Tradition & Discovery
The Polanyi Society Periodical

Preface

This issue includes minutes from the last business meeting of the Society (November, 2002) as well a financial statement for the fiscal year completed at the end of August 2002 and the call for the papers for the next annual meeting to be held November 22 and 23, 2003 in Atlanta, Georgia (p. 5) . Tibor Frank kindly has shared some interesting letters that he received in response to his *TAD* 28:2 essay on the networking of Polanyi and other Hungarian *émigrés*; the letters are from retired chemistry professor Brian Gowenlock who was a research student of Michael Polanyi in the forties. I have written a short memorial for Charles S. McCoy, a teacher and scholar who for 45 years, before his November, 2002 death, taught Polanyi to graduate students and made use of Polanyi's ideas in articulating his own postcritical Christian federalist perspective. One of the two major essays in this issue is David Rutledge's "'Conquer or Die'"?: Intellectual Controversy and Personal Knowledge," which is a revised version of a paper he presented at the 2001 Polanyi conference at Loyola University. Rutledge analyzes what Polanyi says about intellectual controversy and ways to address it in *Personal Knowledge* and other writing. Dale Cannon's essay "Construing Polanyi's Tacit Knowing As Knowing By Acquaintance Rather than Knowing by Representation: Some Implications" is also a revised Loyola paper. As his title suggests, Cannon argues that tacit knowing properly regarded is knowing by acquaintance, a relational knowing of reality. He believes that the scholarship on Polanyi has not adequately recognized Polanyi's emphasis upon relational knowing of reality and that taking the priority of acquaintance knowledge into account makes Polanyi a much more radical thinker than he has been recognized. In *TAD* 28:3, there was an announcement about Maben Poirier's new Polanyi bibliography that was just off the press. I am pleased in this issue to include an interview with Poirier in which he discusses his 423 page project and the relationship between this bibliography and earlier ones. Finally, don't miss the reviews this round. Walter Gulick provides a very interesting discussion of Cesarani's 1998 biography of Polanyi's controversial friend Arthur Koestler. Gulick suggests the ways in which Koestler's life touched the lives of many members of the Polanyi family. Jere Moorman reviews *Tacit Knowledge in Organizations*, one of several recent publications that suggest the ways in which Polanyi's ideas are being picked up by those interested in business.

Phil Mullins

NEWS AND NOTES

Upcoming Kings College Conference

A conference on "Christian Theology and Michael Polanyi" is scheduled for Friday, May 2, 2003 at King's College London. It has been organized by the Dept of Theology and Religious Studies at King's College in association with the Gospel and Our Culture Network. After an introductory paper by Bishop Peter Forster, the main speakers will be Prof. Colin Gunton, Prof. Alan Torrance, and Lincoln Harvey, with closing response by Prof (retired) Dan Hardy. Inquiries can be directed to Rev'd Dr Murray Rae at EDLUMIC@aol.com or Rev'd David Kettle at DJK@kettle.force9.co.uk.

Stefania Jha gave a paper titled "Tacit Knowing, Moral Development and Pluralism" at the London University Institute of Education, at a session with the Philosophy of Education Society of Great Britain. She reports that the audience was very engaged and there were many good questions.

Aaron Milavec received a fellowship for the 2002-2003 academic year to study at the Center for Studies in Religion and Society at the University of Victoria, B.C. He will be working on a book tentatively titled *The Common Ground for Discovering Religious and Scientific Truths: Michael Polanyi's Postmodern Foundations for Embodied Knowing.* In the Spring term, he will give a public lecture titled "How the Thrill of Scientific Discovery and the Transformative Power of Religious Experience Share the Same Human Dynamics." Milavec can be reached, until 8/1/03 at Center for Studies in Religion and Society, University of Victoria, P.O. Box 1700, Victoria, B.C. V8W 2Y2 Canada or by email at milavec@ameritech.net.

Richard Henry Schmitt's essay, "Thought Shaped by Experience: Polanyi's Impact and the Way Ahead", recently appeared in *Psychoanalysis and Contemporary Thought* (Vol. 25, No. 2, Sp 2002: 223-241). The essay was originally presented at the Polanyi's Society's June 2001 conference at Loyola University of Chicago.

Struan Jacobs' "Polanyi's Presagement of the Incommensurability Concept" was published in *Studies in History and Philosophy of Science* (Vol. 33, 2002: 105-120).

Phil Mullins' essay, "On Persons and Knowledge: Marjorie Grene and Michael Polanyi" was included in the recently published Lives of Living Philosophers volume on Grene (*The Philosophy of Marjorie Grene*, Randall E. Auxier and Lewis E. Hahn (eds.) Chicago: Open Court Publishing Co., 2002: 31-60).

Electronic Discussion List

The Polanyi Society supports an electronic discussion group exploring implications of the thought of Michael Polanyi. Anyone interested can subscribe; contact Struan Jacobs (swjacobs@deakin.edu.au) who is the moderator. The address for the list is polanyi-list@deakin.edu.au

Minutes of the Business Meeting
November 23, 2002

1. Richard Gelwick's financial statement for the fiscal year ending in August (printed below) was presented by Phil Mullins. The statement was approved as submitted. According to Mullins' unofficial update (based upon some recent income and expenditures), the Society presently has approximately $1600 in our checking account and $2000 in savings.

2. The many contributions of the late Charles McCoy were held up in memory with thanks. The possibility was raised of giving to a fund in honor of Charles McCoy, but until other possibilities of gifts in honor of Charles are resolved (at Pacific School of Religion and the Graduate Theological Union), this seems premature.

3. Diane Yeager asked about the possibility of securing funding for gathering a small working group to explore some aspect of Polanyi's work (for example, Polanyi and process thought). The Liberty Fund and Lilly Foundation were mentioned as possible funding sources. The possibility was raised that one of our Polanyi Society meeting slots could be used for grant writing purposes.

4. General discussion produced the following possible topics for next year's Annual Meeting:

a) Persons we might invite (as in recent meetings featuring Haught, Clayton, and Goodenough): Ken Wilbur (a prolific writer on science and religion from Boulder, CO), John H. Brooke (Cambridge historian of science and a former Gifford lecturer), Luco J. van den Brom (professor of systematic theology at Groningen University), J. Wentzel van Huyssteen, (James I. McCord professor of theology and science at Princeton Theological Seminary) and Tom Ferraro (who knows Polanyi and Whitehead and is interested in philosophical foundations of sociology).

b) Because the next meeting will be in Atlanta, a number of Atlanta-related person/topics were suggested: The Center for Law and Religion (Mark Silk) is there, and the names of Lou Schwartz and Ira Peak were mentioned in connection with this topic. Several feminists at Emory who are interested in rehabilitating hierarchy could be encouraged to relate such ideas to Polanyi. The famous primate specialist, Frans de Waal and the biopsychologist Melvin Konner are there (and Konner might well be interested in the topic of reductionism). While these and other options are explored, a general call for papers will be sent to the membership.

Marty Moleski, S. J.
Secretary

POLANYI SOCIETY FINANCIAL STATTEMENT
September 1, 2001 – August 31, 2002

Beginning Balance in Checking   1908.24

Income
  From Interest   6.37
  From membership dues & gifts   2200.00

Total   2206.37

Total Balance + Income   4114.61

Expenses
  TAD 27:3   708.81
  Moleski-AAR, 2001   300.00
  TAD 28:1 and TAD 28:2   1455.91
  Mullins-Non-Profit Report   15.00

Total   2479.72

Year End Checking   1634.89

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Beginning Balance in Savings   1030.84

Income

  Interest   19.07
  Membership Dues & Gifts   1000.00

Total Savings Income   1019.07

Year End Checking   2049.91

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2003 Polanyi Society Annual Meeting--Call for Papers

This year's annual meeting of the Polanyi Society will in Atlanta November 22 and November 23, 2003. Our meeting will be held as an "Additional Meeting" in conjunction with the annual meetings of the American Academy of Religion and the Society of Biblical Literature. The request to the AAR/SBL for space is pending but again this year we anticipate having both a Friday night session from 9:00-11:00 p.m.and a Saturday morning session from 9:00-11:30 a.m.

As the minutes of the last Society business meeing reflect (p.4), there was considerable interest in continuing the recent tradition of devoting one annual meeting session to a special speaker whose work makes use of or has some parallels to Polanyi's philosophical perspective. However, efforts to organize such a session with some of the figures suggested have not been successful. The 2003 annual meeting will in all likelihood have two sessions that each can accomodate two papers and responses.

. A number of topics have been proposed over the last several years. The list below is not exhaustive, but is drawn from recent *TAD* calls for papers. Proposals on these or any other topic (including responses to a book) will be considered:

(1) Polanyi and Issues in Philosophy of Biology
(2) The Relationship of Personal Knowledge and Public Discussion
(3) The History of Polanyi Studies
(4) Michael and Karl Polanyi: A Comparison of Perspectives
(5) Agency and Meaning in Polanyian Thought
(6) Polanyi's Political Philosophy
(7) Teaching Polanyi and Polanyian Teaching
(8) Tacit Knowing and Psychology
(9) Polanyi and Whitehead
(10) Contradictions, Inconsistencies, Lacunae or Incongruities in Polanyi Texts
(11) Polanyi's Axiology

Proposals of up to 500 words in length or inquiries should be send (e-mailed preferred) to the address below by April 10, 2003.

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Professor Gowenlock on Michael Polanyi's Manchester Years

Tibor Frank

ABSTRACT Key Words: Michael Polanyi in Manchester; the history of Manchester University Chemistry Department; Professors Arthur Lapworth, I. M. Heilbron, A. R. Todd, E. L. Hirst, Hugh O'Neill, Tom Torrance; Polanyi as a teacher.

The following letters were written by the distinguished British chemist Professor Brian G. Gowenlock in response to Tibor Frank's article on "Networking, Cohorting, Bonding: Michael Polanyi in Exile," Tradition and Discovery *23:2 (2001-2002): 5-19. The two letters contribute to the history of the Manchester years of Michael Polanyi with interesting details concerning several of his colleagues and contemporaries. These informative comments by a former student of Michael Polanyi will improve our knowledge of the last years of Polanyi as a physical chemist.*

Soon after my article "Networking, Cohorting, Bonding: Michael Polanyi in Exile" was published in *Polanyiana,* 10, 2001/1-2, pp. 108-126 and *Tradition and Discovery* XXVIII, 2001-2002, No. 2, pp. 5-19, I received a most interesting letter from Professor Brian G. Gowenlock, a former associate of Michael Polanyi in Manchester (March 6, 2002). Upon receiving my answer, Professor Gowenlock continued to supply important information on Polanyi's Manchester years (March 8, 2002). Both confirming and supplementing my article, his letters need no comment.

Attached is the complete text of Professor Gowenlock's letters. I am grateful for his kind permission to publish them and for his additional efforts to collect further information:

Wed, 06 Mar 2002

Dear Professor Frank

May I introduce myself! I am a retired professor of chemistry and a former research student of Michael Polanyi. If he had not been invited to the Gifford lectureship and as a result changing his chair of physical chemistry for that of social studies in 1948 I would have been able to remain in Manchester as an assistant lecturer. Your account of the 1932 negotiations with Professor Arthur Lapworth were of considerable interest to me. I knew that MP had been approached and had turned down the offer of the chair but was unaware of the details of the offer. In particular I can never recall any mention having been made of a new building. The various buildings that were occupied by the chemistry department at that time were all 19th century and the physical chemistry research areas were all built in 1873. The major part of these where I worked were converted mathematics classrooms and not all of these rooms were provided with fume extraction cupboards. I can well understand that MP would have wished for something better. Lapworth was not in the best of health at that time, so I was told, and retired in 1935. The organic chemist who was appointed in 1933 was I M Heilbron who moved to Imperial College, London in 1938. His successor was A R Todd who moved to Cambridge in 1944 to be succeeded by E L Hirst who moved to Edinburgh in 1948. Polanyi was never the head of the department of chemistry. In his 15 years in Manchester Polanyi was a powerful influence upon his academic colleagues, co-workers and research students and I remain deeply indebted to him.

In the reference 34 of your paper you put a '?' before the name of Allmand. A J Allmand was a professor of physical chemistry in the University of London and an electrochemist of a high reputation. He was a colleague of F G Donnan, an active Roman Catholic.

Thank you again for your interesting article.

Brian G Gowenlock

Fri, 08 Mar 2002

Dear Professor Frank

Thank you for your kind reply. I now reside at 5 Roselands, Sidmouth, Devon, UK, EX10 8PB. I was a member of the Chemistry Department at the University of Manchester from 1943 to 1948 and my research under Michael Polanyi began in January 1946. The day to day supervision was provided in succession by two lecturers Charles Horrex (1946) and Ernest Warhurst (1947 - 8). Both of these men had been profoundly influenced by Michael Polanyi having commenced their research in 1933. From them I heard much of those pre-war years. Later in my first university post in Swansea I knew the Professor of Metallurgy, Hugh O'Neill who had been a lecturer in Manchester in the 1930's and who was a friend of Michael Polanyi. From him I learned of Polanyi's reaction to the purge of the Brownshirts in 1934. When I took up my chair in Heriot-Watt University, Edinburgh in 1966 I met Professor Tom Torrance of Edinburgh University and we soon found a common interest in Polanyi's writings. In my retirement (now aged 76) I still retain that interest and find *Tradition and Discovery* to be full of interest.

Those who knew Michael Polanyi in the Manchester Chemistry Department are a diminishing group but I think we all retain many memories and acknowledge his profound influence on our lives.

Please feel free to quote me as you have suggested.

Brian G Gowenlock

WWW Polanyi Resources

The Polanyi Society has a World Wide Web site at http://www.mwsc.edu/orgs/polanyi/. In addition to information about Polanyi Society membership and meetings, the site contains the following: (1) the history of Polanyi Society publications, including a listing of issues by date and volume with a table of contents for recent issues of *Tradition and Discovery*; (2) a comprehensive listing of *Tradition and Discovery* authors, reviews and reviewers; (3) information on locating early publications; (4) information on *Appraisal* and *Polanyiana*, two sister journals with special interest in Polanyi's thought; (5) the "Guide to the Papers of Michael Polanyi" which provides an orientation to archival material housed in the Department of Special Collections of the University of Chicago Library; (6) photographs of Michael Polanyi; (7) five essays by Michael Polanyi.

Remembering Charles McCoy
Phil Mullins

ABSTRACT Key Words: Charles S. McCoy and Michael Polanyi
This essay is an obituary notice for Charles S. McCoy, who introduced many to Polanyi's ideas and made creative use of Polanyi'in his scholarship.
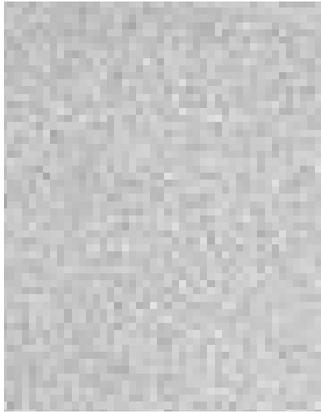
Charles S. McCoy, emeritus professor at Pacific School of Religion and Graduate Theological Union, died unexpectedly at his Berkeley, California home on November 3, 2002. Although he was 79 years old, Charles' interests, projects and commitments had declined little in the years after his retirement. Just a few weeks before his death, he discussed with me whether or not he would come to what he regarded as cold Toronto for this year's Polanyi Society annual meeting, as he had frequently done over the last 25 years. He simply hated to miss the discussion of any papers related to Michael Polanyi that looked promising.

McCoy was born in Laurinburg, North Carolina on June 27, 1923; he received undergraduate degrees from Presbyterian Junior College and the University of North Carolina, Chapel Hill. He earned a B.D. at Duke University and was ordained a United Methodist minister in 1945. For several years, he was a Navy chaplain and served as a pastor in North Carolina, Connecticut and Florida. In the early fifties, McCoy went to Yale for Ph. D. work; H. Richard Niebuhr and Robert Calhoun were his chief mentors. He graduated in 1956 with a dissertation on a topic in federal theology, "The Covenant Theology of Johannes Cocceius."

After teaching several years at the University of Florida, McCoy came to Berkeley's Pacific School of Religion in 1959 to establish a program in religion and higher education. McCoy remained in Berkeley until his retirement in 1992; his projects as an educator were numerous and innovative and I can briefly note here only a few. In the early sixties, he helped to found the Graduate Theological Union, one of the first ecumenical educational experiments, one that linked several seminaries in the San Francisco Bay area with the University of California, Berkeley. In the early seventies, he was a founder and director of the GTU's Center for Ethics and Social Policy, a center that worked on policy ethics issues with business organizations. Later, this venture led to helping establish similar centers in places like New York and to work on corporate ethics with groups like the Conference Board.

Although he was an academic, Charles McCoy was always also an activist, one guided by a social vision that called both for affirming and transforming institutions. In fact, he quibbled with one of his mentors H. Richard Niebuhr, about his readiness to be a change agent. From his early days at Chapel Hill and his time in Florida through his first years in Berkeley, McCoy was immersed in the civil rights movement. In the late sixties, he was deeply involved in Democratic politics. In the late sixties and early seventies, as campuses were revolting, McCoy was the faculty sponsor for a set of disgruntled students at Pacific School of Religion (sometimes then dubbed "Specific Tool of Religion") who set up an urban educational experiment in San Francisco. In the seventies, McCoy annoyed some students and faculty on the left by organizing, through the Center for Ethics and Social Policy, an ethics consulting program working with senior management at Wells Fargo Bank and Levi Strauss. In more recent years, McCoy worked with Korean United Methodists on a special education project in which he served as the president of a new institution.

In his forty plus years in the academy, McCoy produced a significant and strikingly diverse body of scholarship. I cannot here do more than allude to some of his interests and publications. Early in his career there were books and articles treating religion and higher education. Perhaps the most important was *The Responsible Campus* (1972). McCoy was steadfastly an opponent of talk of Christian uniqueness insofar as that prevented appreciation of the rich pluralism of belief and openness to the many possibilities for God's action in an ongoing, changing creation. Matters concerned with religion in the university and the church-related college were matters of applied theology for McCoy. That is, questions about religion and education were, for McCoy, inseparably connected to questions about theology and theological method. From the sixties until 1980, McCoy wrote and rewrote his book on theology, which was finally published in 1980 as *When gods Change: Hope for Theology*. It is an odd book that perhaps suffered from too many rewrites. But it is also an insightful book whose constructive contributions to theology never got their due. The federalist theology that McCoy studied as a graduate student provided the overarching framework for his own work as an ethicist and theologian. *Fountainhead of Federalism: Heinrich Bullinger and the Covenantal Tradition* (1991), written with J. Wayne Baker (which included a translation of a 1534 Bullinger treatise), was a significant publication that shows McCoy as a careful historian. *Management of Values: The Ethical Difference in Corporate Policy and Performance* is a 1985 book that reflects over a decade's work (in the projects of the Center for Ethics and Social Policy) with large organization*s*. Stimulated by his late wife Marjorie Casebier McCoy, literature and the arts also figured in McCoy's array of scholarly publications and projects.

What I have omitted from this cursory survey of interests and scholarship is Charles' ongoing interest in the ideas of Michael Polanyi. I, like many others over the last forty years met McCoy as a teacher; one of his regular cycle of PSR/GTU classes focussed on Polanyi's thought and every class, whatever the topic, included some link to Polanyi. Just last spring in his tenth year after retirement, McCoy taught a GTU seminar with Doug Adams advertised as "Polanyi: Arts/Ethics/Theology." Like William Poteat at Duke, McCoy was throughout his life an indefatigable Polanyi evangelist from whom generations of students picked up an interest in post-critical thought. McCoy was a provocative and sometimes gifted teacher. He was good at shifting responsibility for education to students who were assigned to do such things in class as "summarize the main points and raise some questions about Chapter 4 of *PK*." He was patient with paltry student achievements and willingly supplemented the efforts of those who confessed perplexity. In his pedagogy, he put to good use his sense of humor and other convivial elements. But he also could systematically set forth pointed criticisms and often did so in discussing much modern philosophy and theology. In any class, he made many, often unconventional, linkages: Agatha Christie's approach to solving crimes was a tool to explain Plato and Plato was vehicle to explain covenants and covenants became a central notion to illumine Polanyi's tacit dimension.

McCoy discovered Polanyi early. He first read *SFS* in 1957 at the suggestion of a colleague at the University of Florida who recommended that he read Karl Polanyi and then, as an afterthought, suggested he might also be interested in Michael Polanyi.[1] McCoy then read *PK* after it came out in 1958. He quickly saw the affinity between Polanyi's ideas and the interests he had developed in the Bible, federal theology and the theology and *cathekontic* ethics of his mentor H. R. Niebuhr. In fact, McCoy was excited enough after reading *PK* that he wrote Niebuhr about the book and found that Niebuhr already had discovered *PK* and found Polanyi's ideas an interesting complement to his own.[2] After McCoy came to Berkeley in 1959, he had a number of opportunities to meet and talk directly with Polanyi. Polanyi gave the McEnerney Lectures at UC, Berkeley in February of 1962. Polanyi spent 1962-63 at the Center for Advance Study in Palo Alto and McCoy visited him several times there.[3] Polanyi visited McCoy's graduate seminar on Christianity and Contemporary Intellectual

Movements, a class in which Richard Gelwick was a student [4] McCoy became the first reader for Richard Gelwick's dissertation on Polanyi (the first on Polanyi's non scientific thought) and Gelwick worked with Polanyi in Palo Alto as well as with McCoy. McCoy and Gelwick arranged the February 1963 meeting and discussion between Polanyi and Paul Tillich. Polanyi came to Pacific School of Religion in April 1963 to give an address titled "Science and Religion: Separate Dimensions or Common Ground."[5] McCoy may also have met with Polanyi in later visits to the Bay Area such as his January 1968 visit for three lectures at UC, Berkeley;[6] he also visited Polanyi in Oxford on more than one occasion.

