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Preface

This is the second special thematic issue of *TAD*. The first (21:1) honored William Poteat, a scholar who introduced many to Polanyi's thought. The present special issue focuses on Polanyi and the Christian theologian Paul Tillich. Polanyi and Tillich had a conversation in 1963; Polanyi made notes on the discussion and Tillich and Polanyi exchanged letters. These materials are included in the Polanyi Papers at the Regenstein Library of the University of Chicago. Berkeley theologian Charles McCoy set up this Polanyi-Tillich conversation; Richard Gelwick, then a doctoral student working with McCoy, Durwood Foster and Polanyi, was also present. In 1991, the Polanyi centennial year, the North American Tillich Society and the Polanyi Society held a joint meeting in Kansas City at which McCoy, Gelwick and Foster made presentations on the thought of Polanyi and Tillich and especially this 1963 encounter. Both societies agreed to publish, for their respective members, the materials prepared for our joint meeting.; the Tillich Society has already published the essays by McCoy (Newsletter XVIII,3 (July 1992): 3-10) and Gelwick (Papers from the Annual Meeting of the North American Paul Tillich Society, November, 1991: 7-11). Foster's "Faith and Knowing in Polanyi and Tillich" was not available for publication. Thanks go to Robert Scharlemann of the Tillich Society for his cooperation with this project. I am very pleased to add to McCoy and Gelwick's 1991 papers Donald Musser's "Polanyi and Tillich on History." Although not included in the 1991 panel, some years ago Musser began a scholarly project comparing the ideas of Polanyi and Tillich.

In addition to several reviews, this issue carries the notice about the upcoming meeting of the Polanyi Society at the Philadelphia Marriott on November 18, 1995. See the program that David Rutledge provided on page 4. Be sure to note that you can order papers to be discussed from Rutledge.

Please be aware that this issue begins the new subscription cycle. Dues are collected each Fall at the beginning of the academic year. Enclosed is a single sheet with complete subscription information. Please notice two things that are different this year: Dues are now mailed to me (Phil Mullins) rather than Richard Gelwick, as they have been in the past. Also you now may charge membership dues with a charge card if you provide complete information as requested.

Phil Mullins

Tradition and Discovery is indexed selectively in *The Philosopher's Index* and *Religion One: Periodicals*. Book reviews are indexed in *Index to Book Reviews in Religion*.

NEWS AND NOTES

Harold Turner from New Zealand provided a short review of scholarly resources and activity related to the thought of Michael Polanyi in a recent issue of *New Slant*, the newsletter of The Gospel and Cultures Trust. Gospel and Cultures programs operate in the US and Great Britain as well as New Zealand. Among other things, Turner reported that he taught a 1991 course titled "The Commonsense Philosophy of Michael Polanyi" within the Auckland University Continuing Education Centre; to his great surprise one student "produced a rare copy of Polanyi's short but basic book, *The Tacit Dimension*, and voluntarily exchanged it for the tutor's xerox copy!"

Robert Lyman Potter continues in the practice of geriatric medicine but has recently taken a role as clinical ethics scholar at the Midwest Bioethics Center in Kansas City, Missouri. See Potter's recent article "Learning to 'Read/Hear': Narrative Ethics and Ethics Committee Education" in *Bioethics Forum* 10:4 (Fall 1994): 36-40.

A second edition of *Tradition & Discovery, Publications of the Polanyi Society, Fall 1972 through Winter, 1984-85* has just been published at the price of \$25.00 plus postage of \$2.00 in the U.S.A. Several years ago, Phil Mullins put together a compilation of these materials but they quickly sold out. The present need is mainly for university libraries and doctoral students. Several of our research university libraries now subscribe to *TAD* annually and have tried to establish a complete collection. To order, contact Richard Gelwick, College of Osteopathic Medicine, University of New England, Biddeford, ME 04005.

John Puddefoot has recently become an Associate Governor of the Centre for Personalist Studies based at Westminster College, Oxford; John will serve as a representative of the Polanyi Society.

From the database of *Expanded Academic Index*, the following articles are relevant to the Polanyi Society:

"The Body Comes All The Way Up." (Polanyian answer to eliminative materialism.) **Robert Paul Doede**. *International Philosophical Quarterly*, June 1994, vol. 34, pp. 215-28.

"Gadamer, Polanyi and Ways of Being Closed." (Hans Georg Gadamer, Michael Polanyi and canonical interpretation.) **Ian R. Torrance**. *Scottish Journal of Theology*, December 1993, vol. 47, pp. 497-506.

Richard Gelwick

Program for Fall 1995

Polanyi Society Meeting

This meeting is in conjunction with the American Academy of Religion/Society for Biblical Literature annual meeting at the Philadelphia Marriott and Pennsylvania Convention Center in Philadelphia, PA. The meeting room is Marriott 308; the AAR/SBL Program does carry a listing for the meeting in the Additional Meetings section (page 166). The papers listed below are not read during the session but are discussed for approximately one hour each. Participants can order papers from David Rutledge, Religion Department, Furman University, Greenville, SC 29613-1474 for \$5. For additional information, contact Rutledge at (803) 294-3296, fax (803) 294-3001 or e-mail Rutledge_David@furman@furman.edu.

Saturday, November 18, 1995

9 a.m. - 12 noon

Walter Gulick, Montana State University, Billings, Presiding

9:00 “Religious Pedagogy from Tender to Twilight Years: Parenting, Mentoring, and Pioneering Discoveries by Religious Masters as Viewed from within Polanyi’s Sociology and Epistemology of Science”

Aaron Milavec, The Athenaeum of Ohio, Cincinnati

Respondent: **John Apczynski**, St. Bonaventure University

10:15 “Beyond Objectivism and Relativism: Commitment and Coherency in the Academy”

Elizabeth Newman, St. Mary’s College

Respondent: **Andy Sanders**, University of Groningen

11:30 Business Meeting

The Postcritical and Fiduciary Dimension in Polanyi and Tillich

Charles S. McCoy

ABSTRACT Key Words: postcritical, fiduciary, Polanyi, Tillich

Paul Tillich and Michael Polanyi had their only face-to-face meeting in Berkeley, in February, 1963. The author reports the circumstances of this conversation, which he arranged and in which he participated, and, on the basis of his participation, offers reflections on the postcritical and fiduciary dimensions in the work of Polanyi and Tillich as a means of identifying similarities and differences in the thought of each.

When we consider comparing Michael Polanyi and Paul Tillich, our first impression may easily be: one can scarcely imagine two people from more different backgrounds or with more divergent perspectives. Tillich comes from the austere background of a Lutheran pastor's family in the heartland of the German Empire of the Kaisers and Otto von Bismarck. With a Jewish background, Polanyi grew up in fun-loving Budapest in an artistic, intellectual family that had been wealthy during Polanyi's childhood but had become relatively impoverished during his youth. Tillich was trained in Protestant theology for the pastorate and served as a chaplain in the German army during World War I. Polanyi's education was in the sciences, first in medicine and then in physical chemistry; he served briefly and reluctantly as a medical officer in the army of the Austro-Hungarian Empire in World War I.

Yet both emerged into adulthood in *fin de siecle* Europe, and both were possessed by a depth of perception and breadth of vision that took them beyond their differences in origin and beyond the straitjacket of academic specialization toward a fascinating convergence of concerns and perspectives. This movement toward proximity along different paths resulted in similarities in their thought that deserve careful attention and that emerged in one face-to-face meeting at the Claremont Hotel, Berkeley, February 21, 1963, during the Earl Lectures at Pacific School of Religion.

The Conversation

Tillich had been scheduled for several years to give the Earl Lectures for 1963. By rotation on the PSR faculty, I was chair that year of the conference at which the Earl Lectures would be delivered and was responsible for the schedules of the speakers.

During my doctoral study at Yale, Tillich had come to New Haven to deliver his Terry Lectures, *The Courage to Be*, and to give a seminar for graduate students. I was a member of that seminar for the entire year, became acquainted with Tillich then, and kept in sporadic touch with him afterward.

My contact with Polanyi began while I was teaching at the University of Florida. A colleague in economics introduced me to the thought of Karl Polanyi, Michael's older brother, and then, as an afterthought, mentioned that

I might also be interested in the younger brother. He was correct. I became *very* interested. After I went to Berkeley, Michael Polanyi came to lecture there and I was able to meet him, invite him into my seminars and for guest lectures at Pacific School of Religion, and supervise the first theological dissertation on his thought by Richard Gelwick.

Polanyi spent the year 1962-63 at the Center for Advanced Study, Palo Alto, where I visited him several times. On one visit in the fall, Polanyi, Eric Ericson, Richard Gelwick, and I were having lunch. I mentioned that Tillich would be in Berkeley in February. Ericson became very excited and wanted to know if he might meet Tillich, whose work he greatly admired. I subsequently arranged that for him. Polanyi said nothing at the time but later in his office asked what I thought of his references to Tillich in *Personal Knowledge*. Out of that discussion came the idea for a conversation between them. After Tillich arrived, I asked him if such a meeting would interest him. Though he seemed to know more about Karl Polanyi than Michael, he agreed willingly to a conversation. Tillich enjoyed sitting with friends in the evening, drinking Schnapps, and talking. Gelwick brought Polanyi from Palo Alto to Berkeley for what was a historic occasion.

With hindsight, I regret not taping it. At the time, I thought that the presence of a microphone would be an intrusion into an informal, social setting. Now I am less certain that my decision was the right one. From the standpoint of my role as host, however, the evening could not have gone better. The two stars sparkled and thoroughly enjoyed the exchange of views--a happy, brilliant meeting of great minds.

The Polyanian Revolution--Toward Postcritical Thought

As I turn from the conversation to the “postcritical” and “fiduciary” dimensions in Polanyi and Tillich, it will be important to understand what Polanyi means by these terms and his own place in relation to the emerging postcritical era of human thought.

Marjorie Grene has called Polanyi’s tacit knowing “grounds for a revolution in philosophy.”¹ Even more, I suggest, Polanyi marks a revolution in human thought as significant as the turn from the Ptolemaic perspective in the Copernican revolution. The Polyanian revolution moves us into the postcritical era and the recovery of the fiduciary dimension of human thought through his meticulous delineation of the from/to structure of knowing.

The critical period of Western philosophy opened with Descartes’ program of doubt seeking clarity, was brought to its zenith in the Enlightenment, and has been dissolving in the twentieth century under the weight of its own pretensions.² While retaining certain strengths of the critical period, Polanyi points out that its thinkers pursued a “mistaken ideal of objectivity” (*Personal Knowledge*, hereafter *PK*, 7):

When we claim greater objectivity for the Copernican theory, we imply that its excellence is, not a matter of personal taste on our part, but an inherent quality deserving universal acceptance by rational creatures. We abandon the cruder anthropocentrism of our sense--but only in favour of a more ambitious anthropocentrism of our reason (*PK*, 4-5).

The Polyanian revolution provides a method that includes use of the rigor of the critical period and appreciation of its achievements. After all, Polanyi was a physical chemist of world renown. He inaugurated the postcritical era of human thought by relating critical thought to the precritical location within religion, tradition, culture, and community,

all of which critical thought had depreciated or discarded as unnecessary. Though philosophers preoccupied with the analysis of language or the collapse of the critical method have scarcely noticed his work, Polanyi's perspective is increasingly accepted, and he is winning, as Richard Gelwick aptly calls it, a belated "tacit victory."

The From/To Structure of Knowing

Polanyi integrates the critical and precritical into the postcritical perspective with the reminder that knowing takes place within human, social locations, and he then explores with delicacy and precision the epistemological/ontological meaning of location with its implications for the entire spectrum of believing, knowing, and action.

The ground for the Polanyian Revolution and his "unique contribution to philosophy," writes Grene, "is the theory of tacit knowing, the thesis that all knowledge necessarily includes a tacit component on which it relies in order to focus on its goal, whether of theoretical discovery and formulation or practical activity."³

Tacit knowing as the core of the postcritical perspective is based on Polanyi's insight that knowing has a *from/to* structure. Knowing consists in part of that which we focus upon, of which we have *focal* awareness. Knowing also consists in that which we rely upon in order to focus, of which Polanyi says we have *subsidiary* awareness. All too often knowledge has been reduced to *explicit* knowing, and the *tacit dimension* or component, with its movement from a proximal pole, of which we are subsidiarily aware, to a distal pole, of which we are focally aware, is ignored. As Polanyi summarizes it:

We have seen *tacit knowledge* to comprise two kinds of awareness, *subsidiary awareness* and *focal awareness*. Now we see *tacit knowledge* opposed to *explicit knowledge*; but these two are not sharply divided. While tacit knowledge can be possessed by itself, explicit knowledge must rely on being tacitly understood and applied. Hence all knowledge is *either tacit or rooted in tacit knowledge*. A *wholly* explicit knowledge is unthinkable (*Knowing and Being*, 144, hereafter *KB*).

