



Readings II in Faith & Science

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And I Will Make You Fishers Of Men . . .

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And I Will Make You Fishers Of Men . . .

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In discussing faith and science, one is tempted to a quick judgment: science and scientism are of this world and therefore of temporary import; faith leads the way to eternity; theology is a bridge linking them. Clearly, faith is the most important of the foursome (science, scientism, faith and theology). As happens often, more careful thought belies that simplistic conclusion. Science, scientism, theology and faith are important only in relationship to people, creatures of body and soul, making their way to their eternal happiness in heaven by a decent, respectable life on earth.

Since a human is a social being, life calls for constant interactions among persons different in personality, character, likes and dislikes, culture, background and profession. For us who find our life's work in science, the scientific method becomes a way of life. The root meaning of science is simply to know. Knowledge is gained in various ways, many incorporating some characteristics of the scientific method's five-step process:

- recognition of a problem to be solved
- careful observational basis for an investigation
- formulation of a hypothesis
- experimentation to test that hypothesis
- determination, from experimental evidence, of the truth or falsity of the hypothesis.

While the logical, step-by-step approach of the scientific method can be very useful in all branches of learning, it is not the only way to gain knowledge, nor the best in many instances. Scientism errs in its insistence that the scientific method, useful as it is in the natural sciences, should be used in all areas of investigation.

Theology, for example, has been defined as "the science of God," though as Pure Spirit God is --literally -- not material for scientific investigation. A more comprehensive definition says theology is the study of God and His relation to man and the world of arguments for the existence of God, His nature and His attributes. The word theology says it is the study of God. Since the root *logos* implies a rational approach, theology can be spoken of as a science. Since its subject is God, His Divine Nature and His attributes, theology can be said, loosely, to be a bridge between reason and faith.

The definition of theology -- faith seeking understanding -- suggests the bridge analogy. It also points out a very important distinction. Faith is a supernatural virtue, divinely infused when a person receives sanctifying grace, enabling her or him to believe firmly the truths which God has revealed through Sacred Scripture and the teachings and tradition of His Church. Like grace, faith is a free gift of God; it gives its recipient truly a supernatural power, lifting him or her to a new plane, giving the intellect a new power, faith, for grasping truth no one could possibly gain by reason alone.

Equipped with the techniques and technologies of science, the gift of grace and a firm belief in God, His revelation and the teachings of the Church, how does a Catholic scientist live in this world in a way that daily brings him or her closer to the eternal enjoyment of the Beatific Vision which makes the wonders of this world insignificant in comparison? Sometime, preferably sooner than later, the fledgling scientist must grow into the realization that there is a huge difference between being a Catholic scientist and being a scientist who happens to be Catholic. The reader's participation in a study/discussion group exploring the ramifications of being scientist and Catholic is evidence of a desire to do science responsibly in the light of faith. Decisions will not always be easy; prayerful reflection aided by the moral virtues -- prudence, justice, temperance and fortitude -- will provide guidance.

Surely, a committed Catholic lay person in any job will at times have to grapple with moral issues related to work or the work environment. But many areas of science pose more and more difficult questions in these days of high technology. As this is being written, radio and TV, carrying news of President Nixon's illness, have mentioned that Nixon, though he had lost the power of speech, managed somehow to indicate that he was not to be put on life support systems.

One commentator saw that as "tying the hands of the physicians," as if the decision belonged to the doctor, not the patient. Medicine raises myriads of such issues, many far more complex than the relatively simple question of patient autonomy.

Apart from the abomination of abortion, new reproductive technologies and ever-expanding capabilities in genetics are raising questions not encountered before, questions giving the conscientious scientist pause. Creation of multiple embryos by separation of blastomeres is here now. As embryonic, pre-implantation and gametic gene therapy become routine procedures, the Catholic physician or geneticist will have to decide where he or she stands.

Environmental science raises ethical/moral questions in many different areas, chiefly in biology, chemistry, meteorology, climatology. From second-hand smoke to depletion of the ozone layer, environmental problems often come down to an ancient ethical question: When do individual rights yield to the common good?

The arms industry poses ethical problems. Are nuclear weapons justifiable either offensively or defensively? Is biological warfare justifiable? Can one expect all the countries of the world, on humanitarian grounds, to refrain from using it? If not, how does one do research on potentially protective measures without putting experimental subjects at risk? Recently we heard of unconscionable federal research done decades ago in which unknowing experimental subjects were deliberately exposed to radiation risks in violation of the cardinal requirement for experimentation on human beings: informed consent of all participants. Surely the deleterious effects of Agent Orange in Vietnam veterans or their offspring are convincing evidence that chemical warfare, even something as simple as defoliants, carries unknown risks to more organisms than those for which the chemical was intended.

With vexing questions arising in many fields of science, is being a Catholic scientist different from being any other kind of scientist? Is being a Catholic scientist different from being a Catholic layman in any other field? In some respects, yes; in others, no.