After discovering Polanyi's philosophy and being on the scene as Polanyi refined his ideas in the sixties, McCoy more and more adopted a Polanyian idiom to articulate his own theological and ethical vision. Polanyi's thought became the epistemological glove that perfectly fitted McCoy's federalist and Niebuhrian theological hand. Despite the diversity of his intellectual interests, there is coherence to McCoy's thought and Polanyi's work in some ways helped provide that coherence. In the special issue of *TAD* focusing on McCoy's thought, published in the summer of 1998, McCoy identified himself as a post-critical Christian federalist.[7] The issue explored the meaning of this appellation, showing the creative ways in which McCoy appropriated Polanyi and combined Polanyian ideas with other themes. I shall not try to chart that exploration again here. But I do (somewhat immodestly) recommend, as insightful, the reflections of the authors of the four essays in this issue, Gelwick, Adams, Mullins and Rolnick, who represented about 25 years worth of Polanyi-oriented McCoy graduate students.[8] Likewise, for anyone who wants to see McCoy's Polanyian applications in living color, I recommend the several essays he contributed to *TAD*, especially his address from the 1991 Polanyi conference at Kent State[9] and his essay included in the special issue on ethics published just two weeks before he died.[10]

With one of his favorite teachers Johannes Althusius, McCoy saw persons as symbiotes, social companions immersed in and constituted by our conversations with predecessors and contemporaries, and directed toward successors. Certainly Charles McCoy's voice will be missed in the gatherings of the Polanyi Society, but of course his influence will continue to be a part of the conversation.

Endnotes

[1] See McCoy's discussion in his essay "The Postcritical and Fiduciary Dimensions in Polanyi and Tillich," *TAD* 22:1(1995-96): 5-6.

[2] Phil Mullins, "Historical and Textual Notes on H. Richard Niebuhr and Michael Polanyi," *TAD* 24:1 (1997-98): 20-21.

[3] *TAD* 22:1 (1995-96): 6.

[4] This detail is noted in the 1999 draft of William Scott and Martin X. Moleski, S.J., *Michael Polanyi: Scientist and Philosopher,* p. 392. On several occasions, I heard a story from McCoy about at least one other Polanyi visit to a McCoy class on Polanyi, a visit in which McCoy was somewhat embarrassed by one of his beginning students who presumptuously instructed Polanyi on several points; what delighted McCoy was that Polanyi took notes.

[5] See also Richard Gelwick's account in "The Polanyi-Tillich Dialogue of 1963: Polanyi's Search For a Post-Critical Logic In Science and In Theology," *TAD* 22:1 (1995-96): 11-13. Polanyi's 1963 PSR address was published in *Philosophy Today*, VII (Spring, 1963), pp. 4-14.

[6] Scott and Moleski, 426.

[7] Charles S. McCoy, "A Response to the Essays On My Thought" *TAD* 24:3 (1997-98): 45.

[8] Richard Gelwick, "Faith as a First Principle in Charles McCoy's Theology and Ethics," 29-40; Doug Adams, Charles S. McCoy, "Orphic Sleuth of the Seminary As School of the Dance," 41-43; Phil Mullins, "Permutations of Post-Critical Thinking: Themes in Charles McCoy's Life and Thought," 5-14; Philip A. Rolnick, "The Innovating Covenant—

Exploring The Work of Charles S. McCoy," 15-28.

[9] Charles S. McCoy, "The Polanyian Revolution: Post-Critical Perspectives for Ethics," *TAD* 18:2 (1991-1992): 33-39.

[10] Charles S. McCoy, "Ethics For the Post-Critical Era: Perspectives from the Thought of Michael Polanyi." *TAD* 29:1 (2002-2003): 6-21.

Notes on Contributors

Dale Cannon (cannodw@wou.edu) is Professor of Philosphy and Religious Studies at Western Oregon University. He did his PhD under William H. Poteat at Duke University and is the author of many articles on Polanyi and Polanyi studies in *TAD* and *Polanyianna* as well as articles on other subjects in other professional journals. His *Six Ways of Being Religious: A Framework for Comparative Studies of Religion* was reviewed in an earlier *TAD* issue. Dale will be retiring from teaching at the end of the current academic year, but plans to remain active in the Polanyi Society and intends to do some further writing. He welcomes contact from persons interested in the issues posed by his article in this *TAD* and also from persons having ideas concerning a Polanyi reader and/or who might be interested in helping put such a reader together.

Tibor Frank is Professor of History at Eötvös Loránd University, Budapest, Hungary. His main field of research is transatlantic studies, currently focusing on U.S.—Central European political, diplomatic, social and cultural interactions between the mid-19th and the mid-20th centuries. He has edited thirteen books and authored seven others including *Ethnicity, Propaganda, Myth-Making* (1999), *From Habsburg Agent to Victorian Scholar: G. G. Zerffi 1820-1892* (2000), and *Genius in Exile: Professional Immigration from Interwar Hungary to the United States* (2002). He has, since 1987, been a visiting professor in the US on many occasions, most reently in 2001, he was Visiting Professor of History at Columbia University in the City of New York.

Phil Mullins has been the editor of TAD since 1991. He studied with Charles McCoy from 1969 until 1976 and worked at the Center for Ethics and Social Policy, where McCoy was Director, from 1974 until 1978.

Maben W. Poirier (poirmw@vax2.concordia.ca) is an associate professor of political philosophy at Concordia University (Loyola Campus) in Montréal, Québec.

David Rutledge is Professor of Religion at Furman University, Greenville, SC. He has published on Michael Polanyi's thought, on religion and science topics, and on religion and environmental topics (*Humans and the Earth: Toward a Personal Ecology*, Peter Lang, 1993).

"Conquer or Die"?:
Intellectual Controversy and Personal Knowledge[1]

David W. Rutledge

ABSTRACT Key Words: Michael Polanyi; *Personal Knowledge*; Gadamer; Placher; intellectual controversy;community; tradition; foundationalism; anarchy; conversation.
This article examines the subject of intellectual controversy in Michael Polanyi's thought, particularly in Personal Knowledge*, sketching the reasons for disputes, obstacles to solving them, and strategies for overcoming these obstacles. It concludes with a focus on the role of tradition and community in Polanyi, using suggestions of H.G. Gadamer and W. Placher.*

This paper examines some aspects of the encounter of rival conceptual frameworks as they appear in Michael Polanyi's thought, especially in *Personal Knowledge*.[2] I will argue that Polanyi's "big book" stresses the *obstacles* to resolving intellectual disagreements, partly because of his polemical situation, and partly due to the nature of intellectual argument itself.[3] I will then argue that Polanyi's understanding of tradition and community contains resources, sometimes implicit, that can help *resolve* such disputes when appropriate, by using suggestions from Hans-Georg Gadamer via William Placher.

This might seem a foolish task in that so much of *PK* concerns this theme of intellectual disagreement: he warns us in the Preface, for example, that "any particular commitment can be challenged, but only on the grounds of a rival commitment. The only question is, then, how a particular set of beliefs can be justified. Three-quarters of this book serves to introduce my answer" (x). Consequently *PK* is full of discussions of intellectual controversies – the critical vs. the post-critical, the objectivist ideal vs. personal knowledge, a Marxist vs. a free society – and Polanyi is working on every page to establish his views against a hostile orthodoxy. But though it may be difficult to extract this particular issue from *PK*, where it is so closely entwined with every other issue, it is an important topic that demands the effort.

While questions about intellectual controversies have been a penumbra behind my thinking for a long time, they emerged into the foreground not long ago in a student in one of my classes. A brillant young woman, a winner of the Scholarship Cup as the top academic graduate of her class, a biology major with a strong religious faith, and a member of my "Religion and Science" class, revealed serious reservations about certain parts of the theory of evolution. All term we struggled together to find just what it was that bothered her in evolutionary theory, and how those concerns could be accommodated in her religious faith. We were successful mainly in agreeing that the conversation and the struggle needed to continue, and she went off to mission work in Brazil after graduation, to the horror and incomprehension of her science professors. But how, I kept asking myself, could this young woman --or anyone else, for that matter --move from allegiance to one perspective to allegiance to a new and at least partially different perspective? This experience started a train of thought that has gradually broadened to include a number of contemporary intellectual discussions.

Most of western philosophy, particularly since the Enlightenment, seems to answer a clear "yes" to the question of whether or not it is possible for intelligent people to understand rival ways of looking at the world adequately enough to judge between them as to which way is intellectually most satisfying. Nevertheless,

significant challenges to this answer have arisen over the past fifty years in debates about religion in academia; in debates in the U.S. between conservatism and liberalism, in Middle East debates between Jews and Palestinians and in many other debates This issue can be seen in the philosophy of science in the various challenges to naive realism by persons such as Thomas Kuhn, Russell Hanson, Paul Feyerabend, and Polanyi, all of whom questioned confidence in a universal rationality whose parameters could be clearly mapped, and whose borders one could cross by making an explicitly logical transaction.

A representative formulation of the problem is Peter Winch's discussion of the alternative world-views of a primitive African tribe (taken from Evans-Pritchard's work on the Azande) and a western scientific community – that of medicine – in which he asserts that these views could *not* be compared and evaluated in an absolute, straightforward way that would allow one to decide which was more "rational" or "logical" than the other.[4] The terms "rational" and "logical," he claimed, gain at least part of their force from the cultural matrix of values and assumptions in which they are embedded.

In recent decades, numerous thinkers from Wilfrid Sellars and W.V.O. Quine to Kai Nielsen and Charles Taylor have reflected on aspects of this issue, and it has become a concern of various postmodern schools of thought (feminist theory, the social study of science, post-colonial approaches to literature, among others). The question has become pressing in at least two areas of theology: discussions of religious pluralism (can one affirm the truth of say, Christianity, while at the same time allowing for the possibility of truth in a non-Christian tradition?), and religion/science discussions of whether the language of "creation" can make sense if one also uses the language of "evolution" – this issue my student was struggling with in my class. I certainly will not be addressing all of these aspects of the question, but mention them as a reminder that this problem is a central one of current intellectual life, and so worthy of wrestling with. Rather than attempt a complete mapping of "conceptual disputes" in *PK*, I want to focus on the angle from which Polanyi saw this question, in the discussion of which many additional features of Polanyi's thought will be mentioned.[5]

I. Why Argue?

Why do intellectual controversies arise? In the first philosophy of science I read as a student, they arose very little.[6] This traditional, textbook view of science sees it asking a series of "small questions" which can be answered through experiment or measurement. "In this way," the orthodox view claims, "through the cumulative efforts of many workers, a body of verifiable facts will be built up which will then allow the framing of slightly bigger questions. This is a long process and entails much work, but it allows a steady accretion of facts on a firm foundation of verifiable observations."[7] Here science progresses inexorably, organically, or, to use more recent metaphors, mechanically, with the inevitability of a calculator.

PK, by contrast, is full of stories of scientific controversies, of bitter arguments between distinguished scientists, of angry exchanges and damaged careers, and this is the first distinctive thing to notice about Polanyi's thoughts on the subject. From beginning to end, Polanyi discusses personal knowing using examples drawn from scientific disputes. The reason for this particular approach seems fairly clear, and has to do with his polemical situation; he was, of course, opposing the regnant objectivist view of science as inevitably inductive, automatically progressing by virtue of feeding facts into its method as one would feed data into a computer. Such a view naturally reduces the role of the individual scientist to that of a careful technician, a bureaucrat tending the machines of method, observation, experiment, and verification. It also reduces the moral or value component in science to invisibility. Polanyi's effort to restore the scientist and his or her values to the picture of science

led to his relative stress on the scientist as creative genius, working through discovery, revolution, and controversy to expand our vision of nature, under obedience to beliefs in a reality which called him, and in a community that upheld this quest. He argued that this was a more accurate account of how science actually works. And though his discussion is primarily in terms of scientific controversy, he makes clear his belief that his claims apply also to other areas of articulate culture.[8]

I find four reasons in *PK* that, contrary to the objectivist orthodoxy, considering rival conceptions of truth is an unavoidable part of intellectual life:

(1) At the most basic level, Polanyi argues, we are driven by primordial intellectual passions to continually make better sense of the world. Curiosity, "the joy of seeing things," and "an urge to see sense and make sense" are all "proper strivings" which reflect the "essential restlessness of the human mind."[9] Such innate drives promise to "enrich and enliven" us by extending our grasp of reality. We must argue because we are not made simply to receive the world passively.[10]

(2) We also are drawn into controversy because we are attracted by the "intellectual harmonies" of rival conceptions, by their appeal to our cognitive aesthetics. We cannot help appreciating their simplicity or regularity, their profundity or ingenuity — in short, their beauty. Polanyi does not recite these qualities as explicit criteria by which ideas may be judged, but as lures, as appeals to our minds that testify to the reality of the ideas containing them.[11] We consider abandoning our old ideas because new ones are so beautiful.

(3) Our traditional conceptions, by contrast, can come to appear shabby and inadequate: "…it is a fact that time and again men have become exasperated with the loose ends of current thought and have changed over to another system, heedless of similar deficiencies within that new system. There is no other way in philosophy than this…" (*PK*, 18). To support this claim, Polanyi recites examples from the history of science that illustrate the human propensity to judge rival theories *not* against Truth itself, or against some standard independent of both combatants, but comparatively, against each other, and in such a contest, the theory with fewest blemishes may win.

(4) And finally, Polanyi claims that our conceptions must change because the world is constantly changing around us, forcing us to acquire new maps to describe it. "Owing to the unceasing changes which at every moment manifestly renew the state of things throughout the world, our anticipations must always meet things that are to some extent novel and unprecedented" (*PK*, 103). Thus not only internal drives, and the condition of our disciplinary theories at a given moment, but also the external world, lead us to constant intellectual renewal.

Thus intellectual argument is unavoidable, even desirable, in a vital literate culture, testifying not to the irruption of the irrational into thought, but to the actual situations of thinkers who bring widely different commitments and experiences to their task.

II. Hurdles

Nevertheless, though argument between rival views might be a sign of a healthy intellectual community, Polanyi clearly felt it was not easy to resolve these disputes. I argue that the gravamen of Polanyi's approach to this question, which is scattered throughout the first three parts of *PK*, is found in the obstacles we encounter when we attempt to evaluate a competing system of beliefs. Though it approaches the subject from

the negative side, the structure of personal knowing and Polanyi's affirmation of the achievements of modern science are revealed in a tour of these obstacles:

(1) We find it difficult to move from one conceptual system to another because we have no independent, fixed framework from which to evaluate the two; we have only our own perspective, to which we are already firmly committed (*PK*, 151; 322). When I am buying a lawn mower, I can carry *Consumer Reports* into the store with me, and compare the various brands for sale. But there is no comparable guide for distinguishing better theories from good, which makes the task much more difficult. We long for such an objective guide, but must finally depend upon personal judgement, which is fraught with risk.

(2) From the perspective of personal knowledge, commitment to a particular articulate framework is made possible by indwelling myriad clues, the joint meaning of which is the framework endorsed. Since these personal co-efficients of a rival view are invisible to us, we have no way of entering easily into that rival framework, no way of seeing or understanding what its adherents do.[12] In effect, critics end up focusing only on parts of a system of ideas, which guarantees incomprehension: "All particulars become meaningless if we lose sight of the pattern which they jointly constitute" (*PK*, 57). Adherents of a view have the entire system in mind in its ultimate meaning, while critics are looking only at isolated particulars which make no sense to them, precisely because they are isolated from the whole.[13]

(3) As an accurate comprehension of a conceptual system requires a commitment to its reasonableness, a "logical gap" exists between the skeptic and a system of which he or she is suspicious. The very nature of discovery insures that there is no inductive path or bridge from one system to another: "And different systems of acknowledged competence are separated by a logical gap, across which they threaten each other by their persuasive passions." (*PK*, 318). "We have to cross the logical gap between a problem and its solution by relying on the unspecifiable impulse of our heuristic passion" (*PK*, 143), by which we accept the new vision of reality shown to us as real. The problem, however, is that not *believing* in the rival view makes it impossible to *understand* it: "…truth is something that can be thought of only by believing it." (*PK*, 305) Thus Polanyi countenances uncompromisingly the paradox that knowledge depends on anterior belief, which the critical tradition teaches us to distrust until the knowledge has been verified.

(4) Not only is a new conception of the truth difficult to enter in and understand, it is also resistant to our critical questions by virtue of the strategies of stability possessed by all articulate systems. Polanyi stresses three such strategies:

(a) circularity - by which he means the ability of the adherent to meet a new challenge by interpreting them by means of similar factors not now in question. In the manner of a dictionary, defining each word by reference to others not currently in view, science operates by an intentional circularity that reinforces itself constantly (*PK*, 288, 299).

(b) self-expansion (or "epicyclicality") - the elaborations of a system by which it is made to cover almost any conceivable eventuality. This almost-infinite flexibility of an intellectual system makes it quite difficult for a rival system to prove its superiority, as its criticisms of the traditional system are always being absorbed. (*PK*, 288)

(c) suppressed nucleation - by which the germination of rival views is denied by rejecting any grounds on

which they might take root. For example, the evolutionists may hold off the criticisms of scientific creationists by insisting that scientific explanations are only those which are published in mainstream, refereed journals, which they, of course, control. The same would apply to disputes within mainstream science, as well.[14]

To these more formal strategies of avoidance, we may add various other "apologetic" factors which scientists defending a traditional conception may employ (*PK*, 275). They may live at a time in which the state of science is simply not developed enough to allow the alleged theory to be credited, as happened with mesmerism in 19th century England. Or there may be important social or political factors which influence scientists to dismiss rival views, as happened to the French Academy in the 18th century when confronted with meteorites. Or finally, it may be simply that the style or method of the proponent of a new view is so foreign to the scientific community that his or her views are ignored.[15]

Thus there is a natural conservatism in intellectual life, which leads thinkers to maintain the stability of their conceptions against rival views: "Any contradiction between a particular scientific notion and the facts of experience will be explained by other scientific notions; there is a ready reserve of possible scientific hypotheses available to explain any conceivable event. Secured by its circularity and defended further by its epicyclical reserves, science may deny, or at least cast aside as of no scientific interest, whole ranges of experience which to the unscientific mind appear both massive and vital." (*PK*, 292)

(5) In addition to the difficulty of overcoming these powerful defenses of a conceptual system, the person attempting to evaluate it must acknowledge, Polanyi argues, that the criteria by which we evaluate a theory are finally ambiguous (*PK*, 166). Given that the rival view presents an accounting for the facts as reasonably as the orthodox view, and claims to be internally coherent, consistent with other views, and fruitful for further discovery, we are left with the need to judge between its "intellectual" attributes, of "simplicity" or "symmetry," or simply "beauty." Polanyi's radical answer here is that such judgement cannot render explicit proof for the superiority of one view over another, because the elements which must be judged are inherently ambiguous, as they are pseudo-substitutions for a sense of rationality that can only be gained in a personal apprehension of the theory's bearing on reality.[16]

(6) Another feature of intellectual conflict that makes its resolution difficult is the cultural context of science, which Polanyi stressed in *Science, Faith, and Society*, published twelve years before *PK*. Against the ruling view of the time that saw science as an explicit structure of laws, theories, and procedures, Polanyi carefully described the many social dimensions of science: universities and the master-apprentice relation in which scientists are trained, research teams, professional societies and journals, funding agencies, and authority structures, all of which work together to maintain the vitality of scientific thought. Though *PK* does not examine this social dimension in the same way, it presumes its importance: "…scientific value must be justified as part of a human culture extending over the arts, laws and religions of man….Young men and women brought up in this culture accept it by pouring their minds into its fabric, and so live the emotions which it teaches them to feel. They transmit these emotions in their turn to succeeding generations, on whose responding fervour the edifice relies for its continued existence" (*PK*, 173-74; see also pp. 203-245).

The point of this cultural rootedness of science is that it makes the evaluation of scientific claims difficult, because they are so closely intertwined with social, political, or economic features. In addition to the internal ambiguities of scientific judgements, and the personal factors which may influence given decisions,

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there are cultural contexts which impinge on the conflict situation, making it difficult to evaluate its claims to truth
.