To those gripped by the critical desire to attain absolutely objective knowledge that can be explicitly stated, the recognition of the background in human location upon which knowing relies seems to be a resounding defeat. Polanyi regards it as opening up the tacit dimension of knowing, an achievement rather than a defeat:

I suggest that we transform this retreat into a triumph, by the simple device of changing camp. Let us recognize that tacit knowing is the fundamental power of the mind, which creates explicit knowing, lends meaning to it and controls its uses (*KB*, 156).

There are many implications of Polanyi's from/to structure of knowing. We shall explore several of these briefly.

First, the fiduciary dimension of knowing has been recovered by Polanyi. Humans rely upon elements from their social location, tradition, and community of interpretation in order to affirm what they believe to be knowledge. With this recovery, the precritical notions of "faith seeking understanding" and "believing in order to know" take on new meaning as Polanyi delineates the tacit component in critical knowing.

Second, knowers in postcritical perspective are not individualistic knowers but rather are shaped by and rely for validation upon their community and its culture, which knowers embody. Critical hermeneutics is dyadic in structure—the knower and the known. Postcritical hermeneutics is triadic, involving (a) a knower rooted in culture and community; (b) what is interpreted within its context; and (c) those for whom the interpretation is intended, who are also rooted in culture and community.⁴

Third, the from/to structure makes it impossible to accept the detached objectivism assumed by critical epistemology as the certain path to final Truth. Indeed, the dichotomy between subjectivity and objectivity in knowing dissolves, and a quite different understanding of what is true and real emerges. As Polanyi says:

To hold a natural law to be true is to believe that its presence will manifest itself in an indeterminate range of yet unknown and perhaps unthinkable consequences. . . .

We meet here with a new definition of reality. Real is that which is expected to reveal itself indeterminately in the future. Hence an explicit statement can bear on reality only by virtue of the tacit coefficient associated with it. This conception of reality and of the tacit knowing of reality underlies all my writing (*Science, Faith and Society*, 1964 edition, 10).

The from/to structure of knowing has implications across the entire spectrum of human endeavor. The social sciences have moved gradually away from methods based on an illusory objectivism borrowed from physical science toward methods recognizing the human location of investigators and the tacit dimension of knowing. Old disciplines like history and newer ones like computer science have gradually undergone the Polanyian Revolution.

Fourth, recognizing the importance of tradition, culture, and community need not lead to conservative, static views of knowledge. By emphasizing the from/to structure, Polanyi clarifies the potential for change and innovation in human knowing. We dwell in our tacit dimension not to repeat the past but to break out toward the newness hidden within the future. “Scientific discovery,” he writes, “which leads from one such framework to its successor, bursts the bounds of disciplined thought in an intense if transient moment of heuristic vision” (*PK*, 196). This *dwelling in and breaking out* arises from “the essential restlessness of the human mind, which calls ever again in question any satisfaction that it may have previously achieved” (*PK*, 196).

Polanyi and Tillich

It seems clear that both Tillich and Polanyi are moving toward a postcritical perspective and that, for both, the fiduciary dimension is central. However, they approach the postcritical and the fiduciary from different directions. There are similarities between them, but the differences are also pronounced.

In his life and thought, Tillich had a grounding in Christian commitment shaped by his Lutheran pastor’s family and by the Lutheran community of faith and worship. This commitment was not secondhand or an inherited residuum for him but became internalized into the depth of his being, though not without critical revision and a profound sense of the risk and doubt present within faith. God as revealed in Jesus Christ remained central for him, filling his life and guiding his thought.

At the same time, as he pursued the path of Christian faith in *Gymnasium* and university, Tillich was attracted strongly to the wider reaches of German culture. His path of intellectual development took him, first, into German idealism and then, through the late Schelling, beyond idealism into existential philosophy and a phenomenological method informed by Martin Heidegger with whom Tillich was a colleague briefly at Marburg. Yet this absorption of German culture did not displace his Christian faith but rather extended, shaped, and armed it, so that he could speak persuasively to his contemporaries within, outside, and on the edges of the Christian community. In many ways, Tillich became a twentieth-century Schleiermacher, commending Christian faith to its cultured despisers and to those ambivalently attracted and repelled by it.

As with Polanyi and in part with Heidegger, Tillich moved beyond the pretensions and dichotomies that brought critical thought to an impasse and sought a way to combine the wholeness of human experiencing in the precritical era with the rigor and openness to liberation and innovation characterizing the critical era. In Tillich's case, this meant combining Christian commitment with the best and most profound to be encountered in human culture. This seeking toward a postcritical perspective can be seen most clearly in his emphasis on the fiduciary element in human perceiving, knowing, and affirming.

The fiduciary, for example, plays a crucial role in *The Religious Situation*, an early work written in German and appearing in 1931 in an English translation by H. Richard Niebuhr. Here Tillich takes an epistemological position that can be called "beliefful realism." In this view, perceiving what is "real" and shaping that reality conceptually take place within a context of believing that enables us to affirm our knowing as pertaining to reality. Tillich's realism is thus a belief-ful realism, in which Christian faith provides ground and context for knowing. It is not clear, however, that he remains true to this position (see below).

The fiduciary dimension of Tillich's thought is exemplified also in his notion of "ultimate concern," which appears early in *Systematic Theology I*, underlies the argument in all three volumes, and is elaborated in *Dynamics of Faith*. "Faith," Tillich writes, "is the state of being ultimately concerned: the dynamics of faith are the dynamics of man's ultimate concern"⁵

Tillich, however, appears at times to view the ultimacy of *his* ultimate concern as normative. As Ernst Troeltsch at one time regarded Christianity as the ultimate religion, the "culmination-point" toward which all religion moves, and as Radhakrishnan takes Indian mysticism as the true ultimate, so Tillich seems in *Systematic Theology I* (pp. 11-15) and in *Dynamics of Faith* (passim) to affirm that only when concern has reached what Tillich regards as ultimate is it truly ultimate. Is this a covert triumphalism? In his late writing, however, he seems to modify this position.

By contrast, the formulation of the postcritical and the fiduciary in Polanyi carefully includes both ontological affirmation and limitation. He describes "Christian faith as a passionate heuristic impulse which has no prospect of consummation" (*PK*, 280) and quotes Tillich from *Biblical Religion and the Search for Ultimate Reality*: "Faith embraces itself and the doubt about itself" (p. 61). But Tillich means the doubt that exists within faith, and Polanyi is referring to the problem of making *universal* statements that fulfill Bertrand Russell's criterion of truth "as a coincidence between one's subjective belief and actual facts" when only committed, personal affirmations with *universal intent* are possible (*PK*, 304; see also *PK*, 64-65, 301-303, and elsewhere).

Or again, there is an important difference between them in regard to theology and science. Tillich writes in

Systematic Theology I: “Revelation is the manifestation of the depth of reason and the ground of being. It points to the mystery of existence and to our ultimate concern. It is independent of what science and history say about the conditions in which it appears; and it cannot make science and history (which are rooted in detached, objective knowing) dependent on itself. No conflict between different dimensions of reality is possible” (p. 130). This view differs from that in *The Religious Situation* and is similar to the position attributed, erroneously in my opinion, to Polanyi by Harry Prosch.⁶

Polanyi proposes a perspectival, internal/external understanding of the relation between religion and science. His view is more akin to H. Richard Niebuhr’s *The Meaning of Revelation* than to Tillich’s (see *PK*, 282-283 and elsewhere).

Exploration of this latter issue was central to the discussion between Tillich and Polanyi on February 21, 1963. Tillich said he had moved in the direction of Polanyi’s view earlier and referred to an article of his in the *Horkheimer Festschrift*. He might also have mentioned *The Religious Situation*. Polanyi insisted there was a difference between his own understanding and that presented by Tillich in his recent writing and lectures. Though I have learned much from Tillich and continue to be indebted to him as one of my most important teachers, I agree with Polanyi on this point and continue to find Polanyi more precise and persuasive in articulating a postcritical, fiduciary perspective helpful today in Christian theology and ethics.

Endnotes

1. Marjorie Grene, “Tacit Knowing: Grounds for a Revolution in Philosophy”, *Journal of the British Society for Phenomenology* 8,3 (October 1977): 164-171.

2. See Huston Smith, “Two Traditions - and Philosophy,” in *Religion of the Heart*. Seyyed H. Nasr & William Stoddart (eds.). Foundation for Traditional Studies, 1991: 278-296. Smith describes how philosophy as conceived since Descartes “seems to have played out its destiny and reached a dead end” (279) and delineates incisively the self-destruction of philosophy in the twentieth century. He then proposes a reappropriation of tradition with striking similarities to the postcritical program that Polanyi elaborates with precision and comprehensiveness. In a footnote (287) Smith gives an example about Japanese chicken sexers learning, not by specified rules but through apprenticeship, that resembles examples used by Polanyi and would probably have been included by him had he known of it.

3. Grene: 164.

4. Cf. Charles Sanders Peirce and Josiah Royce.

5. Tillich, *Dynamics of Faith* (Harper, 1957): 1.

6. Harry Prosch, *Michael Potanyi: A Critical Exposition* (Albany: State University of New York Press, 1986).

The Polanyi-Tillich Dialogue Of 1963: Polanyi's Search For A Post-Critical Logic In Science And In Theology

Richard Gelwick

ABSTRACT: Key words: faith, doubt, indwelling, participation, hierarchical universe, tacit knowing, Gestalt, pragmatism, Dewey, Teilhard de Chardin

Michael Polanyi found in the thought of Paul Tillich an ally for Polanyi's program of showing the fiduciary component in all knowing including science. Polanyi saw, however, a danger in Tillich's distinguishing science as preliminary concern and religion as ultimate concern. In a significant dialogue in 1963, Polanyi and Tillich met and addressed issues, agreeing that science and religion share a common epistemological structure.

In 1962 - 63, Michael Polanyi was making major steps in his work towards a post-critical theory of knowledge. In the Fall, he joined Tillich in the list of those having given the Terry Lectures at Yale. Polanyi's Terry Lectures eventually appeared in Polanyi's book, *The Tacit Dimension*.¹ The phrase, "the tacit dimension," became a summarizing terminology for Polanyi's restructuring of our theory of knowledge. It moved away from the Cartesian emphasis upon the explicit and focal part of knowledge that could be described with clear, distinct, and indubitable ideas to an emphasis upon the implicit and subsidiary part of knowledge that is embodied in the person of the knower.

Throughout his quest for a new theory of knowledge, Polanyi was in dialogue with theologians, encouraged particularly by J. H. Oldham, a leader in the ecumenical movement and the organizer of The Moot--a multidisciplinary group of theologians, philosophers, writers, and social thinkers discussing the crisis of modern culture. Polanyi participated in the discussions of The Moot in Great Britain during the forties; he once told me that The Moot was one of his most important intellectual influences. Polanyi also told me that he had heard Tillich lecture in England, but he had never talked with Tillich personally until their meeting in Berkeley in 1963.

In his *magnum opus*, *Personal Knowledge: Towards A Post-Critical Philosophy*, Polanyi compares the role of faith within his epistemology to Tillich's understanding of faith and knowledge in a "progressive Protestant theology."² In the same discussion, Polanyi also refers to Tillich in support of Polanyi's assertion that doubt is an essential part of faith.³ Polanyi was particularly attracted to Tillich's concern for restating the meaning of religious belief in conjunction with the achievements of scientific thought.

At the heart of Polanyi's total enterprise was the aim of restoring to the contemporary world the kind of understanding that Polanyi saw in Augustine's teaching, *nisi credideritis, non intelligitis*.⁴ Polanyi saw modern science as having destroyed the foundations of belief that sustain not only science but also the foundations of religious and of civil life. One form of this destruction noted by Polanyi was the flattening of reality to a level of materialism explained by the laws of physics and of chemistry. The picture of the universe and the human place within it is reduced to the conceptions of inanimate nature, and higher levels of existence are denied even while they are lived in by scientists

and all other humans. One of the philosophies attacked by Polanyi was the positivist empiricism of science that completely denied the role that faith plays in scientific knowing. It was not surprising then that a theologian like Paul Tillich would come to his attention as a major ally in Polanyi's quest for a reformation of our general theory of knowledge.

As I stated, the academic year 1962-63 was an important one in Polanyi's work. During that year, Paul Tillich was scheduled in February of 1963 to give the Earl Lectures at the Pacific School of Religion in Berkeley. I was beginning the first doctoral dissertation on Polanyi's thought under Charles McCoy as first reader and Durwood Foster as second reader. I was also favored by Polanyi to work with him as his assistant at the Center For Advanced Studies at Stanford. Knowing of Polanyi's interest in Tillich's work, it was natural to arrange through Professor McCoy for Polanyi to come to Berkeley to meet with Tillich.

