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Preface

The articles you will find in this issue are an eloquent collection --they need little introduction. Most are the first fruits of the seven conferences held during the centennial year which ended on either March 11 or March 12, 1992. I equivocate about the date because, as Richard Gelwick recently informed me, the twelfth is the registered date of Michael Polanyi's birth but he actually was born on the eleventh. In News and Notes there is a bit more about the seven conferences as well as a notice about an upcoming conference in Nottingham, England in September of 1992. Elsewhere you will find also the Call for Papers for the November 1992 meeting of the Polanyi Society to be held in conjunction with the annual meeting of the American Academy of Religion in San Francisco. Since this issue is a little behind schedule, I advise anyone interested in submitting a paper proposal to phone David Rutledge.

The essays in this issue admirably represent the wide range of interests both of Polanyi and of those who have studied Polanyi's writings. Topics treated range across the spectrum of academic endeavor: Ira Peak examines how Polanyian ideas mediate between giants in legal theory; Charles McCoy discusses the "Polanyian revolution" and its implications for ethics. James Hall suggests some ways in which Polanyi's ideas fruitfully complement Jungian concepts; Joe Kroger reflects upon Polanyi and contemporary Roman Catholic thought. I am particularly pleased to include (with the help of Charles McCoy) the remarks delivered by Professor Melvin Calvin at the Berkeley centennial conference in March 1991; Professor Calvin, a Nobel Laureate, did two years of post-doctoral study with Polanyi in the mid thirties.

Phil Mullins

NEWS AND NOTES

HARRY PROSCH suffered a stroke in Summer 91 and lost some physical mobility. Fortunately, he is still able to talk and to write while he is in the process of rehabilitation. Presently, his exercises and the effort of walking take a lot of his energy. He would enjoy hearing from all Polanyi Society members. His home address is: 9 Loughberry Rd., Saratoga Springs, NY 12866, and his telephone is 518-584-1832.

The Convivium Group (United Kingdom and Europe) held a very successful centennial conference at Windsor, England in November, 1991. Speakers were Prof. Stephen Prickett of Glasgow, Prof. Brian Goodwin of the Open University, and Dr. Daniel Hardy of the Center of Theological Inquiry at Princeton.

The American Academy of Religion meetings at Kansas City, Missouri, November 22-26, 1991 had a vigorous celebration of Polanyi's centennial. On Friday afternoon, Richard Gelwick, Charles McCoy, and A. Durwood Foster presented papers on the Polanyi-Tillich dialogue of 1963. Friday evening, the Polanyi Society held a banquet and Daniel Hardy, Martha Crunkleton, and Joseph Kroger spoke of their views of "The Tacit Victory and the Unfinished Agenda." Saturday morning, Ron Hall presented "Critical and Post-Critical Objectivity" and Martin Moleski gave the invited response. Next Philip Rolnick presented "Polanyi's Progress: Transcendence, Universality, and Teleology" with a response by Diane Yeager. On Monday, Phil Mullins presented a paper "Polanyi's Participative Realism" in an AAR Roundtable.

The Polanyi Society joined with the Faith and Science Exchange of The Boston Theological Institute and held on February 28-29 at Harvard Divinity School a centennial celebration of the work of Michael Polanyi. The theme was "Science, Faith and Society." Gerald Holton, Mallinckrodt Professor of Physics and Professor of the History of Science at Harvard gave the opening address on "Michael

Polanyi and the History of Science." Charles McCoy gave two presentations - "The Meaning of Michael Polanyi: Toward A Post-Critical Perspective" and one on Polanyi's way of relating science and religion through comprehensive levels of integration. Richard Gelwick presented a paper on Polanyi's development of the common ground of science and religion. Allen Dyer presented a paper with visual examples in art and architecture on "Polanyi and Post-Modernism." Joe Kroger brought the celebration a challenge with his paper "Post-Critical Philosophy of Polanyi and Lonergan and Political/Liberation Theology" which included vivid discussion of his work in El Salvador.

The centennial year has had seven celebrations, Kent State University, Budapest, Windsor, Kansas City, Cambridge and two in Berkeley. The remembrance of Polanyi's thought produced over a hundred papers. Focusing on the major collection of papers at the Kent State Conference which had nearly 80 papers, Raymond Wilken is working with Phil Mullins and Richard Gelwick to edit and prepare them for publication. The plan is to begin with the major addresses as a volume and to consider subsequent volumes. In the meantime, selected papers will be published in *TAD*.

SPECIAL NOTICE: As announced earlier this year, The Convivium Group is planning to hold a conference at Nottingham, England, September 4-6, 1992 on "A Fresh Look at the Free Society: Post-critical Philosophy and the New Europe." Two of the main speakers will be: 1) Prof. Gaspar Tamas of Budapest, a recent member of the Hungarian Parliament and head of the national Hungarian Institute of Philosophy, and 2) Dr. David J. Levy, Middlesex Polytechnic. Both will address the theme "Europe and the Truth." To be assured of a place, send a deposit of 15 pounds sterling by an international agency such as American Express. The full amount for the conference is 85

pounds sterling. The address is: Dr. R. T. Allen, 20 Ulverscroft Rd., Leics LE113PU, England.

Richard Gelwick, General Coordinator

Call for Papers

The Polanyi Society is planning to hold a meeting in conjunction with the American Academy of Religion/Society of Biblical Literature annual meeting November 21-24, 1992 in San Francisco. As in recent years, the Society has asked to be scheduled early on the opening day of the annual meeting -- Saturday, November 21, 9 a.m. -12 noon. This time seems to be agreeable to both members of the Polanyi Society and the AAR/SBL program staff which schedules functions for cooperating groups such as ours.

If you are interested in presenting a paper at this session, please submit to me by April 15,1992, a proposal of approximately 300 words. If there are several proposals forthcoming, I will pull together a group to serve as a jury.

At present, I am planning for an hour and a quarter discussion of each of two papers, which will be distributed before the meeting. Paper titles, authors, and respondents will be listed in the AAR/SBL Program in the Additional Meetings section.

As some of you know, Phil Mullins has assumed responsibility for editing *Tradition and Discovery*, and I have taken over Phil's duties in planning the annual meeting. Let me encourage you to share with me your thoughts on how sessions of the Polanyi Society can best meet the needs of people who are interested in this work. This is not just Southern politeness -- I want to hear from you! Ilook forward to your paper proposals, and to seeing you in San Francisco.

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POLANYI AND PSYCHOANALYSIS

James A. Hall, M.D.

Since I first met Polanyi when I was in psychiatry residency at Duke University (1962-4), his work has exerted a continuing influence on my understanding of psychoanalysis, specifically the branch of psychoanalysis called analytical psychology, founded by the Swiss psychiatrist Carl Jung. In the present context, I wish to discuss briefly four areas in which Polanyi's thought has influenced or deepened my understanding of Jung's psychoanalytic theory. These are: (1) the compensatory nature of dreaming, including the function of unanalyzed dreams; (2) focal/tacit distinctions as a finer discrimination of conscious/unconscious; (3) dynamo-objective coupling (moral inversion) as informing the psychoanalytic theories of defense mechanisms and neurosis; and (4) an appreciation of "indwelling" as a concept useful in conceptualizing many psychological processes.

The Compensatory Nature of Dreams

Polanyi did not relate his epistemology to psychoanalysis. In 1968 I discussed with Polanyi, in Oxford, my intent to base a thesis at the Jung Institute in Zurich on his work. I wished to examine the problematical relationship of the dream-ego and the waking-ego as a shift in the tacit structure of psychological complexes underlying the sense of personal identity in both the waking and the dreaming state. Polanyi had no objection to my project, and offered encouragement and advice. But he had no particular interest in psychoanalysis, although he had used Freudian psychoanalysis as an example of a dynamo-objective coupling (Polanyi, 1958, p. 233). During that visit, Polanyi told me that his disinterest in psychoanalysis was partially based on a negative opinion of one of his childhood classmates who later became an important Freudian.

This Zurich thesis on dreams was published, in slightly modified form, as the seventh chapter of Clinical Uses of Dreams (Hall, 1977/1991) and also discussed elsewhere (Hall 1982, 1983, 1984a, 1986). The essential insight was that the waking-ego (the enduring sense of "I", including the body image) indwells in all the unconscious complexes in the psyche, while the dream-ego (the sense of "I" in the dream) tacitly identifies with only some of the complexes that comprise the tacit compartment of the waking-ego.

Jung coined the term "complex" or "emotionally toned complex" to mean a group of related "images" based upon an archetypal core and tending to have a common emotional tone. His major works on complex theory are contained in his book Experimental Researches (CW2) A complex is more than a collection of "images" in a visual sense; it is more like an icon on a computer screen. If activated, a complex tends to determine ego-identity, emotion, and the form 5 in which significant other persons are perceived.

In a dream, the dream-ego is able to interact focally with some of the complexes that are tacit to the waking-ego. This is rather like being able to do surgery on oneself. By observing changes in emotional behavior that occur after a dream that seems to change the structure of certain complexes but before the dream is discussed with an analyst, it is possible to infer that unremembered dreams may lead to significant change in personality (Hall, 1977/1991, pp. 151-161).

Jung viewed dreams as compensatory to the views of the waking-ego, correcting conscious distortions or one-sided emphasis (CW8, par. 250). This has traditionally been viewed as the remembered dream constituting a model in consciousness of the unconscious content that contains the compensatory material in symbolic form (Jung uses "symbol" to mean the best current representation of an unspecifiable range of potential meaning.). When the remembered dream is subjected to a formal process of Jungian analysis there is added another compensatory form--the conscious intellectual understanding of a possible meaning of the symbolic dream. This conscious understanding aids in recognizing conscious situations and other dreams that have a similar symbolic meaning, a second form of the compensatory nature of dreams. The direct action of the dream-ego to alter the structure of complexes that form the tacit basis of identity for the waking-ego constitutes yet a third and novel form of compensation (Hall, 1982).

Focal/Tacit and Conscious/Unconscious

The basic "topographical" distinction of psychoanalytic theory is conscious/unconscious. This terminology is inherently confusing, since one term, "the unconscious," is defined as what is not in the other term, consciousness. But consciousness itself is virtually impossible to define clearly! Furthermore, there are continual shifts in the boundary between consciousness and the unconscious. A memory that is conscious at one moment may be unconscious at the next, often for apparently psychodynamic reasons.

Polanyi (1958, p. 92) clearly states the independence of the subsidiary or tacit component of knowledge from the distinction of conscious/unconscious:

While focal awareness is necessarily conscious, subsidiary awareness may vary over all degrees of consciousness.

It would seem that the distinction of focal/subsidiary (which I prefer to restate as focal/tacit) is a more discriminating language for the discussion of many observations than is the traditional distinction of conscious/ unconscious. Within a dream, for instance, the dream-ego is "conscious" of some contents of the dream and still has a from-to structure--from the tacit or subsidiary complexes upon which it is based in the dream toward other contents of the dream, which are themselves images of complexes. From the point of view of the waking-ego, however, the entire experience of the dream is unconscious.

Dynamo-Objective Coupling (Moral Inversion):

Both Jung and Michael Polanyi find an innate moral tendency in mankind. This is explicit in Polanyi (it is what is consciously denied in moral inversion) and is implicit, it seems to me, in Jung's writings, particularly in the universal differentiation of the human psyche into ego-persona and shadow, based on moral self-judgements in childhood.

Contents that are considered "good" are assigned to the self-image and the personal, while their "bad" opposites fall into the field of the shadow, an alter-ego personality like the Mr. Hyde of the ego's Dr. Jekyll. Much psychotherapy and analysis, in fact, consists of no more than bringing these often archaic moral choices into focal conscious awareness for re-decision by the more mature adult mind.

Polanyi noted that in the early decades of this century, many western intellectuals were attracted to Marxism, which appeared to be a deterministic and amoral theory of history that seemed to undermine the open search for intellectual truth, the central value of those same intellectuals who were attracted to it. Why was this so? In answer, Polanyi defined the structure of *dynamo-objective coupling* as underlying a particularly pernicious form of totalitarian danger in the modern world (Polanyi 1958, pp. 235-237).

A dynamo-objective coupling, according to Polanyi, is a "moral inversion" in which a repressed moral belief is consciously denied in the service of a presumed objectivity. This had affected many modern intellectuals. As a result there was no conscious outlet for the innate moral passions. A dynamo-objective coupling, such as Marxism, allows an outlet for these moral passions while preserving the conscious illusion of objectivity. This results in covert unconscious moral actions which lack the moral and ethical limitations of a consciously held morality. Thus quite inhumane actions may be undertaken for "objective" reasons.

A dynamo-objective coupling is extremely difficult to alter. If attacked on objective grounds, it is defended with all the moral fervor of the covert moral position; and if attacked on moral grounds, it is defended as a completely "objective" position having nothing to do with morality. This is the structure of militant Marxism, actively formenting the overthrow of governments in order to further a process that is theoretically said to occur through historical necessity independent of conscious intentions. Moral inversion is also explanatory of the structure of collective shadows, those projected from one nation or race upon another (Hall, 1987).