(7) Finally, we should mention that controversies may also provoke fear, a threat of change that may lead the thinkers involved to act in less than rational ways: "We are shocked by the offer of an unfamiliar system purporting to be meaningful. When the public is pressed to enter the new framework so as to discover its meaning, their bewilderment turns into indignation. They are outraged by the respect paid to what seems to them deserving of contempt and angry at the implied contempt for their own standards of excellence….In such conflicts the two sides are actually fighting for their lives, or at least part of their lives." (*PK*, 200) And: "…we suffer when a vision of reality to which we have committed ourselves is contemptuously ignored by others. For a general unbelief imperils our own convictions by evoking an echo in us. Our vision must conquer or die" (*PK*, 150).

Here I should note that though Polanyi seems aware of the depths to which people can sink in such controversies (*PK*, 151), this does not seem to me to influence his thinking about knowing to a significant degree. His rationalistic, scientifically-oriented description of this process is optimistic in this regard. Here, perhaps, we see that, despite his acute observations about how scientists actually work, Polanyi stands quite apart from the "hermeneutic of suspicion" that we associate with postmodern attitudes from Marx to Nietzsche to Freud (and beyond), a suspicion that claims covert, unacknowledged strategies of survival really operate in intellectual discourse. Perhaps the difference between these positions is that Polanyi's suspicion is less ideological, and more "observational," than the theorists mentioned.[17] He would not deny that there is a "shadow side" to science, but he would deny that these shadows must necessarily obscure any and all knowledge of reality. Such shadows represent a failure of scientific thought, not its essential nature. In this respect, Polanyi is a reformer of the scientific tradition, not one who wants to overthrow it.

We should also note here that while Polanyi would not embrace conflict as the heart of science, he would also not affirm the resolution of conflicts as the center of science. One attempts to bridge the gap between different perceptions of the world because each perception is the result of acts of knowing that bring disparate particulars into a comprehensive unity which consititues their joint meaning. It is possible that my act of integration has missed particular facts that could alter the meaning which they jointly consititue. The history of science gives many examples of claims that prove premature, or incomplete, or which have a bearing quite different from what was originally sensed, or that are simply wrong. One must attempt to enter rival theories because the pursuit of truth demands it, knowing as we do that others may have seen aspects of reality of which we are ignorant. Because reality continually unfolds new vistas before us, science will never reach a point at which there are no conflicts to resolve, no differences of perspective to consider.[18]

Looking back on the many hurdles one must jump in order to move to an alternative framework, it is perhaps understandable that some critics saw Polanyi in *PK* as a radical relativist, denying the possibility of transfer across ideological lines.[19] The very history that informs and enlivens his account of personal knowing, however, argues against this view, for Polanyi was aware of many cases of successful intellectual reform, or even scientific revolution; indeed, these were his chief examples of genuises at work.[20] We must conclude, I think, that Polanyi's laser-like focus on the target of his polemic — a positivist orthodoxy that tried to banish all passion from science — is the most salient reason for his attentiveness to scientific controversy. This allows us to see this emphasis then, not as an essential, crucial feature of his philosophy, but as one feature to which he gives full attention in *PK*. Intellectual disputes, reflecting as they do our passion for truth, are necessary parts of

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scholarship, and owing to the reality and power of these passions, such disputes cannot be easily resolved or dismissed.

Disputation should be seen as a particularly vigorous aspect of intellectual growth, part of the struggle necessary to establish our convictions against challenges to them. Yet I would argue that *PK* also contains, less visibly, perhaps, impressive resources for overcoming many of the hurdles that stand between rival conceptions. Polanyi's last word is not fideistic or solipsistic, but hospitable, for he believes deeply in the integrative potential of a free society. To this we now turn.

III. Strategies

Engaging in the evaluation of rival views is unavoidable, yet there are significant obstacles to doing so. How can this task be responsibly accomplished? Believing that the weight of his thought is genuinely optimistic, what strategies, beyond the normal elements of intellectual discourse, do we find Michael Polanyi suggesting for successfully engaging with and evaluating rival conceptions? After noting those strategies mentioned in *PK*, I want to suggest that it is Polanyi's understanding of community, of tradition, and of "tacit knowing" that offer the proper context for addressing this issue. Here we must acknowledge, I think, that the "big book" of *PK* needs to be supplemented by other writings of Polanyi, chiefly by *Science, Faith, and Society* and *The Tacit Dimension*; while all of *PK* presumes the presence of the scientific community and its surrounding culture upholding the affirmations of science, these topics are dealt with only briefly, in a couple of sections of chapters.[21] First, however, what specific help do we find in *PK* for resolving intellectual disagreements of a fundamental sort?

(1) Most important on the grounds of personal knowledge is the need to present a new conception of knowledge in such a way as to gain the intellectual sympathy of the community: "Proponents of a new system can convince their audience only by first winning their intellectual sympathy for a doctrine they have not yet grasped. Those who listen sympathetically will discover for themselves what they would otherwise never have understood" (*PK*, 151). The grammar of Polanyi's remarks here is straightforward: we can only fully know what we can passionately affirm as true, as bearing on reality; therefore, to enter into a system of thought, I must be convinced in a preliminary way that it is worthy of my commitment.[22] Only by placing myself within the system, upholding its claims by my own affirmations of its value, will I be in a position to experience the heuristic passion which will carry me across the logical gap that separates this new conception from my old. In opposition to the critical tradition of beginning with an attitude of doubt, Polanyi argues that true intellectual growth can only begin with sympathy, with respect.

(2) A second way in which intellectual disputes may be rendered less intractable is to apply the technique of *compensation* (*PK*, 135-39). After stating that the scientific value of any conception is a joint result of three factors – certainty, systematic relevance, and intrinsic interest – Polanyi notes that "the three criteria apply jointly, so that deficiency in one is largely compensated for by excellence in the others" (136). He then goes on to give numerous examples, including the theory of evolution, the work of Tycho Brahe, Wohler's synthesis of urea, the discovery of a living coelacanth, Pasteur's work on spontaneous generation, and Freudian psychoanalysis, of scientific developments that lacked one or another of the factors mentioned, but were yet accepted as important discoveries or proposals. Science compensated, usually unconsciously, for a lack of scientific value in one area, by stressing those merits a new conception *did* have, and such judgements are

personal assessments of leading scientists that can not be explicitly formalized. Here we see a strategy that can be used to maintain the stability of a belief against criticism used also to accept a new theory that is not in every respect "kosher" by the normal rules.

(3) Analogous to such decisions, and underlying them at a remote distance, are the workings of perception that were clarified by Gestalt psychology. Here we find that in the most elementary acts of sense-making, the mind overlooks or represses anomalous facts in order to create a coherent view of things. Similarly, the scientist must often overlook occasional facts in the laboratory that could conceivably count against his conception of things, but which must be judged "anomalous," in order to prevent time being diverted from the primary tasks of the lab to diversions that will almost certainly prove trivial (*PK*, 138, 275-76). Such decisions rest on personal co-efficients of the scientist's knowledge of his subject, and cannot be reduced to an explicit rule. Likewise, we may propose that a rival conception should not be held to an artificially high standard of perfection in accounting for all possible facts, but that our attention be focused on the essential truth of its message.

These three strategies may serve as illustrations from *PK* of the often unrecognized ways of resolving intellectual controversy. But I want to turn now to a different level of discussion, and try to get out the root reason that Polanyi can be optimistic about intellectual change, the underlying reason we might label him a contextualist, but not a relativist.[23] To do this I want to consider his thought on tradition and community in a preliminary way, and note the role of his theory of tacit knowing.

IV. Conversation in Community

Against the orthodox picture of intellectual controversy as a war of ideas, consisting solely of facts, propositions about those facts, conceptual systems composed of those propositions, and arguments concerning these systems, Michael Polanyi situates intellectual debate within human communities, the members of which uphold the traditional values of these communities even while engaging in conversations which might change those values.[24] Let me begin a consideration of this by laying out the cluster of items in his perspective.

At the center is reality, which all our intellectual strivings attempt to comprehend at a steadily deeper level and in broader scope. I say "reality" with a small 'r' because Polanyi is a critical realist, aware that we can never attain a complete grasp of reality, and that our purchase on it is always somewhat tentative, because new experiences will undoubtedly lead us to revise our view of it.[25] Nevertheless, we can be confident of our claims about reality, claims that will be substantiated, we believe, in unforeseen ways in the future.
So human knowledge is genuine, but not complete or certain. It is personal.

Polanyi sees *striving* as a given of human life. We are incorrigibly restless, searching, curious, open to wonder. This root attitude or posture, which we share with all sentient life, becomes with language the source of all our articulate intellectual systems, from mathematics to art to religion.

Our striving engages with the world and constructs accounts of it, all involving a personal, tacit coefficient. This personal element is passionate, even at the highest levels of abstract thinking (mathematics), and the passion is a sign of our belief that we are in touch with reality, that we are seeing things that really are (even if not, "*as* they really are"). To state our reasons for knowing something, is to acknowledge the beliefs

which make such knowledge possible. Knowing is acknowledgment: "…the process of examining any topic is both an exploration of the topic, and an exegesis of our fundamental beliefs in the light of which we approach it; a dialectical combination of exploration and exegesis" (*PK*, 267).

This is a description of what we are doing when we evaluate competing intellectual systems on Polanyian grounds, and we can make its distinctiveness clearer by contrasting it briefly with the critical or objectivist perspective against which he argued. From that point of view, one subjects each competing system of ideas to a careful verification, assessing its conformity to the data, its internal consistency, its coherence with already established knowledge, and its fruitfulness for future discovery. This is done by consulting the published results of experimentation, of quantification of the data, of corroboration of the data by other experiments, and of casting of the results into a mathematical formulation – that is, by consulting the explicit forms of the claims being made. Having assessed each perspective in this way, one can then choose to affirm that view which has the highest "score" on these specific criteria.

What are the problems with such a procedure from Polanyi's perspective? First, it assumes one can stand outside both systems, and yet understand and evaluate each of them fairly. It assumes both systems can be evaluated according to the same set of criteria, in essentially the same way. It assumes the application of criteria to the system can be done formally and explicitly, in a way agreeable to everyone (including the adherents of both systems). Basically, the critical view assumes that concepts are free-standing, and can be made unambiguous with a little effort and care, so that one can evaluate them side by side in a straightforward way, like evaluating two types of carburetors to put in one's automobile.

Such an approach rarely works satisfactorily, and never works for deep conflicts. That is, adherents on both sides are not satisfied that the evaluation has been fair, and no one seriously contemplates surrendering their view for the other. The conclusion is that the evaluation process somehow doesn't engage the issues, that it is working on a different plane of thought than the adherents of the two views (or at least, different from one of them). (Consider, as an example, adherents of evolution and of scientific creationism.)

The virtue of Polanyi's approach is that he explains *why* such dissatisfaction exists, by "deconstructing" the critical ideal behind the evaluation procedure sketched above, showing that it is in fact impossible to do what it recommends. More precisely, while it is possible to evaluate conceptual systems by using the criteria mentioned above, such an evaluation does not lead to the clear-cut, equivalent comparison assumed by the critical paradigm, and so cannot render a decision for or against a particular view.

Of the many differences between the Polanyian and the objectivist views, I suggest that one of the most fundamental is Polanyi's "ecological" procedure in stressing the interconnectedness of all our thoughts and beliefs, their wholeness and mutual relationships, their network of implied meaning. The understanding of any one part necessarily involves an examination – to some degree – of the whole. To use a metaphor, objectivism wants to cut a pattern of ideas out of the whole cloth into which they are interwoven, and evaluate the pattern as this isolated piece. Once one decides on the logical soundness of the pattern, it is then sewn back into the cloth, allegedly making the cloth stronger. Polanyi's response is that we cannot "cut out" a portion of our ideas from the whole cloth of "articulate culture" without doing damage both to the portion and to the whole. The very pattern we are trying to evaluate literally unravels when torn out of the cloth. Or, in another analogy, this would be like pulling up a plant to examine its roots, and then assuming we can just stick it back in the ground and it will be fine, just like it was before, or even stronger because it has now been "verified."

These references to "ecology" and "whole cloth" imply once again the communal home of intellectual knowledge, and I want to say a few particular things about the communal, traditional ethos out of which Polanyi's thought moves. I can be most efficient by employing an essay of Dale Cannon on this theme.[26]

First, knowledge and community are reiprocally related, for, on the one hand, the way we know a comprehensive entity is through indwelling that entity through its particulars, and this is also the way in which we know other minds.[27] Thus an intellectual community is formed in the conviviality of those who share a focus on the same comprehensive entity.

Second, personal knowledge is thoroughly communal in being grounded in the beliefs of a community which accredits the knower's individual passionate affirmations. We claim to know a truth about the world because we have apprehended a reality which transcends our individual self, and it is the convivial order of those who share our values that accredits that claim: "The learner, like the discoverer, must believe before he can know. But while the problem-solver's foreknowledge expresses confidence in himself, the intimations followed by the learner are based predominantly on his confidence in others; and this is an acceptance of authority" (*PK*, 208).

Third, the traditional roots of personal knowing are revealed in the way in which our intimations of reality are received and then passed on to future generations, the first as students, the second as mature knowers.[28] Polanyi is persuasive that the educational background of intellectual life, which is a network of trust and obedience, is a logically necessary antecedent to the free thinking of the genius.

Fourth, our knowledge of reality is always only partial: "This view of science merely recognizes what all scientists believe – that science offers us an aspect of reality, and may therefore manifest its truth inexhaustibly and often surprisingly in the future."[29] Consequent upon this is that reality is "capable of revealing itself to an indefinite multiplicity of further viewpoints in unexpected ways" (Cannon, 8), and we are therefore dependent on others for the truths we receive, and those we explore. Our affirmations are but one thread in the cloth of knowledge, and depend upon others for completing this task, making the cloth a tapestry.

And finally, we overcome the threat of subjectivism in affirming our vision of the real with universal intent, depending upon future generations, yet unborn, to confirm the rightness of our work. Not only are we indebted to the past through our education, and to the worldwide community of seekers for the present state of knowledge, but to the future for exploring the implications of our affirmations into new discoveries of their own, thus confirming our beliefs.

Having traced in schematic form Polanyi's picture of knowledge embedded in community, I have to show finally how this communality of personal knowing helps resolve the struggle between competing systems of thought. Taking a clue from William Placher, I suggest that particular communities provide the appropriate place to begin conversations between competing ideologies, and that Polanyi is therefore exceptionally helpful in a pluralistic setting which is yet rife with suspicion.[30]

The predominant tendency in the western tradition has been toward identifying a universal "calculus" of value by which all disagreements could be adjudicated. Whether Plato's forms, or the revealed doctrines of Christianity, or the Scientific Method, or the Universal Reason of the Enlightenment, these standards were

believed to be clear to all rational people of good will, and served to demarcate acceptable from unacceptable ideas. Beginning in the nineteenth century with Marx, and continuing with the works of Kierkegaard, Darwin, Nietzsche, and finally Freud, a reaction to such monolithic standards set in; this reaction claimed that such standards cover up, under the guise of Truth, merely personal interests: economic power, or biological drives, or the desire for power, or instinctual needs. Lately, "political interests" have been added to the list of suspect motives, so that in the academy, at least, a claim to universal truth is usually quickly dismissed as dishonesty, and its details rarely examined. In such a climate, how does a person sustain his or her convictions, and how evaluate the convictions of others?

One promising suggestion is to avoid both the universalizing claim of absolute standards (or foundationalism), and the anarchy of cultural atomism, by the modest affirmation that intellectual discourse should begin where it always has, in the traditional communities in which people stand. Beginning *in media res* allows one to bracket the universal questions that so often end discussion even before it begins, and focus on the specific views which people hold in common – and there are always some. I do not need to know "the ultimate principle upon which my values lie" in order to talk with you about why I think gun control is a good idea, or why I think drilling for oil in Alaska is a risky idea, or why I think Nintendo is an acceptable risk in child raising. You will probably share some of my ideas, and reject others, but we will have little difficulty finding ways to talk about our conceptions in a way that is illuminating to both of us. These views do not float around in our minds, disengaged from other beliefs. If we stay at it long enough, we will find connections between these particular views and other, more basic values. Such connections, however, do not have to form a perfectly logical network of systematic claims, and our conversation can succeed in being meaningful and helpful without tracing these connections at all.

What we find when we are not under the spell of Universal Absolutes is that where we come from, and how we grew up, and where we studied, and our experiences, and the books we've read all contribute to a network of views that support our lives reasonably well. While we would all like, perhaps, to be more consistent and principled in living out what we believe, we feel fairly confident that our convictions *do* affect our behavior in tangible ways. Thus the tradition to which we belong, and the communities we participate in, provide a context within which meaningful intellectual activity can begin. Alasdair MacIntyre describes a tradition as "a historically extended, socially embodied argument," and in this sense we can affirm our tradition as having both past and future – it provides beliefs which have shaped us, but it can also develop and change in accordance with changes in historical circumstance.[31]

The fact that my father moved from his rural home to a coastal city during World War II so that he could work in a war-related industry (he was deaf in one ear from a hunting accident) meant that my family tradition was markedly different from that of my country cousins, with whom, nevertheless, I share a great deal. My choosing to be a college religion professor means that the family tradition which has shaped my sons is quite different from that which has shaped their cousins, whose fathers went into construction and into banking. And we could also note the significant ways in which my values have been molded by living through the Civil Rights movement and the Vietnam War, rather than the Great Depression and World War II, which so marked my parents. Though we were raised in the same household – in the same *room*, for several years! — I became a conscientious objector while my brothers went off to a military college. In these ways and a thousand others, each person is both given a set of beliefs and convictions, *and* taught unconsciously that traditions contain within them conflicting points of view, and so can change, can be reformed.[32] It is even the case, Gadamer argues, that the very prejudices, biases, and assumptions of a tradition, those "flaws" that the Enlightenment sought to

eradicate, are the necessary starting points for serious discussion, revealing as they do my ultimate convictions, and the confusions in those convictions.[33]

One of the reasons, Placher suggests, that traditions have epistemic importance is that they tell stories, narratives that place events and beliefs in a causal perspective, telling us why people now think as they do. This is one reason, it seems to me, that *PK* is so powerful: it tells the story of how reason went awry in the western tradition, and so explains why our philosophical views are so confused. Tradition may not be alone in caring about such things, but it is certainly a major source and inspiration for such insight.

Communities are groups of people who share a tradition, and who share common interests and concerns. Conversations begin at intersections of interests, where people find these shared concerns, and have enough tradition in common to understand one another's speech. Like knots in a net, these nodes of conversation connect us to other interests and concerns, so that genuine conviviality can develop. Polanyi's identification of certain characteristics of community may seem somewhat artificial, in that his focus was on the community of scientists. Reflection reveals, however, that those characteristics are broadly applicable to society at large and to other kinds of community, both intellectual and social.

Each person enters a conversation standing in a certain place, which gives him or her a particular angle of vision, and a particular "horizon of meaning."[34] As conversation continues, one's horizon changes, expanding or, perhaps, contracting, as one's conceptions of the world are altered. Discovery occurs when there is a "fusion of horizons," and meaning is transferred from one person to another. This seems to me quite similar to the "logical leap" which Polanyi posits as one moves from a previous conception of the world to a new one.[35] Thus conversation in community offers a setting in which rival conceptions of the real may be shared, without precluding the free consideration of each by those speaking. True, traditions can be oppressive, and one's past can enslave, rather than liberate, so this model of intellectual dialogue would have to be worked out further.[36] There seems no reason, however, that these dangers in tradition must be greater than the dangers of cultural anarchy or fanaticism. We must begin, after all, as adults who have grown up within a particular tradition; there is no other way to begin. We reach full maturity when we realize that standing within a tradition is the most powerful possible place from which to criticize that tradition, to reform it, to challenge it to live up to its most noble beliefs. For Michael Polanyi, this is just where we all stand, and so we can engage in intellectual debate with confidence that we are not faced with a false alternative of "conquest or death," but with a "hazardous opportunity for making some progress of our own towards an unthinkable consummation" (*PK*, 405).

Endnotes

[1] Thanks to Dale Cannon and an anonymous reviewer for perceptive criticisms of this paper. The faults that remain are entirely those of the author.

[2] Unless otherwise noted, all my references are to the Harper Torchbook edition of *Personal Knowledge* (1964), abbreviated *PK*. Polanyi uses a variety of terms to refer to a set of ideas, most commonly "conceptual framework" (*PK*, 151), "system of beliefs" (171), and "articulate framework" (195). He also speaks at times of "conceptions" (47), "perspectives" (59), and "speculations" (109), among others.

[3] Gerald Holton remarks that Polanyi referred to *PK* as his "big book." "Michael Polanyi and the History of Science," *Tradition and Discovery*, XIX:1 (1992-'93): 16-30; see p. 24.

[4] The original essay: Peter Winch, "Understanding a Primitive Society," in B. R. Wilson, ed., *Rationality* (Oxford: Blackwell, 1970): 78-111. A good overview of the discussion can be found in William C. Placher, *Unapologetic Theology:*

A Christian Voice in a Pluralistic Conversation (Louisville: Westminster/John Knox, 1989): 55-73. See also John Thiel, *Nonfoundationalism*, (Minneapolis: Fortress Press, 1994).

