Robert John Russell [1]

The Papacy of John Paul II is truly remarkable for many reasons. It is my privilege to have this opportunity to reflect briefly on and celebrate one crucial element of his legacy: namely his pioneering leadership in bringing the scientific world and the Church into a new period of mutually respectful and creative interactions, one whose momentum and vision continue to guide us today.

Although there were precedents which I will touch on below, the crucial point of departure for this new model of interaction began in the Fall of 1987 when the Pope, through the offices of the Vatican Secretariat of State, initiated and called for an international research conference to be convened at the Vatican Observatory in Castel Gandolfo, Italy by its Director, George V. Coyne, S.J.. The purpose of the conference was to explore a new level of dialogue and mutual understanding between scientists, philosophers, and theologians, one which would replace the perspective of mutual suspicion which tended to pervade both the Church and the Academy at least prior to Vatican II. The publication of the resulting conference papers was the occasion of a watershed “Message” on science and religion by John Paul II. This Message provided the intellectual vision needed to help create this new dialogue and it carried with this vision the ecclesiastical authority to create a new series of research conferences and publications on theology and science. [1]

There were, as I indicated above, some precedents for the 1987 conference and Message set by John Paul II. In fact, even while serving as Archbishop of Krakow, the man who was to be the first Polish Pope was always deeply intrigued by questions, not only of religion and politics, but also of cosmology, philosophy, and metaphysics. Then as Pontiff in 1983, John Paul II took action to overcome the long-lasting effects of the infamous castigation of Galileo Galilei. In a message commemorating the 350th anniversary of the publication of Galileo’s Dialogues, the Pope indicated that through “humble and assiduous study” the Church can begin to “dissociate the essentials of faith from the scientific systems of a given age …” In 1984 a statement was released by the Vatican which admitted that “Church officials had erred in condemning Galileo.” [2] But there was more to accomplish for this Pope, much more. Not only should former encroachments be rescinded; a mere sterile truce, a “two worlds” strategy, was not acceptable either. Instead, the discoveries of the natural sciences needed to be clearly and imaginatively confronted, understood, and interpreted philosophically and theologically.
There are, of course, revolutionary discoveries in the biological sciences and the unsettling technologies flowing from them, which raise critical issues in the philosophy and theology of nature and in philosophical and theological anthropology, as well as in ethics and moral theology. The focus of the 1987 conference, however, was directed to the physical sciences, which constitute an often mute but very formidable backdrop for the biological and psychological sciences and about which theologians had been relatively silent for far too long. Could the breathtaking discoveries of our era — the revolutions in our view of space, time, matter and causality, and the panorama of nature ranging from the mysterious world of the atom to the beginning and far future of the universe as a whole — could these be properly and judiciously imported across the theological horizon and then be discussed responsibly within the theological mainstream? And what is the most fruitful role for philosophy in mediating the new interaction between theology and science?

It was to these and other enormously important questions that the Pope now turned in his Message. The Message is the first major papal statement in almost four decades specifically focused on the substantive and constructive relationship between theology and science. In it the Pope calls for theologians to take science with extreme seriousness, to interpret it through the lens of philosophy and to integrate the results into their own theological programs, holding up Thomas Aquinas as a benchmark for their work. The Pope calls for a new movement towards “unity with integrity” between the Church and the scientific communities, a movement which can overcome fragmentation between those who search for truth in the depths of human experience and history and those who search for truth in the mysteries of nature. It is a unity which, while ever receding beyond our grasp, beckons us onwards in service and in mutual learning. It is a union based not on assertion but on openness, not on domination and authority but on humility and mutual respect. His call for “unity with integrity” involves an integration of diversity, one which will bring greater fulfillment for each dialogue partner. But such unity is not a synthesis or a simple identity. Nor is it the creation of a new discipline. Instead it is the search for “common ground,” one which respects the limitations and competencies of each disciplinary partner. It is of crucial importance that each side possesses its own foundations, procedures, interpretations, and conclusions. Neither theology nor science can be the necessary premise for the other. The Pope cites the Christian ecumenical movement and the interreligious dialogue among world religions as signs of openness and draws encouragement from this for the openness he is calling for between theologians and scientists.