The structure of dynamo-objective coupling is also a major basis of neurosis and neurotic defense mechanisms in individuals (Hall, 1984b). When used as a global defense, I have referred to the neurotic dynamo-objective coupling as "pseudo-objectivity." In the pervasive form of an established neurotic personality pattern, there is a covert negative moral judgement of the self-image, with a resultant sense that the shadow is a false "true self." The anima/animus, actually the principle of relationship, then functions in a negative and defensive manner. Such a neurotic pattern is essentially unassailable from outside. It must be raised to consciousness, faced with courage, and may be undone only from inside the neurotic psyche.

Indwelling

Indwelling is a concept that ranges, in Polanyi's (1968) model, from the use of tools (p. 59) to the transmission of culture (p. 173), appreciation of art (p. 194), and the ability to experience religious ritual (279-80). A human person ordinarily indwells in a stable body image and may even add tools, such as probes, to extend the subsidiary range of bodily awareness. The concept of indwelling is also useful in conceptualizing the relationship of dream-ego and waking-ego, in understanding some unusual states that seem to be related to activated archetypes, and in explaining the profound changes in self-image that occur with the successful treatment of psychoneurosis. Fingarette (1963, p. 301-3) compares the self-experience of a Zen master with that of a woman who has undergone successful (Freudian) psychoanalysis for a problem of excessive anger with a close friend. It is clear that both the woman and the Zen master are indwelling in the structure of their minds in a manner quite different from the ordinary mode of consciousness. A

Jungian might ask "what is it that indwells?" And in classical Jungian theory, the answer, finally, is "the Archetypal Self," which is larger than the self-image (ego-image) and able to paradoxically "dwell" in more than one attitude of mind simultaneously.

Differences in Polanyi and Jung

While Polanyi's work is very informative of many difficult areas of Jungian psychology, I do not wish to leave the impression that there are no significant stresses between Jung and Polanyi. First, of course, they pursued very different universes of discourse. Polanyi was primarily concerned with the epistemology of the scientific method while Jung was essentially a physician and an empiricist, concerned with finding curative methods. Thus their fields of data are quite divergent.

As a psychiatrist, Jung was concerned with affects and emotional disorders. The concept of emotionally-toned complex was a central concern. Polanyi was not directly concerned with the range of emotions, but with the sense of discovery involved in fruitful scientific discovery. Their respective theories were designed to speak to different human needs.

Polanyi focused on how we obtain a knowledge of external reality. Jung looked toward an inner subjective reality, but called it the "objective psyche" when it reached a deeper, non-personal depth. Both Jung and Polanyi would agree, however, that there is an unavoidable element of personal risk and commitment in any action. There is no purely "objective" perception of the inner or outer worlds.

The most mysterious and non-empirical of Jung's structural concepts, the Archetypal Self is the actual center of the psyche, both conscious and unconscious, while the ego is only the center of consciousness. The Archetypal Self is the psychological *imago Dei* in the psyche. It is considered to be (1) the totality of the psyche functioning as an organized field, (2) the image of such order (as in mandalas), and (3) the archetypal core of the conscious ego-complex, the "I-sayer." The Archetypal Self may also be called the "Central Archetype" or "Central Archetype of Order." It is in this concept, as well as his later view of archetypes as "psychoid" (underlying both the subjective and the objective worlds), that Jung's depth psychology borders on religious questions (Hall, 1981) as well as avoiding dualism. I am not aware of any parallel or closely related concept in Polanyi's work.

Jung is credited with the concept of psychological archetype. Although he did not speculate about the mechanism of their formation, Jung postulated that archetypes have a historical process of formation, perhaps roughly equivalent to the rise of the species. Archetypes are in some manner the residue of collective human experience. Polanyi seems to view reality as already formed but revealed in a continuing process of discovery of personal knowledge.

Both Jung and Polanyi clearly affirm the irreducible involvement of personal commitment in the perception and understanding of transpersonal reality. Jung, however, viewed the deepest layer of inner subjective reality, the collective unconscious or objective psyche, as a developing field. This stance reveals Jung as a radical constructivist, a view that is only recently being appreciated (Young-Eisendrath and Hall, 1991).

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The Tacit Victory and the Unfinished Agenda

[EDITOR'S NOTE: The comments below are by one of the panelists who spoke at the November 22, 1991 Polanyi centennial banquet held in conjunction with the Polanyi Society meeting at the annual meeting of the American Academy of Religion. The last issue of TAD carried comments by five panelists who were part of a similarly titled session at the April 1991 Kent State conference; speakers at both the banquet and the Kent State session were asked to comment on the relevance of Polanyi's thought to issues and discussions in their particular areas of interest.]

SOME REFLECTIONS ON MICHAEL POLANYI & CATHOLIC THOUGHT

Joseph Kroger

It seemed a good idea when I was asked to prepare a brief presentation for the occasion of the Polanyi centennial celebration on the topic of Michael Polanyi and Catholic thought. It became a more daunting undertaking upon reflection, however, and it eventually became clear to me that to take Polanyi and Catholic thought as my title would be rather presumptuous, particularly given the time constraints on my remarks. I ask you, therefore, to take the qualifiers (some reflections on) in my revised title quite literally.

In order to appreciate the importance of Michael Polanyi's post-critical philosophy for Catholic theology and his continuing relevance to those of us currently engaged in this enterprise, it is necessary, first, to recall briefly some recent religious history.

It is well known how, through the nineteenth and early twentieth centuries, the Catholic Church and the main stream of its theology took up a more or less defensive posture towards the age of enlightenment and modern science. The upshot of this was that -- in contrast to the experience taking place within Protestant Christianity -- a meaningful confrontation between the Catholic world and modernity was delayed for almost two hundred years until the second half of the twentieth century. And when the conditions were finally present to allow that confrontation to occur (in the world we call post-Vatican II), its impact was sudden and overwhelming. The Catholic tradition of thought and

practice experienced a crisis which shook it (to borrow a phrase from Paul Tillich) to its very foundations. Langdon Gilkey's *Catholicism Confronts Modernity* provides an insightful and sympathetic Protestant account of this critical moment in Catholic thought.

The confrontation raised two theological exigencies for Catholics struggling to meet the challenge of modernity: the first was simply to understand and come to terms with modern science and modern freedoms; the second was to appropriate them and ground theology itself as a legitimate and responsible cognitive endeavor. Thus, questions of foundation and methodology took center stage in Catholic thought through the 1960's and 70's just as Polanyi's post-critical philosophy was beginning to have a significant impact on modernity's own self-understanding. The crisis for Catholicism was deeply rooted in both the theory and the practice of the world of modern science which it encountered. The theoretical component was a scientific vision of a closed and one-dimensional universe of interrelated causes and effects which had no place for transcendence or the *object* of theological reflection. As Huston Smith observed two years ago in a plenary address here at the AAR, modernity collapsed the "ontological hierarchy" of religion. (*JAAR*, p. 657) At the same time, the practical component was a positivistically perceived scientific method that included a paradigm of responsible thinking which, in effect, eliminated the engaged *subject* of theological reflection. In the words of David Tracy: "Reason retreated into a formal and technical rationality." (*Plurality and Ambiguity*, p. 31)

Johann Baptist Metz characterized the impact of modernity upon Catholic thought and practice as a "two-fold reduction," presenting something like a "permanent constitutional crisis" for theology. First there is the *privatistic* reduction of theology in which the logos of theology is entirely concentrated on religion as a private affair. Under pressure of scientific advance, theology is led to surrender the public realm to the so called "objective sciences." Second, there is the *rationalistic* reduction of theology which includes a withering of the imagination and a radical renunciation of symbolism under the oppressive cognitive force of formal abstract reason. (*Different Theologies, Common_Responsibility*, p. 14)

Members of the Polanyi society are well aware of the way Polanyi's post-critical thought challenges the modern scientific vision of a closed natural universe and reveals a world of ontological hierarchies governed by principles of marginal control. I need not review that achievement at this time. Nor is it necessary to recount in any detail here how Polanyi deconstructs the positivistic model of formal rationality that has dominated modern thinking and discovers in its place a tacit dimension to all human knowing. However, the enduring legacy (i.e., "the tacit victory") of Polanyi's contribution to the emergence of a new post-modern paradigm, as well as the need to further clarify its significance (i.e., the "unfinished agenda"), can be seen, I believe, in the efforts of contemporary Catholic theologians to overcome the modern identity-crisis of Christianity through an understanding and appropriation of this new paradigm. For if there is one thing post-critical thought has made imminently clear to Catholic theologians, it is the necessity to encounter modernity dialectically. Certainly, what contemporary Catholics do not want, having so recently opened up to the modern world, is to fall back behind those advances in critical reflection and political freedom which the enlightenment has already brought forth. I simply want to call attention, therefore, to the work of theologians like Hans Kung, David Tracy, Matthew Lamb, Johann Metz, Rosemary Ruether, Anne Carr among others who are charting a course for Catholic theology within what could be called the fiduciary framework of a new post-critical paradigm.

At a recent international and ecumenical symposium on the topic of "paradigm change in theology" Hans Kung, David Tracy and Matthew Lamb provided the major preparatory papers which sketch the modern problematic

and point a way out in the direction indicated by the paradigm of post-critical thought. Hans Kung draws upon paradigm analysis itself not only as an analogue for understanding the current crisis in Catholicism but to suggest possibilities for reconstructing the entire history of theology. In his essay, David Tracy explores some of the hermeneutical presuppositions of post-critical thought. It is Matthew Lamb, however, who finds the most explicit parallels between developments in the new post-critical paradigm initiated by Polanyi's thought and current developments in Catholic theology.

Lamb is specifically interested in providing a post-critical account of the turn to praxis, and ideology-critique so evident in the emergence of political and liberation theologies. He finds significance in the way post-critical philosophy in general and Polanyi in particular has made it possible to call into question the fundamental self-understanding of modernity with its illusory dichotomy between science and ideology, while deftly avoiding a lapse into relativism or epistemological anarchy. (*Paradigm Change in Theology*, p. 65.) According to Lamb, neither critical rationalists such as Karl Popper who tend to associate value commitments and the praxis of science with the "irrational," nor critical anarchists, such as Paul Feyerabend who tend to regard the concerns of post-critical thought as overly "rationalist," are able to transcend the fundamental dichotomy of modernity.

Underlying the modern science-ideology distinction is an enlightenment bifurcation of value-free scientific rationality and pre-rational or irrational value commitments. This in turn is rooted in the more fundamental dichotomy of objectivity and subjectivity. Post-critical philosophy exposes the contradictory presupposition fostering this dichotomy--a desire to eliminate the subject of knowledge entirely and reconstruct the methods of science into formally logical, a-historical procedures of pure objectivity. Polanyi's own effort to overcome the dichotomy of scientific-objectivity and moral-subjectivity takes the form of an account of the structure of tacit knowing in which a dialectical interplay between conscious praxis and thematized knowledge is evident. The post-critical shift from scientistic objectivism to the questioning praxis of scientific communities provides insights for understanding similar developments taking place in contemporary Catholic thought. In Lamb's opinion, such a post-critical understanding is not possible for instance if one remains fixated on typically modern "conservative-liberal" or "fideist-rationalist" dichotomies (*Paradigm Change*, pp. 63-109).

Recently, Lawrence Cunningham pointed out how Catholic theology is generally characterized today by two adjectives: "pluralist" and "historical" (*The Catholic Heritage*, p. 118). What Kung, Tracy, Lamb and the entire symposium on paradigm change in theology suggest is a unifying fiduciary framework which provides criteria for limiting the pluralism and transcending the historicism. Within this framework or post-modern paradigm, the Catholic theologian's relationship to the authoritative faith tradition, on the one hand, and to the dominant culture of modernity, on the other, can be seen as dialectical. Catholic theology is at once both "interpretation and criticism" as Edward Schillebeeckx has argued. (*The Understanding of Faith*) More importantly, it carries out this dialectic of engagement and distancing; of dwelling-within and breaking-out; of trust and suspicion, *vis a vis* both the ecclesiastical tradition *and* the modern scientific world.

In the light of this new paradigm, in other words, post-critical Catholic theology's own self-understanding has come to mean accepting a two-fold responsibility: 1.) The first task is to *uncover ideological distortions* within religious tradition and modern culture alike through a disclosure of their tacit pre-suppositions; this could mean revealing how what was once regarded simply as a faith tradition is, on the contrary, a "white" or "male," or "middle-class," or "clerical" tradition; or it could mean revealing how what was previously taken to be a universal

manifestation of enlightened freedom or rationality is, on the contrary, an oppressive form of social manipulation or control by the dominant culture. 2.) The second responsibility is to *articulate a new hermeneutic of faith* which avoids these ideological pitfalls by acknowledging the primacy of praxis in one's theology and the historical embeddedness of reflection in tradition and community; in other words, by taking personal responsibility for one's knowledge. From a post-critical perspective, a theological tradition continues to be authentic and liberating only to the extent it remains internally self-critical and avoids a reversal of dominative patterns.

Recognition of a tacit dimension in theological reflection led Johann-Baptist Metz to discover what he calls the "subject behind the subject" of enlightenment theology. His account of political theology as a critique of the middle-class subject (i.e., the private, autonomous, self-sufficient individual) and middle-class theologies (i.e., existentialism and positivism) illustrates well the "double dialectic" involved in a post-critical recovery of authentic social subjectivity from the ideological distortions of both religious tradition and modernity. At the same time, Metz's political theology remains embedded in the narrative memories of a community's faith experiences. (*Faith In History and Society*, pp. 32-48; 205-218.)

