

section. The last section is cast as "tracing the patterns of various aspects of our common search for knowledge"<sup>177</sup> in science and political theory, in understanding language and promoting education, and in art and religion. What Gill wants to do in these chapters is comment on directions Polanyi's ideas, and particularly his theory of tacit knowing, have led or seem to point. He discusses Polanyi's account of science but notes that Polanyi's views are rather individualistic and were formulated before the era of "big science." He discusses Polanyi's political philosophy and finds Polanyi too conservative; the post-modernist critique, by way of contrast, is more keenly attuned to "the sociopolitical-economic dimensions of human cognitive activity."<sup>178</sup> Gill thoughtfully raises questions about Polanyi's ideas, but he sometimes also shows, in my view, that he has not fully digested all of Polanyi's early ideas about important matters such as public liberty, the structure of liberal society, and the importance of transcendent ideals in the face of materialism. His chapter on language and education is interesting, especially his discussion of Polanyi, Merleau-Ponty, and Wittgenstein, but the discussion is, by Gill's own admission, primarily about his own philosophy of education that grows out of Polanyi's basic insights. Likewise the chapter on art and religion is what he calls an "interpretative effort"<sup>179</sup> to trace the implications of Polanyi's theory of tacit knowing for aesthetics and religion. Much of the discussion here is an abstract version of some of Polanyi's late ideas; clearly, these are matters that interest Jerry Gill as a philosopher. The last substantive chapter in Gill's book is a quick romp through some of the literature on Polanyi, with comments about ways Gill's own account complements or differs from what others have said about Polanyi's thought. Compared to the opening section of the book, part 2 is a much more eclectic discussion in which Gill uses Polanyi to launch his own treatment of issues. But the opening section of *The Tacit Mode* could, for the reader with the right background and interests, provide an interesting orientation to Polanyi as a figure to be seen within the horizon of recent discussions of post-modernism.

### The Meaning Controversy: Harry Prosch's *Michael Polanyi: A Critical Exposition*

The late Harry Prosch's *Michael Polanyi: A Critical Exposition* was published in 1986.<sup>180</sup> The first three of the four sections of Prosch's book could certainly serve as an introduction to Polanyi's thought. Prosch spends about 200 pages on what he describes as "the task of showing simply from Polanyi's own texts, how, in his own intentions, the several facets of his varied work held together."<sup>181</sup> Nevertheless, this representation of Polanyi, as I shall argue below, does have some objectives other than those of a simple introduction to Polanyi. Clearly, the intended audience for Prosch's book, like the Gill book, is philosophers. Prosch is attuned to the philosophical tradition and he straightforwardly says he intends to "help philosophers understand the meaning and strength of Polanyi's basic contentions."<sup>182</sup> The reader choosing Prosch's book as an introduction should therefore expect that Prosch approaches much of the exposition in terms of what contemporary philosophers regard as problems. *Michael Polanyi: A Critical Exposition* is, however, a carefully organized and, for the most part, lucidly written book, although some sections are as dense as the Polanyi texts they explain.

Prospective readers should know something about the history of *Michael Polanyi, A Critical Exposition*. Prosch's book was published a year after Drusilla Scott's book was published in the United Kingdom. The Scott and Prosch books thus became available about the same time and not quite a decade after the Gelwick introduction, and there were interesting interactions among the three authors beginning after the publication of the earlier two introductions. Anyone looking at all three volumes (or choosing among them) should know at least the outline of this little fragment of the history of Polanyi scholarship as well as something of the history of Prosch's own work with Polanyi.

Harry Prosch co-authored Polanyi's last book *Meaning*,<sup>183</sup> published in 1975, just a few months before Polanyi's death in 1976. The book is based on lectures Polanyi gave in the United

States from 1969 to 1971; it "enlarged the scope"<sup>184</sup> of previous Polanyi publications by analyzing meaning in art, ritual, and religion. Polanyi became, in the early seventies, increasingly fragile and too weak mentally to pull together the ideas in his lectures as a last great book. Prosch was invited by Polanyi in 1972 to help him prepare this lecture material for publication. With Polanyi's progressive decline, Prosch became "more . . . a collaborator than . . . an editor or an assistant."<sup>185</sup> Certainly, the correspondence between Prosch and Polanyi that is in the Polanyi archives at the University of Chicago makes very clear that *Meaning* would never have been published without Prosch's diligent work and compassionate regard for the failing Polanyi.<sup>186</sup> Ultimately, Prosch and Polanyi signed the contract acquired by Prosch from the University of Chicago that led to the publication of *Meaning* as a co-authored book. Prosch is quite clear, however, that he "made every effort to stick as closely to the very words of his [Polanyi's] unpublished lectures and of his other published works as continuity, coherence, and the development of a book with its own internal integrity permitted." Prosch emphasized that, while the book's "final written form was my work," certainly "the ultimate origin of everything was Michael Polanyi."<sup>187</sup>

Despite Prosch's comments about *Meaning*, after its publication, this book was received with a certain amount of puzzlement by Polanyi scholars. It was generally unclear how this new book fit with the perspective so carefully elaborated in *Personal Knowledge* and in the short books and articles published in the decade after publication of his *magnum opus*. Polanyi's ideas, like those of any working philosopher, developed over the course of his life and some particularly important developments (often alluded to by Polanyi himself) occur in the publications that ensued in the ten years after *Personal Knowledge*. In some ways the connection between *Personal Knowledge*, the succeeding publications, and *Meaning* was clear, but in other ways there seemed to be a disjunction. The apparent disjunction was perhaps complemented by several historical factors. At least some scholars interested in Polanyi's philosophy knew that Polanyi's mental capacities were

declining by the early seventies. Also draft copies of some of Polanyi's U.S. lectures at universities from 1969 to 1971 were circulating among scholars. In a word, not long after its publication there were questions about how much *Meaning* reflected the hand of Harry Prosch.