It was a specific contention of Polanyi's epistemology that the structure of knowing was constant in science and in theology and that faith was a part of that constant structure. One of the consequences of Polanyi's model of knowing is to show how natural science and theology share in the structure of tacit knowing. Tacit knowing is Polanyi's essential formulation for showing the fiduciary component in all knowing. Polanyi had indicated this fiduciary component in his book *Personal Knowledge*, furthered it in his next book, *The Study of Man*, where he showed the error of those such as Dilthey who had separated science and the humanities into separate compartments.⁵ At the end of his life, he tried to spell out in his book, *Meaning*, the way science and religion differ in the way we organize their data yet work from a common structure of tacit knowing.⁶

In Polanyi's thought, there is a core insight that is developed into the structure of tacit knowing. This insight is the way a person integrates and shapes external clues into knowledge and meaning. He elaborated this structure as being like faith in that a person interiorizes, dwells in, and relies upon clues in order to attend to a coherent entity. This reliance is like the trusting-in character of faith. He also described his theory in the language of commitment. Knowing necessarily involves the risk of giving our credence to these clues upon which we rely. At the time of his conversation with Tillich, Polanyi was emphasizing the term "indwelling" as the way we rely on clues in order to know. Indwelling is one way of talking about the fiduciary nature of tacit knowledge. To indwell involves a giving, a surrendering, and a trusting of the self to the clues that we integrate into our focal knowledge.

One also needs to know in Polanyi's exchange with Tillich that Polanyi saw in his structure of tacit knowing a structure of hierarchy in being. Tacit knowing reflects the structure of a stratified universe rising from inanimate, to the vegetative, to the animate, to the human, and to the infinite. To Polanyi, both the indwelling or fiduciary nature of knowing and the hierarchical stratification of reality pointed toward the similar vision of the universe seen in the Christian faith and an emergent understanding of evolution.

It was about this structure of tacit knowing that Polanyi wanted to talk to Tillich. Polanyi had read in Tillich's *Dynamics of Faith* Tillich's discussion of how science deals with preliminary concerns and religion with ultimate concerns.⁷ Tillich had also said that there is no conflict between faith and the cognitive function of reason indicating his own compatibility with Polanyi's concern. Further there was the obvious but very important agreement between both Tillich and Polanyi on the positive importance of science and of religion for each field of human expression. Neither Tillich nor Polanyi wanted to retreat from the achievements of science. Each wanted to facilitate the creative relation of science and of religion. Each wanted to encourage the continuing advancement of scientific knowledge.

For Polanyi, rejecting the role of faith in the epistemology of science is the crucial point underlying the rise of modern nihilism and the destruction of civil life. Polanyi contended that the mechanistic outlook, alive since the Greek atomists, had been vitalized by the modern scientific revolution. This outlook had made all dubitable beliefs non-authoritative, especially moral and transcendent beliefs. Tillich's including of doubt within the life of faith pointed to Polanyi's own formulation of the essential fiduciary components of all knowing. Polanyi's formulation of the fiduciary nature of knowing also included the element of doubt that had to be overcome by the risk of believing or indwelling. Or Tillich's talking about participation in the object of cognition pointed toward Polanyi's usage of indwelling to describe our involvement in our knowing. For Polanyi more than Tillich, the issue is not just the relation of science and of religion but the very nature of faith and of indwelling within knowing generally. Polanyi was attempting to produce a new theory of knowledge which, of course, was not Tillich's aim. But Tillich was close to Polanyi's view of science and of faith. Therefore, Tillich's work as a major theologian of culture was especially important to Polanyi's search for a post-critical philosophy.

In February of 1963, Polanyi came to Berkeley and attended one of Tillich's lectures. Following the lecture, Charles McCoy had arranged for Polanyi and Tillich to talk together at the Claremont Hotel. The importance of this meeting for Polanyi is clear. He made a summary of his view of the conversation which is in the Polanyi archives in Chicago and also is on my published microfilm of Polanyi's social and philosophical papers.⁸ Polanyi sent a copy to Tillich, and Tillich accepted it with general agreement. In addition, Tillich and Polanyi followed up with correspondence concerning earlier writing of Tillich that Tillich felt showed his agreement with Polanyi's view of the nature of knowing in science and in religion. Tillich, according to Polanyi's account, claimed to have tried to articulate a view similar to Polanyi's in Tillich's earlier years in Germany but had not found it to be well received. Tillich sent Polanyi a reference to a paper published in 1955 in the Horkheimer Festschrift entitled "Participation and Knowledge: Problems of an Ontology of Cognition."⁹ In this paper, Tillich thinks that he shows a view of epistemology in science and in religion similar to Polanyi's view. Further, Polanyi was stimulated to take this topic, with clear references to Tillich's *Dynamics of Faith* and lectures in Berkeley, and give, in April, 1963, an address at Pacific School of Religion "Science and Religion: Separate Dimensions or Common Ground?"¹⁰ In this address Polanyi set forth his reasons for upholding a common structure in knowing that includes a fiduciary or indwelling component in all knowing, especially science and religion. Finally, there is a statement of Tillich's view of the relation of science and religion in *Ultimate Concern: Tillich in Dialogue* published in 1965 that appears to confirm Polanyi's and Tillich's agreement and possibly the fruit of their discussion in 1963.¹¹ Tillich says

Take the scientist. If he has matured in the scientific tradition, he is willing to give up every particular of his scientific findings (they are preliminary, never final), but he will never give up the scientific attitude, even if a tyrant should demand it of him. Or if he were weak enough to give it up, he would do it with a bad conscience.

Here it is clear that ultimate concern participates in all knowing through the scientific attitude of the scientist which would correspond to Polanyi's claim that there is a fiduciary or indwelling component in all knowing. Tillich's formulation of ultimate concern fits with Polanyi's seeing the drive and intellectual passion inherently involved in the work of the scientist.

Having introduced this exchange between Polanyi and Tillich, and having explained Polanyi's interest and purpose in regard to Tillich, let us look at the content of the exchange in the record that we have.

First, there is the four and a half page typescript of Polanyi's account of his meeting with Tillich:¹²

Points from a conversation with Paul Tillich on February 21, 1963

I was asked to discuss with him his University Lecture on "Religion, Science, and Philosophy" and his second Earl Lecture on "The Irrelevance and Relevance of Christianity", both delivered on that day.

M.P. The method of absolute detachment you ascribe to science in contrasting it with philosophy and religion is a method which scientists falsely ascribe to themselves. Its actual practice is impossible, for no knowledge whatever can be discovered, or held to be true, in accordance with the ideal of strict detachment.

Tillich: I have said myself in the lecture on R.S. Ph. that scientists must also have a concern for the totality of the cosmos on which their enquiry is bearing.

M.P. You acknowledge this as a dual function: in actual fact it is a situation in which scientists are torn between their professed absurd ideal of detachment and an attempt to counteract its destructive effects on their outlook. The ideal of strict detachment can not be practiced in any part of science, but the misrepresentation of scientific pursuits in terms of this ideal is harmless in physics, because they feel confident that this ideal means only that science ought to be pursued in the way the exact sciences operate, of which physics is the great example. It is only in the less exact sciences, ranging from the descriptive natural sciences, like botany and zoology, to the sciences of the mind, like psychology, sociology, and extending further to include the humanities, that the degenerative effect of ideal detachment manifests itself. Hence, I say, we find these sciences and the whole of our culture beyond them, affected by a false striving for strict scientific detachment, which tends to denature their subject matter.

Tillich: I have once, still in Germany, expressed the view that there is a measure of participation in every branch of knowledge. You will find this in an essay I contributed to the Horkheimer Festschrift. Philosophers like Nagel would accept none of this. I did not dare to pursue it further.

M.P. I shall look up the Horkheimer Festschrift. But the basic revision of your perspective arises not from realizing that participation is ubiquitous, but from **the recognition of its logical functions**. It can be shown that we can have no knowledge of any comprehensive entities, except by specific use of our powers of participation. It consists in the process of interiorising the particulars of the entity for the purpose of attending to the whole that is formed by them. Interiorisation is a logical operation which enables us to rely on our awareness of the particulars, to which we are not attending at the moment, for the purpose of attending to something else, namely to the comprehensive entity

which they jointly constitute. In this way our dwelling in the particulars makes us aware of their joint meaning. **This, I say, is the structure of meaning everywhere. We must teach this to scientists. Instead of accepting their false pretence to strict detachment**, we should recognize in them the most skillful operators of an indwelling which reveals a vast range of fascinating meaning in the comparatively unpromising subject of subhuman life and even in the realm of inanimate matter.

Tillich: Is this view based on Gestalt psychology?

M.P. I am deeply indebted to Gestalt psychology. Professor William T. Scott of the University of Nevada has written an excellent essay on my views under the title "Gestalt Philosophy." But Gestalt psychology lacks the element of active participation on the part of the knower. It claims that Gestalten are formed by the spontaneous equilibration of the elements forming a gestalt. **Gestalt psychology has run away from its own philosophic significance**, from the start, when Koehler explained gestalt in terms of dynamic equilibration in physics and, by his principle of isomorphism, postulated that the neural equivalent of gestalt perception consists in the equilibration of the neural traces to which it gives rise in the subject.

To relate my position to earlier ideas, we must include two other current movements, namely **the pragmatism of Dewey and modern existentialism** in its connection with phenomenology. Dewey recognized and vividly described the process by which we shape our own knowledge. But Dewey was strangely complacent about this situation. He found the spectacle of man actively deciding what is to be believed to be true, a refreshing sight. To him this meant the liberation of man's practical concern from the shackles of false metaphysical beliefs. He relied on the thrust of reason and progress to guide man's practical striving towards his own enlightened interests. He did not realize that it would be the most intense interest in progress, by a modern revolutionary government, which would practice a ruthless perversion of truth, and that rebellion against such governments would be conducted in the name of truth against alleged practical interests. **My task, imposed upon me by the revolutions of the 20th century, begins therefore at the point at which Dewey found his ultimate assurance.**

The relation of a theory of knowledge based on indwelling has connections also with existentialism. This movement also recognizes the powers of man to shape his own knowledge. Again, like pragmatism, it is unconcerned with the jeopardy of truth, through its subjection to man's choice; but unlike pragmatism, it faces man's situation as a shaper of his own knowledge, not with exhilaration, but with an anxiety bordering on despair.

I share the alarm expressed by existentialism at the spectacle abandoned by all the suppositions on which he could tacitly rely until their modern piercing critique deprived him of their support. But my theory of knowledge would change the situation in showing that **scientific knowledge must be aligned with the beliefs of man to which he no longer entrusts himself without realizing that this commitment is the outcome of his own decision.** Once this is seriously accepted, science will cease to act as an aid in the destruction of other human beliefs. Scientific truth will henceforth share the insecurity of moral truth, and an adequate theory of scientific knowledge may

hope to restore the common ground which, in this view, science shares, with moral convictions, and beyond that, with religious beliefs.

This is why I feel that the unification of human convictions must start from a somewhat different approach than yours, which admits, to begin with, that the pursuit of science is guided by the ideal of a strictly detached knowledge and that hence the great achievements of science should be credited to this false, logically untenable, ideal.

Tillich: Has Christianity any relevance to this project?

M.P. You have said that the irrelevance of Christianity can be overcome only by passing through the darkness of existentialist despair. You have said that the faith which rises from this depth will embrace its own doubt. It will live as a perennial, unresolvable tension in us. My theory of knowledge takes this as its paradigm. It is shaped in the image of what I understand to be the Pauline scheme of redemption. Having to face the fact that no knowledge can be set free of conceivable doubt, and that the most distinctive form of scientific knowledge, the vision of great scientific originality, is a solitary knowledge ready to face universal doubt, I conclude that it is of the essence of knowledge to be held to be true by a man's mental effort. Such is the nature of that active indwelling by which we make sense of the world.

To know is a personal striving. It is a striving that responds to an obligation, imposed on us by intimations of a hidden reality that demands of us to grasp it. **Knowledge is alive so long as it knows itself to be incomplete, by pointing beyond its manifest content.**

Very striking in this account is Polanyi's discursive review of his own ideas and Polanyi's succinct summation of Tillich's views. Knowing Tillich's power in dialogue, we can be sure that Polanyi's account is one sided in terms of the actual balance of the discussion.

Second, I want to include also the two letters from Tillich to Polanyi that followed from this dialogue in Berkeley. The first is written on May 21, 1963, and Tillich expresses his agreement with Polanyi.¹³ Particularly noticeable is Tillich's statement of his sympathy for Teilhard de Chardin's work which would correspond to Polanyi's discussion of the stratified universe also seen in the way we indwell in order to know. Tillich also refers to Polanyi's statement in his address on "Science and Religion: Separate Dimensions or Common Ground" that compares Polanyi as purifying truth from scientific dogmatism and Tillich purifying faith from religious fundamentalism.