In a post-modern context, Catholic theology can no more avoid a dialectical confrontation with its authoritative past than it can avoid confronting the present world of science and technology. Ideological distortions of both "sacralism" and "secularism" must be critiqued -- and not from some neutral standpoint outside, but from a committed perspective within the worlds of traditional faith and modern science themselves. (*Paradigm Change In Theology*, p. 87.) Polanyi's post-critical thought has helped make such a critique possible by undermining the dichotomies which separate these two worlds and lead to their ideological distortion.

As a part of the new theological paradigm, political theology attempts to overcome 1.) on the one hand, the *privatization* of religion (i.e., the relegation of faith to an individualistic sphere of subjectivity) and 2.) the *scientization* (or what Weber called "rationalization") of social life (i.e., the elimination of values from the public sphere and their replacement by instrumental models of objective rationality). The goal of post-critical theology, then, is to restore the public or social dimension to religion (in response to a privatizing of faith which removes the world from the subject) and to restore the personal or value dimension to society (in response to a scientizing or technologizing of society which removes the subject from the world).

Contemporary forms of Catholic liberation theology--from marginalized women, oppressed blacks, the impoverished third world--can be seen likewise to engage in a dialectical critique and recovery of the religious tradition and the modern world. In discussing feminist theology within the new post-modern paradigm, Anne Carr speaks of both negative moments of protest and critique as well as positive moments of historical revisioning and theological construction (in *Paradigm Change In Theology*, pp.397-407). In a similar voice, Rosemary Reuther constructs a feminist theology of liberation that not only exposes the patriarchal dimension which tacitly underlies the Christian tradition and shapes much of modern thought, but also engages in a retrieval of the feminist dimension of those same traditions, recognizing that it is both, "self-deluding and unsatisfying" to think one can reject the authority of tradition per se. The meaning of the post-critical paradigm rings clear in her admonition that "one cannot wield the lever of criticism without a place to stand." (*Sexism and God Talk*, p. 18)

In these brief remarks on contemporary political and liberation theology, I have tried to suggest where I see the significance for Catholic thought in Polanyi's tacit victory and unfinished agenda. Post-critical philosophy has led

to a fundamental rethinking of the modern relationships between science and ideology, theory and praxis, myth and reflection, authority and freedom, value commitments and truth claims. In contributing to the development of a new paradigm for theology, Polanyi has helped point the way towards a meaningful, i.e., dialectical confrontation between Catholicism and modernity.

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TACIT KNOWING--BETWEEN MODERNISM AND POSTMODERNISM: A PROBLEM OF COHERENCE

Andy F. Sanders

I

In this paper I address myself to two issues concerning Polanyi's epistemology. The first is that notwithstanding his critique of objectivism and his post-critical perspective, Polanyi remains firmly rooted in the tradition of the Enlightenment. To put this somewhat differently, I think that although he may be regarded as an early postmodernist, he may be seen also as someone who tried to do a job of restoration, namely drawing attention to essential elements in the heritage of the Enlightenment, elements he thought were in danger of being forgotten and threatened. Obviously, this a very large issue and therefore I shall confine myself strictly to the epistemological issues involved.

The first point quite naturally leads to a second, namely that Polanyi's being both a modernist and a postmodernist has everything to do with a certain tension in his position. I shall point out briefly that one of the more serious problems in this connection is the overall coherence of his epistemology. This second issue, it seems to me, is the more difficult and interesting and I shall therefore concentrate on it. In the last part of my paper I shall also make a few suggestions for a possible solution.

II

In order to see in what respects Polanyi's epistemology may be called "modern" or "postmodern," let me start by giving useful working definitions of these vague terms. Using some ideas recently developed by the theologians Murphy and McClendon, I suggest we characterize "modern thought" or modernism quite generally as comprising at least three doctrines of knowledge, language and reality respectively. These doctrines are:

- (1) epistemological foundationalism,
- (2) the (either) representational (or) expressivist theory of language,
- (3) reductionism.

Obviously, modernism comprises more than this. For instance, it also incorporates ideals like the autonomy of the individual, tolerance and emancipation through reason and science. However, keeping as closely as possible to my epistemological interests, this minimal definition is useful enough for our present purposes. A few words on the three modernist doctrines.

- (1) Murphy and McClendon identify epistemological foundationalism with the view that knowledge can be justified only by finding indubitable, incorrigible and therefore "foundational" beliefs upon which it is constructed. Though this is certainly correct as a general characterization, further important aspects should be pointed out. As I take it, foundationalism can also be defined as the epistemological position which adheres to the age-old definition of knowledge (with a capital "K") or episteme as justified true belief. It may also be identified with the equally old quest for certainty and the accompanying attempt to solve the problem of skepticism. Foundationalists are extremely concerned with the problem of whether, and if so how, beliefs, statements or theories can be justified. If they justify their beliefs by an appeal to a set of particular "fundamental" or basic beliefs which are allegedly incorrigible, self-evident to the senses or beyond any conceivable doubt, I suggest we call them dogmatic justificationists.
- (2) The representational-expressivist theory of language is the view that the primary function of language is representing the objects or facts to which it refers. In all other cases language merely expresses psychological states or attitudes of the speaker. Clearly, on this view all ethical discourse is non-factual and non-referring and therefore at most expressive, or, as logical positivists (cf. C.L. Stevenson) said, emotive.
- (3) According to Murphy and McClendon, reductionism is part of modernism as the attempt to understand reality by reducing it to its component parts. In ethics and political philosophy we have a parallel in the sense that in Enlightened modernism the individual is almost always considered to be more important than the whole, so that the individual has priority over the community (Hegel and some of his followers are probably the exceptions here). Can we find traces of these modernist doctrines in the theory of personal knowing? Starting with reductionism, it is quite clear that the answer should be "No." Not only is Polanyi's epistemology explicitly anti-reductionist, it is also quite clear that it is thoroughly holistic. And holism, as we shall see in a moment, is precisely a mark of postmodernism.

Not only do we not find any reductionism in Polanyi's work, we do not find any trace of the representational-expressivist view of language in it either. This is not to say that in his view language is not in the referring or expressing line of bussiness. Rather, Polanyi tries to integrate both functions in his theory of the personal or tacit component, according to which all assertions of fact express beliefs (or judgements) and are "essentially accompanied by feelings of intellectual satisfaction or of a persuasive desire and a sense of personal responsibility." As I have shown elsewhere, this doctrine of the tacit component of assertions is in significant respects quite congenial with Searle's theory of speech acts. So there is no modernism here either.

This leaves us with the question of epistemological foundationalism and it seems to me that we cannot answer this in the negative. For it is quite clear that Polanyi takes the modernist problem of justification of belief and the defence against skepticism very seriously. Part III of *Personal Knowledge* is largely devoted to this issue, as the fiduciary programme, including the "Critique of Doubt," the doctrine of commitment and Polanyi's explicit invitation to dogmatism, are clearly meant to solve the problem of skepticism.

The conclusion that there is a strong element of modernism in Polanyi's position can be strengthened further by pointing out further modern, perhaps even premodern, ideas to which he quite clearly adheres. These are:

- (a) The ideal of truth as a regulative standard to which we ought to submit ourselves and as something we ought to search for, even though we shall never find it.
 - (b)Strong, almost naïve scientific realism.
 - (c)Openly professed commitment to (natural) science as by far the most reliable guide to knowledge and truth
- (d)The thesis of a correspondence (of some sorts) between the structure of tacit knowing and the structure of the comprehensive entity which is its object.⁴

Obviously, (a) - (d) are important and interesting elements of Polanyi's philosophy. Since I cannot go into them, suffice it to say that they are not postmodernist. Before turning to our main concern, the issue of justificationism and in particular Polanyi's invitation to dogmatism, let us see briefly where he stands in respect to postmodernism.

Ш

Murphy and McClendon characterize postmodernism in contrast to the three modernist doctrines.

(1)Epistemological holism.

Quine is taken as an early postmodern epistemologist who explicitly rejected the foundationalist model and replaced it with a holist account. Human knowledge is not taken in isolation, either as theories or as particular knowledge claims, but rather as a whole. By considering theories in conjunction with the relevant background knowledge, epistemological holism renders the status of the well-known requirements of falsifiability and verifiability problematic. For instance, according the so-called Duhem-Quine thesis,

any statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system ... Conversely, by the same token, no statement is immune from revision.⁵

As I shall indicate below, Polanyi can be interpreted consistently as an adherent of this thesis.

- (2) The attempt to analyse meaning solely in terms of its referential force is abandoned. The obvious examples in this connection are the later Wittgenstein and the speech act theorists.
- (3)In postmodern ethics, as defended by Alasdair MacIntyre, emotivism is avoided by recovering a corporate or organic view of society that will support the notion of a common good.

It is easy to find these and other postmodern elements in Polanyi's epistemology and for this reason Murphy and McClendon may well have taken it as a paradigm example of early postmodernism. I point out the following in

particular.

- (i) Polanyi's epistemology is thoroughly holistic. Support for this comes from the fact that he nowhere pays attention to statements, beliefs or theories in isolation, but always in context and as parts of a larger network or framework of beliefs and always embedded in a background of tacit notions, stances and practices. Typically holistic is also Polanyi's employment of notions like 'superior knowledge" (the sum total of the knowledge and values embedded in a culture's tradition), "conceptual framework" (by means of which and through which we make sense of the world and which is objectively given in the languages of a culture) and "system of belief."
- (ii)A further important characteristic of postmodern epistemology, not mentioned by Murphy and McClendon, is its being "naturalized." This notion also stems from Quine, who argued that whereas the natural sciences are seen traditionally as contained in epistemology, epistemology may now be taken as a component part of psychology. Clearly, Quine's idea of a reciprocal containment of epistemology in psychology and vice versa contradicts the common modernist thesis of the strict separation of matters of logic (Kant's quaestiones de iure, Leibniz's veriteés de raison) and of matters of psychological (sociological, historical) fact. However, it is also obvious that Polanyi's theory of tacit knowing is meant to dissolve this exclusive disjunction and that he often employs scientific ideas and facts for illustrating, and even demonstrating particular theses within that theory.
- (*iii*) As regards his view of language, there can be no doubt that Polanyi is emphasizing its communal nature. In view of the fact that he has often been interpreted as a subjectivist and a solipsist, it should be noted that in Polanyi's view the search for knowledge and truth is a communal affair also.
- (*iv*)In my view a further postmodern element is the fiduciary or fideist thesis that conceptual frameworks and cultural practices have their own internal standards of rationality and excellence, though not, if I read Polanyi correctly at all, of truth.

There may well be other elements but (i) - (iv) clearly establish Polanyi as a postmodern philosopher of knowledge (and possibly also as a postmodern moral philosopher). However, the combination of the postmodern fiduciary thesis (iv), the explicit invitation to dogmatism and his typical modernist preoccupation with the problem of justifying our commitment to science as a central part of our 'superior knowledge' leads to a suspicion of incoherence, or at least strain within Polanyi's epistemology. This brings me to the second part of my paper in which I shall be concerned with the question whether or not Polanyi's position is incoherent in being both relativistic and dogmatic at the same time.

IV

Let us start with the postmodernist thesis (*iv*). It seems that it leads to *relativism* as soon as we pose the question of how we can give a reasons for our commitment to science (or any other cultural system). Part of Polanyi's solution to this problem consists of a sociological description or, if you prefer, a philosophical assessment of an important aspect of our modern cultural predicament. Underlying science is a naturalistic conception of the universe which forms part of modern man's mental life. Therefore, whether we like it or not, science itself is part of our mental life.

A more interesting part of his solution, however, is the postmodern principle which Polanyi introduces for assessing cultural belief systems, namely that "any sincere account of the reasons for which we...share in the mental life [offered by a cultural system] must necessarily be given as part of that life."

We are reminded here again of ideas of the later Wittgenstein who on a rather common interpretation held that language games and forms of life can only be accounted for in terms of standards and criteria which are internal to them.

It seems to me that Polanyi's internalist principle suggests perceptual and conceptual relativism. It may even be interpreted as an early version of a thesis of the so-called "Strong Programme" in the sociology of knowledge, namely that there are no context-free or super-cultural norms of rationality. On the other hand, Polanyi's relativism is not as radical, for it is obvious that he is neither a relativist about truth nor a moral relativist. 9

Whereas the postmodernist elements appear to lead to relativism, Polanyi's modernist ideas seem to convey a strong whiff of foundationalism, particularly in the case of his explicit invitation to dogmatism. Clearly, our question now becomes how to account for the fact that Polanyi is both a relativist and a dogmatist.

In order to understand Polanyi's invitation to dogmatism, we had best turn to Polanyi's cherished example of a cultural system, science. There is a well known passage in *Personal Knowledge*, where he addresses himself to the question as to why we should believe in science and not in say, witchcraft, Zande magic, fundamentalism or communism. In other words, the question appears to be whether, and if so how, our fiduciary commitment to (natural) science can be justified now that proof and foundations have turned out to be impossible.

