## TWENTY YEARS IN THE SCIENCE AND THEOLOGY ALPINE CLIMBING CLUB

by John Polkinghorne

Abstract. The important role of hope in the author's thinking is acknowledged. While natural theology is important in its proper place, Christian theology centers on the God and Father of our Lord Jesus Christ. Its discourse will need to avail itself of the power of symbol.

Keywords: hope; natural theology; symbol.

I am grateful to the commentators for their contributions. Let me respond first to Edward Davis and Carl Helrich.

They both draw attention to two aspects of my work which certainly give it much of its character: the "bottom-up" approach so natural to the scientist, and my desire to be attentive to the Christian tradition without succumbing merely to being in thrall to the past. It seems to me that it is a full-blooded trinitarian and incarnational Christian belief that has the richness and "thickness" about it to be persuasive, while a more attenuated account, while it makes less initial demand on the contemporary mind to expand the range of its conceptual thinking, in the end proves inadequate precisely because that narrower view cannot accommodate the depths of divine and created reality and the variety of issues that we have to face. I am convinced that the discussion in the science and theology interchange must immerse itself in detailed topics and resist the temptation to conduct its discourse at too abstracted a level. That is why I chose the somewhat paradoxical strategy of organizing my Gifford Lectures (Polkinghorne 1994) around phrases selected from the Nicene Creed. I think that a comparison

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with some other more or less contemporary Gifford Lectures will illustrate the point I wish to make.

Helrich correctly identifies my concern with the meaning and justification of hope, and Davis rightly draws attention to the emphasis I place on the resurrection of Jesus. In my opinion, the latter is the pivot on which Christian belief turns, for without it the ambiguity of the end of Jesus' life remains unresolved. In treating this topic, one must be concerned with a bottom-up kind of investigation of the historical deposit of evidence that might motivate such a strange belief. Yet, how that evidence is weighed will also depend on a top-down kind of assessment of how such a unique and remarkable event could make sense in terms of the eschatological purposes of God. No one can operate without some degree of both kinds of argument. I suppose that my stance as a bottom-up thinker may best be articulated by saying that both of these perspectives must be held in the closest mutual tension and interaction, much as theory and experiment intertwine in natural science.

The two great problems that I see Christian theology as having to face, and that remain topics for continual struggle and honest acknowledgment, are the problem of evil and suffering and the perplexities posed by the clashing diversities of the world faith traditions. In Christian terms, I believe that the concept of the crucified God is our most profound response to the former (and that this demands a strong understanding of the Incarnation, going beyond an inspirational Christology), and that participation in the dialogue that the latter demands will be of value only if we are able, humbly but firmly, to hold fast to our insight of God made known and acting in Jesus Christ.

Both commentators refer to speculations about the causal joint of divine action within the unfolding history of creation. My approach has focused on chaos theory, because I feel that this gives access to physical processes at the level where divine providential action would be expected to be most significant, even if veiled within the cloudiness of intrinsic unpredictabilities. This seems to me to be the best "zero-order approximation" from which to approach the problem; but, of course, physical reality is one, and until we are able scientifically to integrate quantum theory and chaos theory into a single satisfactory account, we shall lack the physical basis on which we might be able to erect a more satisfactory and persuasive metaphysics of open process.

The last point brings me to comment on Carl Helrich's metaphor of the crevasse, over which he fears I have been tempted to spring too lightly. No one could deny that a fully adequate metaphysics is a tremendous undertaking, and I believe that I have been reasonably careful to be modest in assessing the significance of the suggestions I have made. All of us in science and theology are caught in much the same kind of trap that Augus-

tine felt himself to be held by when he came to write his great work on the Trinity: on the one hand, we know that we are not able adequately to encompass the reality of which we are seeking to speak; on the other hand, it is better to say something than to remain impotently mute.

I would prefer to replace the discontinuous and threatening metaphor of the crevasse by another Alpine image, that of the broad landscape leading from the foothills on which we stand up to the majestic peaks that we faintly discern in the far distance. If we are to ascend, we must set forth in some well-chosen direction, moving carefully and purposefully toward an ultimate goal that is presently far beyond us. It has been a great privilege for me, in the last twenty years or so, to be a member of the science-and-theology climbing club, endeavoring to play a part in furthering the great project of exploration.

Ann Pederson and Lou Ann Trost take a rather different perspective on my work, perhaps because they concentrate on my most recent writings. (I try not to say things twice, unless I am explaining them at rather different levels of detail, so I would ask those assessing me to take my work as a whole.) They quote Philip Hefner's sensible remark that the theology-science dialogue should be between disciplines and not simply between individuals, a view that I share and that I think I have expressed clearly (Polkinghorne 1998, 78–84). I remain unrepentant, however, in my belief that theology is not a cumulative subject in the way that science certainly is. Much of the thought of Thomas Aquinas remains of real interest to theology today, as recent Thomist writing makes evident, contrasting with the way in which the physics of Aristotle has become an antiquarian curiosity.

Pederson and Trost's main critique, however, concentrates on what they take to be my undue reliance on natural theology and my too narrow concept of rationality. As far as the latter is concerned, I have always tried to take a broad and generous understanding of the nature of rational discourse, framed so as to conform to the nature of the subject of discourse. In my most methodological book, I emphasized the importance of the role of symbol in theological understanding (Polkinghorne 1991, 31–34). I believe that I have also maintained quite consistently the need for natural theology to be seen as a component in the whole endeavor of theology and not as a stand-alone discipline. In the first of my books that directed a sustained attention to issues of natural theology (Polkinghorne 1988, 1–33), I wrote:

However valuable natural theology may be in pointing to the divine and affording insight into his creation, it will at best be able by itself to bring us to the Cosmic Architect or the Great Mathematician. The God and Father of our Lord Jesus Christ is to be sought by other means. Worship and prayer is the context in which theology has to be practised; the academic departments of religious studies in our universities are like schools of science unfurnished with laboratories. (Polkinghorne 1988, 86)

Pederson and Trost say that "if one had to characterize Polkinghorne's idea of God it would be 'God as Mind'" (2000, 981). I firmly repudiate that attribution. I would have thought that even a cursory acquaintance with my Gifford Lectures (Polkinghorne 1994) would make it plain that my idea of the deity is the God and Father of our Lord Jesus Christ.

Finally, a word about neuroscience. Pederson and Trost write, "Is not 'mental' experience merely the way that human beings describe what happens when neurons fire and work in conjunction with the optic nerve and the apparatus of the eye to create vision?" (2000, 979). It is precisely this inability to recognize and respect the categorically idiosyncratic nature of qualia that makes me sometimes despair of real progress in consciousness studies. The hard problem is not going to go away simply by stipulation.

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