May 21, 1963

Mr. Michael Polanyi
Center for Advanced Study
in the Behavioral Sciences
202 Junipero Serra Blvd.
Stanford, California

Dear Mr. Polanyi:

Only today I am able to express my thanks for the two manuscripts and the reprints. The weeks since the arrival of your letter were so overcrowded with out of town-obligations, that I could not get at it at all. Now I am very happy to find how much I am in agreement with you. I am especially happy about your sentence on page 14: "In a way, this enterprise would serve as a counterpart to Tillich's undertaking. He has fought for the purification of faith from religious fundamentalism; I supplement this by purifying truth from scientific dogmatism."

The fundamental vision of a hierarchy of detachment and involvement came to me when I wrote in beginning of the 20's my "System der Wissenschaften". Lately I have carried it through rather fully, in the not yet published manuscript of the third volume of my Systematic Theology. One year ago, when I first read Teilhard de Chardin, I was happily surprised by the discovery how near my own philosophy of life is to his. You are right that I had to solve first of all the problem of mutual interferences of theology and science. Only after this has been done the next stop is possible, namely to show the continuity between the different types of knowledge, and this you have done for epistemology in an excellent way. If I only were in possession of my books and reprints, I would have sent you the article on detachment and involvement in the cognitive process.

I still have to read your reprint on "Faith and Reason" and shall go at it in the next few days.

It was good to meet you and very kind of you to write me.

Cordially Yours,

Paul Tillich
PT/es

This letter seems to indicate a friendly and substantial feeling of agreement with the fundamental epistemological concerns of Polanyi. It is further indicated by a second letter from Tillich on June 4th of the same year where Tillich tells Polanyi where to find his paper in the Horkheimer festschrift.¹⁴

June 4, 1963

Dr. Michael Polanyi
Center for Advanced Study
in the Behavioral Sciences
202 Junipero Serra Blvd.
Stanford, California

Dear Dr. Polanyi:

Thank you for your letter of May 30. I have found the place where my most adequate statement of my position with respect to knowledge and participation is given. It is: "Participation and Knowledge: Problems of an Ontology of Cognition." In: *Sociologica. Max Horkheimer zum 60. Geburtstag*, Hrsg. v. W. Adorno und W. Dirks, Frankfurt a.M. Europaeische Verlagsanstalt 1955. S. 201-209. (*Frankfurter Beitrage zur Soziologie*. Bd.1.). I suppose that you have the *Beitraege* in your library. If not, I probably could have send you a reprint of my own library in Harvard Divinity School.

You can always write to me through the University of Chicago, Divinity School, and also directly to my secretary there, Mrs. Eva Shane.

Cordially Yours,

Paul Tillich.

PT/es

Despite these records of the exchange which seem positive there is another account by Polanyi later in an unpublished text preparatory to Polanyi's discussion of religion in his book Meaning.¹⁵ Here Polanyi states another kinship with Tillichian seeing God beyond any cognitive reduction. However, Polanyi states that his meeting with Tillich was less satisfying on connecting their common concerns for understanding mythical experience. According to Polanyi, Tillich seems preoccupied with the theological task of guiding the church's proclamation while Polanyi is focused on a theory for overcoming the destruction of meaning by the scientific outlook. Here Polanyi says:

The hopes of Tillich to see divinity as beyond any coherent entity corresponds to my own perspective. It was in 1963 that I attended some lectures by Tillich at Berkeley and at one of the churches attached to the same area. I spent a few hours with Tillich in the evening following the second lecture, telling him a little about my work, to which he answered "you have done for science what I have done for religion". This was a matter of courtesy, but it did hold some substance. The **vision of an indeterminate meaning, which floats beyond all materially structured experiences,** exists on the lines of a **stratified sequence** ultimately **pointing at unsubstantial existence.**

I would follow this aspect of religion by a theory of mythical experience. It is in this way an extension of the transnatural existence possessed by the arts.

But when I moved in this direction when talking to Tillich, he exclaimed opposition by pointing at a young clergyman facing us across the table and telling me “but I have to tell this young man and thousands like him what to say from the pulpit next Sunday”. Obviously the link is unmade, but I believe its traces can be perceived in vision within a stratified universe.

I am not fully certain of what Polanyi’s difference with Tillich here is. I conjecture that Tillich is speaking to Polanyi about the importance of myth in presenting the truths of Christian faith, their role in preaching and in teaching. Polanyi is focused on relating his theory of knowledge in science to art, myth, and religion.

With this background in mind, I have tried to open up our inquiry into the significance of the Polanyi-Tillich dialogue. From this brief review, I think it is clear that Polanyi did seek and find in Tillich’s thought and in his dialogue with Tillich, a support for his program of post-critical philosophy and a confirmation that Tillich was at one with him in seeing a post-critical logic in science and in theology. In conclusion, it would be worth noting that in Polanyi’s thought, the liberation of the modern world from its domination by an objectivist epistemology was necessary before religion could thrive again. In this way, his work would be preparatory and complementary to Tillich’s attempt to revive the meaning of religion and Christian faith in a secular culture. As ethicists, philosophers, and theologians trying to interpret Christian faith and vital religious beliefs today, the joint contribution of Tillich and of Polanyi in combatting the problem of non-belief still looks productive.

Endnotes

¹ Garden City: Doubleday, 1966.

² Chicago: University of Chicago Press, 1958, pp. 280, 283.

³ *Ibid.*, p. 280.

⁴ *Ibid.*, p. 266.

⁵ Chicago: University of Chicago Press, 1960.

⁶ Chicago: University of Chicago Press, 1975.

⁷ New York: Harper and Brothers, 1957, p. 81.

⁸ Michael Polanyi, “Points From A Conversation With Paul Tillich on February 21, 1963,” *Collected Articles and Papers of Michael Polanyi*, compiled by Richard L. Gelwick, Berkeley: Pacific School of Religion, 1963, microfilm. Now available through The Graduate Theological Union.

⁹ *Sociologica. Max Horkheimer zum 60. Geburtstag*. Hrsg. V.W. Adorno und W. Dirks, Frankfurt a.m. Europaeische Verlagsanstalt 1955. S. 201-209 (*Frankfurter Beitrage zur Soziologie*. Bd. 1).

¹⁰ *Philosophy Today*, VII(Spring, 1963), pp. 4-14.

¹¹ D. Mackenzie Brown (ed.), New York: Harper and Row, 1965, p. 8.

¹² Box 36, Folder 3. Polanyi Papers, University of Chicago. With permission of John Polanyi, literary executor.

¹³ 1963 Correspondence. Polanyi Papers.

¹⁴ *Ibid.*

¹⁵ Polanyi Papers.

Polanyi and Tillich on History

Donald W. Musser

ABSTRACT Key Words: autonomy, heteronomy, theonomy, kairos, logos, epistemology, ontology, philosophy of history, Paul Tillich, Michael Polanyi, science and religion
Using a critical framework developed by W. H. Walsh, this essay assesses Polanyi's theory of historical passage. It then compares Polanyi's views about history with those of Paul Tillich. The comparison reveals similar approaches to understanding ontology and epistemology.

Although they met personally on only one occasion and exchanged but a few letters, Polanyi and Tillich shared more intellectually than one might suppose. The aim of this essay is to surface the striking similarities they share in their views of being/ontology and epistemology through the lens of their philosophies of history. Using a framework for assessing historical process proposed by W. H. Walsh, I will focally analyze Polanyi's theory of history as presented primarily in his essay "Understanding History" and then draw comparisons with Tillich's well-developed views of history. This "conversation" about their views of history reveals common approaches to ontology and epistemology. Their similarities invite further "conversations."

Polanyi on History

The word "history" may have two referents. It may refer to human actions of the past or it may refer to the account of those actions constructed in the present. These two ways of considering history have resulted in two kinds of philosophy of history — speculative or metaphysical philosophy of history and critical or analytic philosophy of history.¹ The following discussion will attempt to demonstrate that Polanyi's view of history entails both kinds of philosophy of history: Polanyi's philosophy of history is an ontological philosophy of history which attempts to take into account questions and issues raised in critical philosophy of history.

In a critical analysis of the work that historians do, at least three questions must be considered. They are (1) the question of the relationship between history and natural science, (2) the question of the objectivity of historical knowledge, and (3) the questions of the nature of historical explanation.² I shall at the same time show that Polanyi's treatment of history — its status vis á vis natural science, its objectivity, and the nature of historical explanation — is at every point rooted in his ontology and epistemology.

1. We shall begin with the question of the relationship of history to natural science, the question most extensively considered by Polanyi. He comes at the question from two fronts. On the one hand, in opposition to idealism (as he interprets idealism) he avers that historical knowledge and natural scientific knowledge are of one kind. On the other hand, he holds that natural scientific knowledge is the paradigm for understanding historical knowledge, and indeed for all knowledge. If we add to these two points the further underlying assumption of the fiduciary, communal element of all knowledge, we have the triad of interrelated elements that form the fundamental framework of Polanyi's epistemology. It may be helpful to us in clarifying the Polanyian answer to the question of the relationship of history to natural science to outline how he came to his constructive position which includes these three elements.

The shift in Michael Polanyi's career from pure science to social science and philosophy occurred when he became embroiled in a debate in the philosophy of science over the nature of scientific inquiry and scientific knowledge.

(In 1932 Polanyi came to the University of Manchester from the Kaiser Wilhelm Institute in Berlin as professor of physical chemistry. In 1948 he officially shifted his focus when he was named to a chair in social studies at Manchester.) The debate took place among reflective British scientists and philosophers in the 1930s over the rise of the influence of Marxist philosophy of science in England where science was understood as applied science; that is, where all scientific inquiry was subjugated to the service of societal ends established by a political/economic ideology.³ In contradistinction to this view, Polanyi asked, “What philosophy of science had we in the West to pit against this? How was its general acceptance among us to be accounted for? Was this acceptance justified? On what grounds?”⁴ His answer in part called for the autonomy of scientific disciplines from external political, economic, and social structures and controls. At the same time, he argued for an internal “principle of mutual control” in science whereby scientists themselves would exercise critical judgment upon one another. This view of science contained both societal and fiduciary elements. With regard to the societal element, Polanyi held that the scientific community, “a moral association of persons” acting on the basis of “a common belief,” established a tradition which was the ground of free inquiry and the advance of scientific knowledge.⁵ With regard to the fiduciary element, Polanyi held that the ultimate justification for his view of the nature of scientific inquiry was a personal, responsible commitment. “At some point I can only answer, ‘For I believe so’.”⁶ His answer to the question of the nature of natural science, then, consisted of a critique of Marxist philosophy of science and pointed toward a revision of positivistic philosophy of science toward a philosophy of science which included the communal and fiduciary elements of scientific inquiry, and indeed, all inquiry.

Beyond the question of the nature of science and scientific knowledge, the answer to which provided the base from which all his further work developed, Polanyi turned to inquire about the nature of a society in which science could prosper. This question was pressed upon Polanyi by a double-edged dilemma — the rise of totalitarian societies based on Marxist ideology and the growing disintegration of free Western societies in their movement toward nihilism. Polanyi’s answer to the double threat of totalitarian Marxism and anarchical nihilism, which he considered to be the logical outcomes of authoritarian “closed societies” and radical “open societies,” was a “free society” in which tradition and freedom were mutually related. He wrote that “a free society must exist within the context of a tradition that provides a framework within which members of the society may make free contributions to the tasks involved in the society.”⁷ In this way a free society “can be bound traditionally to certain standards and values and yet be free — both in the sense of being innovative and in the sense of being self-governing or autonomous.”⁸ This view of the intellectual foundations of science and all societies was enunciated early and late in his career, in *Science, Faith and Society* (1946) and *The Logic of Liberty* (1951), and in *Meaning* (1975). There are several points worth noting about Polanyi’s definition of a free society. First, he considered the scientific community of western nations the paradigm for all free associations of persons dedicated to ends that are worthy of respect.⁹ Second, Polanyi held that the traditional beliefs, values, and mores of a free, inquiring society were an indispensable, normative basis upon which that society was structured. Third, the structure of a free society in which tradition and freedom are dialectical poles in tension with one another is the same structure which we saw earlier in our study that operates in the organic world. The principle of boundary conditions has the same structure as the principle of mutual control. Tradition is to lower-level operations as freedom is to higher-level operations.

Finally, Polanyi’s shift from pure science to social science and then to epistemology was completed when he extended his pursuit of the nature of natural scientific knowledge to all knowledge. This final phase of his work is elaborated most clearly in *Personal Knowledge, The Tacit Dimension, Knowing and Being*, and *Meaning*. His theory of personal knowledge grew out of his inquiry into the nature of science and society and expresses a further development of that work. The theory of personal knowledge includes both critical and constructive aspects. First, Polanyi provided

a critique of the ideal of a wholly explicit, self-guaranteeing knowledge in the Cartesian tradition, a tradition he called positivistic skepticism, by showing that all knowledge includes irreducible personal elements. Then, he sought to answer the question of how one can justify the holding of dubitable, personal beliefs by positing his theory of personal knowledge in which all knowledge was considered to be rooted in an unspecifiable “fiduciary framework.”