Polanyi took this problem very seriously. In fact, he tells us that the whole of *Personal Knowledge* "is but a quest for a substantial reply to a question of this kind." ¹⁰

He wants to 'stabilize belief in science against skepticism" and this leads us to the well-known passage in *Personal Knowledge* where Polanyi explicitly invites us to adopt "dogmatism."

This invitation is meant "to restore to us once more the power for the deliberate holding of unproven beliefs." How should we take this? It certainly seems to come quite close to subjectivism or dogmatic justificationism, and it should come as no surprise that some have interpreted Polanyi as representing precisely a kind of dogmatic subjectivism. Again, the tension is real. How are such matters to be reconciled?

V

A solution to the problem of the coherence of Polanyi's overall position, I suggest, consists at least of two steps. The first is concerned with the proper interpretation of Polanyi's dogmatism, the second with his fallibilism--the doctrine that we always might be mistaken in what we sincerely believe to be true.

By "dogmatism" I understand the doctrine according to which there are at least some propositions or things which we cannot fail to believe, and which are such that it follows from our believing them that they are true. Descartes would be the paradigm example of a dogmatist in this sense. It is also a central thesis of what we earlier called dogmatic justificationism, characterized by a desperate interest in the quest for certainty and secure foundations in solving the

problem of skepticism.

There is, however, another kind of dogmatism which is not concerned with foundations but with methodology. This *methodological* dogmatism is better known as the principle of tenacity which prescribes that one should stick to one's theories or beliefs as long as it is reasonably possible. Obviously, the point of this rule is to put a constraint on the attitudes of scientistis and other explorers: it says that we should not give up our beliefs and theories in the face of adverse evidence too soon. For, as already C.S. Peirce (and in his footsteps Popper and others) pointed out, if we did, we would deprive ourselves of the opportunity to find out their strength. ¹⁴

As I have argued elsewhere more extensively, the best interpretation of Polanyi is to say that he advocates methodological, not justificatory dogmatism. ¹⁵ My reasons for this rest mainly on a number of statements which are admittedly rather isolated, but leave no doubt as to their fallibilist import. I refer to such Polanyian statements as, for instance, "every factual assertion is conceivably mistaken" and thus also "conceivably corrigible," "the possibility of error is a necessary element of any belief bearing on reality," "all fundamental beliefs are irrefutable as well as unprovable" and the emergent Noosphere, and thus all our allegedly superior knowledge "comprises everything in which we may be totally mistaken." ¹⁶

Thus the balance can be restored: good reasons can be given for the thesis that no real incoherence is involved, provided that we may interpret Polanyi's dogmatism as methodological and provided that we may also take him as a fallibilist. We may then see Polanyi as a traditionalist who maintains that now that proof and foundations have turned out to be impossible and a God's eye point of view is unattainable, we should rely on our cultural systems and traditions as the only starting point for our inquiries available to us. This is also the dialectical process of learning and discovery, of dwelling in a framework as a condition for breaking out of it. And pace Professor Torrance, this is a further reason why I do not believe that Polanyi intended to break away from the Enlightenment.

NOTES

- 1. N. Murphy & J.W. McClendon, Jr., "Distinguishing Modern and Post modern Theologies," *Modern Theology* 5 (1989), 191-214.
 - 2. Personal Knowledge, 27.
- 3. Cf. A.F. Sanders, *Michael Polanyi's Post-Critical Epistemology: A Reconstruction of Some Aspects of "Tacit Knowing,"* Amersterdam 1988, Ch. 2.
 - 4. Cf. The Tacit Dimension, 33f.
- 5. Cf. W.V.O. Quine, "Two Dogmas of Empiricism" (1961), in From a Logical Point of View, New York: Harper & Row, 1963, 43.
- 6. Cf. W.V.O. Quine, "Epistemology Naturalized" (1965) in *Ontological Relativity and Other Essays*, Columbia University Press, New York/London 1969, 83. See also p. 87 where Polanyi, Kuhn and Hanson are depicted as tending towards epistemological nihilism which, according to Quine, resulted from the dislodging of epistemology from its old status as first philosophy.
 - 7. Cf. Personal Knowledge, 171.
- 8. Cf. B. Barnes & D. Bloor, "Relativism, Rationalism and the Sociology of Knowledge," in *Rationality and Relativism*, M. Hollis and S. Lukes, Eds., Oxford: Blackwell, 1982, 27.

- 9. As regards truth, the statement, "through every person may believe something different to be true, there is only one truth" (cf. *Personal Knowledge*, 315) hardly leaves room for doubt.
 - 10. Personal Knowledge, 150.
 - 11. Cf. Personal Knowledge, 268.
- 12. Cf. for example, A. E. Musgrave, Impersonal Knowledge: A Criticism of Subjectivism in Epistemology, Ph.D. University of London, 1969, which may be regarded as the canonical expression of critical rationalist criticism of Polanyi.
- 13. Cf. S. Haack, "Fallibalism and Necessity," *Synthese*, 41, (1979), 52. See also her "Epistemology With a Knowing Subject," *Review of Metaphysics*, 33 (1979), 309-35.
- 14. Cf. K. R. Popper, Conjectures and Refutations. The Growth of Scientific Knowledge, London, 1963, 312; also, Objective Knowledge. An Evolutionary Approach, Oxford 1972, 30.
 - 15. Cf. Andy F. Sanders, ibid, Ch. 6, 183-226.
 - 16. Cf. Personal Knowledge, 314f., 271, 404.

DWORKIN AND HART ON "THE LAW": APOLANYIAN RECONSIDERATION

Ira H. Peak, Jr.

INTRODUCTION

It is the purpose of this paper to propose and defend a potential resolution of a long-standing conundrum in the philosophy of law. The conundrum is posed by the conceptual impasse emerging from the debate between H.L.A. Hart and Ronald Dworkin over the nature of "the law." The paper is developed in three sections. The first contextualizes the debate between these giants in the field of jurisprudence. The second section develops in some detail the positions of each thinker on this central issue in legal philosophy? the "rules" approach of Hart and the "principles" approach of Dworkin. This section also sharpens these differences in terms of the broader issues which their debate poses for the larger field of philosophy of law. A third section proposes a Polanyian model for reconsidering this apparent impasse. The model develops an approach to decision-making in terms of "universal intent." The paper's conclusion seeks to establish that this model can be applied to the philosophy of law and effectively forge a compromise between the competing views of Hart and Dworkin.

T.

Perhaps the simplest way to contextualize the Hart-Dworkin debate is to sketch (all too) briefly the poles between which each sought to position himself, i.e. natural law theory (exemplified preeminently by St. Thomas) and "legal positivism" (articulated classically by the 19th century British jurist John Austin).

In *Summa Theologica*, St. Thomas organizes his discussions of "the nature of law" around his notion of "natural law." Law, in this view, is universal because it springs from reason possessed by all people. It is this natural law that shapes the positive law of which we ordinarily speak in referring to "the law." Positive law stands in contrast both to natural law and to divine law, and the relations among the three in the ordering of human life are explained by St. Thomas. In this connection the question of special importance is whether (and in what way) human law is derived from natural law.

Positive law, for St. Thomas, is determined by the natural law for the common good. It is binding upon the conscience, because it is just. The "angelic doctor's" concept of law, then, is of an ideal to be found in laws. It is absent when unjust exercise of power produces laws in name only. For the most part these need not be obeyed. St. Thomas's views on law and morality actually anticipate more modern views regarding conscientious objection to unjust laws. For, on his understanding, only moral wrongs that are socially significant, such as harm to others, properly concern the law.

John Austin's work in jurisprudence has long been regarded in the Anglo-American tradition as the leading work in opposition to natural law theory. Austin seeks to define positive law, and this he does by distinguishing "laws properly so called" from other law-like utterances and other things called laws.

Laws properly so called turn out to be "commands" requiring conduct; and some, called positive laws, issue from a sovereign to members of an independent political society over which sovereignty is exercised. Commands entail a purpose and a power to impose sanctions on those who disobey; a sovereign is a determinate human superior (that is, one who can successfully compel others to obey) who is not in a habit of obedience to such a superior and who also receives habitual obedience. An independent political society, then, is one in which the bulk of society habitually obeys a sovereign.

Accordingly, Austin's "legal positivism" sees the issue of "the law" reducing to the issue of who sets the rule (i.e. "command") and how the command is enforced (i.e. by force or threat of force). Oversimplified, and crudely so, Austin sees the operative principle in determination of "the law" as something like, (successfully and effectively exercised)" *might makes* (properly "legal") *right*."

Hence, whereas for St. Thomas positive law could be said to be grounded, in some sense, axiologically, for Austin law's only "grounding" is the effective exercise of power to enforce commands. Stated alternatively, while St. Thomas defines the law in terms *de jure*, Austin does so in terms *de facto*.

II.

As one might suppose, much of the literature in this domain of the philosophy of law has been given over to attempts to define mediating positions between these "extremes." Two such mediating views are articulated by Hart and Dworkin.

The work now generally regarded as the most important twentieth century statement of the positivist position in the Anglo-American tradition is H.L.A. Hart's book, *The Concept of Law* (Hart, 1961). In it, Hart does not seek to defend a narrow, partisan tradition, but rather departs from Austin's version of positivism by undertaking a broad reexamination of the fundamental questions of jurisprudence, clarifying them and securing their importance.

Hart's analysis of the concept of law is based on several interrelated ideas (See especially Hart, 1961, "Law As the Union of Primary and Secondary Rules," pp. 77ff). He maintains that a legal system—in contrast to a set of unrelated laws—consists of a union of primary rules of obligation and secondary rules. The most important secondary rule, which Hart calls "the rule of recognition," specifies the criteria for identifying a law within the system (e.g. the United States Constitution). Other secondary rules specify how primary rules are changed or modified and when primary rules have been violated.

Furthermore, in distinguishing primary rules of obligation from secondary rules, Hart takes the position that there is at least one type of law that imposes an obligation (Hart, 1961, p. 80ff). This type tells citizens that they must not do this or must do that. Raising the crucial question of what an obligation with respect to legal rules means, Hart rejects the idea that to say that law imposes an obligation is merely to assert a prediction (about likely behavior of

citizens). Nor does he accept the view that laws imposing an obligation are simply coercive orders.

Hart (1961, p. 84ff) attempts to provide a general analysis of obligation in terms of social pressure. He sees this analysis as clearly distinguishing his view from those of Austin and other positivists.

Finally, in order to understand secondary and primary rules and the obligation the law imposes, Hart (1961, pp. 86-87) insists that the point of view of people who follow and apply the law must be considered. In particular, he emphasizes the importance of an internal point of view of the law? that is, the point of view of those who operate within the law rather than of external observers of the law. So, according to Hart (1961, p. 88ff), a legal theorist who wishes to understand a legal system must view the legal system from the point of view of an actor *in* the system. In Wittgenstein's categories, perhaps, we might say that Hart views the legal system as a "form of life," rather than merely as a formal system.

How then, one might inquire, do Hart's notions of "law" and "legal system" impact the crucial issue of judicial interpretation? Clearly, he has moved away from a strict legal formalism, the view that legal interpretation is always simply the straightforward application of a legal rule to a case. Hart does believe that there are instances where this formalist approach is appropriate, but he denies that it always is. Sometimes the judge must exercise discretion, and a mechanical application of rule to case is impossible.

Note the difficulty which this issue poses for a legal positivist who is equally displeased with a natural law form of "legal foundations" and the extreme position of rule skepticism (the notion that judges always have wide discretion and that the application of rules to cases plays no significant role in judicial decision). I will return to this issue a bit later. For the present, I will merely note that across the years Hart's position on this issue has undergone change. To be fair, therefore, I will attempt to characterize his position on judicial interpretation in terms of his mature thought on this problem, some of which has evolved in his ongoing debate with Ronald M. Dworkin.

Dworkin, the most famous critic of Hart's theory of judicial interpretation, was Hart's successor to the Chair of Jurisprudence at Oxford University. Against Hart, Dworkin maintains that even in unclear cases there is always one correct decision, although what this decision might be is unknown. In addition, Dworkin argues that a judge's decision in unclear cases is characteristically determined, and should be, entirely by principles specifying rights and entitlements. But I am here getting ahead of myself. I must first summarize in more specific terms exactly how Dworkin's position differs from Hart's.

Professor Ronald Dworkin has presented a fascinating critical tool in philosophy of law for critiquing legal positivism, i.e., his notion of "legal principles" (Dworkin, 1986 a, p. 153ff). He describes principles as "a standard that is to be observed, not because it will advance or secure an economic, political, or social situation deemed desirable, but because it is a requirement of justice or fairness or some other dimension of morality" (153). He argues that the difference between "principles" and "rules" is (1) "logical" (154); (2) related to the fact that principles (not rules) differ in their "weightiness" (156); but (3) not always recognizable from their form (156).

Although "principles" are sometimes well-established (for example, by judicial precedent), at times they do not become established until there is adjudication of "hard cases" (157). Yet these *principles* become (indeed are used for) the justification of decisions in cases, which (in turn) become *rules* of law (157).

