I. Michael Polanyi: Scientist Turned Philosopher

Michael Polanyi was born March 11, 1891 into an urbane Jewish family in Budapest; his mother was a literary intellectual and his father was a businessman and engineer who made and lost money on the railroads and died reasonably young. Michael seems to have had good relations with his several siblings, including his older bother Karl who later became a famous economist; he was broadly educated, and clearly loved the arts and humanities, although his basic mathematical and scientific education prepared him for a first university degree in medicine (which he seems to have decided upon as his family fortunes shifted with the death of his father). He completed his medical studies in 1913 and became a physician in the Austro-Hungarian army during World War I. But his own health was poor and he did not have to endure the worst of wartime medicine; in fact, during a hospitalisation and convalescence, he was able to write a dissertation in chemistry which launched his career as a physical chemist after the war. The politics in Hungary after the war made Polanyi an émigré to Germany which, given his scientific interests, seems to have suited him. Eventually, he landed a position at a prestigious German scientific institute in Berlin and became a brilliant researcher who rubbed shoulders with some of the century's best scientific minds. In this period, Polanyi married (in a Roman Catholic ceremony) and started a family but decided to leave Germany in 1933 for a position in physical chemistry at Manchester University in Great Britain.

Although he continued to run a research laboratory and to turn out important scientific papers for another dozen years (over 200 in his scientific career), Polanyi's interests from the thirties expanded beyond strictly scientific work. A recent comment by Nobel Laureate Melvin Calvin who did postdoctoral work with Polanyi in 1935-1937 testifies to this shift which Calvin found problematic: "Toward the end of my stay there, in 1937, it got so it became difficult often for me to talk with him because he was thinking in terms of economics and philosophy, and I couldn't understand his language" (Melvin Calvin, "Memories of Michael Polanyi in Manchester", Tradition and Discovery: The Polanyi Society Periodical 18:2 [1991-92]: 40). Polanyi became keenly interested in the relation between the scientific community and political culture; he followed and commented upon the persecution of scientists in Stalinist Russia; in England, he was a leader in a movement that questioned the wisdom of governmental efforts to organize science to promote the war effort. More generally stated, Polanyi's interests grew to include questions about organization and order in science and society. Polanyi wrote and published quite a variety of material on economics, science and political philosophy in the late thirties, the forties and early fifties; most notable was Science, Faith and Society (1946), based on...
his Riddell Lectures, and the *Logic of Liberty* (1951), a collection of essays which he says "represent my consistently renewed efforts to clarify the position of liberty in response to a number of questions raised by our troubled period of history"[vi]. While this book serves well as an introduction to Polanyi's political philosophy, *Science, Faith and Society* clearly introduces major themes developed in Polanyi's later philosophy of science and epistemology. [It lays the ground work for Polanyi's magnum opus *Personal Knowledge* (1958) in which Polanyi's political philosophy and critique of culture and his philosophy of science and philosophy of life are united] *Science, Faith and Society* is a short work which emphasizes the social and personal dimensions of scientific work; the 1963 University of Chicago reprint of this book includes a new essay "Background and Prospect (7-19) which is Polanyi's own review of this original 1946 work in light of his later thought. Polanyi eventually (1948) exchanged his chair in chemistry for one in social science at Manchester; in 1959, he became Senior Research Fellow at Merton College, Oxford.

From about 1950, Polanyi made frequent trips to the United States for lectures and academic residencies and, for the last twenty-five years of his life, he was perhaps more recognized in North America as an important thinker than in England. In the early fifties, Polanyi was invited to give the Gifford Lectures (1951-1952); from 1952 until 1958, he worked to transform his lectures into *Personal Knowledge: Towards a Post-Critical Philosophy*, the formidable book which represents Polanyi's mature philosophy. As a contribution to the philosophy of science, this book criticizes the ideal of objectivity and is part of the mid century shift in philosophy of science toward interest in scientific practice (like Thomas Kuhn's more famous1962 *The Structure of Scientific Revolutions* which makes some use of Polanyi's thought). But *Personal Knowledge* is more than an effort in philosophy of science narrowly construed. The critical component of the work is an attack upon the ideal of objectivity as it was presented in science and philosophy at mid century. The constructive (as opposed to critical) philosophy in this book, however, represents Polanyi's developing interest in epistemology; he carefully works out his own epistemological model and sets forth a broad framework within which to think about knowledge as personal. Especially if one considers the fourth part of *Personal Knowledge*, it is clear that this book is also Polanyi's effort to articulate a philosophical cosmology (or a broad metaphysical scheme) and a *lebensphilosophie*.