The triad of fundamental elements in Polanyi’s thought — the nature of science, the nature of societies, and the nature of knowledge — are brought together in the following text: “We have now, in the instance of scientific inquiry . . . a kind of moral association of persons, through the exercise of mutual authority, [which] welds traditions and freedom together in a pursuit of the truth.”¹⁰ In every case of human inquiry into truth, traditional structures and beliefs must be given normative status in order for free research to be carried out. This structure of human inquiry, grounded in an epistemology in which societal traditions and free inquiry reciprocally support one another, is for Polanyi applicable both to natural science and to history as well as to all other pursuits of truth.

The preceding discussion has placed Polanyi’s view of knowledge into its broader context and sketched its development through Polanyi’s career. Hopefully, it has illumined why he deems both natural science and history as personal knowledge: (1) Both operate from fiduciary frameworks — assumptions, laws, theories, and practices — which are peculiar to the community of historians or the community of scientists. These frameworks are ultimately grounded on ontological assumptions of the sort, “I believe it to be so.” (2) Both historical and natural scientific knowledge entail a personal, tacit element which is the epistemological correlate of the above ontological assumption. For these reasons history and natural science cannot be considered as ultimately separate from one another, for both are aspects of personal knowledge.

2. From the question of the relationship of historical knowledge to natural scientific knowledge, we turn to Polanyi’s answer to the question of the objectivity of historical knowledge. Negatively, against positivism, he rejects the ideal of a self-guaranteeing knowledge as absurd; against idealism, he argues that history need not lose its objectivity and universal character because of its personal nature. He argues that positivism is not as objective as it alleges to be and that idealism, on the other hand, need not retreat into individualistic subjectivism which divorces history from natural science. Positively, Polanyi defines the objectivity of historical knowledge within the bounds of his theory of personal knowledge. Both the selection of historical subjects and historical data as well as the standards by which the subject and data are interpreted involve irreducibly personal elements. These elements are rooted in a myriad of cultural factors; some are explicit and some are implicit and hidden. Given this personal, subjective element in history, the historian must guard against sliding into mere subjectivism. This is controlled in two ways. One is by the self-critical application of possible fallacies of history to one’s own historical work. Polanyi does not believe the rationalist and relativist fallacies can be completely avoided but can be reduced by a careful, self-critical historical method. The second control against subjectivism is the self-critical acceptance of one’s own interpretive framework and standards. Polanyi holds that every historian has personal assumptions which guide the selection of historical subjects and the interpretation of them. The historian can never separate himself from these assumptions and ought not try. The historian can, however, exercise self-criticism by making them explicit and revising and rejecting them on the basis of that self-criticism. History for Polanyi, then, is never free of interpretive frameworks or possible fallacies.

What then, becomes of the question of the objectivity of historical knowledge? How can objectivity be claimed for so subjective an inquiry? If we confine objectivity to those disciplines which limit themselves only to conclusions based upon explicit theories tested within and established by inquiries of the discipline itself, then history

cannot be called objective. But, as we have seen, Polanyi argues against such an ideal of objectivity. Polanyi's definition of the ideal of objectivity is illuminated if we attend to his view of the ideal of truth in natural science. What the scientist claims as true does not mean "that he has thereby established universality, but only that he has exhibited a universal intent, for a scientist cannot know whether his claims will be accepted."¹¹ Scientific conclusions may prove to be false, or even if true, not convince enough scientists in order to be accredited. In any case, even if accredited their acceptance by the scientific community is not equivalent to their being true; that is, "acceptance" does not equal "truth." Scientific objectivity has therefore both an objective and subjective pole; the scientist with universal intent toward discovering truth seeks the objectively real, but what scientific claims can never be universally established. Truth is always tentative and subject to rejection. For Polanyi, the ultimate reason for this definition of scientific objectivity is that it corresponds to his ontological assumption about the nature of the reality into which the scientist inquires.

A scientist, having relied throughout his inquiry on the presence of something real, hidden out there, can rely only on that external presence also for claiming the validity of the result that satisfies his quest By his own command, which bound him to the quest of reality, he will claim that his results are universally valid. Such is the universal intent of a scientific discovery.¹²

This character of truth in natural science is the character of truth in all human inquiry. All inquiries have two poles: one pole is the objective reality toward which one inquires, the other pole is the personal knower. These two poles are always present. The inquirer's "acts are personal judgments exercised responsibly with a view to a reality with which he is seeking to establish contact."¹³ The structure of objectivity in natural science has therefore the same structure in history.

3. We come finally to the question of the nature of historical explanation, the question of whether or not here are laws of history like there are laws of science and if there are, what constitutes the nature of the laws. Polanyi does not specifically address this question but does respond to the related question about the uniqueness of historical events versus the repetitiveness of natural scientific occurrences. The answer to this question typically concludes that repetitiveness makes natural scientific laws possible while historical uniqueness precludes laws of history. Polanyi replies by recognizing a difference in the types of occurrences that history and natural science treat but he does not view the uniqueness-repetition difference as one of kind but only one of degree. He does not therefore pit repetitiveness/universality over against uniqueness/particularity but views them as opposite ends of one continuum. His conclusion is that history is "at the end of a row of sciences of increasing intimacy and delicate complexity, yet offset against all of them by an exceptionally vigorous and subtle participation in its subject matter."¹⁴ Thus, history has autonomy within the spectrum of knowing just as natural science has its peculiar place. This is to say that there are no laws of history but it is at the same time not to say that historical explanation is of a different kind than natural scientific explanation.

Although Polanyi does not accept a theory of historical explanation based upon the application of laws of history, he does recognize that historical events have a structure and that historical inquiry seeks to understand and interpret that structure. Historical events are events in reality and share the structures of reality. Thus, for him historical events occur between the poles of stability and openness, tradition and freedom, and acceptance and criticism. Historical explanation must take into account at least two factors: (1) the context or framework of the historical subject — given biological, psychological, religious, social, and political structures which condition the subject's actions — and (2) the historical subject's free decision to act in a certain manner within that framework.

In Polanyi's answers to the questions of critical philosophy of history — the question of the relationship of history to natural science, the question of objectivity in history, and the question of the nature of historical explanation — we have seen how each question is answered within the epistemological framework of his theory of personal knowledge and in consideration of the underlying ontological assumptions about reality that buttress his theory. The nature, structure, and character of historical knowledge is in Polanyi's view dependent upon the mutually reciprocal relationship between his epistemology and ontology.

Having given attention to Polanyi's answers to the questions of critical philosophy of history, we shall now ask about the speculative element in his view of history, recalling that we began this analysis with the statement that we judged Polanyi's view of history an ontological view which sought to account for the questions of critical philosophy of history.

Speculative philosophy of history is generally considered as an attempt "to discover the meaning and purpose of the whole historical process."¹⁵ Its objective is "to produce an interpretation of the actual course of events showing that a special kind of intelligibility could be found in it."¹⁶ It seeks to uncover the intelligible structure, the universal patterns of change, the most fundamental forms, and the goals of its object, history. Polanyi's philosophy of history is speculative in the sense that it is ontological; that is, it assumes that reality is of a certain knowable structure and that historical actions and occurrences evidence that same structure. But, while Polanyi maintains that historical events are limited and formed by the structures of reality, he does not seek to uncover the meaning of the entire historical process. For him reality and hence history is dynamic; there can be change and novelty, and therefore historical passage is possible. History's dynamism is actualized through human intent and decision and those intentions and decisions always are future oriented. But, while Polanyi affirms the teleological aspect of human activity and hence historical events, he does not assume or speculate about a final telos of the entire movement of history. For this reason we chose to call his philosophy of history ontological rather than speculative.

Further, Polanyi sees no radical disfunction between speculative philosophy of history and critical philosophy of history. Adequate interpretation of history must include a critical or analytic element; all criticism and analysis of historical interpretation are based on what are finally unspecifiable, ontological assumptions.

Polanyi holds that reality and the knowledge of what is real has a certain dialectical, dynamic structure, a structure that is present in both being and knowing. In an important essay, which we have until now not considered, the main point is clear. He claims that "knowing is an indwelling; that is, a utilization of a framework for unfolding our understanding in accordance with the indications and standards imposed by the framework." This ontological framework is the basis for all knowledge. "If an act of knowing affects our choice between alternative frameworks, or modifies the framework in which we dwell, it involves a change in our being."¹⁷ This is to say that the framework is not static but dynamic, as is our knowledge of the reality that the framework images.

I regard all true understanding as an intimation of such a reality which, being real, may yet reveal itself to our deepened understanding in an indefinite range of unexpected manifestations. I accept the obligation to search for the truth through my own intimations of reality, knowing that there is, and can be, no strict rule by which my conclusions can be justified. My reference to reality legitimates my acts of unspecifiable knowing, even

while it duly keeps the exercise of such acts within the bounds of a rational objectivity. For a claim to have made contact with reality necessarily legislates both for myself and others with universal intent.¹⁸

Thus, while the reality one attends to in knowing is for Polanyi a mental construct, it is not a mere idea or the product of a purely subjective imagination. An irreducible assumption of Polanyi's thought is that there is "an external reality with which we can establish contact."¹⁹ In all knowing there is an external reality which is the object of the knower and that reality, as the objective pole of knowing, sets the limits and provides the structure of knowledge. Thus, the structure of reality has an analog in the structure of knowing. Herein lies the ontological aspect of historical knowledge for Polanyi — historical events provide the objective structures which the historian seeks to understand and interpret. In this sense historical knowledge is ontological.

POLANYI AND TILLICH ON HISTORY

We have summarized Polanyi's view of history and have shown his philosophy of history to be an ontological philosophy of history which addresses the issues of critical philosophy of history. Now we shall compare his philosophy of history with the philosophy of history of Paul Tillich. Polanyi's philosophy of history is similar to Tillich's philosophy of history in that both claim that historical events and historical knowledge have a certain ontological structure and that their descriptions of the structure of reality and events in reality are similar.

The ontological aspect of Tillich's philosophy of history is evident in his essay "Philosophy and Fate." The theme of this essay with regard to history is, the "unconditional truth" of history which "pulsates through all our thinking; there can be no act of thought without the secret presupposition of its unconditional truth." But, the logos or truth of history is not our possession; "it is the hidden criterion of every truth we believe we possess." Every statement about the logos of history is therefore contingent due to the limitation of the knower. Still, the interpreter of history claims an interpretation to be true. "We can take this risk in the certainty that this is the only way in which truth can reveal itself to finite and historical beings."²⁰ Man's finiteness and particularity constitute his fatedness. Fate is one of the given structures of existence as "the transcendent necessity in which freedom is entangled."²¹ This relationship of fate to freedom entails three things: (1) Fate is structurally related to freedom and without freedom fate is reduced to necessity; (2) "Fate signifies that freedom is subjected to necessity," that is, freedom is placed into an embracing frame of reference; and (3) "Fate signifies that freedom and necessity interpenetrate each other." Thus, fate and freedom "are conditioned by each other and are inextricably interwoven."²²

Polanyi's view bears striking similarities with Tillich on these structural aspects of historical knowledge. (1) Tillich's logos or unconditional truth of history is similar to Polanyi's objective or "real" pole of historical knowledge. (2) The logos of history is the criterion of history (Tillich) or it is the external reality with which we can establish contact (Polanyi). (3) What the historian knows about an historical event is considered true and yet remains subject to revision, rejection, and replacement. This is due to the risk involved in truth-claims and is a result of the dialectical relationship of knower to known. In "Philosophy and Fate," Tillich elaborates this relationship in terms of fate, freedom, and necessity where fate and freedom are structurally related and where fate without freedom is necessity. Polanyi talks about similar ontological realities as tradition and freedom with reference to societies. We saw this in Polanyi's view of a free society — "A free society must exist within the context of a tradition that provides a framework within which members of the society may make free contributions to the tasks involved in that society"²³ — and, more specifically, in his view that scientists "trust the traditions fostered by this system of mutual control without much experience of

it and at the same time claim an independent position from which they may interpret and possibly revolutionize this tradition.”²⁴ Clearly these texts reveal that structural character of Polanyi’s tradition and freedom is similar to Tillich’s fate and freedom.

This structural similarity allows us to interpret the three fallacies of history according to Polanyi using Tillich’s language about fate, freedom, and necessity. Each fallacy results from a mistaken, distorted, or incomplete understanding of the structures of history. The rationalist fallacy in which the historian absolutizes personal standards and norms is the result of ignoring the fact that the historian’s fate (or kairos) and the subject’s fate (or kairos) may not be the same fate (or kairos). Further, the historian’s fate is reduced to necessity when it is applied to the historical subject. Second, the relativist fallacy in which the historian ignores the cultural context is due to ignoring the historian’s fate and claiming a false freedom. Third, the determinist fallacy in history is the result of a fate which ignores freedom and thereby becomes necessity. The ability to translate or interpret Polanyi’s three fallacies of history into Tillich’s fate/freedom/necessity language is a clear indication of the similar ontology of these two thinkers.