[5] Some of the most important features of such a map would include intellectual passions and their role in evaluation of ideas; contact with reality as the final grounding of any theory; various signs or criteria of truth (simplicity, profundity, regularity, etc. as forms of "intellectual beauty"); the communal nature of knowledge; the nature of the "logical gap" that separates rival conceptions. This paper is the first part of what I hope will be a longer project on this subject.

[6] This was Carl G. Hempel, *Philosophy of Natural Science*, Foundations of Philosophy series (Englewood Cliffs: Prentice-Hall, 1966).

[7] The quote is from Irwin Fridovich, "On Getting Close to Truth: A Scientist's Approach," in the "How to Think Straight Series," *Duke Alumni Register*, Duke University, Durham, North Carolina, Volume 69, No. 1 (September-October 1982), p. 28.

[8] *PK*, 48, 102-04, 133-34, 142, etc.: "More generally, science, by virtue of its passionate note, finds its place among the great systems of utterances which try to evoke and impose correct modes of feeling. In teaching its own kinds of formal excellence science functions like art, religion, morality, law and other constituents of culture." (133) In his later writings, especially those in *Meaning* (1975), we see Polanyi attempting to apply these insights across culture generally.

[9] See in *PK*, for example, Ch. 5 on "Articulation," pp. 69-131 (esp. pp. 98 and 103), and p. 198.

[10] Lewis Thomas has argued something similar in "On the Uncertainty of Science," *Harvard Magazine*, (September-October 1980): 19-22: "I am willing to predict, uncertainly, provisionally, that there is one central, universal aspect of human behavior, genetically set by our very nature, biologically governed, driving each of us along. Depending on how one looks at it, it can be defined as the urge to be useful."

[11] *PK*, pp. 16-17, 40, 43, 46, 48.

[12] See *PK*, pp. 30, 53, 57, 112-113, 158, and 197.

[13] I offer as an example of this Paul Edwards' famous article, "Professor Tillich's Confusions," in *Mind*, Vol 74 (1965): 192-214.

[14] Polanyi gives the example of the mathematician Cantor's innovations, which "were so repulsive to Kroneker, who dominated German mathematics in the 1880's, that he barred Cantor from promotion in all German universities and even from having his papers published in any German mathematical journal" (*PK*, 190).

[15] As happened, for example, to Rosalind Franklin during the development of the double helix structure of DNA. See James Watson, *The Double Helix* (NY: New American Library, 1968), pp. 20-21, 142-43.

[16] See especially pp. 160-171 of *PK*.

[17] Other obstacles not discussed here include the fact that one does not understand the language of a new conception, and so cannot understand it; the fact that the more we lay out a rival's claims explicitly, the less intelligible it may become, due to the personal co-efficients which are necessary to grant it intelligibility (*PK*, 119); that the authority of the community must be modified in order to accommodate a new conception, and such authorities are by nature conservative; and the fact that commitment to a belief about the world is undergirded by a convivial order, and developing such conviviality with our intellectual rivals is difficult (*PK*, 203, 21-211). Again, *PK* as a whole is a sustained statement on this issue.

[18] Dale Cannon pointed this out to me, indirectly, for which I am grateful.

[19] Though I have not attempted to make full use of his helpful volume, readers should note Andy Sanders' discussion of this issue in *Michael Polanyi's Post-Critical Epistemology: A Reconstruction of Some Aspects of 'Tacit Knowing'* (Amsterdam: Rodopi, 1988), especially in chapters 5 and 6.

[20] A partial list of the cases referred to is given by Polanyi in *PK* on p. 160; it refers to "Copernicus and his opponents; Kepler and Einstein; Laplace and John Dalton; Hegel and Bode; de Broglie and Dirac; van't Hoff and Kilbe; Liebig and Pasteur; Elliotson and Braid; Freud, Eddington, Rhine and Lysenko." In addition, he also refers to Marxism and to Impressionist painting.

[21] *Science, Faith, and Society* (Chicago, 1964), hereafter *SFS*, was originally published in 1946. A deeper treatment of Polanyi's understanding of tradition and community would also employ *The Contempt of Freedom* (1940), *The Logic of Liberty* (1951), the first five essays in *Knowing and Being* (1969), and chapters 12 and 13 of *Meaning* (1975).

[22] Polanyi endorses Augustine's maxim that we must first believe in order to understand (*PK*, 266), or, in another wording which I prefer, we can only know what we love.

[23] Polanyi's historical approach to science, and his "thick" description of human knowing, honor the context

within which all knowledge occurs and is interpreted. But he does not believe that language communities are isolated within their distinctive "language-games," unable to argue with the larger culture, with other cultures, or with history generally. See Sanders, *Michael Polanyi's Post-Critical Epistemology*, p. 208: "Contrary to what Popperians and even a number of Polanyians seem to think, Polanyi does not advocate radical relativism, nor does his position entail the theoretical or practical impossibility of criticism."

[24] I have adumbrated some of these ideas in a 1996 lecture, "What Really Matters? Conversation in Community," published by Furman University as *L.D. Johnson Memorial Lectures, 1995-'96* (Greenville, SC): 13-32. That lecture is heavily indebted to H. Richard Niebuhr, whose *Faith on Earth* draws on Polanyi, and is relevant to this present paper. *Faith on Earth: An Inquiry into the Structure of Human Faith*, ed. Richard R. Niebuhr (New Haven: Yale University Press, 1989).

[25] This is my shorthand way of speaking about the complicated issue of Polanyi's realism. See the thematic issue of *Tradition and Discovery*, edited by Andy Sanders and dedicated to this topic: Vol. XXVI: 3 (1999-2000): 6 -70.

[26] I am indebted to an article by Dale Cannon for alerting me recently to this communal dimension of Polanyi's thought. See "Toward the Recovery of Common Sense in a Post-critical Intellectual Ethos," *Tradition and Discovery*, XIX:1 (1992-93): 5-15 [hereafter cited as Cannon]. He bears no responsibility, of course, for my use of his ideas! In relating Polanyi's thought to a need to re-constitute common sense in the university, Cannon notes (p. 8) a number of Polanyian themes relevant to seeing sense "in common," which are the basis for my treatment:

> . . . our knowing of a comprehensive entity through indwelling and our knowledge of other minds through indwelling, that taken together make possible a "meeting of minds" in convivial mutuality concerning the given comprehensive entity; higher order forms of knowledge being grounded essentially in a convivial order whose accreditation becomes the basis of one's self-accreditation of competence; reality as being inexhaustible to any one viewpoint, and as capable of revealing itself to an indefinite multiplicity of further viewpoints in unexpected ways; knowing as an adventure of following up intimations of hidden truth – personal intimations of truth-in-common which call forth the services of the individual knower for revealing it and making it known-in-common; and the way in which our affirmations of our respective findings are always made with universal intent, appealing to a mutual, confirming recognition from future independent inquirers into the same matters.

[27] See "The Structure of Consciousness" in *Knowing and Being* (Chicago: University of Chicago Press, 1969), pp. 211-224, for Polanyi's fullest statement of this.

[28] "…the authority to which the student of science submits tends to eliminate its own functions by establishing direct contact between the student and the reality of nature. As he approaches maturity the student will rely for his beliefs less and less on authority and more and more on his own judgement. His own intuition and conscience will take over responsibility in the measure in which authority is eclipsed." (*SFS*, 45)

[29] Michael Polanyi, *The Tacit Dimension* (NY: Doubleday Anchor: 1967), p. 69. See also *PK*, 373-380.

[30] Placher, op cit.

[31] MacIntyre's definition is from *After Virtue: A Study in Moral Theory* (Notre Dame, IN: University of Notre Dame Press, 1980), p. 207, cited in Placher, p. 108.

[32] Placher, pp. 108-110.

[33] Placher discusses on pp. 111-112 these ideas as they appear in Hans-Georg Gadamer, Philosophical Hermeneutics (Berkeley, CA: University of California Press, 19750, p. 9

[34] The term is Gadamer's, from *Truth and Method* (NY: Seabury Press, 1975), p. 269; quoted in Placher, p. 111.

[35] Placher, p. 112. Polanyi's 'logical gap' is discussed in *PK* on pp. 123-130, 242, 261, 319, 322-23, etc.

[36] This was Jurgen Habermas's criticism of Gadamer. Placher, pp. 113-114.

Construing Polanyi's Tacit Knowing as Knowing by Acquaintance Rather than Knowing by Representation: Some Implications

Dale Cannon

ABSTRACT Key Words: Michael Polanyi, tacit knowing, acquaintance knowing, representational knowing, representational theory of perception, post-critical, conceptual mediation.

This essay proposes that Polanyi's tacit knowing – specifically his conception of tacit knowing as cognitive contact with reality – should be construed as fundamentally a knowing by acquaintance – a relational knowing of reality, rather than merely the underlying subsidiary component of explicit representational knowledge. Thus construed, Polanyi's theory that tacit knowing is foundational to all human knowing is more radical than is often supposed, for it challenges the priority status of explicit representational knowledge relative to tacit acquaintance knowledge, which has been the dominant paradigm for most of the Western epistemological tradition.

Introduction

Michael Polanyi's chief contribution to philosophy according to Marjorie Grene, perhaps his most well known and respected interpreter in philosophy, is his theory of tacit knowing. Whether or not all interpreters of Polanyi would agree it is his chief contribution, there is no controversy among them over it being a major contribution to philosophy and to epistemology in particular. What ramifications it has for the whole range of traditional issues in epistemology is another matter however. It is my thesis that the implications are more radical than is usually noticed.

My aim in this paper is to highlight some of the lesser noticed implications of Polanyi's theory of tacit knowing by utilizing the commonsense distinction between knowing by acquaintance and knowing by representation (reflecting the linguistic distinction between *connaître* and *savoir* in French, and between *kennen* and *wissen* in German). I should explain right off that one source of the connection I will be drawing has been my efforts to comprehend and interpret for students where and how Polanyi's ideas relate to traditional ideas in epistemology as reflected in widely used introductory textbooks. Typically there, commonsense notions of (a) acquaintance knowledge, (b) skill knowledge, and (c) descriptive, propositional knowledge are briefly described, only to be left behind for the sake of an exclusive focus upon the last as the principal concern of epistemology. It has gradually come clear to me that obtaining a greater hearing for Polanyi's epistemological ideas among philosophers will come only from taking acquaintance knowledge (along with skill knowledge) into account much more seriously than is conventionally done. Reciprocally, insight from Polanyi's theory of tacit knowing will lead to a deeper understanding and appreciation of acquaintance knowledge.

We all know very well in ordinary commonsense contexts how to distinguish, for example, between *knowing* a person (first hand) – say, Michael Polanyi – and *knowing about* Polanyi, or between *knowing* the city of Chicago (first hand) and *knowing some about, or even a great deal about,* the city of Chicago. Knowing about

Polanyi and knowing about Chicago doesn't require personal connection or presence – one can learn and come to know *about* something or someone at second-hand, by way of hearing or reading the (presumably accurate) representation of Polanyi, or of Chicago, by others — whereas direct acquaintance knowing requires relationship, direct connection, some kind of first-hand familiarity and rapport with the reality known. O.K., so what's the point? The point I wish to make is that this distinction is not only worthy of philosophical attention in itself but that it can help us understand better much of what Polanyi is about in relation to mainstream philosophical epistemology.

When it comes to philosophical reflection on the distinction between knowing by acquaintance and knowing by representation and figuring out what knowing by acquaintance in particular means – just like Augustine reflecting on the nature of time in his *Confessions* – we can find ourselves at a loss. Our practical, pre-reflective, working understanding of the distinction easily dissipates, leaving us with little to go on but assorted accounts that have come down to us of what philosophers have said about the nature of knowledge. As a matter of fact, relatively little has been written in the history of Western philosophy about knowing by acquaintance and its relation to explicit knowing. Almost everything that has been written has been occupied preferentially with explicit, representational knowledge, from Plato forward. (This is not to say that knowing by acquaintance has never been taken into account or given some kind of recognition, however.) It is well to recognize that it is not an easy and straightforward thing to reflect philosophically on this kind of knowing. One reason is that the usual ruts of philosophical reflection are directed almost exclusively to sorting out explicit, representational knowledge. Another reason is that, as Polanyi points out,[1] it is possible to reflect critically upon something only by rendering it explicit. But if acquaintance knowledge is not itself explicit, how are we to reflect upon it critically to understand it? I will have more to say about this below.

Not surprisingly, much of what has been done in explicating Polanyi's theory of tacit knowing has focused on bringing to light what Polanyi contends to be *the underlying subsidiary component of all explicit, representational knowing*: that *from* which one attends when attending *to* the explicit focus of such knowing. All awareness, all comprehension, all knowing – Polanyi's work discloses – has an irreducible *from-to* polar structure, even the most explicit, representational knowledge of the sort found in the physical sciences. The "*to*" pole of this structure is the focus of our awareness (which may or may not be explicitly rendered[2]). In explicit, representational knowledge, that *to* which we are attending is the explicit representation. (This claim will be qualified somewhat in the section below called "Mediated Acquaintance Knowing.") But the "*from*" pole of this structure encompasses a host of subsidiary particulars and/or clues, some inside our bodies and some outside our bodies, of which we are subsidiarily aware in relying on them to make coherent sense of that *to* which we are attending. Some of these we can specify and switch our focal attention to (at the expense of momentarily losing our focus on what we had been focally attending to); others we can only do so with difficulty or in a general and non specific way; and still others we may not be able to specify at all. Again, much of what has been done in explicating Polanyi's theory of tacit knowing focuses on the "*from*" or subsidiary dimension of explicit knowing – the dimension which goes for the most part unsaid, unreflected, and unacknowledged in conventional philosophical accounts of knowledge.

All that is well and good. However, tacit knowledge includes far more than the subsidiary component of our knowledge and awareness (whether the focus of our awareness be explicit or not).[3] Though it may at times appear so, nothing that I shall have to say in what follows about tacit knowing should be taken as opposing efforts to recognize and bring to light tacit knowing as the taken for granted coefficient and ground of explicit knowing.[4] The predominant paradigm of knowing in such explications, however, remains explicit, representational

knowing while bringing to light aspects that for the most part heretofore have gone unnoticed and unsaid in such knowing.

On occasions where tacit knowing is considered above and beyond its being a subsidiary dimension of explicit knowing by explicators of Polanyi's views, the focus has usually been on skillful *know-how*, as in the embodied working knowledge and complex performances found in traditional arts and traditional crafts, as well as in athletic feats. Polanyi's own commonsense examples of tacit knowing are often of this sort (e.g., hammering a nail, riding a bicycle, swimming). These sorts of cases are sufficiently distinct from knowledge of things beyond ourselves, from knowledge of objective reality (these cases being clear cut cases of practical knowledge rather than theoretical knowledge, to use the traditional Aristotelian distinction), to leave undisturbed and unchallenged the assumption *that the only sort of knowledge of reality there is, is explicit, representational knowledge*. The theory of tacit knowledge, while correctly recognized to be a radical challenge to the possibility of a wholly explicit knowledge, is thus not seen to be also a pointed challenge to this other assumption. The conventional philosophical predisposition among explicators of Polanyi to place primary emphasis on representative knowledge as well risks losing sight of Polanyi's challenge to the predominant modern understanding of *sense perception as representational* (i.e., of sense perception as reducible to sense impressions or sense data, or brain states), rather than as *relational contact and rapport* with realities perceived. Thus only rarely is *tacit knowing as cognitive contact with reality* (not just cognitive contact with explicit concepts or other mental representations) been seriously taken up by Polanyi interpreters[5] – though this theme is both present in and central to Polanyi's own account. This suggests to me that *tacit knowing as an experiential, relational acquaintance with reality beyond ourselves* (in addition to whatever else it is) has yet to be fully acknowledged and appreciated even among Polanyi interpreters.

My specific proposal in this paper is that Polanyi's notion of tacit knowing as cognitive contact with reality[6] should be construed as fundamentally a *knowing by acquaintance* – a *relational* knowing of reality by acquaintance. Thus conceived, it is something distinguishable from possession of an accurate representation of reality (though it may well be accompanied by such a representation). Indeed, more than distinct from the latter, tacit knowing as cognitive contact with reality is for Polanyi in every case prior to, alongside and under-girding, extended by yet ultimately reaching beyond, whatever explicit knowledge we may have.

Simultaneously but inversely, those who seek to understand more fully what relational knowing by acquaintance is all about can find in Polanyi's account of tacit knowing as cognitive contact with reality an invaluable resource for comprehending its nature, its importance, and its difference from explicit, representative knowledge. In this connection, Polanyi highlights a range of distinctive elements of tacit knowing: a knowing by indwelling through the extension of (and interiorization into) our lived bodies of tools, probes, articulate frameworks, etc.; the stretch of attention (our active, lived, embodied attention) linking attending-from and attending-to; embodied skillful performance; the investment of one's person in both the quest of discovery, the making known of a discovery to others, and the ongoing recognition of that discovery in relation to the evolving understanding of the range of things that includes it; the a-critical groping to integrate disparate clues into a meaningful whole; the faith-filled following up of intimations of as yet unmanifest coherencies; a contact with reality that apprehends and anticipates its capacity to manifest itself inexhaustibly, etc. My proposal is that these elements can and should be understood as components of a relational knowing of reality by acquaintance.

The remainder of this paper is dedicated to establishing the propriety of this interpretation of tacit knowing and bringing to light some of its revolutionary implications for epistemology generally.

The Significance of the Shift to a Post-Critical Orientation

A crucial factor to be taken into account in sorting through what Polanyi means by tacit knowing is *the shift in philosophical orientation from critical to post-critical* that Polanyi sought to bring about, and how that shift bears on epistemological issues. Polanyi's most important philosophical work, *Personal Knowledge*, stemming from his Gifford Lectures, is subtitled "Towards a Post-Critical Philosophy." The bearing of this shift from a critical to a post-critical orientation on explicating tacit knowing is easily overlooked. There are many aspects to the shift which are not easy to summarize in a brief compass. Not all are particularly relevant to understanding the issues dealt with in this essay, but some are. Perhaps the most relevant of these can be captured briefly in terms of *a shift from a priority of emphasis upon methodological skepticism to a priority of emphasis upon methodological faith – **but in a special sense***: a shift from (a) a priority of emphasis upon methodological skepticism toward what access to truth we (and anyone else) have in our own persons (suspiciously regarding such presumed access as fraught with "subjectivity"), requiring us to distance ourselves from the subject matter and relate to it impersonally, to (b) a priority of emphasis upon methodological faith in that personal access, motivating us to draw near to the subject matter in a manner that will bring it to light.[7] Differently put, the shift is from detached, self-critical reserve to active, first-personal exploration, In words Polanyi uses to describe this aspect of the shift in *Personal Knowledge*, it is from a detached, "non-committal orientation" in our cognitive endeavors to a "committal orientation." ("Committal" here does not mean commitment to a given statement of belief or to some specific outcome but rather a passionate personal commitment to the pursuit of truth concerning the subject matter in question, truth as transcending and never fully grasped by any particular explicit rendering.) It is crucially important to realize that this shift is key to bringing to light the full significance of what Polanyi meant by tacit knowing. Without it, the requisite personal relationship of the knower to the known in active exploratory knowing will continue to be overlooked.

Despite its importance, it is easy, terribly easy to mistake what the shift from methodological skepticism to methodological faith means (so I have found in attempting to explain this concept to students and to colleagues). The methodological faith to which Polanyi gives priority is not at all a standpoint of uncritical credulity or subjectivism. To many it seems so because the critical perspective induces us to imagine ourselves not in an active exploratory relationship to reality but as confronted with competing explicit candidates for belief, which we are given critically to doubt or uncritically to believe. In such a situation, Polanyi's proposal of methodological faith seems on the surface to counsel uncritical belief. But the shift that Polanyi proposes opens up beyond deciding between explicit representations (and beyond the alternatives of critical doubt or uncritical belief) a whole other dimension and a whole other response: the tacit, unarticulated dimension of the reality which these representations purport to map (which Polanyi maintains is inexhaustible), to which we have cognitive access in our own persons as we reach out to explore it for ourselves and in our own persons in *a-critical* (neither critical nor uncritical) methodological faith.[8] The crucial thing to recognize is that we are blind and insensible to this dimension and to this response apart from the methodological faith which seeks and ventures in one's own person to find hidden truth, the deployment and investment of oneself in seeking which takes notice of the clues and intimations which point the way. The methodological faith in question is thus directed not to explicit candidates for belief (even ones we happen to come up with ourselves) but to our access to this dimension and our investigative forays into it – i.e., to truth as transcendental: as apprehendable (in part) yet also transcending our own best efforts to render it.