Since science is an area in which many bishops in the U.S. are uncomfortable, if not ill-informed, Catholic scientists can make significant contributions. A major part of the present difficulty may have arisen with a lack of episcopal enthusiasm for, if not downright opposition to, Pope Paul VI's *Humanae Vitae*, issued in 1968. Whether because of disagreement with the encyclical or for other reasons, bishops haven't preached emphatically, in season and out of season, the Church's teachings on marriage, the family and human sexuality.

Conscientious Catholic scientists, well-informed about the reproductive technologies and the incredibly intricate advances in genetics, may not rely on the bishops for guidance; they ought, rather, to open discussion with them, to educate their Excellencies about what is happening and is apt to happen, thus aiding in the development of Church policy on difficult moral issues.

The bishops of the U.S., at their annual meetings, have issued declarations on peace, economics, the poor and other social questions, but they have not informed the Church in the U.S. about advances in and the risks posed by scientific research. A few of them have individually issued statements to their dioceses on surrogate motherhood, physician-assisted suicide and the removal of hydration and nutrition. As a whole, however, not only have they not made their own official statements but they have not promulgated and taught relevant Vatican statements. In addition to ignoring or downplaying *Humanae Vitae* and Pope John Paul II's exhortation on the family, many

U.S. bishops have preached little or nothing on the *Vatican Declaration on Euthanasia* and even less on the document on reproductive technologies by the Congregation for the Doctrine of the Faith.

In other respects, however, the Catholic scientist's role is not different from that of any laymen. One of the lessons Jesus preached was the need to spread the gospel, starting with the Chosen People. He told the Syrophenician woman, "It is not fair to take the childrens' bread and cast it to the dogs" (Mt 15:26); His instruction to the Twelve was "Do not go in the direction of the Gentiles, nor enter the towns of Samaritans; but go rather to the lost sheep of the house of Israel" (Mt 10:5-6). Evangelization is to be, first, for believers, calling them to convert and live more richly the Good News. In declaring that mission to His apostles Christ gave them a four-part instruction: travel light; do not forget the human; be prepared to suffer; maintain a sense of the divine presence.

Like any disciple, the Catholic scientist must spread Christ's message, whether by informing the bishop, enlightening colleagues in the research lab, inspiring the members of his or her family, or mirroring Christ? Who was called Rabbi, Teacher -- in the classroom.

"Since it is proper to the layman's state in life to spend his or her days in the midst of the world and of secular transactions, we are called by God to burn with the spirit of Christ and to exercise our apostolate in the world as a kind of leaven." So said the Council Fathers of Vatican II in their decree on the apostolate of the laity. Two decades later Pope John Paul II, in his 1988 apostolic exhortation, likened the lay members of the Mystical Body to the laborers in Matthew's parable of the vineyard. "The gospel parable sets before our eyes the Lord's vast vineyard and the multitude of persons, both women and men, who are called and sent forth by him to labor in it. The vineyard is the whole world which is to be transformed according to the plan of God in view of the final coming of the Kingdom of God . . . the call of the Lord 'you too go into my vineyard' never fails to resound in the course of history: it is addressed to every one who comes into this world."

In the past few decades, however, despite the fact that the traditional role of the laity has been to take Christ into the workplace, to be in the world but not of it, a tendency has been evident in many dioceses of the U.S. to encourage parish or pastoral ministries for lay persons instead of having them focus on their principal role as leaven in the farms, factories, offices, hospitals, classrooms, athletic fields, health clubs and, yes, the bars and lounges of the nation. Parishes can and do press lay people into service as lectors, extraordinary ministers of Holy Communion, visitors to the sick and infirm, parish council members and active participants in groups dedicated to social concerns. As useful and helpful as such activities are, they tend to "clericalize" lay people and run the risk of dissipating their energies on purely parochial endeavors rather than on their true mandate, to carry Christ into the marketplace.

Obviously, a layman, however dedicated, cannot be effective unless he or she is well-informed. Our first evangelization must be to ourselves, particularly in these times in our country when too little emphasis and attention are given to preaching the centuries-old principles of Catholic teaching. We cannot spread the Good News if we do not know and understand it. All Catholic lay people are called to share Christ's word in their families, their workplace and their leisure hours. How we discharge that responsibility will depend upon our unique personality, convictions and circumstances. Pope John Paul II has said the mission activity of the Church is to be directed to people or groups who do not yet believe in Christ, are far from Christ, in whom the Church has not yet taken root and whose culture is not yet influenced by the Gospel. He speaks also, however, of entire groups of the baptized who have lost a living sense of the faith, who no longer consider themselves part of a church, and who live a life far removed from Christ and His Gospel. These, the Pope says, need a new or a re-evangelization. The sad truth is that a large number of any lay person's colleagues are apt to fall into one or the other of those categories. For the Catholic scientist, in particular, a career in education at the high school or college level can provide an especially rich opportunity. The more relaxed atmosphere of the laboratory often opens the way for casual conversation in which students will ask questions or express concerns that might not come out in a more formal classroom setting. It also gives the instructor a chance to pose situations that can get students thinking about the sometimes not obvious ramifications of procedures, experiments, or results.