Although Dworkin defends his concept of "legal principles" with explicit intent and systematic vigor in "The Model of Rules," the nature and subtlety of his position emerges more clearly from his more popular article "On Not Prosecuting Civil Disobedience" (Dworkin, 1968). For our purposes here, however, the foregoing summary of Dworkin's position will suffice.

It would appear that the net effect of Dworkin's firm opposition to legal positivism is a kind of conundrum for philosophy of law. On the one hand, Dworkin is able to demonstrate that the "rules" (or "pedigree") approach of H.L.A. Hart to "certifying" valid positive law does not account for the presence of (and appeal to) "principles" (not reducible to "rules") within jurisprudence. Indeed, it does appear that "principles" in fact play a role in some judges` arriving at decisions, interpreting their reasoning, and justifying their claims.

On the other hand, Dworkin is unable to identify all such principles (since some remain unnoticed/undiscovered until a judge is forced to rule on a "hard case"). Moreover, he cannot specify their status, although he believes quite clearly that they are "legally binding" upon judges in making rulings or handing down decisions.

Hence, the conundrum. It would appear that there is a functioning critical apparatus at work within our legal system (and, perhaps, beyond), the legal status of which cannot be established.

In "On Not Prosecuting Civil Disobedience," Dworkin does at least begin to lay bare why this anomaly exists. He argues that there is what he calls "doubtful law" (Dworkin, 1968, p. 15ff), law the validity of which is in dispute (or is otherwise suspect). "In the U.S., at least, almost any law which a significant number of people would be tempted to disobey on moral grounds would be doubtful? if not clearly invalid? on constitutional grounds as well. The constitution makes our conventional political morality relevant to the question of validity: any statue that appears to compromise that morality raises constitutional questions, and if the compromise is serious, the constitutional doubts are serious also" (1968, p. 16). Moreover, Dworkin believes that in draft resistance cases of the late 1960's, the connection between moral and legal issues were made especially (even starkly) clear.

Draft dissenters, in Dworkin's view, were not asserting a privilege to disobey valid laws. They believed firmly that the laws being broken were unconstitutional. Under these conditions, it is not always clear how such dissenters in a complex society are to "play the game" (1968, p. 17). This metaphor is ironic. It is the legal positivists who have relied heavily on images and metaphors like "playing a game" to emphasize the law's rule-like character and process. Yet, Dworkin has presented a challenge, asking now what (or whose?) move is next. (For a detailed examination of these issues in a format comparing Hart and Dworkin, see Soper, 1984.)

How then does Hart's position respond to Dworkin's challenge? We must recall that Hart sees law as an institution within a larger social system. It is a form of rule-making, rule-applying, and rule-enforcing behavior. These rules do indeed have connection to morality, both in origin (on occasion) and in interpretation, as well as in application and enforcement. This overlapping of differing kinds of rules? in this case moral ones and legal ones? does not imply the dependence of one upon the other in any "ultimate" sense, any more than other social rules (e.g. "rules of etiquette") might be (Hart, 1986, p. 82). What alternative, then, does Hart offer for explaining the "foundations" of law? Hart introduced the notion of "rules of recognition" (Hart, 1961, p. 94).

The "rule of recognition" is a secondary rule used to identify primary rules of obligation (1961, p. 94ff). This rule of recognition is more complex in modern legal systems where there are a variety of "sources" of law (1961, p. 97ff). The relationship of one set of rules to the other is one of "felative subordination," not derivation.

In his more mature thought, Hart has broadened his concept of "rules" applied by judges in their decisions to embrace "legal standards" (Soper, 1984, pp. 7-9). Although Hart now believes that these legal standards constrain a judge's decision in unclear cases, he maintains that there may be alternative decisions in such cases that are equally justified in terms of these standards. In Dworkin's view, Hart's position remains truncated and unsatisfying.

Hence, the conundrum cited above remains. It can be summarized as follows. If Hart's positivist account of the nature of "the law"? a system of primary and secondary rules, validated by a (secondary) "rule of recognition" and supplemented by emerging "legal standards" in the process of judicial interpretation? is accepted, his approach seems unable to account for the role played by principles in many judicial decisions, especially "hard cases." If, by contrast, Dworkin's claims? that some principles appealed to in judicial decisions and opinions are in fact "legal principles" and "obligatory" for judges to follow? are accepted, then it would seem that he should be able to identify these principles or to state how they are themselves justified or validated. But, alas, he cannot. How then is "the law" to be related to "principles"?

It would appear that the impasse reached by Hart and Dworkin remains. Yet, there may be another alternative. The key to identifying that alternative may be lurking in Dworkin's characterization of judicial decisions in "hard cases." Dworkin admits that judges sometimes face cases where the "right" principle of law (to which appeal should be made in determining the case) is not known. Not only is it not known by the particular judge presiding; but it is not known by anyone else as well! In fact, says Dworkin, it is only when such hard cases are adjudicated that a judge's attention can be directed to that principle (which is the right principle). In other words, it is only in the judicial process itself that some such principles emerge. They are actual, but previously unrecognized, principles of law. The principle for deciding the case rightly, it would seem? given this characterization, is present only *tacitly*, not *explicitly*.

Yet, this hypothesizing takes us outside the parameters of either Hart's position or Dworkin's. To develop a model, then, for moving beyond their conundrum, I propose that we consider a model for decision-making developed from the thought of Michael Polanyi.

III.

The model to be developed here out of Polanyi's thought was anticipated in, and suggested to me by, a paragraph from Richard Gelwick (Gelwick, 1977, pp. 127-128). Following Carl Friedrich's analysis (Langford and Poteat, 1968, pp. 91-110), Gelwick suggests a new possibility for discussing natural law. "Even though Polanyi does not discuss natural law, his grounding of cultural values in a society of universal intent suggests a `natural law theory in human nature'" (Gelwick, 1977, p. 127). "His (Polanyi's) thought, therefore, bears *a fortiori* upon the enterprise and its interpretation of attempting to embody justice in law..." (Friedrich, from Langford and Poteat, 1968, p. 92).

In the analysis which follows, I will develop a model of decision-making which parallels, in some respects the position articulated by Friedrich; but it is not dependent upon his notion of "natural law." Hence, while being appreciative of Friedrich's illuminating insights, I have developed a model which is independent of his and more closely tied to the phenomenology of moral experience than to the venerable history of natural law theory. (I have developed the connections between a Polanyian model for decision making and the phenomenological analysis of moral experience more explicitly in an unpublished paper, "Can a Moral Judgment be Both Contextual and Objective?")

Taking the conundrum bequeathed to the philosophy of law by Hart and Dworkin as our point of departure, I ask that you recall the plight of the judge hypothesized above, who must decide a "hard case" in which the strict application of rules will not suffice. Moreover, he or she may not have access even to a specific principle of law, because the "right" principle has not yet been articulated (or otherwise discovered) in the history of judicial interpretation. Yet, in order to become the basis for the adjudication of the case at hand, the judge must appeal to a *legal* principle, one derived from, and inherent in, the body of existing law (both legislated and interpreted).

Since what is called for, then is a kind of "discovery," on the part of our hypothetical judge, I would direct your attention back to Polanyi's discussion of that issue in *Science, Faith and Society*. You will recall that "discovery" is described by Polanyi there as a process? which he summarizes in the four words "Preparation, Incubation, Illumination, and Verification"? a process not unlike consistent efforts at "guessing and experimenting," in creating a work of art, .".. solving riddles, inventing practical devices, ... diagnosing of an illness," and perhaps, prayerfully "searching for God" (Polanyi, 1964 b, p. 34). Rather than attempting merely to "achieve results," the scientist is attempting to make contact with reality. Therefore, the guiding and constraining force by which he/she seeks and sorts evidence must be his/her own conscience—since there are not set rules for procedure to which he/she can appeal for validation of his/her choices and conclusions.

Polanyi devotes the balance of this work (SFS) to showing how the community of scientific discovery and inquiry protects its tradition against mere subjectivism and blatant error and to describing the necessary freedom under which science must operate to prohibit the encroachment of either skepticism or totalitarianism. He is concerned to show that the loyalty of scientists to the discovery of truth for its own sake must not be abdicated to the transient interests of any lesser authority.

Polanyi notes that the seemingly subjective judgements of scientists are guided by the premises of science which are twofold. These are (1) "naturalistic assumptions concerning the nature of every day life;" and (2) "more particular assumptions underlying the process of scientific discovery and verification" (Polanyi, 1964 b, p. 42). These premises are learned and passed on to succeeding generations of scientists in the manner of artistic tradition and practice. Hence, there is not a set of cold facts which can be captured in language and memorized by the novice in science. He or she must be guided beyond techniques and principles to a grasping of reality, whereby his/her own judgement can become operative in both assessment of data and recognition of problems.

In a similar vein, Polanyi demonstrates the way in which mutual discipline in the scientific community protects against the admission of error into premises and tradition. He does so by indicating the kind of self-government in science which exercises the authority of scientific opinion. He summarizes thus, "It is clear enough then that the self-governing institutions of science are effective in safe-guarding the organized practice of science which embodies and transmits its premises" (1964b, p. 50). He argues that the functions of these institutions are mainly protective and regulative and based themselves on a "general harmony of views among scientists." This general harmony is seen as growing out of a common tradition in science, as being maintained by the acceptance of mutual bonds of loyalty to scientific ideals, and as depending ultimately on the common exercise of scientific conscience. There can be no appeal for validity in scientific inquiry, other than to scientific opinion itself, without jeopardizing the entire scientific enterprise. The kind of authority operative in the scientific community demands not obedience? but freedom.

The exercise of decision by which new theories are to be screened and competing theories evaluated must not be usurped.

27

There are divisions among scientists, sometimes sharp and passionate, but both contestants remain agreed that scientific opinion will ultimately decide right; and they are satisfied to appeal to it as their ultimate arbiter . . . A common belief in the reality of scientific ideals and a sufficient confidence in their fellow scientists' sincerity resolves among scientists the apparent internal contradiction in the conception of freedom. It establishes government by scientific opinion, as a General Authority, inherently restricted to the guardianship of the premises of freedom (1964 b, p. 63).

Hence, Polanyi can affirm that the goal of scientific inquiry must never be exclusively utilitarian. Rather, its goal must be the discovery of the truth to which it is committed. This can be done only within the context of a society which guarantees the freedom and encourages the dedication of its members to the pursuit of transcendent obligations, "particularly to truth, justice and charity" (1964 b, p. 85).

Nevertheless, Polanyi's belief that knowledge is grounded in personal and tacit commitments does not mean that he thinks that "knowledge" is simply subjective. It is true that there is no such thing as perfect objectivity in knowledge. No perfect detachment, nothing perfectly explicit is possible? even in the ideal case of knowledge.

The knower, however, is not thereby condemned to whimsical subjectivity, by the fact that his/her *intent* in knowledge is universal (Polanyi, 1967, pp. 77-78). The intent is inescapably universal, Polanyi thinks, because the quest for knowledge is a quest for an impersonal reality (Polanyi, 1964 a, p. 300ff) to suppose that one has found it is to suppose that others "similarly equipped," would also be able to find it (1964 a, p. 324). The knower, therefore, does make use of the rules and standards that he/she supposes to be universal, in the sense of being the "proper" ones for anyone to use (1964 a, p. 343). On Polanyi's view the scientific community functions as a kind of moral association of persons by exercising mutual authority. It welds tradition and freedom together in a pursuit of the truth. It upholds the personal, tacit component but also the universal intent of knowing. This touches the central nerve of Polanyi's epistemology. He is purposing nothing less than the attempt to overcome the split between the subjective and the objective, an attempt which is based on the distinction between

... the personal in us, which actively enters into our commitments, and our subjective states, in which we merely endure our feelings. This distinction establishes the conception of the *personal*, which is neither subjective nor objective. In so far as the personal submits to requirements acknowledged by itself as independent of itself, it is not subjective; but insofar as it is an action guided by individual passions it is not objective either. It transcends the disjunction between subjective and objective (1964 a, p. 300).

The mutual correlation between the personal and the universal within the framework of commitment, then, is the "solution" to the paradox of standards which are determined by personal commitment and belief. The answer to the objection to Polanyi's view that it implies that "you can believe whatever you like" is, quite simply, that you cannot, if you wish to be responsible within a community of universal intent.

While compulsion by force or by neurotic obsession excludes responsibility, compulsion by universal intent establishes responsibility... While the choices in question are open to egocentric decisions, a craving for the universal sustains a constructive effort and narrows down this discretion to the point where the agent making the decision finds that he cannot do otherwise. *The freedom of the subjective person to do as he pleases is overruled by the freedom of the responsible person to act as he must* (1964 a, p. 309).

It is in this limited sense, then, of what Polanyi has called "personal knowledge" that any scientific judgement can lay claim to being "objective."

How, then, does this account of "discovery" and exercise of judgement underwrite a model of decision-making which could be employed by a judge deciding a "hard case"?

Both Polanyi's scientist and the judge presuppose that the respective principles with which each is concerned are ultimately rooted in beliefs and commitments (ones foundational to scientific inquiry and the practice of jurisprudence, respectively). Yet, in the nature of the case (for each enterprise) these beliefs and commitments are nondemonstrable.

