WHO WAS MICHAEL POLANYI? A PRIMER FOR POTEAT SCHOLARS

David W. Rutledge

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Abstract

Full appreciation of Bill Poteat's work requires an understanding of Michael Polanyi. This essay briefly recounts Polanyi's biography, then describes central features of his thought, especially the centrality of discovery, commitment, and tacit knowing. It then reports on Poteat's own summary of Polanyi's thought in his major work, Polanyian Meditations.

While this paper may seem unnecessary to readers of *Tradition & Discovery*, there are actually scholars now coming to Poteat directly, without having gone through Polanyi first. And yet Polanyi is essential for appreciating a major portion of Bill's thought, as *Polanyian Meditations* makes clear. So this will be a primer for some, and a refresher for more "mature" scholars; my aim is to highlight features of Polanyi's story relevant to Poteat's story.

Michael Polanyi was born in Budapest in 1891 to a large non-practicing Jewish family which was relatively wealthy during his childhood. He grew up fluent in German, French, English, and Hungarian, and had a broad, classical education. He completed his medical training, served as a doctor in World War I, and served briefly in the government after the war, but his interests shifted to physical chemistry, in which he received his PhD in 1919.[1] What strikes one about Polanyi's background is the cultural richness of the central European humanism shared by assimilated Jews prior to World War II, giving him an acute intelligence and high standards. He could read Latin and Greek as an adolescent, read widely in the literature of four languages, and had a

life-long interest in politics and social issues. Among his friends and acquaintances were Karl Mannheim, George Lukács, Arthur Koestler, and his brother Karl Polanyi; his first scientific paper was published at 19; a second paper employing the new quantum mechanics received a very positive evaluation from Albert Einstein, to whom it was sent before publication; at the age of 23 he was first offered a position in the Kaiser Wilhelm Gesellschaft in Berlin, which he had to decline because of his military commitment. Beyond the extraordinary character of his early training and environment, Michael Polanyi also had a deep sense of responsibility for western society, such that his later move from science to social science and philosophy seemed natural to him.

During his ten years as a member of the Kaiser Wilhelm Institute in physical chemistry in Berlin, his research "focused mainly on three areas: adsorption of gases on solids, x-ray structure analysis of the properties of solids, and the rate of chemical reactions," and it was here that his international reputation in science was established, and here that he experienced what would always remain for him a model of intellectual community (Mitchell 2006, 1). It was also in this period that Polanyi had the first experience that was to lead him eventually to the writing of *Personal Knowledge*. While in Germany and again after moving to the University of Manchester when Hitler came to power, Polanyi had travelled to the Soviet Union several times to academic conferences, and in 1935 he had a conversation about the social role of science with Nikolai Bukharin, a major theoretician of the Communist Party. Bukharin declared that the belief in pure scientific research was an aberrant result of capitalism, and that in the future, Soviet scientists would spontaneously pursue research that would benefit the latest government plan, due to the internal harmony of a communist society. Polanyi states that "in 1935 I could still smile at this dialectical mystery mongering, never suspecting how soon it would show terrible consequences" (*SFS*, 8).

Polanyi was not naïve about communism—he had read a great deal of Marx and engaged in intense discussions with family members on various aspects of socialism from his youth on—in fact, his sister-in-law (Karl's wife Ilona) had been imprisoned once in Vienna for her communist sympathies. Polanyi had opposed a strong movement in England to place science at the service of society in imitation of the Soviet model. But until Russian biologists began to be imprisoned for declining to practice science in accord with Bukharin's vision and appealed to western science in their defense, Polanyi did not realize that he had no philosophy of science to support his beliefs. The allegiance of western intellectuals to philosophical skepticism, and their romance with the utopian dreams of communist rhetoric, left them unable to respond to the ruthless realities of the Soviet situation. Polanyi therefore increasingly began writing to respond to this challenge, becoming more and more interested in the social sciences and philosophy: "Marxism has challenged me to answer these questions…. Like the Marxist theory, my account of the nature and justification of science includes

the whole life of thought in society" (*SFS*, 9). In 1947 Polanyi was invited to give the Gifford Lectures that would become *Personal Knowledge* ten years later, and in 1948 he finally moved from Chemistry to Social Studies at Manchester.

This is the Polanyi that Bill Poteat first read in 1952—a distinguished scientist who had left his science behind in an effort to respond to the skepticism, reductionism, and determinism of western thought. Note that these men come to a similar problem from very different directions: Poteat from a study of French philosophy of the 17th century, namely Pascal and Descartes, and Polanyi from a response to a critical political problem of the 20th century, namely the challenge of Soviet Marxist-Leninism. In a very real sense, Poteat had identified a problem in western thought that later would help produce the phenomenon that Polanyi confronted, namely a militant Marxism. That there are wide differences between these men is not surprising, given this history; what is remarkable is that Poteat sensed the resonances between them, and was able to capitalize on them in developing his own thought.