Our point is strengthened when we turn to consider Tillich’s concept kairos. By “kairos” Tillich refers to that time in which the logos — the universal and unconditional truth — is manifest in the fate of existence. Kairos is not *a* time, it is rather a quality of time or a fulness of time, “a moment rich in content and significance.”²⁵ For Tillich, every finite existent has its capacity for kairos. “From physics on up to the normative cultural sciences there is a gradation, the logos standing at the one end and the kairos at the other. But there is no point at which either logos or kairos alone is to be found.”²⁶ Both must be included, both ontologically and epistemologically. “If it stood only in the kairos, it would be without validity and the assertion would be valid only for the one making it; if it stood only in the logos, it would be without fate and would therefore have no part in existence, for existence is involved in fate.”²⁷ With reference to the previous paragraph, one could say: with only logos and without kairos, the historian will suffer the rationalist fallacy; with only kairos and without logos, the historian will suffer from the relativist fallacy.

Tillich applies his ontology of kairos and logos to the actual course of history. He maintains that every period has its kairos; the more deeply the kairos is understood the more extensively is the logos known. In order to understand the kairos, one must understand the situation, hence his treatments of *The Religious Situation*²⁸ and *The World Situation*.²⁹ That is, one must have “a consciousness of history whose roots reach down into the depth of the unconditional . . . and whose ethos is an inescapable responsibility for the present moment in history.”³⁰

In “Kairos”, Tillich attempts to outline a philosophy of history which is in accord with logos/kairos structure of historical events. He holds that a two-fold demand is made upon a philosophy of history aware of kairos: “The tension characteristic of the absolute interpretation of history must be united with the universalism of the relative interpretation.” The paradox of this demand — that a kairotic event is both absolute and under the judgment of the absolute at the same time — is relieved “when the conditioned surrenders itself to become a vehicle for the unconditional. This is made possible when an individual or a group is open to the unconditional in a special moment of history, a kairos. At the same time, a person or group can miss or turn away from or not understand or misappropriate the unconditional due to the strictures of finite existence, leading to the dynamism of historical passage as the interrelation of theonomy, autonomy, and heteronomy.”³¹

Theonomy: A theonomous age or period in history is one which is open to the unconditional “in which the consciousness of the presence of the unconditional permeates and guides all cultural functions and forms.”³² For the

purposes of our study, the most relevant characteristic of a theonomous age is that “the knowledge of things has not the purpose of analyzing them in order to control them; it has the purpose of finding their inner meaning, their mystery, and their divine significance.”³³ “Theonomy unites the absolute and relative element in the interpretation of history, the demand that everything relative become the vehicle of the absolute and the insight that nothing relative can ever become absolute itself.”³⁴ A further characteristic of theonomy which we find similar to Polanyi’s view of the relationship of the individual to society is that the individual is never seen as isolated but always in relationship to the whole: “Merely individual religion, individual culture, individual emotional life, and individual economic interests are impossible in such a social and spiritual situation.”³⁵

The character of theonomy which unites absolute and relative, universal and particular, parts and wholes into an all-encompassing framework is very similar to the structure of what Polanyi calls a “free society.” First, Polanyi holds that a free society “rests upon a traditional framework” which provides norms and values which are accepted within the society. This framework is established by a religious vision and commitment of a world-view.³⁶ This function of religion in Polanyi, an important aspect of his thought which we have left untreated in this paper, is very much like Tillich’s understanding of the relation of religion to culture, namely, as that of sustaining a common mythical interpretation of the logos of reality.³⁷ Second, a free society (Polanyi) and a theonomous society (Tillich) both hold in tension tradition and freedom (Polanyi) and fate and freedom (Tillich). Third, both thinkers characterize reason in a free/theonomous society as reason seeking meaning rather than technical or analytic reason. Tillich puts this in terms of reason finding the meaning, purpose and ultimate significance of things. Polanyi similarly writes:

If we believe in the existence of a general movement toward the attainment of meaning in the universe. We will regard every achievement of any sort of meaning as the epitome of reality, for we will think it is the sort of thing that the world is organized to bring about.³⁸

For both thinkers analytic reason can tell us nothing meaningful because it is reason separated from its ontological ground. Finally, both locate the individual within a free/theonomous society as within the whole, that is, as one among many and not as isolated nor as absorbed into the mass; individuality is always in tension with community.

Autonomy: According to Tillich, autonomy appears both as the opposition to theonomy and as a necessity for theonomy.

As a correlate of theonomy autonomy replaces mystical nature with rational nature; it puts in the place of mythical events historical happenings, and in the place of the magical sense of communion it sets up technical control. It constitutes communities on the basis of purpose, and morality on the basis of individual perfection. It analyzes everything in order to put it together rationally. It makes religion a matter of personal decision and makes the inner life of the individual dependent upon itself. It releases also the forces of an autonomous political and economic activity.³⁹

As the opposition to theonomy, autonomy struggles to break the bonds of theonomy and as such is “the dynamic principle of history.” Theonomy, on the other hand, is the substance and meaning of history. Autonomy is not, however, necessarily a turning away from the unconditional. “It is the acceptance of the norms of truth and justice, or order and beauty, of personality and community. It is obedience to the principles that control the realms of individual and social culture. The real difference between autonomy and theonomy “is that in an autonomous culture the cultural

forms appear only in their finite relationship, while in a theonomous culture they appear in the relation to the unconditional.” For example, “autonomous science ... deals with the logical forms and the factual material of things; theonomous science deals, beyond this, with their ultimate meaning and their existential significance.”⁴⁰

The distinction Tillich makes between autonomous and theonomous science is similar to the distinction that Polanyi makes between the scientific knowledge sought in the Laplacean model and the scientific knowledge held in his theory of personal knowledge. Polanyi holds that positivistic science operates on the paradigm of Laplace: “to replace all human knowledge by a complete knowledge of atoms in motion.”⁴¹ The ideal of such a science is the embodiment of “all knowledge of the universe in an exact topography of all its atoms.” On this model, all things stand in isolated particularity divorced from their context. In Tillich’s terms, they are analyzed in their autonomy. Further, it appears that Tillich’s theonomous science which seeks the significance and existential relevance of scientific knowledge is close to Polanyi’s definition of an adequate science. Polanyi’s criticism of the Laplacean model is “that it would tell us absolutely nothing that we are interested in.” This is because it dissects wholes into parts and says nothing about the wholes. Yet, wholes are what concern us most and this is what science in the theory of personal knowledge includes that it does not in Laplacean/autonomous science. Polanyi writes:

The shortcomings of the Laplacean ideal of science must be remedied by acknowledging our personal knowing — our indwelling — as an integral part of all knowledge. This amendment . . . bridges the gap between the natural sciences and the study of man. Having recognized personal participation as the universal principle of knowing and having determined the structure of this knowing, we are now able to see that the personal participation through which we reach our evaluation of human actions as the actions of sentient, intelligent, and morally responsible beings is a legitimate instance of scientific knowing.⁴²

This view is similar to what Tillich calls theonomous science.

Heteronomy: Once autonomy breaks through theonomy the initial theonomy can never be reestablished. “The autonomous road must be traveled to its very end, namely, to the moment in which a new theonomy appears in a new kairos.” A new theonomy is not the negation of autonomy; attempts to suppress, destroy, or negate autonomy brings into existence a condition of heteronomy. “Heteronomy imposes an alien law, religious or secular, on man’s mind. It disregards the logos structure of mind and world. It destroys the honesty of truth and the dignity of the moral personality. It undermines creative freedom and the humanity of man. Its symbol is the “terror” exercised by absolute churches or absolute states.” Heteronomy arises when autonomy is completely separated from the religious substance of life and culture. Autonomy can subsist as long as it can feed upon traditions of the past, but eventually it will exhaust its spiritual substance. Then, “it becomes emptier, more formalistic, or more factual and is driven toward skepticism and cynicism, toward the loss of meaning and purpose.”⁴³ This description of the process of history which results in heteronomy is equivalent to a similar process interpreted by Polanyi which ends in what he calls “moral inversion.” Finally, we note that the resolution of the problem of heteronomy in history for Tillich is a breakthrough of a new kairos and the establishment of a new theonomy. For Polanyi, the breakthrough of “moral inversion” comes in the hope of a “free society.”⁴⁴

CONCLUSION

This brief and somewhat truncated comparison of Polanyi and Tillich on history uncovers similarities that have not been noticed in a focal way. Perhaps the reason for lack of “conversation” between the two was their perception of their views of the different places of natural science and religion in culture. In his essay, “Science and Religion,”⁴⁵ Polanyi distanced himself from Tillich. He claimed that Tillich wished to keep religion and science separate on the grounds that they are “two different dimensions which logically by-pass each other, the dimension of science being that of strictly detached knowledge, while the dimension of religion is one of unconditional commitment.”⁴⁶ In contradistinction to this view, Polanyi granted that science and religion deal with different levels of reality but that both kinds of knowledge have a common ground. Polanyi’s interpretation of Tillich on this issue is somewhat inaccurate, although Tillich does emphasize in *Dynamics of Faith* the differences between science and religion. In his most developed work, Tillich expressly sought a unified reality in knowing. Had Polanyi attended more to Tillich’s writings on the place of religion in culture where science resides, perhaps he would not have made this error. In fact, in a footnote in his essay, “Science and Religion,” Polanyi notes that Tillich makes a statement in his *Systematic Theology I*, “which comes nearer to my own position.” The statement from Tillich that he quotes is the following: “The element of union and the element of detachment appear in different proportions in the different realms of knowledge. But there is no knowledge without the presence of both elements.”⁴⁷ This statement of Tillich’s is a more adequate representation of his overall position with regard to epistemology. If Polanyi had taken it as such, he may not have sought to contrast his own position with Tillich’s vis á vis the relationship of science and religion, but rather, to compare his position with Tillich’s, and, as we have done in this study, conclude that their positions are very similar.

Endnotes

¹W. H. Walsh, *Philosophy of History*, rev. ed. (New York: Harper and Row, 1968), p. 16-7.

²*Ibid.*, pp. 17-26. I have reduced Walsh’s four questions in critical philosophy of history to three, conflating the question of truth and fact and the question of objectivity into one.

³Among the treatments of this debate are J. R. Baker, *Science and the Planned State* (New York: Macmillan and Co., 1945) as well as Polanyi’s *Science, Faith and Society* (in part).

⁴M. Polanyi, *Science, Faith and Society* (Chicago: U. of Chicago Press, 1964), p. 9.

⁵M. Polanyi and H. Prosch, *Meaning* (Chicago: U. of Chicago Press, 1975), p. 196.

⁶Polanyi, *Science, Faith and Society*, p. 9.

⁷Polanyi and Prosch, *Meaning*, p. 202.

⁸*Ibid.*, p. 197.

⁹*Ibid.*, p. 196-203.

¹⁰*Ibid.*, p. 196.

¹¹Polanyi and Prosch, *Meaning*, p. 195.

¹²*Ibid.*, pp. 194-195.

¹³*Ibid.*, p. 194.

¹⁴Polanyi, “Understanding History,” p. 85.

¹⁵Walsh, p. 26.

- ¹⁶*Ibid.*, p. 117.
- ¹⁷M. Polanyi, "Knowing and Being", *Knowing and Being*, ed. Marjorie Grene (Chicago: U. of Chicago Press, 1969), p. 134.
- ¹⁸*Ibid.*, p. 133.
- ¹⁹*Ibid.*
- ²⁰Paul Tillich, "Philosophy and Fate," *The Protestant Era*, trans. J. L. Adams, abridged ed. (Chicago: U. of Chicago Press, 1957), pp. 13-14.
- ²¹*Ibid.*, p. 3.
- ²²*Ibid.*, pp. 3-5.
- ²³Polanyi and Prosch, *Meaning*, p. 202.
- ²⁴*Ibid.*, p. 192.
- ²⁵Tillich, "Philosophy and Fate," p. 14 and Tillich, "Kairos," *The Protestant Era*, trans. J. L. Adams, abridged ed. (Chicago: U. of Chicago Press, 1957), p. 33.
- ²⁶Tillich, "Philosophy and Fate," p. 15.
- ²⁷*Ibid.*
- ²⁸P. Tillich, *The Religious Situation*, trans. H. Richard Niebuhr (Cleveland: World Publishing Co., 1956; orig. 1932).
- ²⁹P. Tillich, *The World Situation* (Philadelphia: Fortress Press, 1965; orig. 1945).
- ³⁰Tillich, "Kairos," p. 32.
- ³¹*Ibid.*, pp. 42-43.
- ³²*Ibid.*, p. 43
- ³³*Ibid.*, pp. 43-44.
- ³⁴*Ibid.*, pp. 46-47.
- ³⁵*Ibid.*, p. 44.
- ³⁶Polanyi and Prosch, *Meaning*, pp. 159-60, 184, 215-216.
- ³⁷Tillich, "Kairos," p. 44.
- ³⁸Polanyi and Prosch, *Meaning*, p. 182.
- ³⁹Tillich, "Kairos," p. 44.
- ⁴⁰*Ibid.*, p. 45.
- ⁴¹Polanyi and Prosch, *Meaning*, p. 25.
- ⁴²*Ibid.*, p. 29.
- ⁴³Tillich, "Kairos," p. 46.
- ⁴⁴Polanyi, "Beyond Nihilism," in *Knowing and Being*.
- ⁴⁵Polanyi, "Science and Religion: Separate Dimensions or Common Ground?" *Philosophy Today* 7 (Spring, 1963):4-14.
- ⁴⁶*Ibid.*, p. 4.
- ⁴⁷P. Tillich, *Systematic Theology* (Chicago: U. of Chicago, 1967), I, p. 97.