Moreover, each of these projects, in its own way, asserts that its judgements represent attempts to make contact with reality, based on informed perceptions of patterns or "shapes" in the real which manifest themselves to inquiry— whether the inquiry be into the observable behavior of phenomena or into "the facts of the case." Each kind of judgement is informed by norms or principles embraced by a community of people who share mutual commitments (to the premises of science/to the rule of law) and universal intent (in the pursuit of truth/in the pursuit of justice). Each one's judgements claim to be public and authoritative, even if they are original or novel; because they are made with universal intent and with the expectation of being ultimately vindicated within the community.

Lest one be inclined to decry this attempt to develop a model for decision-making out of Polanyi's philosophy of science and epistemology, one which can apply to a judge's interpretation of "the law," I would remind you of Polanyi's discussion of "systems of spontaneous order" and "systems of intellectual order" in the tenth chapter of *The Logic of Liberty* (Polanyi, 1951, p. 154ff).

The section of this chapter entitled "Systems of Intellectual Order" takes as its first example ." .. the Law, and in particular Common Law" (1951, p. 162).

Consider a judge sitting in court and deciding a difficult case. While pondering his decision, he refers consciously to dozens of precedents and unconsciously to many more. Before him numberless other judges have sat and decided according to statute, precedent, equity and convenience, as he himself has to do now; his mind, while he analyses (sic) the various aspects of the case, is in constant contact with theirs. And beyond the purely legal references, he senses the entire contemporary trend of opinions, the social medium as a whole. Not until he has established all these bearings of his case and reasoned to them in the light of his own professional conscience, will his decision acquire force of conviction and will he be ready to declare it (1951, p. 162).

The operation of Common Law constitutes a "sequence of adjustments"? both between succeeding judges and (as well) between the judges and the general public. "The result is the ordered growth of the Common Law, steadily reapplying and reinterpreting the same fundamental rules and expanding them thus to a system of increasing scope and consistency" (1951, p. 162).

In this process of discovery of legal principles "embedded" in the matrix of legal precedent, relevant law, facts brought to light by testimony in court, etc., Friedrich rightly affirms that in law, as in science, "... tacit knowing plays a decisive role. Polanyi's insistence that 'there are vast domains of knowledge that exemplify in various ways that we are generally unable to tell what particulars we are aware of when attending to a coherent entity which they constitute', while written with scientific experiment in the foreground of attention, applied equally well to the law" (Langford and Poteat, 1968, pp. 103-104).

IV.

The forgoing analysis, utilizing the categories of Polanyi's thought, indicates that there is, indeed, .".. a functioning critical apparatus at work within our legal system," the legal status of which we can now establish. (In so doing, we will demonstrate that the Hart-Dworkin conundrum is subject to resolution.)

The values of a society have a "fiduciary grounding" in the personal backing given to them.".. by men who, moved as they are by moral and intellectual passions, perceive and uphold these values with universal intent within a convivial order" (Langford and Poteat, 1968, p. 91). Quite clearly, however, the embodiment of justice in laws and in judicial decisions is both necessarily incomplete and yet also achieved in part by more or less skillful judicial assessment.

These skillful feats, supported by moral and intellectual passions with universal intent, are accredited by and subject to the superintendency of the convivial order within which they are achieved and whose very basis is in turn precisely these same passions (Langford and Poteat, 1968, p. 92).

Hence, both Hart and Dworkin are right, but incomplete, in their interpretations of "the law." Hart is correct that law is legitimated by appeal to secondary rules and a "rule of recognition." Yet, as Dworkin rightly argued, some decisions regarding the nature of "the law" can only be settled by appeal to principles (not reducible to rules) within jurisprudence. It certainly appears that "principles" in fact play a role in some judges` arriving at decisions, interpreting their reasoning, and justifying their claims.

At the same time, we now can account for why Dworkin was unable to identify all such principles, as well as why some legal principles remain unnoticed or undiscovered until a judge is forced to rule on a "hard case."

Important legal principles implicit within the legal framework of legislation, judicial interpretation, etc., are present only tacitly. The principles are present and operative within the jurisprudential community, a community of universal intent. In certain "hard cases," one or more members of the community are forced (by the incompleteness of explicit case law) to render a decision which requires the application of the tacitly held principle. Under these conditions, that which is "tacit" becomes the object of focal awareness. Accordingly, the "right legal principle," thus discovered, was present all along.

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The Polanyian Revolution: Post-Critical Perpectives for Ethics

Charles S. McCoy

1. From Ptolemy to Copernicus to Polanyi

Michael Polanyi (1891-1976) marks a turn in human perspective parallel to and as significant as the turn from the Ptolemaic to the Copernican angle of vision. The Ptolemaic way of viewing the world is named after Claudius Ptolemy, one of the great geographers and astronomers of the Graeco-Roman period, who was active in Alexandria, Egypt, in the Second Century of the Christian Era. In Ptolemy's world, humanity and earth were regarded as the center of the universe, with the earth motionless and the moon, sun, and planets circling around it; the stars were spots of light on the dome arching over the whole. This view was generally accepted through the Middle Ages and Renaissance in Western Europe. It began to be displaced by the view of Nicolaus Copernicus (1473-1543), a Polish astronomer, set forth in *Concerning the Revolutions of the Celestial Spheres* in 1543, that the earth was not the center of the world but was itself one of the planets circling the sun. Copernicus sparked what has become known as the Copernican Revolution. This momentous change of perspective requires humans to reject the notion that they live as the center of the physical universe and to accept the view that the center is displaced away from earth. Since the time of Copernicus, there have been a series of events heralded as "Copernican Revolutions" in many areas of human life articulating the implications of the insight that our world can no longer be regarded from what has been called an anthropocentric perspective.

Looking back from the twentieth century, it is possible to affirm that many of these Copernican revolutions have proved helpful in breaking the grip of narrow world views based upon the ethnocentric angles of vision of one or another tribal enclave of the human community. The development of modern science and technology and pressures for social reform and liberation have been attributed in considerable measure to the widened vision emerging in a post-Copernican perspective.

It has also often happened, however, that the criticism of one limited perspective has been carried on from a point of view that itself appeared to be limited and limiting but regarded itself as having achieved a universal perspective exempt from the critique of anthropocentrism.

The sociology of knowledge as formulated by Karl Mannheim, for example, was able to point out the distortions of view arising from the interests associated with human social location. Yet Mannheim appears to hold that the intelligentsia occupies a location with a clear vision of reality undistorted by interest and location. Extending the insights of Mannheim, the critical theorists of the Frankfurter Schule thought their critique applied to all social groups except themselves.

Christian theologians also have leveled criticisms at the anthropocentric tendencies of others while exempting themselves. Of the philosopher Karl Jaspers, Rudolf Bultmann writes: "It seems to me that Jaspers claims to have attained a stand-point as a philosopher outside history." And a few pages later adds: "In faith, the Christian has the stand-point above history which Jaspers like many others has endeavored to find" (*History and Eschatology*, pp. 129, 154).

While Bultmann thought his Christian faith exempted him from the Copernican insight, we must not forget that he is correct in accusing Jaspers of making a parallel assumption. Enlightenment perspectives, of which Jaspers is heir, have frequently jumped from the pre-Copernican frying pan of uncritical anthropocentricism into post-Copernican fires with more sophisticated versions of the same problem. As Enlightenment assumptions have come to permeate the academic work of nineteenth and twentieth century universities, it has been taken for granted that the objectivity of scientific method can displace all previous perspectives at last with the Archimedean point of universal truth.

With this angle of vision, on the one hand, religious and cultural traditions from the past are, for the most part, rejected or at least rendered suspect. On the other hand, scientific objectivism is proclaimed as the perspective that eliminates the Copernican disability of viewing the world from a human angle subject to the distortions of social location. As Carl Becker suggests in *The Heavenly City of the Eighteenth Century Philosophers*, the Enlightenment *philosophes* were convinced that history is a success story because it had culminated in them.

Without rejecting the achievements of all the sciences and the importance of academic research, it is still possible to question "scientism" and the dogmatism that often characterizes its devotees. In their objectivist faith, they have replaced the pretensions of older tribal enclaves with the arrogance of yet another. Just as pre-critical world views brought value and order to traditional groups, so too has scientistic objectivism brought new insights and helpful reordering and made valuable contributions to human welfare that few want to relinquish. Yet the problems of post-Copernican thought have continued to mount.

The critical period of Western philosophy, opened by Descartes and brought to its zenith in the Enlightenment, is coming to an end, and the post-critical era is emerging. Michael Polanyi, it appears to me, is the most important philosophic figure opening up this new direction and delineating its basic elements. Of the critical pretensions to have found a way, either through philosophic rationality or by means of scientific method, to a universal perspective, Polanyi points out that thinkers of the critical period have pursued "a mistaken ideal of objectivity" (*Personal Knowledge*, 7). "Thus, when we claim greater objectivity for the Copernican theory, we do imply that its excellence is, not a matter of personal taste on our part, but an inherent quality deserving universal acceptance by rational creatures. We abandon the cruder anthropocentrism of our senses--but only in favour of a more ambitious anthropocentrism of our reason" (*Personal Knowledge*,4-5).

Though forerunners of post-critical thought may be discerned, for example, in the political philosophy of *The Federalist Papers* and in the thought of Charles Sanders Peirce, Josiah Royce, George Herbert Mead, H. Richard Niebuhr, and others, Polanyi has brought the tendencies produced by problems of the critical perspective into systematic focus and pioneered a new epistemological method with imagination and comprehensiveness. It is this method that marks him as inaugurating the post-critical era of Western thought.

In so doing Polanyi carries out a revolution as significant as the one Copernicus began four centuries earlier. We are justified, I am convinced, in speaking now of the Polanyian Revolution, the meaning of which will unfold, is

unfolding, more rapidly even than the Copernican Revolution. In this new revolution, Polanyi provides a method that involves continuing appreciation of the rigor and achievements of the critical perspective, yet inaugurates the post-critical era by relating critical thought to the pre-critical appreciation of tradition, culture, and community.

2. Post-Critical Epistemology: The From/To Structure of Knowing

The Polanyian Revolution consists, first of all, in reminding us that knowing occurs within human locations and from perspectives shaped by those locations. Second, the Polanyian Revolution explores with delicacy and precision the epistemological meaning of human location that has implications for the entire spectrum of human knowing and action.

In a sense, Polanyi has developed what was implicit but neglected in the Copernican Revolution: while it has become clear that humanity and earth are not the center of the world and the pretensions to absolutism in pre-critical communities must be abandoned, the critical methods that have emerged in the wake of the Copernican Revolution cannot, despite their claims, be said to have attained an ontological peak of objectivity by means of which they escape the limits of human social location and epistemological anthropocentrism.

Even more, however, Polanyi has gone beyond affirming this fairly obvious problem of critical thought and delineated what knowing means in post-critical perspective. It is in this achievement that Polanyi makes his most important contributions to human thought.

If human knowing takes place within human locations, then this context is not merely related to knowing but is a constitutive part of knowing. Polanyi points out that all knowing has a <code>from/to</code> structure. Knowing consists in that part that we focus upon, of which Polanyi says we have focal awareness. Knowing also consists in that part which we rely upon in order to focus, of which Polanyi says we have <code>subsidiary</code> awareness. All too often knowledge is reduced to the explicit result of knowing, and the <code>tacit dimension</code> or component, with its movement from a proximal pole, of which we are subsidiarily aware, to a distal pole, of which we are focally aware, is ignored. Or, as Polanyi summarizes it at one point:

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

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

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

The implications of Polanyi's from/to structure of knowing are many. I shall mention a few very briefly.

First, the fiduciary dimension of knowing is recovered. Humans rely upon elements from their social location, tradition, and community in order to affirm what they believe is knowledge. The pre-critical notions of "faith seeking understanding" and "believing in order to understand" take on new meaning as Polanyi sets forth the tacit component involved in critical knowing.

Second, the knower in post-critical perspective is not an individualistic knower but rather is shaped by and relies for validation upon the community and its culture, which the knower embodies. Critical hermeneutics is dyadic in structure --the knower and the known. Post-critical hermeneutics is triadic in structure, involving a knower rooted in culture and community, what is being interpreted within its context, and those for whom the interpretation is intended, who are also rooted in culture and community.

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

To hold a natural law to be true is to believe that its presence will manifest itself in an indeterminate range of yet unknown and perhaps unthinkable consequences We meet here with a new definition of reality. Real is that which is expected to reveal itself indeterminately in the future. Hence an explicit statement can bear on reality only by virtue of the tacit coefficient associated with it. This conception of reality and of the tacit knowing of reality underlies all my writing (Science Faith and Society, 1964 edition, 10).