The methodological skepticism that more or less defines the *critical* orientation of modern thought is

marked by critical suspicion toward subjectivity as such – not only toward bias, preconception, prejudice, etc., but also toward the possibility that truth might come to light through personal relationship and involvement. Hence it counsels withdrawal, detachment, a withholding of assent and of investment of self – for the purpose of countering and calling into question what is deemed to be *subjective* and *credulous* tendencies in ourselves and in human thought and culture generally. So, in order to avoid the errors of over-belief, critical thought adopts a posture of under-belief and critical suspicion toward every candidate for belief as possibly a projection of subjectivity (whether of others or of oneself) – i.e., *doubt (that is, doubt subjectivity, withhold one's investing of oneself in the evident possibilities) unless the candidate first proves itself worthy of belief* – including, take note, whatever one may be in the process of creatively articulating for oneself on the basis of direct personal involvement in the matters in question. What it fails to recognize is that this strategy undercuts and calls into question all sorts of knowing that critically depend upon relating oneself personally to those matters.

In *Personal Knowledge,* Polanyi calls this fundamental strategy radically into question, contending that adoption of methodological skepticism across the board (at least where it is most seriously adopted and consistently followed through) represses, interferes with, and in some cases actually debilitates, *the personal fiduciary powers that enable us to transcend the distortions of subjectivity and credulousness and achieve contact with objective reality*. To the contrary, a post-critical philosophical orientation, fully aware of the inescapable fallibility of these powers (an awareness gained in large measure from the insights produced by the modern critical tradition), nevertheless recognizes that *these powers of methodological believing (i.e., of personal indwelling, of following up and integrating clues to hidden truth, of struggling to articulate what is only vaguely sensed, etc.) are ultimately our only resort* – being the wellspring of all genuine discovery and creativity.[9] A post-critical philosophical orientation therefore adopts the inverse methodological strategy: *believe (that is, believe in this quest for truth in one's own person) unless, and until, there arises good reason to doubt (that is, doubt toward the current mode of investing oneself in seeking)* – in other words, trust, indwell, venture, put yourself into it, until there arises good reason to withdraw and withhold yourself. Its priority is more upon seeking truth – truth yet unknown or incompletely understood – than avoiding error, more upon finding meaning than avoiding deception. To attain truth one must, again and again, risk being wrong. The critical strategy is to minimize the risk of being wrong. The post-critical strategy realizes that minimizing the risk in this way maximizes the loss of truth and meaning.[10]

Thus a *post-critical* orientation of reflective thought is characterized by methodological believing no less than methodological doubting, empathetic exploration of perspectives beyond one's own no less than critical suspicion, reaching out and indwelling no less than withdrawal and detachment, venturing into the unknown, "pouring oneself" into the particulars of a problem in pursuit of a hidden coherence, and investing oneself in a quest to discover and bring to light some important truth no less than withholding oneself. The latter in each case continues to have its place. But the former has a relatively higher or first priority: less absence than presence, less an absenting of the self of the knower from what is known than an appropriate, responsible drawing near and becoming present of the knower to the known in however partial, aspectual, and incomplete a way. Thereby, instead of seeking approximation to some universal, 'objective,' depersonalized knower – formally indistinguishable from every other 'objective' knower from having suppressed all that situates and incarnates her knowing as unique and distinct from that of other knowers – the knower forthrightly discloses and acknowledges the situatedness, partiality, and fallibility of her knowing in the world alongside other knowers while nevertheless affirming her findings with universal intent.[11] She does so in the faith that this situatedness does not separate her from reality but, taken up actively in quest of truth, connects her with it. Her knowing, her finite situated being, her person, on the one hand, and her connection with the known, her contact with the known,

on the other, are inseparable. Knowing thus conceived is incarnate, in the world, in relationship and rapport with what is known. Thereby, as well, the knower becomes knowable, or rather is knowable, in her knowing. The knower is not located (isolated) in some Cartesian discarnate interior – nor in the neural networks of her cerebral cortex – inaccessible to other fellow-knowers, but, via empathetic indwelling, commonsensically alongside other persons, knowable and known in her knowing. The tacit dimension of human knowing which Polanyi brings to our attention encompasses all this.

A critical preoccupation with explicit, representational knowledge as the primary or paradigm kind of knowledge, *without locating it within this commonsense context of the tacit relatedness, presence, and connection of knower to known highlighted by a post-critical perspective*, perpetuates the conception of a detached, abstracted dis-relationship of knower to known that has been standard fare in mainstream epistemology since Descartes, especially given the predisposing precedents of modern critical reflection on human knowledge to which we have become habituated. In *Personal Knowledge*, Polanyi identifies this dis-relationship as the result of an artificial, non-committal construal of the knowing situation for detached skeptical reflection[12] – i.e., a *critical construal* as distinct from a *post-critical construal* – a construal lacking the methodological faith-filled investment of the self of the critically reflecting person that appraises and acknowledges the knower in her knowing. Polanyi's point is that non-committal, critical reflection is not at all the neutral methodology we have supposed it to be; it changes and distorts both our apprehension and our conception of the knowing situation by withdrawing from it an essential tacit fiduciary component – namely our own responsible personal appraisal of it which both integrates the subsidiary parts of that situation into a meaningful whole and apprehends the meaning that those parts have within the integrated whole. In short (and oversimplified a bit), it renders what normally is subsidiary into something focal. Just as we lose our perception of the whole of some perceptual gestalt (say, of the meaning of what a friend is saying) by switching our attention to the part (e.g., the sound of his words), so also we lose our sense of the knowing situation as a whole when in a non-committal way we critically attend focally (not just temporarily for the sake of reintegration but through a reductive analysis) to its parts – especially in the absence of taking into account our essential role as responsible appraiser of the act of knowing in question. We may gain some by the ensuing critical analysis, but we risk losing or distorting the meaning of any of its parts when that part is considered in abstraction from its subsidiary contribution to the integral whole of which it is a part, and in abstraction from our contribution as appraiser.

The paradigmatically critical construal by Descartes of the knowing situation led him (and others in his wake to the present day) to certain fateful conceptual moves based on the resultant fragmentation of the knowing situation and loss of meaning to its parts. I summarize several of them here, all too briefly. (1) Sense perception, through which we reach out, explore, and indwell the world believingly, once subjected to skeptical scrutiny became focally construed by Descartes and subsequently by the British Empiricists as nothing more than *sense impressions (sense data) internal to the mind, detached from that of which they are the impressions*. Indeed, when considered in a detached, non-committal, focalized way, absent the active involvement of the knower perceptually apprehending some aspect of the surrounding world, they do come *to seem as if* they are discrete "sense data." (2) Our mindful self, the knowing subject, which in ordinary circumstances trustingly indwells the world, once reflected on itself in detached skeptical reflection became focally construed by Descartes and his intellectual progeny *as a world-less (non-extended) closed container* (re: the Leibnitzian monad), acquainted solely with what is internal to itself and having no means of access, no direct connection or rapport (except speculatively by way of inference), to what lies beyond itself. The point: when considered in this detached, non-committal way, the mind comes to seem *as if it were* a world-less, closed container. (3) The world, which is known and explored through trustful indwelling, once skeptically contemplated under a

condition of minimal indwelling became focally construed, again by Descartes and his intellectual progeny, *as altogether objectified (e.g., the world as a machine), a world devoid of any subject, any inwardness* – and devoid of achievement and of meaning as well (including the embodied achievements of other knowers, both animal and human). (4) The commonsense access we enjoy to the minds of other persons, which is had through empathetic indwelling, when considered in skeptical detachment became unintelligible, a 'non-access' (resulting thereby in "the problem of other minds"), with the result that mutual recognition of things-sensed-in-common amidst multiple perspectives became literally inconceivable.[13] And (5) the tools, probes, conceptual frameworks, and articulate theories, which when subsidiarily indwelt in pursuit of contact with objective reality transparently extend the reach of our tacit powers far beyond initial appearances, once contemplated focally in themselves come to seem opaque, mere "constructions" by the mind out of the data of sense impressions – not *means of presence* and rapport but *signs of absence* – indicators of both the absence of the indwelling subject and the absence of the transcendent *Ding an sich* beyond our explicit grasp. Polanyi's theory of tacit knowing enables us to understand these fateful conceptual renderings in the history of modern thought for what they are: in each case, a perceptual distortion and a distorted conceptual rendering produced by withholding (or reducing to a minimum) the active involvement and self-relationship of the knower with the known (plus the active involvement and self-relationship of ourselves as knowing appraisers of the knower-known relationship) and shifting our focal attention from the whole of that relationship to its subsidiary parts. Polanyi's theory doesn't just help us to understand them, however: for the theory of tacit knowing enables us to realize that these conceptual renderings are neither necessary nor fated, and that we can and should overturn them by re-locating our knowing within the commonsense context of its tacit relatedness to the realities we know.

In sum, the world, and our experience of it, does not disclose its meaning nor does it reveal its hidden structure except as we venture actively to enter, explore, and indwell it, believingly. Critical reflection and analysis, which withholds and suspends this active relating of oneself to the world, does have its place, yes – a rightful and important place – *but subordinate to relational knowing by acquaintance*. It is relational knowing by acquaintance which connects us to reality, not non-committally rendered, explicit knowing. Polanyi's post-critical theory of tacit knowing opens up a way to understand, appreciate, and recover this priority of relational knowing by acquaintance.

Tacit Knowing as Knowledge by Acquaintance

What in brief is knowledge by acquaintance and how does Polanyi's theory of tacit knowing shed light upon it?

Knowledge by acquaintance (more precisely phrased, *knowing* by acquaintance – emphasizing knowing as an activity in the way Polanyi typically does) is first-hand familiarity, bodily indwelling; it cannot be had at second-hand, though someone else might introduce me to it (or initiate me into it). What can be had at second-hand at a distance from the thing known is knowledge by representation, knowledge *about* something, information *about* it. It is an achievement, though a different sort of achievement than is explicit knowledge. Knowledge by acquaintance is direct relationship or contact – personal presence with – a relationship of greater or lesser depth and extent. It is not mere physical proximity, for it requires openness, receptivity, and indwelling. Though we may succeed in talking about it, being an active (indeed, *inter*active) relationship of the knower to the known, it is *essentially* tacit. It is not just essentially tacit in its subsidiary dimension; it is tacit as well in its *from-to* relational stretch of attention. It is lived or enacted tacitly in one's being as knower. To articulate

it (to the extent it is or can be articulated) – i.e., to render it explicit – is not strictly speaking to make the acquaintance explicit, for it cannot, *as a relationship of acquaintance*, be made explicit (i.e., transformed into something itself explicit). We can, of course, call attention to it, speak of it, and describe it. And we can speak of what we have come to learn through the acquaintance. But to "articulate it" is to create something else on its basis – namely, a representation which is not itself the relationship which acquaintance is. It is to create a "map" of the "territory" with which one is acquainted.[14] (Alternatively, it may be to create a representation, an objectification, of the acquaintance relationship itself but – as is true of every objectification – at one remove from it.) Knowledge by representation is possession of a map – how good a knowledge will depend, of course, on how accurate is the map for present purposes. Knowledge by acquaintance, though, is not itself possession of a map; it is direct familiarity, a direct relationship of first-person rapport with the territory. How good our acquaintance knowledge is will depend on many things: how thorough our acquaintance, how and in what different ways we have interacted with what we are acquainted with, etc. It might be acquired in part with the help of a map. It serves as the basis on which we intelligently utilize a map. And it may be a basis on which maps are constructed – indeed, quite readily, as we draw up an account for reflection and/or communication what it is we have become acquainted with. But it is not itself possession of a map, for we can possess a map without any acquaintance for ourselves with the territory. Possession of a map, no matter how accurate the map, is never equivalent to knowledge by acquaintance of the territory, no matter how much we may suppose that it suffices.

Knowledge by acquaintance, in contrast with knowledge by representation, has built into it an awareness of the transcendence of the territory known (part of what Polanyi means by his thesis that we know more than we can say), an awareness of the way in which the territory not only escapes one's ability to give it complete articulation but also how it always intimates aspects yet to be explored relative to one's present, limited perspective on it – i.e., how it is capable of manifesting itself in new and different ways, even surprising ways, in our future experience of it as well as in the experiences of others who approach it from their perspectives. In Polanyi's words, "Perception has this inexhaustible profundity because what we perceive is an aspect of reality, and aspects of reality are clues to boundless, undisclosed, and perhaps yet unthinkable experiences."[15] This is a capacity of the territory to manifest itself not just in future experience of one's own but also in experiences of the same territory by other persons of different perspective possibly simultaneous with one's own perspective. The intimated transcendence is mutual; we recognize that we each are acquainted with the same thing yet of somewhat different aspects of it, for we are acquainted with it in unique ways. Indeed the idea of different perspectives doesn't make sense except in this sort of concrete context where knowledge by acquaintance (as distinct from knowledge by representation) has its home: we each recognize that each of us simultaneously sees the same thing differently because we see each other looking at it from different angles relative to each other. Moreover, knowledge by acquaintance is in touch with the "otherness" of the territory in a still different, remarkable way; its being in touch with aspects of the territory lying beyond present articulation is precisely what gives rise to creative new articulations (new mappings and revisions of old mappings) and recognition that some aspects of the territory may simply be beyond our present powers of articulation.

The classic account of the necessary and sufficient conditions of knowledge by representation identifies belief, truth, and justification. Now it may be, as some have recently contended, that there is something wrong-headed about specifying a single set of necessary and sufficient conditions for knowledge as such, as if knowledge were a single thing in the entire family of things we would like to call knowledge. Nevertheless, it may throw some further light on knowledge by acquaintance to consider the classical conditions here in their simplest, least qualified form. According to the classic account, for a person *to know that p* (where *p* is a statement) in this sense requires (i) that the person believe that *p*, (ii) that *p* be so (i.e., be true), and (iii) that the

person have and be able to provide reasoned justification that *p* is so. Analogous *but not identical* conditions would seem to hold for knowledge by acquaintance. For a person *to be acquainted with x* requires (i) that the person have confidence in their familiarity with *x*, (ii) that the person's alleged familiarity be an actual relationship of familiarity with *x* (i.e., be in responsive rapport with how *x* is), and (iii) that the person be able to convincingly establish for others her acquaintance with *x*, e.g., by introducing them in person to *x*, or otherwise doing and saying things that reflect a directly familiarity with *x*. Polanyi's account of apprenticeship knowing, both within science and outside of science, illustrates this beautifully – precisely in those situations where we cannot come close to providing convincing explicit justification of our knowledge for persons not already acquainted with the matter in question. Polanyi's insistence that we know more than we can say, and more than we can explicitly justify, is in large part a result of his recognition, not just of the tacit dimension of our explicit knowledge, but specifically of the range and extent of our knowledge by acquaintance.

Digression on Knowing by Acquaintance in Western Philosophy

The commonsense distinction between knowledge by acquaintance as distinct from knowledge by representation, while never a major theme of reflection in Western philosophy, has nevertheless received some explicit treatments over the last century. Not all of these treatments agree. I have in mind accounts by Bertrand Russell and William James. Though not in these precise terms, Edmund Husserl and subsequent philosophers of the phenomenological and existential-phenomenological traditions have devoted a good deal of effort to explain and account for the difference in kind of knowledge indicated by the commonsense distinction. Indeed, a case could be made that the effort of the phenomenological movement to ground all evidence in phenomeno-logical description that a reader/hearer can in principle verify for herself represents a similar shift in priority of emphasis from explicit, representative knowledge to tacit, acquaintance knowledge. (This understanding of the phenomenological tradition continues unfortunately to be completely absent from standard textbooks in epistemology, which for the most part appear to reflect an Anglo-American Analytic bias against taking seriously the contributions of Continental Philosophy.) Russell's account,[16] while perhaps best known among these three in the Analytic tradition of 20th century philosophy, is unfortunately constrained by Russell's assumption of the representational, "sense-data" theory of perception. While he does claim that "All our knowledge . . . rests upon acquaintance as its foundation," where "we are directly aware, without the intermediary of any process of inference or any knowledge of truths,"[17] the unfortunate result is that the only things with which Russell will admit that we have any acquaintance are what is privately internal to the mind – his chief example being sense-data.

Outside of these few explicit treatments, knowledge by acquaintance rarely comes up for explicit discussion as such in Western philosophy – again, particularly in textbooks emphasizing epistemology. The emphasis is plainly upon representational or propositional knowledge. As previously mentioned, Polanyi explains that it is quite natural that this should be so: we can reflect critically only upon something we can render explicit and philosophy is paradigmatically critical reflection. Tacit knowledge can become subject to critical reflection only insofar as it can in some measure be rendered explicit and represented. (I leave out of account, for the moment, consideration of the irreducible tacit component of any explicit account of tacit knowledge.) But once something essentially tacit is rendered explicit, as Polanyi takes great pains to point out, it is no longer the same knowledge and doesn't come close to reflecting all that the tacit knowledge was (or is). It is so very easy to forget and overlook this difference, and to forget how much is left out of the explicit surrogate. Thus, while our power of articulation is a great boon in serving to make possible critical reflection, it is also and

simultaneously a liability. It should be no surprise, then, that the history of philosophical reflection on the nature of human knowledge should not only concentrate almost exclusively upon explicit, representational knowledge, but also fail to take fully into account the distinctive character and structure of tacit knowledge by acquaintance.

Nevertheless, when read with care, discussions of the nature and kinds of knowledge from Plato forward often disclose recognition of direct awareness or experiential encounter with reality (i.e., recognition of knowing by acquaintance) as a crucial element in knowing, alongside, prior to, and/or beyond explicit, propositional knowledge. When speaking of intuitive, if not mystical, insight into the highest forms, including Beauty itself and the Idea of the Good, Plato speaks of such an encounter as an experiential knowing beyond precise articulation. His Allegory of the Cave underscores this experiential knowing by way of the contrast it draws between, on the one hand, those who escape the cave and come to know the forms directly for themselves and, on the other hand, the denizens of the cave whose only "knowledge" of the world outside the cave is by way of images (representations) or, worse, shadows of images – which, so far as they never exit the cave, they will never be able to verify. More concretely, Socrates' interlocutors, when they are forced by Socrates' questioning of their explicit accounts of piety, justice, etc., to confront and own up to their ignorance concerning these principles, are typically reduced not to utter ignorance but to a sense that they somehow and in some sense (however vague) do know (have access by acquaintance to) what they are but are unable at present to give a satisfactory explicit account of them. The theme of an ineffable, more or less mystical, experiential knowing (*apophasis* as distinct from *cataphasis*) of transcendental realities can as well be traced from Plato through Neo-Platonism to writers of the tradition of "spiritual theology" (as distinct from "scholastic theology") in the Medieval period of philosophical theology, and on into the modern period.

In quite a different vein, with regard to an acquaintance knowledge of particular objects of the sensory realm, Aristotle and the Aristotelian tradition write of our commonsense direct perceptual experience of primary substances prior to, alongside of, and undergirding our "inductive" or abstractive articulation of the universal form of these substances. Somewhat similar to this is a strand within several Christian writers (e.g., Gregory of Nyssa and, much later, Duns Scotus) that speaks of an experiential knowing of the particularity of things that transcends what can be captured in universal terms and general propositions. Even William of Ockham speaks of a direct experiential knowing of particular things in their likeness to one another, on the basis of which he contends we construct, rather than discover, our ideas of universals or general terms.

When we turn to modern philosophy in its mainstream, confidence that the mind can experientially encounter realities which transcend itself is for the most part lost through Cartesian methodological doubt. (Thomas Reid and the Scottish Commonsense School of philosophy constitute an important exception to this trend.) Nevertheless, some account is given of a direct, acquaintance form of knowledge. For Descartes, direct introspection of the mind amounts to a direct unmediated knowing by acquaintance of the immanent contents of the mind, including, above all, those clear and distinct ideas that are supposed to be wholly present to critical reflection.[18] So also, for Descartes, Locke, Berkeley, Hume, and Kant, *impressions*, whether "of sense" or "of reflection" (to use Hume's terminology), are viewed as things (internal to the mind) with which we are immediately acquainted. Consequently, although there is in this mainstream of modern Western philosophy virtually no acknowledgement of the possibility of being directly acquainted with substantial realities transcending the mind, there is retained some sense of knowledge by acquaintance.

The principal point of this quick survey of reference to acquaintance knowledge, as distinct from representative knowledge, in the history of Western philosophy is simply to point out that is has not gone

altogether unacknowledged, though it clearly has not been given its full due. Mainstream modern philosophy, though, by skeptically calling into question the possibility of direct acquaintance with realities transcending the mind, in effect requires that all knowledge of such realities be indirect and thus explicit, attained at best via inference from things present to the mind's acquaintance that represent them. Accordingly, explicit propositional knowledge with regard to such realities (built up on such a basis) has to be the sole sort of knowledge we can have of them at all – at least as far as mainstream modern philosophy is concerned.