So what are the beliefs that Polanyi articulated in answer to the challenges of his day? Before looking at Poteat's own answer to this question, I note some characteristic features of Polanyi's work:

1. He sees scientific knowledge as paradigmatic for all forms of knowing. Though a critic of certain of its forms, and though he sees similar processes operating in all forms of knowledge, Polanyi remains a firm believer in the greatness of science: "Nothing is more certain in our world than the established results of science."[2]

2. He emphasizes the practical activity of scientists doing their research, and his books are replete with such examples. This means a focus on the process of discovery, rather than the ultimate codification of those discoveries in formal, abstract results. This is a feature of his work that is unavailable to non-scientists like Karl Popper, or Thomas Kuhn; Mary Jo Nye (2011) shows this feature clearly.

3. He sees the history of science as an important guide to the nature of scientific activity, and uses historical references frequently, de-emphasizing efforts to formalize the scientific method. We might summarize these last two points by saying that Polanyi emphasizes the situatedness of knowledge, both within the person and within society.

4. Polanyi can be described as a realist—I would say a critical realist—in his views on the external world:

> We can account for this capacity of ours to know more than we can tell if we believe in the presence of an external reality with which we can establish contact. This I do. I declare myself committed to the belief in an external reality gradually accessible to knowing, and I regard all true understanding as an intimation of such a reality which, being real, may yet reveal itself to our deepened understanding in…unexpected manifestations (*KB*, 133).

We never completely grasp or understand this reality—it remains to some degree "hidden" and continually surprises us—but we do actually "make contact" with it, as the progress of science shows: Newton's confirmation of Copernicus' theory of heliocentrism came 144 years after the theory was published, and thus affirmed the reality and power of human knowing to sense coherences and see extrapolations far in the future.

5. Another characteristic of Polanyi is that he traces knowing back into its pre-articulate roots, establishing a continuum in knowing that accredits the reality of evolution without surrendering the distinctiveness of human achievement. The behavior of apes, rats, chickens, and infants becomes relevant in Polanyi's mind to such questions as "How is it that we can apprehend order and patterns in the world? How can we acquire a thousand-fold multiplication of our cognitive abilities through the use of words?" (*PK*, 69-131, 327-380). Polanyi here ignores the traditional "logic/psychology" distinction to reach a comprehensive view of living things figuring out their world.

6. Finally, let me say something about the idea that seems most associated with Michael Polanyi among scholars, namely the tacit dimension of knowing. A particularly important ingredient in his thought was supplied by Gestalt psychology, which established the powerful habit of the mind to integrate the parts of a visual field to a whole, a form or shape having meaning (Gelwick 1977, 26-27; see also, of course, *TD*). While the psychologists had interpreted this mechanistically as the internal equilibration of external stimuli, Polanyi saw it as a clue to how a person intentionally seeks order in the world. Thus the part-whole elements of Gestalt were re-interpreted by Polanyi to indicate two kinds of awareness, a focal awareness of things immediately before us in vision and consciousness, such that we can describe their particular features, and a subsidiary awareness of various background elements of a situation which are integrated by the person into the focal object to which he or she is attending. Gestalt psychology was describing the pre-articulate form of human knowing,

which in a responsible scientist can be seen as part of the process of discovery, by which unspecifiable clues are indwelled so that their joint meaning might be perceived through the mind's integrative powers.

Through such strategies, Michael Polanyi re-inserted the human person and her history into discussions of science and discussions of knowing; unfortunately, he accomplished this outside the academic guild while relying on such a wide variety of disciplines and suggesting such radical implications that few were able to grasp the import of "personal knowledge." One who did see its import was William Poteat; perhaps an appropriate way of continuing this sketch of Polanyi is by using Poteat's own list of the "decisive motifs of his [Polanyi's] thought, those that caused him to wish to and enabled him to mount and sustain a polemic against the critical tradition of the Enlightenment" (Poteat 1985, 136; hereafter *PM*). Poteat describes them in pages 136-146 of *Polanyian Meditations*, and though his specific aim there is to show that Polanyi's thought is sustained by images that are "at bottom biblical in derivation," he nevertheless gives us an acute summary of Polanyi's philosophy. He identifies (a) the personal, (b) knowing as obedience and responsibility, (c) the fiduciary mode of our being mindbodily in the world, (d) our calling, and (e) the inexhaustibility of what is real as the "decisive motifs" of Polanyi's thought. Let me take up each of these themes in summary fashion:

a. One reason that Polanyi's thought puts off so many professional academics is that he always speaks out of "his own personally centered, self-transcending mindbodily integrity in the world" (*PM*, 137). He avoids the detached, objectivist stance of the critical scholar, constantly using metaphors that flow from his personal stance in the world. "The many variant uses of the word 'personal' throughout [*PK*] are therefore governed by the logic of his always personally centered and recursive reflection" (*PM*, 137). When Polanyi analyzes the knowing process, he finds that there is always an active agent integrating the tacit clues of a given setting in order to discover their explicit meaning. Knowing is always, therefore, an action, a process, guided by an intelligent agent, the human person. Such personal acts underlie all our knowings, from the most routine to the most abstract and complex.