The from/to structure of knowing has implications across the entire spectrum of human endeavor, not only for the natural sciences. The social sciences have been moving gradually to displace the method borrowed from the illusory objectivism of physical science with methods recognizing the human location of investigators and the tacit dimension of knowing. Old disciplines like history have gradually entered upon the Polanyian Revolution as also have newer ones like computer science. The implications for the field of ethics are, I find, especially interesting. Fourth, the recognition of the importance of tradition, culture, and community does not lead to conservative or static views of knowledge. The from/to structure emphasizes the neglected tacit dimension upon which explicit knowledge rests. Polanyi also clarifies the continuing change and innovative potentials of human knowing; that is to say, he also contributes to better understanding of the "to" in the structure of knowing. We dwell in the past of our community of interpretation, not in order to repeat the past, but rather to break out into the newness hidden within the future. Polanyi writes:

Scientific discovery, which leads from one such framework to its successor, bursts the bounds of disciplined thought in an intense if transient moment of heuristic vision. And while it is thus breaking out, the mind is for the moment directly experiencing its content rather than controlling it by the use of any pre-established modes of interpretation: it is overwhelmed by its own passionate activity (Personal Knowledge, 196).

This dwelling in and breaking out arises from "the essential restlessness of the human mind, which calls ever again in question any satisfaction that it may have previously achieved" (*Idem*). To emphasize the newness, Polanyi quotes

the mathematician Polya: "'Look at the unknown. Look at the conclusion'" (Ibid., p 127). When one reads such passages, it becomes clear the extent to which Thomas Kuhn, in his notion of scientific revolutions and changing paradigms, is relying on Polanyi.

3. The Meaning of Post-Critical Thought for Ethics

The Polanyi Revolution provides perspectives on ethical reflection and morality in the contemporary world that are profoundly illuminating. His views help us move toward a post-critical understanding of ethics. Some implications of this understanding follow.

a. Perils of Perfectionism. The opinion prevails among many observers of the moral scene that human conduct, judged according to ethical standards, is today in sharp decline. Evidence for the erosion of morals, for persons holding this view, can be found in abundance by reading in the newspapers the increasing reports of moral transgressions and ethical deficiencies. The divorce rate and juvenile delinquency in relation to the home; bribery and political chicanery in government; dishonesty, fraud, and exploitation in business; theft of ideas, misrepresentation of research, and sleazy practices relating to sports and outside contracts in higher education; and, of course, the scams and immorality of persons in televangelism and in the churches--the rising number of incidents in these categories and more are a telling indictment of the moral level of our time. It is easy to agree with those who see a downward slide.

Polanyi takes a different view of contemporary moral conditions, a view that is profoundly illuminating. He holds that moral fervor today, rather than diminished, has grown so intense that it shatters the social channels built up slowly and painfully in the past to curb human wrongdoing and develop higher levels of justice. Idealism and perfectionism threaten to undo the hard-won achievements represented by tradition and impel adherents toward nihilism.

Polanyi does not approve the immorality reported or take a lax view of standards. He suggests, however, that the from/to structure of knowing reveals a rampant moral excess rather than deficiency in many quarters today. "The idea that morality consists in imposing on ourselves the curb of moral commands is so ingrained in us," he writes, "that we simply cannot see that the moral need of our time is, on the contrary, to curb our inordinate moral demands" (Knowing and Being, 4).

Put another way, we can speak of the perils of unbridled perfectionism. In one sense, heightened moral expectations make society more aware of transgressions. If the standards become too high, however, it may appear that conduct is getting worse and worse and the situation is hopeless. In another sense, moral excess may lead us to demand that all problems be solved totally and immediately, and, when this expectation is not met, to reject moral possibility and fall into nihilism. In still a third sense, perfectionism may reach such intensity that no intermediate standards are acceptable; the entire enterprise of ethics comes to be regarded as meaningless. Polanyi calls this "moral inversion: a condition in which high moral purpose operates only as the hidden force of an openly declared inhumanity" (Knowing and Being, 16).

b. The Dilemma of Dilemma Ethics. The from/to structure of knowing offers a helpful perspective on the type of ethical reflection known as dilemma ethics. This type sees ethics as arising when dilemmas arise; once tension is perceived between alternative courses of action, ethics is required to resolve the dilemma and provide a basis for choice. A dilemma, however, does not emerge except within the context of a tacit coefficient internalized in community. There

can be no ethical problem or dilemma apart from a moral background that already exists tacitly. Further, ethical reflection subsequent to perceiving a dilemma will draw on the tacit dimension for criteria to use in choosing a course of action.

What this means is that ethics, no less than other kinds of reflection, relies upon a subsidiary awareness in order to have a focal awareness. Ethics must include the tacit coefficient in its scope no less than its explicit results in principles and codes.

c. Morality versus Moralism. The from/to structure of knowing, as it illumines ethics, enables persons and communities to take moral responsibility within their human location without absolutizing one's own moral norms, rejecting the moral norms of other communities, or falling into moral relativism.

Dean Acheson, Secretary of State in the Truman Administration, distinguishes between "Morality and Moralism in Foreign Policy" (Yale Review, Summer, 1958), and indicates the way toward post-critical ethics. Morality, he suggests, means conducting foreign policy out of the culture and standards of a nation's own heritage and traditions. But, inevitably, he notes, it is necessary to relate to nations with different culture and norms, some very similar to those of one's own nation, some very different. Moralism, he says, consists in being unaware of the background out of which the policies of other nations emerges and attempting to impose the standards of conduct dictated by the standards on one's own nation. He regards moralism not only as inadequate but also a dangerous basis for foreign policy in the contemporary world.

d. The Weakness of Ethical Rationalism. In her book, Ethics Since 1900, Mary Warnock comes up with the following conclusion: "One of the consequences of treating ethics as the analysis of ethical language is...that it leads to the increasing triviality of the subject. . . . We do need to categorize and to describe, even in the sphere of morals, but we should still exist as moral agents even if we seldom did so; and therefore the subject matter of ethics would still exist" (Ethics Since 1900, 144).

In Polanyian perspective, rationalism not only trivializes ethics but also provides a very weak foundation for reflection on the moral significance of action. Ethical rationalism seeks to formulate principles that are universal. It assumes, however, that what one philosopher takes to be rational is what all persons should recognize as true. For someone who understands the from/to structure of knowing, it is very frustrating to read a treatise like John Rawls' A Theory of Justice. Repeatedly, to validate the explicit argument he is unfolding, the author appeals to "what all rational persons can agree upon" or "as rational men know," etc. An unexamined assumption of a tacit dimension of universal reason in humans is used to validate the universal truth of the ethical theory. The philosopher can operate on an individualistic, dyadic pattern of knowing because it is assumed that reason is the same in all humans and is not shaped by the traditions and culture of the social enclave in which the philosopher dwells.

The Polanyian Revolution exposes the weakness of ethical rationalism. On the one hand, there is the highly questionable presupposition of universal reason. On the other hand, there is the illusion of objectivism in ethical theory achieved by ignoring the tacit coefficient of its structure.

e. Virtue as Human Achievement in Community. When ethics is understood in the from/to perspective Polanyi provides, it becomes clear that virtue is not something that inheres in individual character and habits. Instead, virtue is grounded in and relies upon tradition, culture, community, and social interaction and, therefore, is a hard-won social achievement, more "a torch race than a fierce competition among heirs," as Thornton Wilder reminds us is the

case with reference to literature. The understanding of virtue suggested by Polanyi is closer to Plato's treatment of virtue in his story, "The Ring of Gyges" (Republic, 359d-368d), than to Aristotle's in the Ethics, closer to the view of James Madison in *The Federalist Papers* than to contemporary ethical rationalists.

In Polanyian perspective, the restlessness of humanity can be found in ethics no less than in scientific discovery. Humans dwell in the morality shaped by tradition and culture in order to break out toward greater justice, toward hitherto unknown conceptions of virtue, and toward a more comprehensive and inclusive understanding of love. As with scientific discovery, humans as moral beings are involved in "permanent revolution," to use H. Richard Niebuhr's key phrase in *The Meaning of Revelation*. Post-critical ethics, therefore, is an ethics of liberation.

f. The Polanyian Revolution and Liberation. The final paragraph of Personal Knowledge reads as follows:

So far as we know, the tiny fragments of the universe embodied in humanity are the only centres of thought and responsibility in the visible world. If that be so, the appearance of the human mind has been so far the ultimate stage in the awakening of the world; and all that has gone before, the strivings of a myriad centres that have taken the risks of living and believing, seem to have all been pursuing, along rival lines, the aim now achieved by us up to this point. They are all akin to us. For all these centres--those which led up to our own existence and the far more numerous others which produced different lines of which many are extinct--may be seen engaged in the same endeavor towards ultimate liberation. We may envisage then a cosmic field which called forth all these centres by offering them a short-lived, limited, hazardous opportunity for making some progress of their own towards an unthinkable consummation. And that is also, I believe, how a Christian is placed when worshipping God(p. 405).

From this passage, one can see why philosophers have been wary of Polanyi, reluctant even to grapple with his thought, much less to espouse his perspective. It is also clear why he has attracted the attention of people in theology and ethics. His understanding of the human enterprise, growing out of his work in physical chemistry, medicine, and epistemology, resonates powerfully with the biblical Christian tradition. Nowhere is this more apparent than in ethics understood in the perspective of liberation.

Humans are brought into a world already underway. The direction is toward an unknown consummation, and the key signpost is liberation. Humans are created with a restlessness in their minds and hearts. They dwell in their past in order to break out into new discoveries of knowledge and action, and the key to that newness is liberation.

Further, the from/to structure of knowing affirms the striving of the oppressed and the validity of their perspective and insight. The ethics of black liberation, of feminist liberation, of third world liberation, rely on the strong impetus toward liberation in the biblical Christian tradition and dwell in that past within diverse contexts of oppression, and break out toward new insights into the way toward "ultimate liberation" and toward "an unthinkable consummation."

The new era that Polanyi has inaugurated emerges with more comprehensive clarity. The Polanyi Revolution invites us not only into a new period of human thought, it lures us also toward faith and action unafraid to dwell in the past and equally determined to break out toward liberation in a world filled with the unfolding, indeterminate, yet faithful, reality of God.

39

MEMORIES OF MICHAEL POLANYI IN MANCHESTER

Melvin Calvin

[EDITOR'S NOTE: The following article is a transcript of an address by Professor Melvin Calvin (Department of Chemistry, University of CA, Berkeley) given at the Berkeley Polanyi centennial conference on March 15, 1991. Professor Calvin, who did postdoctoral study with Polanyi in Manchester more than fifty years ago, became a Nobel Laureate in 1961 for his studies of the sequence of chemical reactions in photosysthesis]

It was in the course of writing my thesis at the University of Minnesota that I first became familiar with the work of Professor Michael Polanyi, who was then at the University of Manchester in England. Manchester therefore with Polanyi in the Chemistry Department, seemed like a very interesting place to work, and the research that Polanyi was doing there, (on the nature of chemical reactions and the theory of transition states in chemical reactions) seemed to be the type of research I wanted to join in. I wrote to Polanyi in the hope that he could help me obtain postdoctoral support to work in his laboratory. He was able to do this, fortunately, through the auspices of a grant he had from the Rockefeller Foundation. So, at the end of my thesis work in Minneapolis, I undertook to spend a period of time with Professor Polanyi in Manchester. This postdoctoral period began in the fall of 1935, and was the most fortunate thing for my entire research career that followed.

When I first met Michael Polanyi in Manchester in 1935, he was well into second career. You know he had at least three careers at least that I know about, maybe four. Originally he had been a physician and moved to Berlin and served in the Hungarian Army. He then took up Chemistry. He reached Great Britain in flight from Germany in the early thirties. He had begun some particularly sophisticated studies in Berlin that he was to conclude at Manchester within a relatively short time. He then began still another career, that of a political scientist-economist-philosopher. I saw the beginning of that in Manchester. Toward the end of my stay there, in 1937, it got so it became difficult often for me to talk with him because he was thinking in terms of economics and philosophy, and I couldn't understand his language.

There is no doubt in my mind that the experience I had with Polanyi was instrumental in opening my eyes to the advantages of an interdisciplinary approach to science. He had the type of mind that was curious about all things, even those not involved in his current work. I feel that my experience with Michael had a profound effect on my subsequent career.

I kept in close touch with Polanyi over the years until his death in 1976 at the age of 85. The last time I saw him personally was when I was George Eastman Professor at Oxford in 1967. He was there then, having moved from Manchester. I didn't get very close to him at Oxford, but I did see him. Our relation in Manchester was very personal, but in Oxford it was more distant. You know I was used to him in Manchester as very personal, but in Oxford it didn't happen that way.

I can remember very vividly rambling conversations in Manchester that took place in Polanyi's office toward the end of my first year, in 1935. I had been working exclusively on platinum-hydrogen activation systems. Let me tell you what that means. Chemists understand, but others do not. Hydrogen is a gas, very unreactive by itself. But when it comes in contact with platinum, it breaks up into two atoms that migrate around on the platinum surface, and are very reactive, with almost anything they touch. That is what we were investigating.