The year after the publication of *Personal Knowledge*, Polanyi published a short book *The Study of Man*, which extends his perspective to questions about meaning in history. In 1966, Polanyi's Terry Lectures (from 1962 at Yale) were published as *The Tacit Dimension*, a book that refined the epistemology articulated in *Personal Knowledge*. Polanyi has worked out more carefully the structure of tacit knowing here; he recognized that this somewhat shifted the earlier way in which he described commitment as a component of his philosophical outlook (see his comments in "Introduction," x). Finally, in 1975, as his health was declining, Polanyi's last major book, *Meaning*, was published with the help of an American philosopher collaborator Harry Prosch. Based upon several different American lectures and some earlier articles, this book is an attempt to analyze the problems of meaning in the twentieth century (a topic treated earlier also) and extend his constructive philosophy to discuss (more systematically than in earlier writing) art and religion. On February 22, 1976, a year after the publication of *Meaning*, Polanyi died in Oxford.

**II. Philosophy, Religion and Polanyi's Thought**

Perhaps because of the climate in academic philosophy in England and the U. S. during his life, Polanyi's philosophical thought received few early accolades from professional philosophers. One American philosopher, Marjorie Grene, was an early and important supporter of Polanyi. There is a sizable correspondence between Grene and Polanyi in the "Papers of Michael Polanyi" at the University of Chicago Library. Grene met Polanyi in the forties and worked with him in producing *Personal Knowledge*. She both influenced the development of Polanyi's philosophical ideas and was influenced by Polanyi's approach. *Knowing and Being*, Grene's1969 collection of Polanyi essays, brings together a number of short
Polanyi pieces written after the publication of *Personal Knowledge* (1958). Despite the limited early reception in philosophy, a variety of theologians and others interested in religion, political scientists, sociologists and psychologists have, since the fifties, hailed Polanyi's thought as seminal. Two early collections of essays, *The Logic of Personal Knowledge and Intellect and Hope: Essays in the Thought of Michael Polanyi* (cited below) testify to this. Many have recognized Polanyi as a creative thinker whose ideas are helpful in the transition to an intellectual outlook released from the grip of Enlightenment assumptions. Although Polanyi does philosophy in an unorthodox fashion (by the standards of academic philosophy), his work has, in the nineties, come to be seen by many professional philosophers also as part of the shift to a post modern context for philosophical thought.

Polanyi seems, from the period that his interests begin to shift from science to social and philosophical questions, to have been interested in religion and modernity, its role in society and in the individual's life. There is little doubt that J. H. Oldham, the British ecumenical leader and religious intellectual, had an important role in shaping Polanyi's interest in religion and society; Oldham was, in turn, decisively influenced by the philosophical ideas which Polanyi was developing. There is a large but incomplete collection of the correspondence between Oldham and Polanyi in the "Papers of Michael Polanyi" at the University of Chicago Library. In 1944, Polanyi met J. H. Oldham, when Oldham, editor of the *Christian News Letter*, sought to reprint part of a Polanyi essay of interest. Polanyi became a close friend of Oldham's and they corresponded and visited each other until Oldham's death in 1969. Oldham was a man with many talents and many areas of endeavour; by the early forties, one of Oldham's important activities was convening discussion groups composed of British intellectuals interested in Christianity and contemporary culture and politics. The Moot, Oldham's most famous group, was formed in 1939 or 1940 and met two or three times a year; Oldham corresponded with all members and invited guests (the participants changed over the years) and organized meetings with papers and responses on topics that were of interest and that fit into his own work as a publicist and ecumenical leader. Polanyi participated in Oldham's intellectual discussion groups, the Moot and its successors, for about sixteen years; these sessions included a number of important religious and literary intellectuals such as T. S. Eliot, John Middleton Murray, and Hendrick Kraemer. The meeting topics varied widely over the years, but included the following: the relation of Christians to the commonwealth; science, modernity and the function of intellectual traditions; the survival of democracy; the meaning of God in contemporary human existence; the meaning and teaching of history. Polanyi often wrote papers or was a respondent to papers prepared for Oldham's meetings; he seems, from his first meeting, to have been an active and enthusiastic participant. Records indicate that in some meetings, Polanyi's essays or ideas on a topic were the central focus for the meeting. In a 1962 interview, Polanyi told Richard Gelwick, writer of the first dissertation on Polanyi's non scientific thought, that, other than his experience as a scientist, his participation in the Moot was the most significant influence upon his thought (Gelwick, 1965[cited below], p. 11, note 8). The Polanyi-Oldham correspondence and Moot materials in the Papers of Michael Polanyi at the University of Chicago illumine and reinforce this comment. Oldham's groups and Oldham's interests stimulated and significantly influenced Polanyi's continuing interest in religion and culture. [For example, Polanyi's curiosity about and sympathy for Tillich's thought, leading ultimately to his meeting with Tillich on February 21, 1963 (discussed in essays by Richard Gelwick and Charles McCoy in the Polanyi-Tillich special issue of *Tradition and Discovery: The Polanyi Society Periodical*, 22:1 [1995-96]), was promoted in part by Oldham who comments on Tillich in letters to Polanyi.]