Reviews

Barbara Dee Bennett Baumgarten, *Visual Art as Theology*. New Studies in Aesthetics, vol. 21. New York: Peter Lang, 1994. Pp. xx + 272. ISBN: 0-8204-2462-5. \$52.

Baumgarten draws from her experience as an artist and her studies in theology at the Graduate Theological Union to explore the relationship between art, religion and theology. Using Michael Polanyi's work as a base-point, she proceeds in two steps. In the first, she offers a Polyanian perspective on artistic experience. In the second, Baumgarten criticizes and extends Paul Tillich's theological reflections on art in light of the Polyanian views set out in part one. The book thus aspires to refine and extend the state of theological reflections on art. Throughout, the book is richly illustrated, as one should expect in a book about art, both by the author's own work and pieces discussed in the text.

In her most creative move, Baumgarten argues that Polanyi's epistemology, though originally conceived in the context of the work of the sciences, offers an illuminating account of the visual arts (2-3). She thus draws widely from Polanyi's works, not simply from his "brief but dense" reflections on art. In part one, Baumgarten essentially takes a list of key insights from Polanyi and applies them to art. She thus examines the work of artist, art critic and art connoisseur in light of Polanyi's discussions of tacit knowing, personal knowledge, the triadic nature of knowing, commitment, indwelling, skills, connoisseurship, intellectual passions, factors which define scientific value, and the ways in which different levels of existence relate to one another. This section concludes with an examination of the relationship between religion, art and liturgy. As Baumgarten sees it, religious and artistic experiences are analogous (e.g., 111-112) and connected, but not interchangeable with one another. Instead, art, liturgy and religion represent as

ending levels of organization in which the higher integrates the lower into more complex and comprehensive phenomena, but is not fully explainable or even limited by the lower (126).

In part two, Baumgarten moves to a Polyanian critique of Tillich. In so doing, she rehearses Tillich's views on art, style and their relationship to religious content and theology. She also examines some of Tillich's critics before offering her own appreciative criticism of Tillich. Her central criticisms are that Tillich remains trapped in the kind of dualistic thinking which Polanyi overcomes (223-224) and that he fails to acknowledge that all knowing is meaningful and conditioned by perspective (227 ff.). Thus Tillich's own prejudices toward naturalistic styles of art represents a kind of elitism and failure to indwell another perspective. At the same time, Baumgarten affirms Tillich's discussion of art's ability to express, transform and anticipate the future, as well as his description of the role of an art theologian—all of which, she suggests, can be placed on more solid footing by attending to Polanyi's thought. For example, Polanyi can help us better understand how symbols work and thus how art might or might not become a symbol for the supra-natural (235-236).

The book moves at a brisk pace and offers wonderfully concise and lucid summaries of both Polanyi's epistemology and Tillich's views on art. Baumgarten thus provides a useful and accessible secondary account of their work. Putting their work into conversation with the experience of artists nicely concretizes some of the discussion, as well. The pace of the book, however, takes its toll in several ways. Stylistically, the book is a bit choppy and the treatments of the authors are sometimes a bit wooden. The pace also prevents Baumgarten from going into great depth on many of the points she tries to make. Thus her

arguments consist more of creative and suggestive assertions than detailed arguments. At points, one wishes that she would spell out the connections between artistic practice/experience and theory in more detail. More detail would also help clarify the accuracy of extrapolations from Polanyi's thought. For example, her application of Polanyi's account of tacit knowing seems to slip a bit when applied to artistic work (6-12).

Overall, the book represents a creative appropriation and extension of Polanyi's epistemology and will be of interest to anyone whose passions lie with any combination of Polanyi, epistemology, art and religion. The book also points beyond itself to another task. Baumgarten remains largely uncritical of Polanyi and does not bring artistic experience to bear in a critique of his views. In other words, the conversation only moves in one direction. This work thus points to the need for a critical analysis of both Polanyi and Tillich in light of the actual experiences and practices of various kinds of artists. Baumgarten has highlighted the affinities, but what of the pressure points? Baumgarten's work provides a solid basis from which to proceed.

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Philip A. Rolnick. *Analogical Possibilities: How Words Refer to God*; Number 81 in the American Academy of Religion Academy Series, ed. Susan Thistlethwaite. Atlanta: Scholars Press, 1993. 316 pages, selected bibliography, index of names and index of subjects. Cloth \$29.95, paper \$19.95.

Rolnick's book is not Polanyian in the sense of addressing directly Michael Polanyi's view of "how theological language . . . can adequately express something about the infinite God" (256); there are only five explicit references to Polanyi in the book, none of which go into his own view of analogy. The book is very Polanyian, however, in the sense that it is informed in every part by Rolnick's understanding of tacit knowledge, discovery, personal judgment, commitment, universal intent, and

other key features of post-critical philosophy. Rolnick's defense of "a moderate epistemology of the real and a moderated speech about divine perfections encountered through creation" (93) is very much in keeping with Polanyi's affirmation in *Personal Knowledge* that the universe seems to point beyond itself to a God, although Rolnick seems to go far beyond Polanyi's position that "the Christian enquiry is worship" which "can say nothing that is true or false" (*PK*, 281).

Analogical Possibilities is addressed to readers who are ready to enter into a very technically demanding debate about the metaphysical underpinnings of theistic discourse. Particularly in the first third of the book, Rolnick relies on Aristotelian categories as refined over seven hundred years of debate within Thomism. Even though I took two courses in metaphysics from the Jesuit treated in this section, as well as many other courses from similarly inspired Thomists, I still found it hard at times to keep up with Rolnick's use of scholastic distinctions. I suspect those unfamiliar with this tradition would have great difficulty following the argument.

The book engages in dialogue with representatives from three different traditions about analogy: W. Norris Clarke, S.J., is a "moderate realist" from the neo-Thomist tradition (61, 67, 85). David Burrell, C.S.C., operates from a linguistic perspective, drawing on both Wittgenstein and Aquinas (187). Eberhard Jüngel follows Barth in rejecting philosophical theology on evangelical and theological grounds. "Jüngel, Clarke and Burrell all want to show how God may be distinct from the world and yet related to it" (213).

Although Rolnick carefully considers the strengths and weaknesses of all three positions, he sides most often with Clarke's reading of Aquinas. Starting with the principle that "an effect receives something of the essence of its cause" (47), Rolnick makes the case that by looking at the created world, we can gain some real, if incomplete, sense of the character of the Creator. This is the fundamental insight of Clarke's participation metaphysics: "the finite points beyond itself to what must be

an Infinite Source possessing the perfection in unlimited degree” (72). Drawing a sense of God’s character from the “friendly and good creation” (73) is the foundation of the “analogy of attribution” (203). Such insights, hunches, guesses, or clues, which cannot be made fully explicit, ground revelatory analogies:

A stretch-term is known “by running up and down the scale of its known examples and seeing the point, catching the point,” of the similarity which it alone can express. The elasticity of the term permits us to express commonalities which we see up and down the scale of being. But just because an analogous term cannot be rigorously defined, it does not follow that it is empty of meaning. Analogous terms are useful, even indispensable, precisely due to their flexibility; for they are markers of one of the most important exercises of our humanity: acts of judgment. The elasticity of the term must be combined with the commitment of the one who uses the term. (76)

It is clear that we create, use, and interpret these flexible terms through acts of tacit knowledge.

In dialogue with Burrell, Rolnick portrays analogy as “a mode of predication which can go beyond logic without destroying logic” (131). To do so requires “the judgment of the person” using analogy. Rolnick criticizes Burrell for conflating analogy and metaphor (171-76) and for failing to recognize that “even a form of life must be grounded in the metaphysics of action” (185—Clarke’s criticism of Wittgenstein). Nevertheless, Rolnick sees Burrell as extending the analysis of analogy in a fruitful fashion:

Most importantly, he has shown how the “systematically vague” nature of analogous terms is appropriately fitting to the anthropological condition. Capitalizing on the ambiguity in Aquinas’ metaphysics of *esse*, he has linked the “middle ground” of analogical use to judgment. . . . Applying methodological insights learned from

Wittgenstein, Burrell’s extended treatment of judgment, commitment, and the self-involving nature of inquiry clarifies much of what takes place as analogy is actually used. (186)

In Polanyian terms, one might say that using analogies is a skill which is developed by performing to self-set standards.

Jüngel, following Barth, rejects the idea that from the attributes of created reality, one can grasp aspects of God’s own reality (223, 233). For this tradition, the sole source of knowledge of God is Jesus Christ (226): “Humanity is established in a christological light, the world is illuminated in an eschatological light, and through suffering the death on the cross, the alleged imperishability of God is refuted” (239). Rolnick criticizes Jüngel for not recognizing the difference between the “confident, theistic rationalism of the Thirteenth Century” (245), in which declarations about the limits of language were made in the context of “theological commitments to the Trinity” (250), and the “skeptical rationalism” of Kant and the Enlightenment (245). More importantly, there is no good reason to imagine that what is learned about God from creation is inconsistent with what is learned from revelation. In his final resolution of the issues, Rolnick defends Thomistic metaphysics against Jüngel’s *sola fide* approach:

God’s freedom to reveal the divine self in Christ should not cause us to devalue what God has revealed in creation. And this, I take it, is the point of Neo-Thomist analogy—to express what has been discovered in the gifts of nature as compatible with what has been revealed in the gifts of grace. . . . The broader framework of action describes the constancy, continuity, and overall unity of a universe of self-communication. (293)

Although this language is drawn primarily from Rolnick’s study of Clarke, it resonates with Polanyi’s ruminations on knowing and being in Part Four of *Personal Knowledge*.

Rolnick emphasizes the fact that this is a moderate version of realism. The results of a metaphysical exploration of the universe are not on par with theological investigations of revelation, but they are not meaningless, either. Rolnick seeks to hold a “middle ground” between saying too much and saying to little (5-6, 256, 286). This is where limited human knowledge finds its true home:

Yet part of the strange comfort of being a creature, a participant in created reality, is knowing certainty in the presence of uncertainty. That is, it is comforting to know that whatever gains we may achieve, there will be more to discover about the created patterns and the personal relations of God. Once again, saying that we have “some knowledge” is a middle path, a path which supports faith without overwhelming it with either rational or dogmatic certainty. (296)

People who take the middle may perhaps expose themselves to attack from all sides, yet this is where the truth about the limits of human understanding calls us to do battle.

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Philip A. Rolnick. *Analogical Possibilities: How Words Refer to God*. Atlanta: Scholars Press, 1993.

One of the remarkable achievements of Philip Rolnick’s *Analogical Possibilities* is its integrative power. It attempts to explore the possible bases for discourse about God from three distinct vantage points. The first comprises the traditional Thomist approach to analogical predication as revitalized by twentieth century Neo-Thomist scholarship and synthesized in the work of Norris Clarke. The second consists in a variant of this approach to analogy which is informed by a Wittgensteinian reading of Aquinas’ practice in using language about God explored in the work of David Burrell. The third perspective

is that of a Barthian rejection of the possibility of philosophical analogy in favor of the analogy of faith effected by the revelation of God in Jesus Christ defended by Eberhard Jüngel. Entering into the theoretical framework of any one of these perspectives is a daunting exercise of scholarship; exploring how they might mutually enrich our understanding of discourse about God is the work of creative imagination.

While containing only a few explicit references to Polanyi, Rolnick’s exposition of and concluding “conversations” between these proponents exhibit the masterful way in which he has digested Polanyi’s theory of knowing and unobtrusively used it to guide his own integrative proposal. My intention here is to point to a few instances where I believe the Polyanian perspective enabled Rolnick to appreciate nuances or deficiencies in the contrasting positions on analogy while additionally leading him to explore how bringing these approaches to bear on each other may suggest ways for integrating our understanding of discourse about God. If this reading is valid, it will illustrate for us the kind of reflection inspired by Polanyi that goes beyond a mere interpretation of Polanyi to the creative extension of his thought.

