use of ordeals to decide on guilt or innocence). In the thirteenth and fourteenth centuries secular values gained more acceptance (ordeal replaced by jury, reintroduction of Roman law) and the respectability of the church declined. Religious and secular values then went through various phases (Renaissance, Reformation, Enlightenment, and so on). In the twentieth century, in Europe, religion was hardly taken seriously as a matter of course, and life became markedly individualistic and sensate (Glyn-Jones 1996). In the case of ancient Greece and the Roman Empire such transitions led to the decline of their previously flourishing civilizations.

An almost universal social and psychological unifying force was lost along with the social and psychological centrality of religion. Although there

were and are other unifying forces, a well-developed religion has a wider, more encompassing scope, potentially uniting the sexes, contemporaneous generations, reason and emotions, body and spirit, ethics and action, life stages (via rites of passage), the temporalities (past, present, future), private and public life, individuals and those around them, nature and culture, the human community and the cosmos (Saroglou 2006). Instead of bashing religion, would it not be more reasonable and forward-looking to support efforts to reform and harmonize the various religions?

Another important reason for valuing religion/spirituality is the ecological crisis on our planet—the pollution, mean temperature increase, and exhaustion of resources. Who would seriously claim that planet Earth can provide sufficient resources to enable an American standard of living for all of humankind and deal with the resulting aggression against its natural equilibrium? Is not a voluntary simplicity of lifestyle, even asceticism, needed if we want to avoid worldwide human catastrophes such as deadly water shortages and wars for energy resources? And can this be achieved without religion/spirituality (Tugendhat 2006) even though some leading scientists may dispute its beneficial contribution?

How shall we go about this task of paying attention to religion/spirituality and its *aggiornamento* in the science-and-religion dialogue? It seems to me that the symposia periodically published in *Zygon* and elsewhere are a good beginning. Take, for instance, the debate on Quantum Reality and the Consciousness of the Universe (Schäfer et al. 2006). In my opinion, understanding more profoundly the nature of human consciousness could advance the science-and-religion dialogue significantly.

So far, consciousness research is mainly linked to brain studies. An extreme but not uncommon view is that our consciousness is what our neurons make up for us. If this were so, where are God's voice and the messages of the Holy Spirit? In a different view, the brain is only part of us as persons, and our personhood is what really counts, not just our brain. "Facts" are one thing, and their personal interpretation is another. Persons develop only by interacting with their surroundings. To survive and grow up, babies need to live in close relationship with caretakers who not only feed them but also react to them, play with them, cuddle them, smile at them, and speak with them. How does that work? One can conceive of some kind of consciousness extension beyond the brain via an empathy field or the like that couples human consciousness to the inducing properties of the environment and any "outside" close partners in consciousness (Koss-Chioino 2006). Consciousness research also needs to bring in the resources of cultures other than the Western more strongly. I would hope that mind and spirit could convincingly be shown to have an existence of their own, that they are not merely epiphenomena in a purely materialistic universe, and correspondingly that personhood, while involving the brain, extends markedly beyond it—that persons interact with the Transcendent.

I am struck by the observation that we do not seem to have progressed much beyond the contradictory ontologies of Parmenides and Heraclitus except that the battle is now between the block universe (total and atemporal spacetime continuum) and a temporal universe of true becoming. Should we not reconsider the relationship between ontology (traditionally given a higher priority) and epistemology (Polkinghorne 2006)?

It is, of course, necessary to break genuinely new ground and to remember that usually this is not achieved in a single go. Take Niels Bohr's atomic shell model of 1913, which was built on his intuition of quantum states and did not obey James Clerk Maxwell's equations. At the time, Bohr could not justify his model by an appropriate quantum theory (which came about a decade later), but what decisive heuristic fruitfulness it has had all the same!

Let us give similarly paradoxical, courageous, forward-leading scienceand-religion models a chance to be tested, evaluated, and, in promising cases, further developed and applied. The worldwide situation is too serious for concentrating primarily on nitpicking and quibbling when such proposals are made. Let us all work together to improve them and translate them into projects useful for society and individuals.

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