b. As his aim is the justification of scientific knowledge, Polanyi naturally takes up the question of the import of our personal claims: "[There is a] personal participation of the knower in all acts of understanding. But this does not make our understanding subjective. Comprehension is neither an arbitrary act nor a *passive experience*, but a *responsible act* claiming *universal validity*" (*PM*, 138).[3] To talk in this way is to make a novel epistemological affirmation, namely that knowing always involves making a personal claim: it is active,

not passive, and it is reflexive, referring back to the person who makes it, not objective as if written in an eternal and timeless text. "Finally," Poteat notes, "responsible acts—indeed *any* acts—are *convivial*: their context is an interpersonal world of others…to whom we are responsive as to other persons and to whom we are therefore responsible. Knowing then, is *obedient* and *responsible*" (*PM*, 138-139). Here Polanyi is beginning to ground, to justify, the results of scientific knowledge not in some objective calculus of logic or verification, but in the personal acts of the scientist—a most extraordinary claim, according to the critical tradition.

c. The term *fiduciary* "plays a central role in Polanyi's exposition," and rather than use the more common trust or faith as translations, Poteat renders it "to rely upon;" thus, "as an existent, tonic mindbody I acritically rely upon the fact of the pre-reflective and unreflected givenness of my being as the ground of reflection…." (*PM*, 139). There are two elements of the fiduciary that I want to highlight: first, the kind of natural, unconscious reliance on the states and powers of our bodies that goes on constantly, as right now: you are relying on your heart pumping, your lungs breathing, your bones and muscles holding you upright, your eyes surveying the scene before you, your ears taking in the sounds of the room, and so on. Polanyi again turns a commonplace into an epistemological claim: because such reliance is a necessary pre-condition for all knowing, and the richness and complexity of these forms of reliance cannot be fully specified, our knowing is necessarily built upon trust, upon faith. Second, when we consider not the unconscious constituents of knowing but the articulate claims of reason, another element of reliance can be seen, namely its intentionally circular character. Polanyi begins chapter 10 of *PK* with

> '*I believe that in spite of the hazards involved, I am called upon to search for the truth and state my findings*'… This sentence, summarizing my fiduciary programme, conveys an ultimate belief which I find myself holding…. [I]n uttering this sentence I both say that I must commit myself by thought and speech, and do so at the same time. Any enquiry into our ultimate beliefs can be consistent only if it presupposes its own conclusions (*PK*, 299).

Thus our explicit, articulated knowings rely upon our tacit knowings—the latter is the ground, and the former the consequent. Here is an understanding of logic that places reliance or trust at the heart of human knowledge. Poteat goes further to argue that "It is not then merely our knowing…which…has a

fiduciary structure; our very being in the world is fiduciary in structure" (*PM*, 140). At every moment I rely on some antecedent moment, and some logically antecedent level, in order to simply live. (The book jacket of *PM* uses the image of M.C. Escher's "Drawing Hands" as an exact reminder of this very point.)

d. "Of all the biblical images," Poteat claims, "to be found in Polanyi's account of our ways of knowing and being, none is more unambiguously or centrally present than that of 'calling'" (*PM* 140). To claim knowledge is to have an intellectual commitment to make a responsible decision to search for the truth, and to state one's findings. Important here is the fact that the situation in which I make such a commitment, such a decision, is not some generalizable, universal situation, but one peculiar to me and my specific history. There is thus a givenness to our situation which frames our decisions: "Believing as I do [Polanyi writes] in the justification of deliberate intellectual commitments, I accept these accidents of my personal existence…as the concrete opportunities for exercising our personal responsibility. This acceptance is the sense of my calling." And as one can only be "called to" in a convivial setting, Polanyi can say further, "Our believing is conditioned at its source by our belonging" (*PK*, 322).

e. Finally, in Poteat's catalogue of "central motifs" in Polanyi's thought, we come to his radical re-definition of the real as that which is absolutely contingent, which cannot be comprehended, even in principle; as that which will continue to reveal itself in surprising, indeterminate future manifestations; reality is, in fact, inexhaustible (as God is inexhaustible, for Poteat). If one takes an instrumentalist view of science, as positivists like Ernst Mach did, then scientific claims are merely convenient calculating devices, summaries of experience which are economical and useful, like a telephone directory. The persuasive power of scientific theory, its ability to discern some new coherence, to disclose some new reality, is denied out of a desire to maintain the *certainty* of those same theories. The meaningfulness of knowledge to speak of what is true and real is sacrificed to a misplaced obsession with an absolutely certain, explicit, clear *method* of verifying the real.

I have only touched on a few elements of the rich legacy of Michael Polanyi, but perhaps it is enough to sense the web of connections between the work of Polanyi and that of Bill Poteat.

Endnotes

[1]These biographical details are fully discussed in Scott and Moleski 2005. A brief summary can be found in Mitchell 2006.

[2]Polanyi, quoted in Hall 1968, 24.

[3]Poteat is here quoting Polanyi in *PK*, vii-viii; the italics are Poteat's.

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