Implications for Understanding Perception

Polanyi's theory of tacit knowing conceived as knowing by acquaintance renders intelligible and justifies a basically commonsense understanding of perception – in contrast to the still dominant modern theory of perception, the representational theory.[18] The representational theory construes sense perception as involving an inference based on the mediation of sense impressions (or, on some recent accountings, on the basis of electro-chemical events in the brain). The perceiver (either as perceiving mind or as brain) has immediate access (direct acquaintance, direct relationship) solely with these impressions (or events), which may or may not correspond to (may or may not accurately represent) the objects in the world that causally give rise to them. On this theory, sensory appearance (sense data, or sense-data-as-worked-up-into-some-coherent-pattern) is distinct from the object perceived, a separate, mediating representation. On the contrary, sense perception on Polanyi's account is *a from-to tacit stretch of attentive consciousness* (by no means an explicit inference[19]), which attends from subsidiary particulars within one's body (as clues) to their joint meaning, which meaning is a discernment or awareness of the thing being perceived. Sense perception is thereby conceived as *contact with the perceived*, a relation of greater or lesser rapport with the object, a direct acquaintance with it – though, to be sure, perspectival, aspectual, and fallible. It is not itself a discrete event inside an inaccessibly private mind, nor is it (or the perceiver) located in some particular region of the brain (however much the brain is involved subsidiarily). Sensory appearance is a genuine appearance of the object, not separate from or additional to it but *a co-relation of a perceiver to it and it to a perceiver*. It is an access to the object that is finite, limited, and to some extent colored and shaped by (1) the perceiver's perceptual placement and orientation with respect the object, (2) the perceptual capacity of the perceiver, (3) the acuity of the perceiver's sense organ(s), (4) the attention of the perceiver, etc. But on Polanyi's account, the perceiver is not on the hither end of a causal chain of events stretching from the object to her brain, trying to imagine and infer what must have produced these effects. Rather, the perceiver goes right up to the object perceived, touching it, exploring it, examining it, indwelling it. The perceiving person is not inaccessibly inside the head (or brain) of her body. She is fully incarnate, a living mindbody.[20] She is not only at the surface of her body touching the object, but reaching out beyond her body's surface, encountering the object and relating to it for what it is. Thus she is not merely her living body but more: she is a stretched web of attention from within her body in its situation in the world to the perceived object in *its* context, open to a horizon of further perceptual exploration and deepening acquaintance. Perception, thus conceived, is not passive (as the classical British Empiricists conceived it, following Descartes, and the Logical Positivists in our own day) but active and relational, a connection with the environing world; it is a mode of our being in the world. Perceptual knowing is a knowing by acquaintance. It is our most fundamental way of knowing the world and knowing our way about within it.

I do not wish to give the impression that Polanyi was the first to mount serious criticisms of the representative theory of perception. Thomas Reid's criticisms of it in the 18th Century were actually quite similar to Polanyi's.[21] Yet those criticisms did little to dislodge its dominance from the mainstream of Western epistemology. So also, Continental Phenomenology in the 20th Century from quite a different angle has

developed serious criticisms of the theory, with Maurice Merleau-Ponty's account of perception[22] being perhaps the closest among phenomenologists to Polanyi's own account. I only wish to bring out another of the more prominent epistemological implications of Polanyi's account that are highlighted by thinking of tacit knowing as acquaintance knowledge.

Implications for the Knowability of the Knower / The Being of the Knower / The Embodied Subject

Tacit knowing conceived as knowing by acquaintance recovers and brings to light the situated, incarnate bodily *being* of the knower in the world, in relational rapport with what is known within its context. Conceiving the situation of the knower post-critically and committally, as opposed to conceiving it critically in skeptical detachment, there is no basis for radically questioning whether what is supposedly known is real or whether the supposed knowledge could possibly be knowledge. Moreover, the knower is importantly incarnate, in the world, and not in some discarnate, worldless subjectivity. The knower is bodily located, as commonsense recognizes, with a particular personal, historical, and cultural background. This is something we can commonsensically take in and become acquainted with for ourselves empathetically, from our own incarnate perspective. That is to say, the fact of her knowing, the achievement of her knowing, is an event and a condition that takes place in the world and not outside it. It is a concrete relationship between her and what is known, that in turn can be recognized and known by the rest of us. Accordingly, her acquaintance with the known we can come clearly to know as being from a certain angle and mode of approach, which will in turn be reflected in her articulation of what she has thus come to know. Her acquaintance as well as her articulate knowledge is thus inevitably partial, finite, and fallible, *and knowable as such*.

When we consider knowledge primarily as knowledge by representation (or as knowledge by description, to use Russell's phrase), it is easy to lose sight of this concrete relationship of rapport between the knower and the known. And when that relationship is lost sight of, we become in imagination, if not for real, *as if* we were discarnate knowers, or at least as if our knowledge was discarnate – floating around in disembodied Cartesian minds, books, and electronic storage devices. Karl Popper seemed to think of knowledge in this way in speaking of our building up "knowledge without a knowing subject." But none of that "information" makes meaningful sense except as it is understood, interpreted, and upheld tacitly by persons in incarnate relationships of acquaintance with things (in addition to their comprehending relationships of acquaintance with the information in question).

Implications for Interpersonal Knowing and a Renewed Conception of Objectivity

Tacit knowing conceived as knowing by acquaintance recovers and brings to light not only the situated, incarnate bodily *being* of the knower as knowable, but also the interrelationship of knowers to one another. Our incarnate knowing by acquaintance is always alongside other knowers, bringing to each other's attention and mutual acknowledgement aspects of the world that others among us have not yet noticed. It is here that the perspectival nature of our knowing most clearly comes to light, with each of us ranged around what together we are contemplating, but each from a different angle and possibly from a different frame of reference.

The really significant thing to notice about this is how each of us are able to recognize this situation, how we each can see each other seeing the same thing from different angles (and occasionally discovering that what we thought was the same thing turns out to have been something quite different in each case). We thus make

sense in common, not despite our uniquely distinct perspectives onto the object before us *but precisely in virtue of our different perspectives*. The object in its objective reality is to be discovered at the intersection of our perspectives – so far as we are open and committed to discovering it. In this mutual recognition we recognize that which transcends our perspective onto the world; we glimpse the object-in-itself-for-us and not just the object-for-me. We thereby transcend our subjectivity and come to attain objectivity (in the sense of apprehending what is objectively true and real) through responsible interpersonal judgment – a knowledge of a reality that manifests itself inexhaustibly to the indefinite multiplicity of competent perspectives brought to bear upon it. Not attainment once for all, to be sure, but attainment nevertheless. This mutual recognition of things in common, there, beyond what any one of us can succeed in exhaustively representing, is the heart of what true objectivity and its attainment is all about. We lose sight of it, though, when our concern for 'objectivity' is focused instead simply upon competing explicit renderings of what is the case abstracted from the perspectival relationships to reality that tacitly they express and from a taken for granted perspective of non-committal critical reflection. Then the goal of 'objectivity' becomes less a matter of connecting with reality out there, transcending any one perspective, than with attaining an explicit account whose form least reflects a limited, personal perspective. A fuller sorting out of these different notions of objectivity will have to be dealt with in another place.[23]

Implications for "Mediated" Acquaintance Knowing

So much for perceptual acquaintance knowing. But will this do? What about recognition and identification of what it is we perceive? What about the identity, nature, and form of what it is we perceive? Don't these presuppose a system of universals, categories, and forms by means of which we differentiate one thing from another and conceptually relate them to each other? What about the role of language and culture, which as human beings, qualifies our perception *as the perception of human beings who possess the power of naming*, as opposed to the perception of animals without language? Doesn't language make a difference here, a *mediated* difference, such that we don't perceive directly or immediately, as perhaps animals do, but always as filtered through language and culture? And given language in this capacity, shouldn't that immediately make perception propositional and representational? Surely this is part of what Kant was getting at in distinguishing the world-as-experienced-and-understood-by-us (*phenomena*) from the world-in-itself apart from its construal in our experience and understanding (*noumena*). Accordingly, surely we can't be said to know (be acquainted with) things in themselves, but only what we have construed and constructed them to be via the mediation of the categories and principles with which we apprehend them.

Consequently, the idea that we human beings, language animals that we are, can somehow have a direct relational acquaintance with realities – i.e., things in themselves in their transcendence beyond any particular representation of them – seems naïve, to say the least.

I won't pretend that these questions can be easily answered; nor will I dismiss them. However, I believe they can be answered in a manner consistent with what I have said so far and I am convinced Polanyi's theory of tacit knowing provides a way to answer them. However, here and now I can do little more than offer a few remarks suggesting how I believe they can be answered.

Polanyi distinguishes between the meaning of something when attended to focally and the meaning of that same thing when attended from subsidiarily. The meaning it has (in the latter case) is ordinarily displaced to the distal focus of our attention, to which we are attending by subsidiarily and proximally relying on that thing

as a clue to that focus. That meaning, its meaning as a clue to that focus, is lost (temporarily at least) as we switch our attention to that thing in a focal way. Phenomenally there is a difference in each of these cases: attending to it focally we see the thing itself (not as a clue to something else); it doesn't mean anything other than itself. It is opaque. Attending from it subsidiarily, our attention focuses on its (now different) meaning, which is in certain respects displaced from the thing itself. In this case, it (the thing we are attending from) is transparent. In the case of a probe we are skillfully using to explore a cavity, the probe and its impact upon our hand and fingers are transparent to their meaning, which is the disclosure of the features of the cavity being explored by its use. There is no inference going on here from the one to the other, Polanyi insists; we are not at a distance from the cavity being probed trying to guess or speculate what the cavity must be like from the impact of the probe on our hand. Rather, we have incorporated the probe into our embodied being and are there at the tip of the probe, inside the cavity; the probe has become an extension of our perceiving fingers, an extension of our embodied self. In that case, we know the probe not focally as an object unto itself, but subsidiarily as an extension of our knowing subject-self; the probe (competently employed) is no less transparent and no more opaque to the cavity being explored than is our arm, hand, and fingers

In this case it is in an important respect misleading to speak of our knowing of the cavity as *mediated by* the probe (or by the impact of the probe upon our hand and fingers) in the sense that there is something (a mediating *object*) coming between us and the cavity, separating us from it. So also, on Polanyi's account, anything serving in the same capacity as a probe, extending the reach of our body's perceptual acquaintance, should not be conceived to *mediate* that acquaintance – at least not in the sense that we would be directly acquainted only with the "mediating" probe and not the thing itself. Alternatively, should one nevertheless call this sort of thing mediation, it is essential to distinguish it from the sense of mediation that involves some object coming between and separating us from the reality in question. The crucial question is where the "touching" surface of the knowing self lies: on the near or the far end of the 'mediating' probe in question. My contention, with Polanyi, is that it is on the far or distal end.

Polanyi often speaks of scientific instruments, articulate conceptual frameworks, sometimes even scientific theories, functioning like probes,[24] extending our perceptual acquaintance into such matters as sub-atomic matter and interstellar space – indeed, back into the first microseconds of the Big Bang. When attended to more or less focally by one who comprehends it, a scientific theory (e.g., the Schroedinger wave equations of quantum mechanics) functions representatively: in this case, the theory *represents* the probability distribution of the subatomic particles we are using it to describe. In that respect it can be said to mediate our 'encounter' with the particles in question (strictly speaking, it mediates the expert knowledge of subatomic physicists to us). It comes between us and the particles, representing them. It is present, not they. In that case we are present to it, not we to them. However and to the contrary, according to Polanyi, when skillfully attended from subsidiarily by subatomic physicists (within the context of the rest of the articulate theoretical framework of subatomic physics), the Schroedinger equations function not representatively but, rather, "presentatively" or relationally: they become an interiorized part of the physicist's knowing body, extending the reach of his perceptual acquaintance into the quantum realm of subatomic phenomena. They take him into the presence of those realities and potentially afford him access to aspects of those phenomena hitherto unarticulated. If he has the creative intuition of a great physicist, he will find there, by his own "bodily feel" of the territory intimated by the equations, clues to an extension, emendation, modification of, or even a superior replacement to, the existing map of these equations.

Now does the physicist in this instance connect with realities in this case or only with constructions or

theoretical construals of evidence? Conceived non-committally, it will inevitably seem to be the latter. But conceived committally by someone competent enough to know something about quantum physics, the physicist connects with realities. This is part of what Polanyi means in speaking of reality as something one can only speak of committally;[25] it is inapprehensible apart from reaching out to connect with it. Methodological faith in this respect is an essential aspect of having eyes to see and ears to hear it with.

My point is that here, and elsewhere, our existing conceptual and cultural maps – indeed, names, words, and statements generally by means of which we identify things as the sort of things they are – function in a variety of ways, depending on how we relate ourselves to them. They can and do limit, bias, and constrain our awareness of the territory they purportedly represent, just as size, stiffness, and shape of a surgeon's probe limits what he is aware of through its use as a probe – *but not inveterately so*, for they and it also enable awareness no less than they and it limit awareness; they give access at the same time that they constrain access. Indeed, we become aware of their specific limits, bias, and/or constraints precisely when we attend to the territory in question from the perspective of other conceptual and cultural maps which lack those specific limitations. These limitations seem especially problematic when our attention is fixed in a critical, non-commital way more on the map than on the territory, attending *to* the map focally, more than *from* it subsidiarily – for in that way we are insensible to the respect in which territory (or reality) transcends any one map (indeed, all of the maps we have). This again is due to the difference between considering it critically rather than *post-critically*, skeptically (toward our personal access to the territory in question) rather than in methodological faith. When we are primarily attending to it focally, the map can truly be said to mediate our knowledge of the territory, coming between us and it; if the map is accurate, we know the territory by representation. If that were the whole picture, our knowledge of the territory would be limited to what we would be able explicitly to infer from the map. A great deal depends, then, on whether our attention is fixed focally on the map or attends subsidiarily from the map to the territory the map is intended to represent. In the latter case, and specifically if our attention is on the lookout for aspects of the territory that are under-represented, are not well represented, or are not represented at all by the current map, the map does not function as a map *but as a mental probe for our acquaintance with the territory*. In that case, it enables us to become present to the territory and in position for creative articulation of new aspects of the territory beyond the current map. Indeed, it is precisely this extended bodily acquaintance with territory that gives rise to the creative articulation of new discoveries and new maps. To the person who competently interiorizes and indwells them with an eye to deepening acquaintance with territory, our best maps are not (or are not simply) mental constructions standing between us and the objective reality they purport to represent. Indeed, *in this connection* they are not, and do not function as, knowledge by representation. They are not representations of what is absent but rather pointers or clues that enable us to become present to territory. They are extensions and enablers of our acquaintance with that reality. To be sure, they don't give us the whole of that reality, nor do they give us that reality in a wholly unadulterated way, but they do connect us with it sufficiently to enable us to begin to glimpse the territory itself beyond the map. That is precisely what Polanyi had in mind when speaking of our *making contact with reality* as involving an anticipation or foreknowing of the capacity of reality to reveal itself in novel ways in the future. In any case, thus taken up and integrated as an extension of our acquaintance knowing, our maps cease to function in the way they do when considered focally; they are then no longer representative knowledge (at least not until we switch our focal attention back to them). This essentially makes acquaintance knowledge (extended by our articulate frameworks) the primary form of human knowledge, despite articulate frameworks being involved, and explicit or representative knowledge derivative from and dependent upon it.

Consider this example. When teaching philosophy as I regularly do, my primary aim is not to teach

what Plato wrote or what Aristotle wrote as specific, explicit content to be mastered (although that, to be sure, is a subordinate aim). My primary aim is rather to help my students come to a place where they develop a sense for themselves of what Plato and Aristotle were respectively getting at, the territory they were each seeking to bring to light and comprehend. The primary focus is not on the respective maps (i.e., theories) of Plato and Aristotle nor the arguments with which they sought to justify these maps. Instead the focus is on the territory their maps sought to articulate and represent, each from the angle of the philosopher's own articulate framework. Only an acquaintance for themselves with that territory pointed out by their maps will put my students in a position to appreciate critically Plato's and Aristotle's maps for the great yet limited achievements that they are.[26] (As mentioned above, developing an acquaintance for oneself with the territory beyond Plato's own account is the principal point of escaping the cave in Plato's famous allegory. Anything less is to be left with mere shadows and images of reality in the cave, even if those shadows and images be Plato's ideas.)

Concluding Remarks

My aim in this paper has been to explain how tacit knowing as cognitive contact with reality, as brought to light by Polanyi, should be construed fundamentally as a knowing by acquaintance as distinct from knowing by representation. Many of the radical implications of Polanyi's understanding of tacit knowing, beyond being simply a dimension or coefficient of explicit representational knowledge, do not come to light until it is seen in these terms. The mainstream of Western philosophical reflection on the nature of knowledge has predominantly focused on knowledge by representation and has paid relatively little attention to knowledge by acquaintance. There are, of course, exceptions to this generalization, including some within the 20th Century who have deliberately sought to challenge this focus, whose work can and should be seen in many respects as convergent with Polanyi's. Nevertheless, the predominance of that focus continues to this day, even at times among Polanyi interpreters. I hope I have contributed to rectifying this imbalance and persuaded you of the value of thinking of tacit knowing as acquaintance knowing, and that acquaintance knowing, extended by articulate culture, is the primary kind of human knowing.

Endnotes

[1] In *The Study of Man* (Chicago, IL: University of Chicago Press, 1959), Lecture I, among other places. See also *Personal Knowledge: Towards a Post Critical Philosophy* (Chicago, IL: University of Chicago Press, 1958), p. 264.

[2] This is a point sometimes lost on students of Polanyi. It is easy to confuse what is focal with what is explicit. They are not the same.

[3] I identify at least ten things embraced by what Polanyi calls tacit knowledge, several of which overlap others: First of all, it refers to *everything of we know or are aware but cannot* (in a given circumstance or at a given moment) *make explicit*. Second, and more narrowly, it includes *our subsidiary awareness* of particulars on which we rely in becoming aware of and understanding something to which we are attending focally. Third, it includes *the cultural tradition(s) and articulate framework(s) that constitute our intellectual context*, to which we have acritically apprenticed ourselves in developing our articulate cognitive powers and on which we continue subsidiarily to rely to communicate and critically assess with others our findings. Fourth, it includes *the tacit bodily know-how or skills* (encompassing skills of connoisseurship and sensibility) *on which we rely* in all that we do, but especially the things we quite unselfconsciously do in connection with all of our knowing, articulating, interpreting, evaluating, explaining, etc. Fifth, it includes *the act of interpreting, comprehending, and upholding* what we explicitly take to be true. Sixth, it includes the *creative powers and heuristic passions to which we entrust ourselves* in pursuing discovery of hidden truth, articulation of obscure meanings, and solution of perplexing problems. Seventh, it includes *the anticipatory foreknowledge* that is implicit in all knowledge we have of problems, things we are trying to figure out, things we are struggling to articulate, and reality in its transcendence beyond our explicit grasp (what Polanyi calls its capacity to manifest itself inexhaustibly). Eighth, it includes *our body-*

as-indwelt, our indwelling-subject-self, which for Polanyi is not so much that from which we attend in attending to, e.g., a spectacle beyond ourselves, but is itself *the from-to stretch of our incarnate personal being*. Ninth, it includes the way we intelligently employ our articulations – *thinking from or with what has been made articulate*, as distinct from attending focally to them. Tenth, and touching on all of these, it *includes the investment of ourselves in – our becoming present to, in, and with — all that we know* (with all sorts of qualitative variations thereto) – what Polanyi calls the acritical fiduciary coefficient to all that we know. My construal of tacit knowledge as acquaintance knowledge specifically highlights the seventh through the tenth of these things embraced by tacit knowledge.

⁴ See, for example, Andy Sanders' work, *Michael Polanyi's Post-Critical Epistemology: A Reonstruction of Some Aspects of "Tacit Knowing"* (Amsterdam: Rodopi, 1988).

⁵ One important exception to this generalization is the work of Esther L. Meek, *Contact with Reality: An Examination of Realism in the Work of Michael Polanyi*, Temple University Ph.D. Dissertation, 1983 (Universities Microfilm International, Ann Arbor, MI, 1985, 85-09387)..

⁶ Take note of my phrasing here: I am not saying that *all* aspects of tacit knowing should be construed as knowing by acquaintance, but that the specific respects in which Polanyi speaks of it as cognitive contact with reality should be so construed.

⁷ I have just recently come across what promises to be a profoundly important convergence between what I interpret Polanyi to be about in this respect and a new development in feminist epistemology, distinguishing in "women's ways of knowing" a predominance of "connected knowing" as distinct from "separate knowing" which predominates in "men's ways of knowing," at least in our culture. For perhaps the best recent explication of this distinction see Blythe McVicker Clinchy, "Connected and Separate Knowing: Toward a Marriage of Two Minds," *Knowledge, Difference, and Power: Essays Inspired by "Women's Ways of Knowing"*, edited by Nancy Rule Goldberger, et al. (New York: Basic Books, 1996), pp. 205-247. Although in this essay Clinchy makes no reference to Polanyi's work, she draws strongly on the work of Peter Elbow, especially his account of "the doubting game" and "the believing game," in his collection, *Embracing Contraries* (New York: Oxford University Press, 1986), who makes considerable use of Polanyi's thinking. For an extension of Polanyi's thinking similar to Elbow's, but speaking of "the rhetoric of assent" rather than of "the believing game," see Wayne C. Booth, *Modern Dogma and the Rhetoric of Assent* (Chicago, IL: University of Chicago Press, 1974).

⁸ See Polanyi's careful differentiation of *a-critical* from both *critical* and *uncritical* in *Personal Knowledge*, p. 264 and following.

⁹ See *Personal Knowledge*, pp. 264-268.