Rather than appealing to an ad hoc strategy for introducing scientific discoveries into the intellectual horizon of the Church, the Pope locates the process within theological method proper. This method — fides quaerens intellectum (faith seeking understanding) — requires that one incorporate proven scientific theories into theology and use them for the illumination of Christian beliefs. He adds two precautions at the outset for the Church to recognize when it undertakes its part in this dialogue. First the Church must restrict itself to only those scientific theories which are well supported. Second the Church should not seek to adjudicate the truth of the findings from science.

In a truly revolutionary statement, John Paul II claims that both sides can benefit from such a dialogue! Listen to his remarkable words:

Science can purify religion from error and superstition; religion can purify science from idolatry and false absolutes. Each can draw the other into a wider world, a world in which both can flourish…[5]

In fact, such a dialogue is basically inevitable. As the Pope points out, isolation between the Church and the scientific community is not a real option.
Christians will inevitably assimilate the prevailing ideas about the world, and today these are deeply shaped by science. The only question is whether they will do this critically or unreflectively, with depth and nuance or with a shallowness that debases the Gospel and leaves us ashamed before history. Scientists, like all human beings, will make decisions upon what ultimately gives meaning and value to their lives and to their work. This they will do well or poorly, with the reflective depth that theological wisdom can help them attain, or with an unconsider absolutizing of their results beyond their reasonable and proper limits. [6]

In sum, a collaborative interaction will help each side understand their respective limits “so that theology does not profess a pseudo-science and science does not become an unconscious theology.” And it is through our knowledge of each other, gained by the process of dialogue and interaction, that each side can become more authentically itself. “We need each other to be what we must be, what we are called to be.”

Looking back some twenty plus years since the publication of his Message, I am amazed and grateful once again for John Paul II’s vision contained in that Message. I am also moved by the results that have been produced as the interdisciplinary research stemming from John Paul’s remarkable vision and encouragement continues progressing forward. At the Pope’s request the Vatican Observatory, under George’s tireless leadership, in partnership with the Center for Theology and the Natural Sciences [2], co-sponsored a series of five international research conferences on theology and science coming out of and building on the achievements of the 1987 conference. From the early 1990s through the mid 2000s some fifty scholars participated in the series producing nearly ninety essays published in five volumes. [7] The scientific topics included quantum mechanics, chaos and complexity, evolutionary and molecular biology, the neurosciences, and quantum cosmology and the laws of nature. The overarching theological topic of the series was “scientific perspectives on divine action.” The series concluded with a conference to assess the results and offer a series of directions for future research. [8]Since then the first volume in a new series has been published as Physics and Cosmology: Scientific Perspectives on the Problem of Natural Evil (2007).

Where do we go from here, some twenty-three years since John Paul II launched us into this new world of mutual discovery? To quote the Pope once again,

“What is important … is that the dialogue should continue and grow in depth and scope. In the process we must overcome every regressive tendency to a unilateral reductionism, to fear, and to self-imposed isolation. What is critically important is that each discipline should continue to enrich, nourish and challenge the other to be more fully what it can be and to contribute to our vision of who we are and who we are becoming. [9]

With the help of God, this vision will guide and encourage us as the common quest for deeper understanding continues through the ongoing research of international colleagues and is passed into the hands of future generations.


[3] For an excellent analysis of this document in light of four other major documents by John Paul II see “John Paul II on the relationship between the natural sciences and religious belief: five key discourses” by George V. Coyne, on line on this web Portal.

[4] Along with his explicit citing of fides quaerens intellectum I believe that there are implicit overtones, here, of the Pope’s own way of bringing two of the central themes of Vatican II — “aggiornamento” and ressourcement — into a fruitful interaction, one that reflects both the profound importance of the Church’s tradition, the “deposit of faith,” and the Church’s commitment, beginning in the 1960s, to a new openness to the world and an careful assessment of the “signs of the times.” These themes, of course, were particularly present in the pastoral constitution, Gaudium et Spes, to which the Pope had contributed.


[7] Summaries of all the chapters in the series of five volumes are available online at: http://www.ctns.org/books.html [4]


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