However, Catholic lay people, scientists or otherwise, go about bringing Christ to the workplace, our missionary effort must begin with our personal lives with Christ. For gregarious extroverts, fulfilling the mission of

evangelization may be easier, but shy, withdrawn introverts also evangelize simply by being eager, active Catholics, caring and giving toward others.

Each person's profession offers its own opportunities for evangelization, but in the long run one's secular career is relatively insignificant. Each member of the Mystical Body of Christ, with his or her faults, foibles and facets of character and personality, is a unique person influenced, formed and shaped by the experience of his or her life. Catholic scientists, like all members of the Church, enrich themselves and others as, intent on a goal they know is achievable only in eternity, they strive, nonetheless, to meet the ultimate challenge: "You therefore are to be perfect, even as your heavenly Father is perfect."

Some Suggestions For Possible Further Reading

Church Documents

Catechism of the Catholic Church. AND John Paul II, 1993. *The Splendor of the Truth (Veritatis Splendor)*. "An Encyclical letter regarding certain fundamental questions of the Church's moral teaching."

Articles

Alberts, Bruce M. 1994 "Scientists as Science Educators," *Issues in Science and Technology*, X (3): 29-32.

McCormick, Richard A., SJ 1994 "Blastomere Separation: Some Concerns," *Hastings Center Report*, 24 (2): 14-16.

Neuhaus, Richard John. 1994 "To Propose the Truth: The Catholic Moment Requires Five Transformations," *Crisis*, 12 (4): 20-25. This article triggered many of the thoughts expressed in this paper.

Robertson, John A. 1994 "The Question of Human Cloning," *Hastings Center Report*, 24 (2): 6-14.

Siegfried, Ernst. 1990 "Is *Humanae Vitae* Outdated?," Human Life International, Gaithersburg, MD, 29p. This pamphlet reviews and upholds the teachings of Paul VI's encyclical which, regardless of twenty-plus years of opposition (often by people who have never read it), is even more timely and needed today than it was when it was first promulgated.

Wolf, Susan M. 1994 "Health Care Reform and the Future of Physician Ethics," *Hastings Center Report*, 24 (2): 28-41.

Books

Kass, Leon A., MD 1985 *Toward a More Natural Science: Biology and Human Affairs*, The Free Press, New York, 370p.

Marty, Martin E. and Kenneth L. Vaux. 1982 *Health/Medicine and the Faith Traditions: An Inquiry into Religion and Medicine*, Fortress Press, Philadelphia, 350p.

McCormick, Richard A., SJ 1985 *Health and Medicine in the Catholic Tradition*, The Crossroad Publishing Company, New York, 173p.

Journals

Crisis. “A Journal of Lay Catholic Opinion” published monthly by The Brownson Institute, Notre Dame, Indiana, except for a combined July/August issue. A magazine for the Catholic who wants to be well-informed on a wide variety of issues but also wants food for the soul. Not always easy reading but thought-provoking and enjoyable with a chance to talk back via the “Letters” pages.

First Things. A “Monthly Journal of Religion and Public Life.,” published ten times a year (June/ July., August/ September are joint issues) by the Institute on Religion and Public Life founded by Richard John Neuhaus. Almost every issue contains poetry, book reviews, and commentary in addition to its usual complement of opinion pieces. Science-related articles or comments occur frequently. The main feature article of the April, 1994 issue, for example, was “The Sanctity of Life Seduced: A Symposium on Medical Ethics.”

Hastings Center Report. Published bimonthly by The Hastings Center, “a nonprofit, nonpartisan organization that carries out educational and research programs on ethical issues in medicine, the life sciences, and the professions.” Since its founding, The Hastings Center and its journal have been in the forefront of bioethics discussion and study.

Questions

1. From the late 1940s to the middle 1960 the Church in the United States experienced what is clearly an historical anomaly, namely, a large number of religious vocations and, in many cases, the availability of a large amount of money for training in the sciences. As a result there were a large number of priests and sisters trained in the sciences. This is no longer true. Moreover many of those so trained are beginning to approach (or have approached) retirement. The days when we could let “Father” or “Sister” carry the burden of evangelization are ending. Now (and perhaps the Holy Spirit had this in mind all along) the duty of evangelization will fall on the Laity ? where it always belonged. Do we think of ourselves as apostles to the scientific community? Do we think of ourselves as the living (though sacramental) presence of Christ in the laboratory, classroom or office?
2. Are we able to talk to scientists about the “laws of nature” and the “nature of miracles”? Do we have a clear idea of each of these situations? First, do we believe that miracles happen? Can we explain what is going on in such a situation? Is a miracle a violation of the “laws of nature”? Would you be interested in an approach (not necessarily a conclusion) on this sometimes vexed issue?
3. What issues involving scientific advance would you like to see the Bishops treat? Do you think they can? If not, what course would you recommend? Should not the expert laity at least set the state of the question for the Bishops? How can this be done realistically. Should it be the task of the individual or of a community of Christians in science? What community? If there is no such community, how can one be created?

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