Polanyi pointed out that most biological oxidations and reductions were mediated by a porphyrin molecule such as a heme, that is the red color of blood cells and the green of chlorophyll, which is present in most of the biological oxidation and reduction catalysts or chlorophyll, the photo catalyst in plants. Both the red of blood and the green of plants have the same skeleton structure; they are different otherwise. If biological oxidation was a dehydrogenation and reduction, that is, a hydrogenation reaction which took place on porphyrin, then it should be possible to do a study on porphyrin molecules similar to the study we had been doing on platinum using molecular hydrogen as one of the reagents. Now I would be using porphyrin crystals instead of platinum. Of course the natural biological oxidation-reductions that have porphyrin as the active groups take place on proteins, and Polanyi speculated that the proteins were simply wires for moving electrons around to match the protons that had ultimately to be removed. He gave me the idea; I don't know whether he believed it or not. The important reactions therefore took place on porphyrin molecules themselves. At least to my mind this was a remarkable feat of association on Polanyi's part. Thus it became important for me to find porphyrin molecules that might be useful in studying hydrogen activation. Hydrogen is a very inert gas. It needs to be activated and it reacts to all kinds of things, but you have to get it started. The way most chemist start it is by having the hydrogen molecule which is two atoms tucked together, sit on platinum and they come apart, and then each hydrogen atom works separately.

We had to find a porphyrin redox catalyst model stable enough to be used in a gas experiment at a variety of elevated temperatures. Now you couldn't use the ordinary porphyrin like chlorophyll or heme. They were unstable at temperatures we have to use. So I had to make some that would be stable for my purpose. The ordinary naturally occurring porphyrin that could be obtained from hemoglobin, catalase, or any of the other porphyrin-containing biological catalysts were not stable enough for this purpose. However, about this time, Polanyi heard of the synthesis of a porphyrin analog in London by R. P. Linstead, one of the leading organic chemists of Great Britain. Linstead's discovery of the phthalocyanines (really tetraazaporphyrins) occurred as a result of an accident in the ICI Factory that was manufacturing phthalonitrile). Apparently one of the glass-lined kettles that was used to make phthalonitrile from phthalamide cracked, and the whole reaction mixture turned a deep blue color. This happened as a result of contact of the reactions mixture with the iron of the kettle. Linstead, instead of throwing it away, successfully undertook the project of finding out what the source of the color was. If you are a good scientist, that's what you do. Polanyi, a highly imaginative thinker, recognized that phthalocyanines were structurally very similar to chlorophyll and to heme, and were very much more stable as well. In fact, they were some of the most stable dyestuffs known. He thought he could use this synthetic compound with its high stability as a model of chlorophyll and heme. In that way we might learn something about the fundamental nature of that particular structure, one so important in biology for its catalytic

functions.

I was sent by Polanyi down to Linstead's laboratory in Imperial College in London to learn how to make and purify phthalocyanine. That is when I became an organist chemist. I spent a few relatively easy days in the laboratory because the synthesis of phthalocyanine was a very simple procedure. After a few experimental trials and errors, it was found that the metal of choice for the center of the phthalocyanine ring of four nitrogens was zinc.

Having succeeded in preparing both metal-free and metal-containing phthalocyanines, we undertook a study of the activation of molecular hydrogen in the gas phase by crystal of these materials. This was one of my first forays into synthetic organic chemistry, and it so happened that I was becoming acquainted with a class of compounds that were to be of major importance throughout my scientific life. I am still working on them, and they are so many and so varied that I don't get tired of them.

The studies on phthalocyanine dyes led to my interest in another coordination compound, chlorophyll, and eventually to the study of photosynthesis for which I am best known. The impulse to study photosynthesis also arose from another aspect of coordination chemistry that I was involved with in World War II. There was a concatenation of two different lines of work. We were trying to devise methods for recovering uranium and plutonium from nuclear reactor materials. We developed a synthesis for coordination compounds that we had designed, and those compounds proved to be successful; that is, they would pull the uranium and plutonium out. This scientific continuity actually extends to our work even today in the area of artificial photosynthesis. It all stems from my interest in coordination chemistry which began at the University of Manchester with Polanyi. How many years ago that? Over fifty! I am still working with the same kind of stuff at a much more rarified level.

During these post doctoral years in Manchester (1935 to 1937), I became aware of the freedom of thought that allowed me to undertake work in any area of science that seemed appropriate to the questions I was faced with. That was Polanyi's habit of mind. Nothing stopped him. He would do whatever had to be done, and I got that virus from him. It's not a bad one, you know. One of the basic tenants of our scientific work in photosynthesis has always been to go in whatever direction the light may lead. In this case, perhaps, the original flashlight was the coordination chemistry and phthalocyanine.

Before I finish, I would like to say a few words about the other students with whom I shared Polanyi's interests. Both were graduate students working on hydrogen activation problems in the adjacent laboratory. One of them, E.C. Cockbain, worked for many years at the Malaysian Rubber Research Institute in London. More recently, starting in the middle eighties, our paths crossed again as members of the scientific advisory board of a new biotechnology company here in the United States. The other student, Dan Eley, became a professor of physical chemistry at Nottingham. I met him in Nottingham in 1958 when I received a honorary degree there, and also in 1986 when I presented the Holden Botany Lectures at Nottingham. There is no doubt that Michael Polanyi had a profound effect on the careers of all three of us and many others as well.

I considered my time spent at Manchester with Michael Polanyi as scientifically exciting and crucial in the development of my own personal philosophy of using an interdisciplinary approach to the solution of any scientific problem.

Book in Review

Drew Leder, *The Absent Body*. Chicago: University of Chicago Press, 1990. Pp. x + 218. Hb: \$34.95 ISBN 0-226-46999-9. Pb: \$14.95 ISBN 0-226-47000-8.

Reviewed by Walter Gulick

The notion of embodiment is an essential ingredient in Michael Polanyi's philosophy. Personal knowledge is necessarily grounded in a body and shaped by a culture. "To ask how I would think if I were brought up outside any particular society, is as meaningless as to ask how I would think if I were born in no particular body, relying on no particular sensory and nervous organs. . . . I am called upon to live and die in this body, struggling to satisfy its desires, recording my impressions by the aid of such sense organs as it is equipped with, and acting through the funny machinery of my brain, my nerves and my muscles. . . "(*PK*, 323).

Although embodiment is essential to Polanyi's world view, in fact he does not go into much detail about specific bodily contributions to living and knowing. In light of his medical background, it may seem surprising he does not do more with physiological themes. Perhaps his relative neglect of the body is best understood as resulting from the central role of the from-to structure of consciousness in his later thought. Polanyi is not much concerned with exploring the body as a focal object, that to which we attend. His unique contribution is in highlighting the "from" dimension of existence, our embodied tacit knowledge. Because his concern is to emphasize the central place in knowing of the from-to structure--illuminating the relation of body to mind, for instance--Polanyi neglects to explore the many ways the "from" dimension is embodied.

Drew Leder makes this very point in discussing Polanyi's thought in his thoughtful and incisive book on embodiment, *The Absent Body*. "One of the deficiencies in Polanyi's account is his failure to elaborate upon the important functional and experiential differences between different elements in the 'from' structure. For example, the role played in perception by extrinsic perceptual particulars is quite different from that of our body's kinesthesias or fully tacit operations of our nervous system" (fn 20, p. 176). We may dwell simultaneously in numerous "from" structures.

Leder's work should be exciting to Polanyians because he accepts Polanyi's from-to structure as fundamental to embodiment insofar as bodies engage the world. Like Polanyi possessed of a medical background, Leder draws much more heavily than Polanyi on physiological information. Yet these medical references are never allowed to obscure Leder's resolve to trace back all evidence to experiences of one's lived body. His approach can appropriately be called phenomenological in its dispassionate attention to how experience arises so long as one understands that his broadly conceived version of phenomenology does not imply a naively conceived objective descriptivism or a rigid methodology. He takes his lead from Merleau-Ponty's emphasis on "flesh" rather than from Merleau-Ponty's earlier "primacy of perception." But he expands Merleau-Ponty's notion to speak of the embodied self as "flesh and blood" (pp. 65-66). That is, Leder's phenomenology is subtle because he understands that the body is subtle. "Far from being a homogeneous thing, the body is a complex harmony of different regions, each operating according to indigenous principles and incorporating different parts of the world into its space" (p. 2).

Leder's distinctive approach to the body highlights the way it contributes anonymously to experience. Our body is absent from conscious attention in a number of different ways. He notes, for instance, two complementary forms of self-concealment characteristic of the surface of our body as it engages the world: "focal disappearance" and "background disappearance." Many parts of our body are put out of play in a given experience and suffer "background disappearance." The way Leder speaks of "focal disappearance" is a bit troubling to this Polanyian, however. "This [term] refers to the self-effacement of bodily organs when they form the focal origin of a perceptual or actional field. An example is the invisibility of the eye within the visual field it generates" (p. 26). The example is clear enough, but why does Leder describe the eye as a "focal origin" rather than as a subsidiary contributor to what is focused upon in perception? A more accurate phrase than "focal disappearance" would be "tacit disappearance."

This and a few other possible quibbles about terminology should not obscure the multiple accomplishments of *The Absent Body*. For instance, I find Leder's analysis of tacit knowledge to be clearer than the fourfold analysis Polanyi provides in *The Tacit Dimension*. Leder describes "a threefold telos of motility wherein the body plays a subsidiary role. Physically, we act from a surface organ that itself is a lacuna in its actional field. In attentional terms, we ordinarily focus upon the goal of activity, upon a set of abilities we cannot fully thematize.... For example, in seeing, we physically act from the eye; we attend from it to the objects of its gaze; and this vision rests upon an unknown but unproblematic `I can'" (p. 20).

Leder resists Polanyi's tendency to postulate a parallelism between epistemological structures and ontological domains. His approach to the placement of bodies in the world is ecological in spirit and emphasizes the porousness of the boundaries between inner and outer (p. 165). Through compassion, absorption and communion, we may become absent from the body in a positive sense, one supporting an ethic of embodiment. Drawing on the Neo-Confucian tradition, he affirms ways in which selves form one body with all things.

The body surface tends to engage the world directly; what Leder calls "the recessive body" supports

our active engagement in an anonymous and absent manner. Our viscera, which are largely unavailable to our conscious attention and direction, should be included in any complete theory of embodiment (although as Leder points out, they are usually ignored). Leder shows how our experience of our inner organs is marked by qualitative reduction, spatial ambiguity, and spatio-temporal discontinuity. A person's viscera are not helpfully understood through the from-to paradigm. "I do not perceive *from* these organs; hence they can hide beneath the body surface such that I do not perceive to them either" (p. 44). The recessive body functions more like an "it" than part of a responsible "I." We can say, with Heidegger, not only that we are thrown into this world, but that we are thrown into this body with its mysterious prenatal origins.

For Leder, the body is never simply the container for a self-conscious ego, as it tends to be in the Cartesian tradition. We are neither as fully at home in our bodies nor as foreign to our surrounding as conventionally conceived. "I cannot even claim my own cells fully as my own. In all probability, they evolved out of symbiotic relations between different prokaryotic cells, one living inside another. My body everywhere bears the imprint of Otherness" (p. 66).

When we experience pain or disease, the body and its functions are no longer taken for granted. Rather we are confronted with a hermeneutical and a pragmatic moment: we need to find the meaning of the dysfunction and act upon our body pragmatically to restore it to dependable normalcy. We thematize the "from" when we experience various sorts of negative "dys-appearance," and our relation to the world is radically called into question.

The forms of bodily dys-appearance and disappearance not only can be interpreted phenomenologically in the present; they have provided the basis for several historically significant ways of construing the body, ways which can not be seen to be problematic. Leder's leading example is the philosophy of Descartes. "Because the body is a tacit and self-concealing structure, the rational mind can come to seem disembodied.... The body is seen not only

as Other to the self, but as a definite threat to knowledge, virtue, or continued life. Dualism thus reifies the absences and divergences that always haunt our embodied being" (p. 108).

The Absent Body follows Derrida and others who reject the ontological priority of presence. Leder goes beyond Heidegger's portentous but obscure pronouncements about truth as an unconcealment which combines presence and absence, and he shows concretely how various modes of the body's absence contribute as much as presence to lived experience. His use of the from-to structure of consciousness contributes to a beautiful written and carefully nuanced study of embodiment. This is a work which advances Polanyian thought as well as philosophy in general.

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. All materials from U.K. contributors should first be sent to John Puddefoot. Manuscripts should be doublespaced type with notes at the end; writers are encouraged to employ simple citations within the text when possible. Use MLA or APA style. Abbreviate frequently cited book titles, particularly books by Polanyi (e.g., *Personal Knowledge* becomes *PK*). Shorter articles (10-15 pages) are preferred, although longer manuscripts (20-24 pages) will be considered

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

Insofar as possible, *TAD* is willing to work with authors who have special problems producing electronic materials.

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Ira H. Peak, Jr. is Assistant Professor at the Institute for Ethics & Policy Studies at the University of Nevada, Las Vegas. His paper was given at the 1990 meeting of the Polanyi Society held in conjunction with the annual meeting of The American Academy of Religion.

James Hall, M.D. is a psychiatrist from Dallas, Texas. His paper was prepared for the Kent State Polanyi centennial conference in Spring 1991; on his trip to the conference, Dr. Hall suffered a severe stroke. He can be contacted at P.O. Box 7894, Inwood Station, Dallas, Texas 75209.

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Joe Kroger, a long-time member of the Polanyi Society, teaches at St. Michael's College in Vermont.

Melvin Calvin, a Nobel Laureate (1961), taught Chemistry at the University of California, Berkeley. He did post-doctoral study with Michael Polanyi from 1935 to 1937.

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