¹⁰ I wish to acknowledge here my indebtedness to a discussion of these matters by William James. See, in particular, his well known essay, "The Will to Believe," widely anthologized – e.g., in *Essays in Pragmatism*, edited by Alburey Castell (New York: Hafner, 1952), 88-109. In many respects, but by no means all, James' thinking converges with Polanyi's.

¹¹ See what Polanyi says about "universal intent" as distinct from universality in *The Tacit Dimension* (Garden City, NY: Doubleday, 1966), p. 78, and then *Personal Knowledge*, pp. 300-303.

¹² See *Personal Knowledge*, pp. 303-306.

¹³ On this conception of commonsense, see Hannah Arendt, *The Human Condition* (Chicago, IL: University of Chicago, 1958), ch. 39.

¹⁴ Polanyi uses the metaphor of map and territory in Lecture I of *The Study of Man*.

¹⁵ Michael Polanyi, *The Tacit Dimension*, p. 68.

¹⁶ Bertrand Russell, *The Problems of Philosophy* (London: Oxford University Press, 1959, 1912), ch. V: "Knowledge by Acquaintance and Knowledge by Description."

¹⁷ Russell, pp. 46 and 48.

¹⁸ Postscript: Mention should be made here as well of modern rationalists' appeal to intuition of the self-evidence of first principles as a special sort of experiential knowledge by acquaintance.

¹⁹ I acknowledge here that it is not the only current theory of perception, only that it is still the dominant one.

²⁰ See, for example, *The Tacit Dimension*, p. 32.

²¹ "Mindbody" is a neologism first used, so far as I am aware, by William H. Poteat, as a result of long apprenticeship to Polanyi's way of conceiving things. See Poteat's *Polanyian Meditations: In Search of a Post-Critical Logic*, (Durham, NY: Duke University Press, 1985) and *Recovering the Ground: Critical Exercises in Recollection*

(Albany, NY: State University of New York Press, 1994); see references to "mindbody" in index of each book.

[22] See Nicholas Wolterstorff, *Thomas Reid and the Story of Epistemology* (New York: Cambridge University Press, 2001).

[23] Maurice Merleau-Ponty, *Phenomenology of Perception*, tr. Colin Smith (London: Routledge & Kegan Paul, 1962); and Maurice Merleau-Ponty, "The Primacy of Perception and Its Philosophical Consequences," trans. James M. Edie, in Maurice Merleau-Ponty, *The Primacy of Perception and Other Essays on Phenomenological Psychology, the Philosophy of Art, History, and Politics*, ed. James M. Edie (Evanston, IL: Northwestern University Press, 1964).

[24] One place where I have tried to do so is my article, "The 'Primitive' / 'Civilized' Opposition and the Modern Notion of Objectivity: A Linkage," *PRE/TEXT: An Inter-Disciplinary Journal of Rhetoric* 2:1-2 [volume devoted to articles on Michael Polanyi] (1981), 151-171.

[25] See *Personal Knowledge*, ch. 4.7 "Tools and Frameworks" *et passim*, and ch. 5: "Articulation.;" *The Study of Man*, pp. 29-32; *The Tacit Dimension*, pp. 15-24; and "Knowing and Being," in *Knowing and Being*, edited by Marjorie Grene (Chicago, IL: University of Chicago Press, 1969), pp. 123-137.

[26] See *Personal Knowledge*, p. 303: "I can speak of facts, knowledge, proof, reality, etc., within my commitment situation, for it is constituted by my search for facts, knowledge, proof, reality, etc., as binding on me. These are proper designations for commitment targets which apply so long as I am committed to them; but they cannot be referred to non-committally. You cannot speak without self-contradiction of knowledge you do not believe, or of a reality which does not exist."

[27] Examined with care, Plato's dialogues reveal themselves to be delicately crafted to bring about this result, rather than to persuade his readers simply to embrace his so-called philosophical doctrines.

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 double-spaced type with notes at the end; writers are encouraged to employ simple citations within the text when possible. MLA or APA style are preferred; because the journal serves English writers across the world, we do not require anybody's "standard English." 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. Consistency and clear writing are expected.

Manuscripts normally will be sent out for blind review. Authors are expected to provide a hard copy and a disk or an electronic copy as an e-mail attachment. Be sure that electronic materials include all relevant information which may help converting files. Persons with questions or problems associated with producing an electronic copy of manuscripts should phone or write Phil Mullins. Insofar as possible, *TAD* is willing to work with authors who have special problems producing electronic materials.

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New Annotated Polanyi Bibliography:
An Interview with the Compiler Maben W. Poirier

ABSTRACT Key words: Michael Polanyi, Polanyi bibliography, Polanyi brief biography, Polanyi timeline. *Maben W. Poirier, compiler of the 423 page bibliography on Michael Polanyi published in 2002, comments on his bibliography project and the final product.*

Maben W. Poirier, *A Classified and Partially Annotated Bibliography of all Forms of Publications, Sound Recordings, Internet Documents, etc., by and about the Anglo-Hungarian Philosopher of Science Michael Polanyi*. Toronto: Canadian Scholars' Press, Inc. 2002. $39.95 U.S./$49.95 Cnd.

MULLINS: *Why did you take up a Polanyi bibliography project and when did you start on this endeavor?*

POIRIER: Maybe I should take up these questions in reverse order. I began actively to work on the bibliography late in December 1996. However, I had been, off and on, thinking of producing a Polanyi bibliography for quite some time prior to that. In fact, it was while engaged in doctoral research at McGill in the early 1970s that I realised the need for a Polanyi bibliography. There was in the 1960s and '70s, as there still is today, a strong desire on the part of social scientists to make the social sciences, and, in particular, political science, which I was studying (I was actually studying political philosophy with Charles Taylor), scientific, in the sense in which *it was felt* that the natural sciences are scientific.[1] The belief was and is that the natural sciences are the powerfully predictive disciplines that they are because of their reliance on the scientific method, and because of their systematic exclusion of any kind of personal biases in or contribution to decision-making in science. And so, if this strict reliance on method could be transferred to the social sciences in general, and political science in particular, then the social sciences, and especially political science, would also become powerfully predictive like the natural sciences, and specifically like physics.

I rapidly realised that those who would make the social sciences scientific in the way *that they presumed* the natural sciences were scientific were ideologues who did not know much, if anything, about the practices of the natural sciences and natural scientists. More to the point, I knew that in their endeavours to make the study of politics scientific, they were relying almost exclusively on a bankrupt understanding of scientific knowledge, which they obtained not from any practising natural scientist, but from so-called philosophers of science, who were more inclined, by reason of the positivist approach to which they were and are still devoted, to be ideologists of science rather than philosophers of science.

It was around this time that I read Polanyi for the first time. One of my teachers (not Taylor, although when I later raised Polanyi with Taylor, Taylor very much agreed that Polanyi was an important thinker) suggested that I read Polanyi. I was told that Polanyi might have something interesting to say about these matters, although the person making the suggestion did not quite seem to know how the pieces fit together. I obtained a copy of *Personal Knowledge*, and I soon understood that Polanyi was a crucially important thinker with deep roots in Plato and Platonic thought, ...a thought with which I had become fascinated as an undergraduate student while studying the writings of the great Austro-American political philosopher Eric Voegelin, …a person for whom I still have great admiration. In fact, it was the similarities in the thought of these two thinkers (Polanyi and Voegelin) that fascinated me. As a result, I resolved to collect as many of Polanyi's writings as I could find, and so, I sought out a Polanyi bibliography, only to discover that there was none, or, at least, no published one,

at the time. It was then that I decided to produce my own, thinking that it would only be for private use, since I expected that eventually a major Polanyi bibliography would appear. And so, for quite some time, I worked with a very simple bibliography, which I housed in a notebook that I carried about with me everywhere I went.

There was also a very specific reason that caused me to undertake the Polanyi bibliography project in late 1996. Around 1995, Geoffrey L. Price of Manchester University (this is the same Geoff Price who wrote on Polanyi in the 1980s) and I began editing an Internet-based Eric Voegelin newsletter called *Voegelin—Research News*, which has been dormant for the past few years, but which is to be reactivated in the near future. Soon after getting to know Price, I discovered that he had published a bibliography of writings by and about Eric Voegelin, and I informed him of my interest in doing something similar for Polanyi. He immediately offered me his moral support, for which I was very grateful, and he described to me the beginnings of the Polanyi group in the U.K. around Joan Crewdson, Robin Hodgkin, Dru Scott, and many others. This was enough to get my Polanyi bibliography project under way. This eventually led to my obtaining, through the indirect assistance of Father Martin Moleski, S.J., a complete collection of all of the issues of the British Polanyi Society publication *Convivium*, ...one of the few complete collections in existence, I am told. I speak of Fr. Moleski's indirect assistance because Fr. Moleski put me onto Robin Hodgkin, and he, in turn, put me onto Richard T. Allen, who provided me with the complete collection of *Convivium* for the cost of postage. I think that I may even have contacted Joan Crewdson relative to this matter, and I also recall that Geoffrey Price did provided me with seven or eight numbers of *Convivium*, which he dug out of his attic. So I ended up with a few duplicate issues of some numbers of *Convivium*. I am, of course, appreciative of the help I received from all of these people, for there was a period of about eight months or so when I was despairing of ever seeing a single copy of *Convivium*.

It was also around this time that I contacted Richard Gelwick and you, informing both of you of my project, and Richard Gelwick immediately provided me with a complete collection of all of the back-issues, through its various incarnation, of what has become known to us all as *Tradition and Discovery*. This too I have to say was an act of generosity for which I am deeply appreciative. I have also to say that I sensed that Gelwick's and your support went well beyond providing me with a complete collection of *TAD*.

And so, by late 1998 or so, I had available to me complete editions of the two most important Polanyi publications, *Convivium* and *Tradition and Discover*. I should note here that I did make a number of efforts to include the contents of *Polanyiana* in the bibliography as well, and while some articles from *Polanyiana* are recorded in the bibliography, not all are, and this is because I was sadly never able to connect up with the editors of *Polanyiana*.

MULLINS: *Structuring a large bibliography is always a problem. Please describe the structure you used in your 423 page project. Tell us some of the problems and how you resolved them in determining that this structure was the most sensible?*

POIRIER: Yes, you are right in saying that structuring a large bibliography is not easy. To some extent the broad structure of the bibliography suggested itself. As I mentioned above, I had, over the years, collected a great deal of material by and about Polanyi, and I knew that it fell into three large categories, primary material *by* Polanyi, secondary material specifically *about* Polanyi, and tertiary material about some topic that is unrelated to Polanyi, but that mentions him by name in the course of discussing this topic. So I knew that I wanted broadly to organise the bibliography along these three lines, ...a task much easier said that done, as I was to learn, especially as it regards creating the division between the second and third categories. From the start, I also knew that I wanted

the bibliography to be annotated as much as possible, about which I will say more later. Of course, I also knew that I needed to have internal divisions within each of these categories. How best to make these internal divisions was really the major decision I took, I suppose, and that decision was not taken till after I studied a number of large bibliographies. The problem here revolved around the fact that internal divisions that might be appropriate for one section of the bibliography might not be appropriate for the other two sections. For instance, as one becomes familiar with Polanyi literature, it does not take long for one to notice that there are certain recurring themes in the literature. And so, one inevitably asks oneself if, in the structuring of a bibliography, these themes should in some sense guide the classification process. Of course, the problem here is in combining a themes based classification with a classification based on other equally worthy and more traditional criteria. This is a daunting task, which is generally not satisfactorily worked out unless one restrains oneself to a very limited number of themes. And so, one quickly realises that a themes based classification will not work in a large bibliography—although it may in a smaller one—because it rapidly leads to the proliferation of divisions within any given section of the bibliography, and some of these divisions may be especially arbitrary, as will the decision to assign particular entries to one division rather than another. And even if the divisions are not altogether arbitrary, it will inevitably be the case that many entries will have to be assigned to a number of these divisions, thus making for a very large manuscript, which is likely to be unattractive to a publisher. Therefore, for a number of reasons a themes based bibliography was ruled out very early on in the process. In the end, I opted for the divisions that you see in the bibliography—divisions based on entry types that are more traditional. I chose to order the entries in each division by date of publication, author's name, and entry title, in that order. This would allow the researcher to obtain a sense of the evolution of the Polanyi scholarship in the second category. However, I did break this rule to some extent by creating special divisions enabling me to gather together in one place reviews of Polanyi's principal works, obituaries, other bibliographies, etc.

Maybe one more point can be made here. There is a sense in which it might be said that there are two smaller bibliographies within the bibliography. What I mean is that I believe I have the only complete bibliography of everything that appeared in the U.K. Polanyi group's publication *Convivium*, which was published from 1975 to 1988 (see page 130 of the bibliography), as well as everything, up to 2000, that appeared in *Tradition and Discovery* and its predecessor publications. Unfortunately, I was not able, because of space constraints, to consolidate in separate divisions the entries for each of these publications. This was something that I would have liked to have done, and it is something that is still possible. And so, the *Convivium* and *TAD* entries are spread throughout the bibliography.

And then, of course, there was the whole problem associated with annotations. I handled annotations in a variety of ways. For many entries, I wrote a brief note that was designed to draw the attention of a researcher either to an earlier or later publications of an entry, or to the contents of an entry, or even to the lieu of original presentation of an entry. I early on explored the possibility of including abstracts from electronic database as annotations, and eventually that too was possible, once I had received permission from copyright holders. I have also to acknowledge here that there were some very generous individuals who wrote abstracts, when there were none, specifically for inclusion in the bibliography. This was very much appreciated, and I believe that I noted these too in the bibliography.

MULLINS: *There are, of course, several Polanyi bibliographies available. In fact there are so many that I have pondered for several years what sort of bibliographic note it might be sensible to add to the Polanyi Society's web site. I have about come to the conclusion that perhaps an annotated bibliography of Polanyi bibliographies would be a worthy addition.*

The existing bibliographies were created at different times; some are more comprehensive than others. Some have particular interests. Please describe how your bibliography should be thought of in relation to some of these other bibliographies. I have in mind, for example, the following bibliographies that I suspect many scholars interested in Polanyi are familiar with: (1) Richard Gelwick did an early bibliography, published originally as part of his 1963 dissertation, but included in Langford and Poteat's 1968 collection Intellect and Hope*. (2) Harry Prosch has a bibliography in his 1986 book,* Michael Polanyi, A Critical Exposition*. (3) At the end of the collection of Polanyi essays that Richard Allen edited and published in 1997 (*Society, Economics and Philosophy*), there are two interesting bibliographic appendices. One of these is a annotated primary bibliography that tries to sort out Polanyi essays that were published more than once with the same or different titles and some variance in content. The other tries to trace down and summarise essays that have not been republished anywhere. (4) Brownhill, Wigner and Hodgkin produced a bibliography which also included scientific papers as part of the 1977* Biographical Memoirs of the Royal Society*. (5) There is an electronic bibliography of writing about or influenced by Polanyi on the Gospel and Culture web site (http://www.deepsight.org/bibliog/abpolbib.htm). I am not sure but I think that this was put together by Harold Turner and John Flett.*

POIRIER: Let me begin by observing that I am indebted in different ways and to different degrees to almost all of the compilers of bibliographies you list above, but I am especially indebted to Richard Gelwick and his bibliography from *Intellect and Hope*, which was, for a very long time, the only Polanyi bibliography publicly available to the Polanyi community. I cannot begin to estimate the number of times that I consulted it as a graduate student, and later, as a teacher. Prosch's bibliography was also useful to me, but for some reason, I consulted it less than Gelwick's, and I did notice a few discrepancies between it and Gelwick's, which were often resolved in favour of Gelwick's bibliography. Of course, neither Gelwick's nor Prosch's bibliographies are annotated. As for R.T. Allen's annotated bibliography, which came out while I was working on my bibliography, one cannot praise this work too much. While it focusses only on works by Polanyi, it is an absolute necessity for Polanyi scholars. As for the John Polanyi bibliography of his father's scientific papers, published at the end of the Royal Society memoir, I am, of course, aware of it, and I do have a copy of it. However, since I am not a natural scientist, and particularly since I did not intend to include any of Michael Polanyi's natural science papers and writings in my bibliography, I cannot say that I paid much attention to it. I did see the *Gospel and Culture* bibliography while working on my bibliography, but I cannot recall that it was very different from either the Gelwick or Prosch bibliographies.

Yes, it is true that there have been a number of Polanyi bibliographies over the years, but I think that mine is the only bibliography that brings together primary, secondary and tertiary works, that is heavily annotated in all three areas, that is indexed, and that contains a brief biography and a timeline. As I recall, all of the bibliographies you mention deal only with primary materials, and, except for Richard T. Allen's excellent bibliography of primary works, none are annotated.

I should maybe note at this point that my bibliography of primary works differs from Allen's, all the while recognizing that we are dealing with the same materials, and so, there is bound to be a great deal of overlap as regards cataloguing information. Allen did a splendid job of tracking down and comparing articles that were published more than once. I contented myself only with recording the fact that Polanyi published an article more than once by noting in an annotation either its previous or subsequent publication, and in cases when the piece was published anew with a different title and some new content, I often treated it as a new publication. I also think that I included in my bibliography one or two entries that I've not seen anywhere else. I recall including

in the primary section of my bibliography a B.B.C. transcription from the late 1940s having to do with "Ideas and Beliefs of the Victorians" in which Polanyi made a lengthy contribution. Never have I seen this piece referred to in a Polanyi bibliography. Now, while it may not, properly speaking, be viewed as a Polanyi publication of the sort that we are used to calling "a publication," it was difficult for me to see how it could be excluded from the bibliography, or how it might be seen as a secondary piece.

That said, I hope that my focussing of secondary and tertiary materials will be appreciated, for I believe it to be important at this point in Polanyi studies to have a sense of the breadth of Polanyi scholarship, and maybe even a sense of the gaps within that scholarship. For instance, I cannot help but notice that Polanyi scholarship today is dominated (and I don't mean to use the word "dominated" in a pejorative manner here) by theologians, or students of religion, who inevitably, and quite justifiably, have their own priorities, which carry them off in a direction that is very different from the direction that is apt to be the one of choice amongst political philosopher sympathetic to Polanyi's thought, for instance. I say this not to criticise theologians and students of religion who are interested in Polanyi, but in the hope that a larger number of political scientists may come to know and appreciate the richness of Polanyi's thought, and see it as relief from the all-pervasive ideological fog of scientism that engulfs contemporary political studies, ...a fog which, it seems, to its great credit does not affect the study of theology and religion.

As I indicated above, the social sciences in general, and political science in particular, at least, as it is expressed in North America, is in the throws of a very serious and debilitating disease that takes the form of ideological thinking that is undermining (many would say *has* undermined) the very possibility of the study of politics and society. It is in this state of ideological confusion because it subscribes to a view that completely misconstrues what is involved in thinking scientifically. The fact is that the quasi totality of North American political scientists, as distinct from political philosophers, submit themselves to the ideology of *scientism*, without even knowing that there is such a thing as *scientism*, and, inevitably, without so much as wondering whether they ought to submit themselves, or even wondering whether what they are submitting themselves to is correct and without cost. They simply assumes that because the great majority of the profession assents to the prevailing positivist understanding of what is involved in thinking scientifically, then the prevailing understanding must be correct. And so, from one generation of scholars to the next there is a compounding of error, and this is not because people think about these matters and choose the wrong course, but it is because the ideology of *scientism* is disciplining their thinking about political science today.

Of course, there is little hope of remedying this dismal situation, since that would require a critical thoughtfulness that is simply not present amongst many of the current members of the profession. However, a small minority of scholars do know that something is seriously awry when the study of politics is more interested in studying the study of politics rather than in studying politics. And so, it is as a corrective to the misguidedness that has taken over the discipline, and to some extent as an encouragement to those who know that things are askew, that an understanding of Polanyi's thought would be of great benefit. For one thing, it would certainly lead, on a small scale, perhaps, to the reintroduction of truth about politics into the study of politics, and dissuade some from adapting pseudo-scientific methods and procedures to the study of politics in the mistaken belief that true scientists never inject themselves into the decision-making process in the natural sciences. In short, the current focus on being procedurally correct that consumes so much time and space amongst political scientists would be challenged, and it would again be possible for some, if not all, to focus on the reality that is politics.

The difficult ideological straits in which political science finds itself at the moment is well summed up

in a passage from a short story by Poe. Poe writes:

> No man dared utter a truth to which he felt himself indebted to his Soul alone. It mattered not whether the truth was even demonstrably a truth, for the bullet-headed savans of the time regarded only the road by which [the searcher] had attained it. They would not even look at the end. "Let us see the means," they cried, "the means!" If, upon investigation of the means, it was found to come under neither the category [of deductivism] nor under the category [of inductivism], why then the savans went no farther, but pronounced the "theorist" a fool, and would have nothing to do with him or his truth. (Edgar Allan Poe, *Mellonta Tauta*, 1850)

Theologians and students of religion, who are interested in Polanyi's thought, may find this passage from Poe strange and maybe even out of date, but I assure you that it is not strange to thoughtful students of politics today. As a description of the attitude that prevails within political science departments, it resonates with a freshness that causes one to wonder if it was not penned recently . More importantly, it captures, like few other statements do, the dismissiveness of the ideologues within the political science profession. Regularly, scholars who are critical of *scientism* are dismissed by the ideologues, …Poe's bullet-headed savans, as traditionalists, i.e., people who are not engaged in "cutting edge research," to use the favorite expression of the ideologists, and thus, are incapable of making any kind of serious contribution to the discipline, when, the truth is the reverse, and everyone who understands science knows that this is so.

