FROM GRAND DREAMING TO PROBLEM SOLVING

by Wesley Wildman

Philip Hefner's editorial in the March 2007 issue of *Zygon* asks us to evaluate the science-religion conversation from two angles: the experiences that inform it and the people who have a stake in it. What he hints at I would like to amplify. A potentially vast audience has a stake in the science-religion conversation, and the way that conversation typically runs is based on too narrow a domain of experience. The science-religion conversation needs to make the shift from grand synthetic dreaming to concrete problem solving. Aiming to solve real problems is the quickest way to broaden the base of experience informing the conversation, and nothing will engage the large audience of potential stakeholders more effectively.

This thesis is subject to misunderstanding. I do not advocate blunting the philosophical edge of science-religion dialogue. I do not urge academics to abandon the highest standards of rich interpretation and precise argument in exchange for the transient glories of popular relevance. Nor do I argue for admitting to the dialogue table anyone who feels an interest in a topic regardless of expertise or preparation. On the contrary: Intensify every facet of the science-religion skill set! We need better multidisciplinary training with higher standards. We need more thinkers able to function as contributing members of multiple disciplines. Most of all we need people with such talent and preparation that they can tackle the hardest questions of the all-too-familiar problems embedded in ordinary life.

Academics orient themselves to their disciplines by means of what is tractable. If they can see right into the heart of a problem and immediately sense the solution, it is an easy problem. If they lack lucid vision but still can sense the direction of the solution, they have a moderately hard problem. If they feel completely stumped and lost, they are tangling with a prodigiously difficult problem.

This is so persuasive and powerful an approach for deeply prepared minds to assess the difficulty of problems that it is easy to apply it elsewhere, outside the safety of disciplinary boundaries. As understandable as this is,

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it is dangerous. Single-disciplinary perspectives simply do not register most problems of importance in our era. Physicists describe one of the toughest problems in their discipline as developing the "theory of everything"—an absurdly parochial name. When philosopher Paul Weiss imagined testing the authenticity of a disembodied voice's claim to be God, he settled on asking for the solution to what he thought was the toughest problem in philosophy, the problem of the one and the many. These may be tough problems on local disciplinary scales of difficulty, but ordinary problems of daily life are far more grueling. Why can we still not feed all children and spare them from avoidable disease? How can we manage and transcend differences of personality and ideology, religion and culture?

au: our era?

Theoretical problems that do not lie within a single discipline are similarly challenging. What is the story of complex emergence and life? What systems of political economy work best for given purposes?

All of these questions, and thousands of others, call for contributions from natural and social scientists, philosophers and theologians, humanists and experts in religion. The character of the questions decides which experts are relevant. The goal is an intellectually compelling solution in the case of theoretical problems, or compelling interpretations and viable strategies in the case of practical problems.

Consider a couple of examples, one about method and the other about pedagogy. First, notice what does not appear in this picture of interdisciplinary problem solving. There are no methodological debates about science and religion and no typologies of possible or actual relationships between science and religion. There is too much to do to pause over such niceties. Actual literature in science and religion has too much methodological work—work that is too weakly tied to an actual history of problem solving and too distant from substantive theories of rationality that can explain how the sciences and the intellectual aspects of religion can be so different in some ways and yet so similar in others. Typologies are easy. Historically informed theories of rationality are prodigiously difficult.

If the science-religion dialogue learns anything from the philosophy of science, it should be that the history of science proved crucial for helping the philosophical study of scientific practices unfold productively. In the same way, method in science-and-religion conversations is better discussed after there is something to discuss. Method is partly an empirical inquiry, and a history of actual multidisciplinary problem-solving efforts is the raw data for the empirical phase of methodological self-reflection.

au: this business?