Each of these perspectives on analogy, Rolnick emphasizes, has stressed the need for personal acts of judgment for understanding the appropriate use of analogous terms. Norris Clarke, who defends a “metaphysical” perspective on analogy, insists that such terms are “activity terms” whose meanings are “elastic” and require the informed activity of the judgment of the person using the terms (75-78). He stresses the “objectivity” of their use by comparing it to the way in which we discover something and subsequently name it. Rolnick points out how Polanyi’s analysis of the heuristic process of discovery, wherein we rely tacitly on clues which we begin to integrate into a focal whole allow us to cross a “logical gap” once the coherence has emerged in our thought. This sustains both elements of Clarke’s intent here, the need for personal judgment and the objective features of what is being discerned. The Polyanian perspective permits an elucidation of Clarke’s insistence of the “action” of the

object known on the knower (33-34). His intention, of course, is to respond to Kant's restriction of knowledge to the phenomenal world by insisting that the object's activity on the knower (which Kant grants) must in some way be informative if it is to be known at all. Acknowledging the tacit grounding of our use of analogous concepts while recognizing these as culturally given forms of indwelling provides a perspective which sustains the metaphysical basis of our use of analogous terms while retaining the modern insight into their perspectival character. Presupposed throughout Clarke's position is that there is a correlative aptitude of mind and being (22-23). Again, Polanyi's understanding of the isomorphism of the mind with the object known can offer additional clarity on this fundamental issue. In particular this could support the claim that to affirm a knowledge of some (e.g., empirical) aspects of reality without more comprehensive (e.g., moral and ontological) levels leads to the lived contradiction of moral inversion. Finally, Clarke maintains that analogy allows us to recognize that being in act is the good (38-39), and when most profoundly understood that this is the outpouring of infinite love (87f). Even though Clarke argues that we are able to recognize this through metaphysics or "naturally," Rolnick is able to point out that here is a place where natural reason joins hands with Christian revelation. Evidently he is making such a judgment from the Polyanian perspective where our antecedent beliefs sustained by our form of indwelling allow us to perceive these "natural" features of reality.

In a similar manner, Rolnick's exposition of Burrell's work on analogy can be illumined by appraising it in light of Polanyi. Burrell attempts to limit his discussion of analogy to the "grammatical" features of such usage. Still the fact that using language this way is a skill that requires the personal participation of the knower in community of inquirers in order for the usage to be valid (112, 125) indicates how Polanyi's thought can be useful for a corrective. That Burrell intends such grammatical usage of analogous terms to be valid in some sense without being reducible of some sort of explicit logic requires an accounting.

Rolnick's suggestion that such usage presumes universal intent is instructive (125). For Polanyi, this would presume the ontological grounding of our knowing through the tacit awareness of the real, here under its guise as the good, drawing us on as inquirers (136-138). In this way Rolnick can praise the development in Burrell's thought insofar as he surpasses an exclusively grammatical interpretation of analogous language and begins to move toward an acknowledgement of the experience of dimensions of reality opened by dwelling in specific communities of discourse (155, 186).

Appreciating this Polyanian background of Rolnick's argument is most helpful, I believe, in understanding his treatment of Jüngel's rejection of a metaphysical use of analogy in favor of an understanding of the analogy of faith as a "language event." Jüngel's rejection of analogical language is based on an interpretation of modern philosophy to be upholding a rationalist foundationalism that attempts to establish a "theism" which inevitably must fail (191-192). In such a context, analogy must harbor a hidden agnosticism about transcendent reality. This is reminiscent of Polanyi's critique of critical reason, particularly in its positivist form, where an a-historical subject, doubting everything, comes to know precious little, particularly regarding any possible transcendent reality. What Polanyi insisted upon in the face of such a debilitation of reason is the acknowledgement of our antecedent commitments which sustain our particular forms of indwelling and through which we affirm substantive claims about the real. Jüngel's insistence that any valid knowledge of God be derived from the "language event" (212) wherein the person is addressed by God sets up the challenge to modernity's conception of knowledge "from above," as it were. That is, Jüngel's insistence on a form of analogy that is faithful to the gospel expresses, from the vantage point of the Christian tradition, the requirement of the personal engagement of the inquirer in the act of coming to have a valid understanding of God through the language event paradigmatically offered in the life and teaching of Jesus Christ. One way that Rolnick is able to integrate this view with that of the Neo-Thomist and grammatical accounts is by pointing to the personal

engagement of the knower, presuming the tacit grounding of the use of language in the real (286). Similarly his claim that the philosophical interpretation of being in act is comparable to the disclosure in a language event (289) can be sustained through Polanyi's depiction of the objectivity of the gradient of discovery.

The argument of *Analogical Possibilities* is subtle and following it requires entering into the technical language of recent approaches to the doctrine of analogical language about God. My intention here has been to offer an interpretation of its guiding vision so that those who have a theological interest in the development of Polanyi's thought will be enticed to make the effort to explore its paths. In doing so, they will be richly rewarded.

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Response to Martin X. Moleski and John V. Apczynski

F. D. Maurice once wrote to a colleague:

Criticism... will always be negative, cruel... unless it becomes an interchange of thoughts between men who care much for each other and more for Truth.

In the highest sense of Maurice's point, I am indebted to both Martin Moleski and John Apczynski for their critiques of *Analogical Possibilities: How Words Refer to God*.

In writing their reviews for this journal, each reviewer independently pointed out various ways that this essay in philosophical theology had been influenced by Polanyi, whether overtly or tacitly. Frankly, I had forgotten how much Polanyi had influenced the writing of *Analogical Possibilities*. I now remember that, before I wrote the book, Charles McCoy had advised me to let Polyanian principles guide my inquiry without letting the book become a work about Polanyi.

Since both Moleski and Apczynski were so positive in their general comments, and since they correctly perceived not only my use of Polanyi, but also the general scope of what I was doing, I have only a few material points in response.

First let me respond to Apczynski's understanding of Jüngel. While Apczynski understands that Jüngel does advocate a form of analogy, Apczynski also writes of "Jüngel's rejection of analogical language." However, Jüngel not only advocates a form of analogy; he insists that analogy is the *only* way to speak about God responsibly:

there can be no responsible talk about God without analogy. Every spoken announcement which corresponds to God is made within the context of what analogy makes possible (as cited in *Analogical Possibilities*, 200).

Hence the debate is sharpened. The focus now is what kind of analogical language, not whether or not there will be analogical language.

Furthermore, my own view is that Jüngel contributes something very powerful in his development of the "language event." *Analogical Possibilities* tries to show that Jüngel's critique of Aquinas fails, but this failure does not significantly detract from Jüngel's own project. On the contrary, even Jüngel's failure is instructive, because many Aquinas commentators, both past and present, try to read Aquinas in the way Jüngel targets. Jüngel's critique of Aquinas should warn against strongly apophatic readings of Aquinas. Hence, the extended argument of Part One of *Analogical Possibilities* details how participation metaphysics and the closely associated analogy of causal participation is the mature Aquinas' best presentation for a positive predication about divinity. Nonetheless, Apczynski and I have no real argument here, since he generously writes of the "integrative power" of my work. My point is simply that there is some helpful integration which is possible with Jüngel and analogy based on participation metaphysics.

Notes on Contributors

In response to Moleski, I would again stress the centrality of *participation*, and not his citation of the “analogy of attribution.” Participation, having a share of, is really what all the technical bother is about. The creature has a share in the creation, and appropriate sense of belonging, and a language which potentially portrays such participation.

The resemblance between Polanyi’s thematic use of personal participation (which is developed primarily through epistemology) and the personal participation upon which Aquinas’ analogy theory rests (which is developed in an overt metaphysics) is a clue to some fascinating compatibilities which could be explored in another context.

With Moleski, I would agree that, “using analogies is a skill which is developed by performing to self-set standards”—as long as these self-set standards are themselves moving towards a transcendent standard; for such a movement makes meaningful the distinctions among our relativities.

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Charles S. McCoy recently retired from Pacific School of Religion/Graduate Theological Union in Berkeley where he was teaching when he set up the conversation between Michael Polanyi and Paul Tillich in 1963. McCoy has been interested in Polanyi’s postcritical thought since the mid fifties and has encouraged several generations of graduate students in Berkeley to become familiar with Polanyi’s writing. In many articles and several books on Christian theology and ethics, including **When Gods Change** (1980), McCoy makes creative use of Polanyian themes.

Richard Gelwick, currently a medical humanist at the School of Osteopathic Medicine at the University of New England, was a graduate student working with Polanyi and writing the first theological dissertation on Polanyi’s postcritical thought at the time he helped engineer the conversation between Polanyi and Tillich in 1963. Gelwick is General Coordinator of the Polanyi Society and has been the backbone of the Society since its founding. In addition to many articles treating Polanyi’s thought, he is the author of **The Way of Discovery: An Introduction to the Thought of Michael Polanyi** (1977).

Donald W. Musser is Professor of Religious Studies at Stetson University and has been a member of the Polanyi Society since 1977. He wrote a dissertation at the University of Chicago on Polanyi and religious language. Another early scholarly interest—which led eventually to the included article—was the relationship between Polanyi and Tillich’s ideas about history. Musser was co-author and co-editor (with Joseph L. Price) of **The Whirlwind in Culture** (1987) and **A New Handbook of Christian Theology** (1992); forthcoming is **A Handbook of Contemporary Christian Theologians** (co-edited with Joseph L. Price) as well as **An Introduction to Religion**.

Electronic Discussion Group

The Polanyi Society supports an electronic discussion group exploring implications of the thought of Michael Polanyi. For those with access to the INTERNET, send a message to "owner-polanyi@sbu.edu" to join the list or to request further information. Communications about the electronic discussion group may also be directed to John V. Apczynski, Department of Theology, St. Bonaventure University, St. Bonaventure, NY 14778-0012 PHONE: (716) 375-2298 FAX: (716) 375-2389.

Polanyi Society Membership

Tradition and Discovery is distributed to members of the Polanyi Society. This periodical supercedes a newsletter and earlier mini-journal published (with some gaps) by the Polanyi Society since the mid seventies. The Polanyi Society has members in thirteen different countries though most live in North America and the United Kingdom. The Society includes those formerly affiliated with the Polanyi group centered in the United Kingdom which published *Convivium: The United Kingdom Review of Post-critical Thought*. There are normally two or three issues of *TAD* each year.

The regular annual membership rate for the Polanyi Society is \$20; the student rate is \$12. The membership cycle follows the academic year; subscriptions are due September 1 to Phil Mullins, Humanities, Missouri Western State College, St. Joseph, MO 64507,. Please make checks payable to the Polanyi Society. Dues can be paid by credit card by providing the following information: subscriber's name as it appears on the card, the card name, and the card number and expiration date. Changes of address and inquiries should be mailed, faxed or e-mailed to Mullins (e-mail: mullins@griffon.mwsc.edu ; fax: USA 816-271-4574).

New members must provide the following subscription information: complete mailing address, telephone (work and home), institutional relationship, and e-mail address and/or fax number (if available). Institutional members should identify a department to contact for billing.

The Polanyi Society attempts to maintain a data base identifying persons interested in or working with Polanyi's philosophical writing. New members can contribute to this effort by writing a short description of their particular interests in Polanyi's work and any publications and /or theses/dissertations related to Polanyi's thought. Please provide complete bibliographic information. Those renewing membership are invited to include information on recent work.

Submissions for Publication

Articles, meeting notices and notes likely to be of interest to persons interested in the thought of Michael Polanyi are welcomed. Review suggestions and book reviews should be sent to Walter Gulick (see addresses listed below). Manuscripts, notices and notes should be sent to Phil Mullins. Manuscripts should be doublespaced type with notes at the end; writers are encouraged to employ simple citations within the text when possible. Use MLA or APA style. Abbreviate frequently cited book titles, particularly books by Polanyi (e.g., *Personal Knowledge* becomes *PK*). Shorter articles (10-15 pages) are preferred, although longer manuscripts (20-24 pages) will be considered.

Manuscripts should include the author's name on a separate page since submissions normally will be sent out for blind review. In addition to the typescript of a manuscript to be reviewed, authors are expected to provide an electronic copy (on either a 5.25" or 3.5" disk) of accepted articles; it is helpful if original submissions are accompanied by a disk. ASCII text as well as most popular IBM word processors are acceptable; MAC text can usually be translated to ASCII. Be sure that disks include all relevant information which may help converting files to Word Perfect or ASCII. Persons with questions or problems associated with producing an electronic copy of manuscripts should phone or write Phil Mullins (816-271-4386). Insofar as possible, *TAD* is willing to work with authors who have special problems producing electronic materials.

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