Endnotes

[1] The love affair between North American political scientists and *scientism* dates from the 1930s, …some might say a bit earlier. For an excellent introduction to this subject by someone who is not enamoured with this development, see Bernard Crick, *The American Science of Politics: Its Origins and Conditions*. Berkeley: The University of California Press, 1959.

Polanyi Society Membership

Tradition and Discovery is distributed to members of the Polanyi Society. *TAD* supercedes a newsletter and earlier mini-journal published (with some gaps) by the Polanyi Society since the mid seventies. The Polanyi Society has members across the world 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 three issues of *TAD* each year.

Annual membership in the Polanyi Society is $25 ($10 for students). Subscriptins are due at the beginning of the academic year (September) to Phil Mullins, Missouri Western State College, St. Joseph, MO 64507 (fax: 816-271-5680, e-mail: mullins@mwsc.edu). Make checks payable to the Polanyi Society or, if paying by credit card, provide the card holder's name, the card number and expiration date. New members should provide the following subscription information: complete mailing address, telephone (work and home), e-mail address and/or fax number. Institutional members should identify a department to contact for billing. New members should provide 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.

REVIEWS

David Cesarani, *Arthur Koestler: The Homeless Mind.* New York: The Free Press, 1998. Pp. x + 646. ISBN 0-684-86720-6, $30.00, hardcover.

In 1980, Magda Polanyi, Michael's widow, wrote a bitter and accusatory letter to Arthur Koestler.

> You should hear what people say about you – don't you care about that? "He is known for stealing other people's ideas" said to me famous and important literary personality a couple of years ago. It would be time to repair your reputation, instead of PERSEVERING TO LIVE ON OTHER PEOPLE'S – mainly Michael's — ideas. (quoted in Cesarani [C], 558)

David Cesarani's biography does not provide sufficient evidence to make a well founded judgment about the legitimacy of Magda's complaint; an accurate assessment would require careful review of the publications and personal papers of both Koestler and Polanyi.[1] But Magda's comments alert one to the importance of a relationship that lasted 35 years. Bela Hidekuti's article in *Polaniana*, "Arthur Koestler and Michael Polanyi: Two Hungarian Minds in Partnership in Britain," provides excerpts from their correspondence which suggest mutuality rather than dependence. Hidegkuti concludes his article by indicating that comparison of their intellectual links in scientific matters would make an excellent Ph.D. dissertation for some history of science student.[2] I certainly agree, although I believe history of ideas rather than history of science would be the most productive category of comparison.

At any rate, there are striking similarities when one examines the lives and interests of these two Hungarians, but sharp differences when one compares their personalities. Both were born into secular Jewish homes in Budapest, Arthur (1905) 14 years after Michael. Both left Hungary after World War I for German speaking lands, and both later fled the Nazis to make their homes in England. Each was interested in science and the world political situation, although the order of their immersion in these fields was reversed. Each ended his career by paying special attention to philosophical and religious issues of broad import, seeking to overcome the division between the two cultures.

Yet the fact that they had such different personalities is significant. Polanyi was emotionally low key and often self-effacing; he was generally an excellent partner in conversation because he was both a good listener and generous with his ideas and insights. Koestler tended toward unpredictable emotional extremes and was generally domineering; one did not so much converse with him as either submit to his often intriguing but also controversial interpretations or argue with him (see C 560 on this point). Perhaps the two were friends for so long because Michael's accommodating personality could adjust to Koestler's extremes, but just as surely Magda's protective and sometimes domineering personality would clash with Koestler's opinionated views and self-interested actions.

Polanyi initiated the relationship by writing Koestler in 1941 after reading his magnum opus, *Darkness at Noon*, published the year before. This historical novel made public Koestler's renunciation of his former Communist ties; it is about the Moscow trials of the 1930's, exploring the logic that led innocent persons to confess to the crimes with which the state charged them. In his letter Michael invited

Koestler to contribute a chapter on Soviet repression of science and scientists to a volume supporting free scientific inquiry.[3] Thus began an exchange of letters and books that lasted into the 1970's. Koestler's name was better known to the public than Polanyi's name during the middle decades of the century, yet Polanyi's worldview was more comprehensive and better grounded. Because of Polanyi's stability and depth, Cesarani's judgement seems accurate: "The influence of Polanyi on [Koestler's] thought cannot be underestimated. 'Misi,' as he was affectionately known, was a sounding board and a touchstone for Koestler" (C 200).

In the course of his detailed exposition of Koestler's life, Cesarani implicates another member of the Polanyi clan as being crucially involved in the development of Koestler's thought in several phases. Eva Striker (later Zeisel), the daughter of Michael's older sister Laura (Mausi), furnished Koestler with the account which inspired him to write *Darkness at Noon*. Eva followed her fiancée, the physicist Alex Weissberg, to Kharkov, Ukraine, where they were married in 1932. Their home served Koestler as his base of operations when he traveled to the Soviet Union in 1932-33 as a recently minted communist to write a book on the progress being made in the Soviet world in contrast to the depression-bound West. The trip Koestler took into Soviet central Asia was particularly disturbing to him. In addition to finding depressing filth in this part of the world, he observed courtroom injustices being rendered. The recent convert was taken aback; his faith in Communism began to ebb.

The coup de grace of Koestler's identification with Communism occurred when he next saw Eva in 1938 after she was freed from the USSR. She told him the story of how, during the Soviet purges, she was charged with spying and sabotage and then had been arrested and imprisoned for sixteen months. With the help of Weissberg (from whom she had been separated in 1934) and the Austrian consul, she was released, but then Weissberg was arrested. In turn, Koestler and Polanyi were among a loose network of those who worked to free Weissberg, a task that eventually was successful.[4] At any rate, when Koestler heard Eva's account of her incarceration, this helped precipitate his writing of *Darkness at Noon*, a work that along with George Orwell's *1984* and *Animal Farm* helped convince even many of the radical thinkers of the time of the unacceptable flaws in Soviet Communism.

Does Koestler's relationship with the Polanyi family go yet deeper? In the first volume of his autobiography, *Arrow in the Blue*, Koestler relates that his mother sent him to a progressive kindergarten operated by one Lolly, a daughter in a famous Hungarian family. Lolly is a pseudonym for Michael Polanyi's sister Laura, who opened her school in 1911 and closed it in 1913.[5] There is a photograph of young Arthur and Eva among the dozen or so children in Laura's little school. Koestler tells how he experienced his "first true and real love" at this school: he fell for a little girl he calls Vera, being particularly fascinated by the vaccination mark on her arm.[6] Who is Vera?

Vera is said by Koestler to be the daughter of one of the leaders of the Hungarian Socialist party. Among those who might have been indicated by the rather fluid term "socialist leader" are Karl Polanyi, Georg Lukacs, and Oszkar Jasci, but none of them had a daughter named Vera. Michael and Karl's older brother Adolf, with his cousin Odon Por, organized a Socialist Students Club and then was a labor organizer. His first child was named Vera. But Vera was born in 1909 and Koestler says he attended the school in 1910. Koestler's chronology is inaccurate, because the school was not opened until 1911. Moreover, Koestler mentions that Laura told the children that she was pregnant – but her last child was born in 1913, indicting that Koestler would have been at the school in 1912. What, if anything, is one to make of the confusion?

One possibility is that Vera Polanyi, Adolf's daughter, was admitted to the school even though she was three years younger than the other children, and she was the object of Koestler's infatuation – another Polanyi family connection. Maybe Vera is the daugh-

ter of some other "Socialist Party leader" (Szabo, Korvin, Fogarasi, Seidler, etc.) whose children are unknown to me. But maybe Vera is really Eva Striker disguised "to protect the innocent." Cesarani demonstrates that Koestler's remarks about his mother and his upbringing are frequently distorted to prove some self justifying point. Suspiciously, no last name is given to Vera. Moreover, Vera means "true," as in true love; it could well be a fabricated name, a device Koestler often used. Koestler tells how his beloved Vera confronted him many years later during his first trip to America. She threw him off guard right before an important speech in Carnegie Hall, a speech that Cesarani reports helped confirm Koestler's status in America, but which Koestler claims was a fiasco. Eva had immigrated to New York shortly after seeing Koestler in 1938 and had for years been teaching ceramic design at the Pratt Institute of Technology; certainly she could have been the one who presented herself to Koestler.

If Vera was in fact Eva, then note how significant she became not only for the direction of Koestler's life, but for the worldwide struggle against Communism. Her presence in Kharkov would surely have been a motivating factor in leading Koestler to undertake the trip to the Soviet Union, the trip that started changing his mind about Communism. Later, her story of her imprisonment spurred him to become proactive in the fight against Communism and led him to become a world famous figure. Interestingly, however, Eva did not want to be identified with *Darkness at Noon* and Koestler's attack on Communism, indicating that despite her incredibly harsh treatment by the Soviets she refused to be associated with Koestler.[7] That would explain why Koestler would have taken care to conceal her identity.

In any case, the Koestler-Polanyi connections run deep. Learning about Koestler and his world should surely assist one in understanding more about Polanyi and his world. But why turn to David Cesarani's biography when one could simply examine Koestler's own well received autobiographical writings, noteworthy for their candor. Why another biography when several have previously been published?

The Cesarani biography is distinctive in at least two respects. He was initially attracted to writing about Koestler "as a Jew who exemplified the Jewish experience in Europe during the twentieth century" (C vii). He soon found that toward the end of his life Koestler dissociated himself from his Jewishness, and indeed such denial "was a necessary price to pay for being useful to American anti-Communists" (C 343). Of course, he could not obscure his early commitment to Zionism nor disown his influential work of 1949, *Promise and Fulfillment: Palestine 1917-1949*. But Cesarani demonstrates rather exhaustively, in contrast to most interpretations, that Koestler's consciousness of his Jewishness contributed to his feelings of alienation and was an important factor influencing many of his actions.

Secondly, Cesarani found he could not take Koestler's self-interpretations at face value. By making full use of all the papers in the Koestler archive for the first time and incorporating other material and interviews not previously considered in a biography, Cesarani demonstrates that Koestler, for all his vaunted openness, was not a reliable guide to his life experiences or his psyche. Much in the tradition of Rousseau, he rationalizes his erratic and often shocking behavior, shrouding it in idealized abstractions reinforced by psychoanalytic and mystifying theorizing.

> He entered into adulterous liaisons and
> played the game by engaging in systematic
> deceit. It is hard to say whether Koestler's
> knack for duplicity was a cause or an effect
> of his political gyrations, but dissembling to
> himself and others was second nature. His
> 'autobiography' was perhaps his most
> stupendous act of deception. (C 414)

To be sure, Koestler acknowledges in his self-interpretations that his character is flawed and he has tendencies to violence. But he has a convenient explanation for his shortcomings: it is his mother's fault. No doubt his mother was often stifling, moody,

and unpredictable in her relation to young Arthur. She seemed to see herself as a well-born Viennese stuck in provincial Budapest, and she restricted Arthur's access to "ordinary Hungarians" and other children. Interestingly, she does not seem so different in this regard from some of the mothers of other Hungarians who rose to world significance. Mama Cecile also never learned good Hungarian; the Polanyis spoke German at home. Her famous salon attended to intellectual issues of the world rather than local Hungarian issues. Georg Lukacs "tormented his mother by speaking to her in Hungarian, a language she never managed to learn completely." [8] Michael Polanyi, however, had a far more positive relationship to his mother than either Koestler or Lukacs. Significantly, he had a far greater appreciation of the liberal turn-of-the-century political economy than either Koestler or Lukacs – and a sweeter disposition. The thrust of these comments should not be taken to blame mothers for their sons' alienation. Hungarian society at this time was strongly patriarchal in nature, and talented women were bedeviled by a liberal culture that seemed to promise opportunities for self-realization without ever delivering on these promises. This is a classical formula for frustration and familial disharmony.

In any case, Koestler, like Lukacs, early on felt alienated from his parents, other people, and his culture. "His lack of exposure to other children left him awkward in company. He felt compelled to construct a 'complete false personality' in order to interact smoothly with the other schoolboys" (C 28). He became the cocky know-it-all seeking to cover lack of self-confidence.

Eventually sexuality came to be the means whereby he rationalized he could overcome his alienation. In short, he became a womanizer, sometimes managing numerous affairs at once. What Cesarani says of his early liaisons in Palestine seems characteristic of his later affairs as well: "They were all marked by infatuation, and obsessive involvement, followed by growing lack of interest and rejection. While he was in the thrall of an affair he seems to have been almost unbelievably self-centered" (C 53). He was the demanding bully who treated marriage as a farce. "To him, heterosexuality was the norm, men were dominant partners and women were submissive" (C 217). Koestler was not blind to his preferences and his behavior. Speaking of his partners, he stated, "I always picked one type: beautiful Cinderellas, infantile and inhibited, prone to be subdued by bullying" (quoted by C, 402). At times his bullying was indistinguishable from rape; Jill Craigie, the wife of a good friend who was a member of parliament, attested to that (see C 399-401).

On the other hand, Koestler was also prone to depression and thoughts of (also attempts at) suicide. Ultimately, he was successful at killing himself. His self-imposed death in 1983 might seem forgivable considering that he was afflicted with Parkinson's Disease and lymphatic leukemia. But he did not die alone; his third wife, Cynthia, committed suicide at the same time. Koestler's written explanation of his suicide includes this comment: "My wife decided that after thirty-four years of working together she could not face life after my death" (quoted on C 550). There is no sign that Koestler tried to dissuade her; was this his culminating act of selfishness?

Balanced against these negative characteristics, it must be said that Koestler had his brave, generous, and charming traits as well. His complex personality and tendency to participate in the great causes of the twentieth century brought him into dramatic encounters with many of the age's iconic figures. Cesarani's account of these encounters often gives us new insights into facets of the personality of such persons as W. H. Auden, Timothy Leary, Andre Malraux, Menachim Begin, Arthur Schlesinger, Bertrand Russell (with whose wife he apparently had an affair), Margaret Thatcher, Albert Camus (a great drinking companion, but one he also punched), Thomas Mann, Isaiah Berlin, David Ben-Gurion, Raymond Aron, Louis B. Mayer, George Orwell, Jean-Paul Sartre, Simone de Beauvoir (with whom he had a one night stand), Edmund Wilson (with whom he was a competitor for the same woman), A. J. Ayer, Joseph McCarthy, Willy Brandt – the list could be greatly

extended.

One reading the biography is not only learning about Koestler but also about many world events. We gain insights into the complex history of Palestine and Israel from Koestler's Zionist activities and his experiences in the Holy Land. We virtually participate in the organizing activities of Communists from within and then learn how opposition to Communism came to a head. We participate vicariously in the Spanish Civil War and the chaos that was France early in the Second World War. At times it is an exhilarating ride through history. But at other times, it must be said, Cesarani as a guide exhausts us with lists of visitors and repetitive summaries. But these are minor flaws that pale when one considers what a monumental task it would be to communicate clearly what is most significant about an incredibly complicated life.

Similar to his relations to women, Koestler could muster momentary enthusiasm for living one place or another, but soon familiarity and negativity took over, and he sought another place. His restless spirit led him to live in such places as Wales, Cairo, the Swiss Alps, and Pennsylvania, but perhaps half a dozen cities seemed most like home to him: London especially but Vienna, Paris, Budapest, Jerusalem/Tel Aviv, and Berlin as well. His writing career was also spectacularly diverse. After he authored the series of political writings that established his reputation, he turned in his later life to writing about various realms of scientific history and speculation. Here his repeated emphasis on bisociation (a holding together two diverse ideas -- related to integration) and hierarchical levels of consciousness and being do indeed seem dependent on Polanyi's philosophical vision (but lacking in Polanyi's persuasiveness). At various times during his career he wrote not only novels and essays, but Jewish fairy tales, travel pieces, plays (stage and radio), memoirs, literary criticism, detective stories, film scripts – he even was the major contributor to three encyclopedias of sexuality and initiated the leisure section of a newspaper. Whatever his topic, his general approach to writing was grounded in his early experience as a reporter.

Cesarani concludes his study by claiming that "Koestler was the classic homeless mind: the *émigré* in search of roots, the secular sceptic yearning for a faith and a Messiah. . . . His lack of self-worth, his habitual duplicity and his homelessness, which made him behave so terribly towards others, are thus rooted in his origins and his inability to resolve his identity" (C 569, 573). If, as Magda Polanyi claimed, he was an inveterate thief of the ideas of others, he was never able to internalize these ideas in a way that satisfied him. In many ways, he was the epitome of a man who could not return home because he had no home. Cesarani's subtitle is apt.

Endnotes

[1] The two men do not often cite each other's work. However, Koestler dedicated his collection of essays, *The Yogi and the Commissar*, written from 1941 to 1944, to Polanyi, thus indicating his appreciation of his older colleague.

[2] See *Polanyiana* 4:4 (1995), 31.

[3] Ibid., 11.

[4] On Koestler's actions, see C 151. Polanyi's activity seems to have been earlier than Koestler's, perhaps because as a relative he knew of the situation first – see Lee Congdon, *Seeing Red: Hungarian Intellectuals in Exile and the Challenge of Communism* (DeKalb, IL: Northern Illinois University Press, 2001), p. 47. Koestler's account of Eva's experience in Ukraine is in *The Invisible Writing* (London?: Collins with Hamish Hamilton, 1954), pp. 386-387; Congdon's summary is on p. 13.

[5] The article by Judit Szapor, "Laura Polanyi 1882-1957: Narratives of a Life," *Polanyiana* 6:2 (1997), 43-54, provides helpful background information concerning Laura and her cultural context. Incidentally, Hidegkuti claims, apparently erroneously, that the school opened in 1909 – see op. cit., 10.

[6] *Arrow in the Blue: An Autobiography* (New York: Macmillan, 1952), pp. 56-59. Some of the details in this paragraph have been gleaned from the as yet unpublished Scott and Moleski biography of Polanyi.

[7] Congdon, p. 66.

[8] Arpad Kadarkay, *Georg Lukacs: Life, Thought, and Politics* (Cambridge, MA: Basil

Blackwell, 1991), p. 9. Also helpful in seeing common cultural threads in Hungary just before World War I are Mary Gluck, *Georg Lukacs and Generation 1900-1918* (Cambridge, MA: Harvard University Press, 1985) and Levee Branc, "Georg Lukacs: The Antinomies of Melancholy," *Other Voices* 1:1 (March, 1997) available at www.othervoices.org.

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Philippe Baumard, *Tacit Knowledge in Organizations*. Trans. by Samantha Wauchope. Thousand Oaks, CA & London: Sage Publications, 1999. pp. 272. $78.00 (ISBN 0761953361), $27.95 paper (ISBN 076195337x).

    Tacit Knowledge in Organizations is about the use of tacit knowledge by top managers. The book has ten references specifically to Polanyi and uses the concept of the tacit—mostly from a Polanyian perspective—throughout the book. Except that Baumard assumes more than Polanyi that the tacit is associated with the unconscious, the author's understanding of Polanyi and the tacit is sound.

    Baumard argues that tacit knowledge is a potentially valuable resource that senior managers tend not to appreciate, and therefore fail to exploit well. He notes that senior managers too often equate knowledge with explicit knowledge and generally fail to note that explicit knowledge relies on tacit knowledge. Relying on Polanyi's notion that we know more than we can say and what we say means more than we can know, the author points out how small a portion of our knowledge we can articulate. Because managers fail to appreciate tacit knowledge, they try desperately to reduce knowledge to propositional knowing and to rigidify expertise when overwhelmed by the ambiguous and unpredictable. The senior manager, further, overvalues and takes for granted his formal knowledge frameworks to the extent that they will sometimes actually hinder a more comprehensive picture from emerging.

    Clearly, Philippe wants top managers to appreciate tacit knowledge.

    When top managers don't appreciate tacit knowledge, they are apt to misinterpret problems, which ultimately results in "disconcerted organizations." Baumard describes a situation of tormented knowledge as a situation which exists in the midst of plenty of, even too much, explicit knowledge that consequently leads the organization to be overcome by the unpredictable and the ambiguous. The resulting problems are only amenable to solution by casting the mind forward using intuition and imagination across an unspecifiable "logical gap."

    Baumard gives four case studies where four companies overcame a major crisis—but did not know how they did it. Baumard attempts to show, retrospectively, how the role of tacit knowledge was critical in each case. At the end of each case study there is a summary of what was learned. The book concludes with a grand summary called, "The Tacit Foundation of Organizations."

    Baumard has a connoisseur's passion for knowledge and the ways of knowing; in addition to Polanyi, he talks about Castaneda, *The Art of War*, chaos theory and many philosophers from Plato to Feyerabend.

    I recommend the book.

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