The overemphasis on method in the science-religion dialogue has a charming aspect. It derives from a grand dream of integrated knowledge. It is a dream many of us in this business have. We share it with Plato and Aristotle, with Confucius and Mencius, with Descartes and Kant, and with most students who inquire about graduate study in science and religion. It is also my dream, and I have nothing bad to say about it. But I am arguing

that grand synthetic dreams are best served not by speculative schemes but by disciplined corporate pursuit of solutions to the hardest multidisciplinary problems.

One of those difficult problems is how knowledge arises in ordinary life and in the various disciplines of human inquiry. A solution to that problem would have great import for creating mutual understanding across disciplinary chasms and for organizing the education of children. The correct approach to this problem is to devise a comprehensive theory of human rationality that yields an understanding of disciplinary differences as a byproduct. Modern integrative thinkers from Immanuel Kant to C. S. Peirce to Alfred North Whitehead have sought to do this, and more recently Robert Neville and J. Wentzel van Huyssteen, among others, have made powerful contributions. That is the way for dreamers to scratch their itch.

Second, we educate our students in bizarre ways. When they are very young we treat all of knowledge as a seamless fabric, to be appreciated and engaged all at once. As they get older, the need for specialization ~~insists on~~ choice so as to expend limited time and effort wisely. That is understandable and inevitable. But what do we force young people to choose? An academic discipline! Why not ask them to choose a problem?

When young people choose a discipline such as physics or literature and invest heavily in it, they properly prepare themselves for the balkanized world of human knowledge that we have rather than the world of cooperative problem solving that we need. I would dearly love to ask a high schooler about his favorite subjects and hear in reply not "Mathematics and American History" but rather "war and peace" or "global poverty" or "sustainable energy." Even more rewarding would be to hear a college student describe her major as "worlds of meaning" or "distributive justice" or "family conflict," perhaps with a minor in "food."

I am not arguing against specialization here. I am arguing for specializing on problems rather than disciplines. That involves gaining disciplinary expertise, but in conformity with the shape of the problems themselves.

Most great integrative contributions to modern problems have come from the minds of people who prepared themselves in the disciplines necessary to take on those problems. They have always had to prepare themselves privately, against the bias of an educational system devoted to cultivating expertise in distinct disciplines. In the science-religion field, we admire such integrative thinkers and try to follow their example.

But why wait until we are free of the educational system to broaden our education? We ought to be able to bend the disciplinary structure of existing graduate education to serve the end of developing minds that can solve problems. All of the graduate programs in science and religion that I am aware of depend on balancing disciplinary depth with multidisciplinary cooperation. For example, Boston University's Ph.D. program in Science,

Philosophy, and Religion does that while maintaining "home-field standards." This means that a student working on a multidisciplinary problem must be evaluated by experts in the relevant disciplines using their native disciplinary standards. The disciplinary evaluators are often excited to see how their disciplines can be bent to address unfamiliar practical and theoretical problems.

Bringing a problem-solving framework into graduate education is a start. It certainly is better than waiting until one has a demanding college teaching job before trying to pick up the new disciplines needed to address a problem competently. But it would be better to begin earlier.

Good models already exist in the undergraduate context. We have the integrative multidisciplinary senior thesis, the core-curriculum programs that embrace the sciences and the humanities, emerging interdisciplinary university departments (though usually only in the sciences), and the rarer departments devoted to helping students build an educational program around their own interests. We still need to overcome resistance to combining science, philosophy, and religion in integrative undergraduate education.

There also are good initiatives in childhood education. Some educational theorists implement Howard Gardner's theory of multiple intelligences in classroom activities. This involves cooperative learning and multiple disciplines brought to bear on a large classroom task. Similarly, Montessori schools nurture creativity and curiosity, which involves in part focusing on problems rather than disciplines, and cultivating excellence in every aspect. These minority approaches point in the right direction.

We need academic disciplines, and we need to avoid being trapped by them. Grand dreams of integrated knowledge help. But multidisciplinary problem-solving efforts help more. They activate the people who have a stake in science-religion dialogue and vastly broaden the experiences that inform that dialogue.