Polanyi commented on religion in several of his writings. There are, for example, two extended discussions in his magnum opus *Personal Knowledge*. One discussion comes in a section titled "Dwelling In and Breaking Out" which is the final section of Chapter Six, "Intellectual Passions" (*PK*, 195-202). The other section, "Religious Doubt" (*PK*, 279-286), comes in Chapter Nine which is titled "The Critique of Doubt." What Polanyi seems to be preoccupied with in these discussions is setting forth ways to think about religious meaning as an articulate system or framework related to other articulate systems. By far, the most extensive
discussion of religion in Polanyi's writing comes in his final book *Meaning*, written, as his health declined, with the help of the American philosopher Harry Prosch. In this book, Polanyi tries to extend his epistemological model to describe the nature of human knowledge found in art, myth and religion. It is the kinship between metaphor, symbol, and ritual that interests Polanyi and he uses his theory of tacit knowing to describe this relationship and show the differences between ordinary perceptual and conceptual knowledge and that found in the class of special artefacts available in art and religion; he argues for the importance of human meaning in art, myth and religion in the contemporary world.

While theologians and religious thinkers were among the first to appreciate Polanyi's philosophical ideas, it is also the case that Polanyi's late writing in which he tried more directly to discuss religion and religious knowledge has generated much scholarly debate. Although it is not possible to provide details here, it is fair to say that the discussion has focused in two related areas: Some scholars have asked if the perspective outlined in *Meaning* indeed fits with the mature philosophical outlook of *Personal Knowledge* and *The Tacit Dimension*. The second issue is concerned with discerning what Polanyi intended to affirm regarding the metaphysical status of religious and artistic realities. These issues were debated in meetings of the Polanyi Society in the early eighties; the discussion of both issues was the topic of articles in a special issue of *Zygon: The Journal of Religion and Science* (17:1 [1982]; see especially the articles by Gelwick and Prosch) devoted to Polanyi. Intermittently, the discussion has continued in articles and reviews found in the issues of *Tradition and Discovery: The Polanyi Society Periodical* published since the *Zygon* issue (see the reference below to the Polanyi Society home page where there is a listing of authors and article titles).

III. A Selected Bibliography With Annotations

A. Selected Works By Michael Polanyi


B. Selected Works on Polanyi or Polanyi's Thought

1. Printed Materials

Gelwick, Richard. "Michael Polanyi: Credere Aude - His Theory of Knowledge and its Implications for Christian Theology." Diss. Pacific School of Religion, Berkeley, 1965; University Microfilms, 1972; Collected Articles and Papers of Michael Polanyi. University Microfilms, 1980. This is the first of many dissertations on Polanyi's non scientific thought; as its title suggests, it is a dissertation by a theologian, who like many who came later, explores theological applications of Polanyi's thought. The collection of Polanyi's non scientific articles is not complete although this remains a good scholarly source.

Gelwick, Richard. The Way of Discovery: An Introduction to the Thought of Michael Polanyi. N.Y.: Oxford University Press, 1977, ISBN: 0195021932. This is a complex, sophisticated introduction by a first rate Polanyi scholar; the book has been translated into several languages. Gelwick's book emphasizes Polanyi's view of scientific discovery as the key to Polanyi's thought.

Langford, Thomas A. and William H. Poteat. Intellect and Hope: Essays in the Thought of Michael Polanyi. Durham: Duke University Press, 1968. This collection has essays by a number of persons in a variety of fields who early recognized the importance of Polanyi's philosophical ideas.


Prosch, Harry. Michael Polanyi: A Critical Exposition. Albany: SUNY Press, 1986, ISBN: 0887062776, 0887062768 (paper). Prosch collaborated with Polanyi on his last book, Meaning, based upon some American lectures and late articles. This is a complex, sophisticated reading of Polanyi's philosophical vision. For Prosch, the key to Polanyi's philosophical vision is his critique of the modern mind and his cultural criticism rather than Polanyi's interest in discovery in science. It includes a bibliography of Polanyi's publications.


2. Selected Electronic Materials

For additional information on Polanyi, visit the Polanyi Society homepage (http://www.mwsc.edu/orgs/).
On the site are, among other things, the following:
--five short essays by Polanyi (HTML format) written between 1952 and 1970
--photographs of Polanyi
--the Guide to the Papers of Michael Polanyi (archival material at the Regenstine Library of the University of Chicago)
--an up to date listing of materials published in Tradition and Discovery: The Polanyi Society Periodical.

by Phil Mullins, Editor of the Polanyi journal Tradition and Discovery