Prosch himself contributed to some of the emerging discussion about *Meaning* by writing in 1979 a lengthy critical review of Gelwick's *The Way of Discovery* for the journal *Ethics*.<sup>188</sup> This review was the beginning of a discussion between Gelwick and Prosch about how to interpret certain elements of Polanyi's philosophy and particularly how to interpret *Meaning*. In the following years, a number of scholars interested in Polanyi were drawn into this discussion. There were two academic meetings in the early eighties in which Polanyi scholars discussed the content and status of *Meaning*, and this spilled over into subsequent reviews, articles, and rejoinders published over several years in journals sponsored by scholarly groups interested in Polanyi in the United Kingdom and in the United States.<sup>189</sup> A set of articles was published in *Zygon* in 1982, treating Polanyi's account of science and religion.<sup>190</sup> Gelwick and Prosch sharpened the issue of interpretation with their diametrically opposed articles in this volume.<sup>191</sup> Subsequently, when Drusilla Scott's *Everyman Revisited* was published in 1985, Prosch wrote a generally very positive review which nevertheless raised the same questions about Scott's account of Polanyi's views of art and religion that he had raised in his review of Gelwick's book.<sup>192</sup>

In a nutshell, Prosch argued that Gelwick, Scott, and several others scholars interested in Polanyi's thought misrepresent (in their writings) Polanyi's claims about the metaphysical status of the real entities known in art and religion (e.g., God). Prosch insisted that Polanyi intended to emphasize the ontological discontinuity between the natural and what are called in *Meaning* "transnatural" entities. Such real transnatural comprehensive entities do not exist independent of the articulate system of a particular cultural community of inquiry as do the natural objects known in science. That is, science bears on independently exist-

ing, empirically confirmable realities while religious meaning, like artistic and mathematical meaning, bears on realities that do not exist independently of the articulate system which imaginatively projects them. Gelwick, Scott and several other scholars have argued (especially based upon texts published before *Meaning*) that Polanyi affirmed there was no fundamental ontological difference in kind between the realities known in science, art, and religion. Polanyi's philosophy is a heuristic perspective with a stratified conception of reality that calls knowers in every field of inquiry to accept the responsibility to seek the truth. Polanyi emphasized differences in levels or kinds of participation involved in different areas of inquiry, but he intended to make clear the continuity and value of the types of inquiry crossing a spectrum from physics to religion. Polanyi appreciated the reality of comprehensive entities of all types, those known in science and those known in theology, although he described the engagement of the knowing subject in different areas of inquiry (attending to different kinds of reality) in somewhat different ways.<sup>193</sup> In sum, although Prosch highly regarded the earlier Gelwick and Scott introductions to Polanyi's philosophy, his own book represented to him an account of Polanyi that provided a corrective about how to interpret certain parts of Polanyi's thought. Particularly Polanyi's views about art, ritual, and religion, topics that are central to *Meaning*, Prosch believed were being misrepresented in earlier introductions.

*Michael Polanyi: A Critical Exposition* is a book that Prosch started in the late sixties and early seventies when he first began to take a serious interest in Polanyi's thought. Prosch came to Oxford to work with Polanyi during a sabbatical in 1968–69. He was curious about Polanyi's odd philosophy and came to sort through it more carefully, but he left his sabbatical as something of a convert to Polanyi's views:

This book had its origin in a sabbatical leave I spent with Michael Polanyi in Oxford, England, during 1968–69. I had come as an interested but rather critical spectator, intending to assess coolly what this strange interloper into philosophy was doing, and to

analyze his thought into its fundamental grounds and principles. I left a fellow participant in an active effort to develop an adequate contemporary philosophy, wholly convinced that Polanyi was on to something tremendously fundamental, sound, and healthy for the modern mind, but not yet wholly convinced that he had got it all perfectly straight.<sup>194</sup>

As he became more convinced that Polanyi's ideas should be better understood by contemporary philosophers, Prosch initiated his scholarly project of doing a book laying out the coherence of Polanyi's thought. At least substantial parts of what are the first three sections of *Michael Polanyi: A Critical Exposition* were written before the publication of *Meaning* in 1975. Archival correspondence suggests that Polanyi read, in the early seventies, and praised what were probably draft materials structured like the first three sections of his later book. Prosch's plans to finish his book were interrupted by his collaboration with Polanyi. He worked for several years on *Meaning*, but he also took on other projects that Polanyi requested, while publishing other things on Polanyi's thought. *Michael Polanyi: A Critical Exposition* was finally published a decade after Polanyi's death and in this decade the Gelwick and Scott introductions were published. The discussions about how to interpret Polanyi and *Meaning*, outlined above, occurred,<sup>195</sup> and other philosophers also began to comment on Polanyi's thought.

Prosch's book is organized to show how Polanyi served as a "physician to the modern mind,"<sup>196</sup> and Prosch argues that Polanyi never lost sight of this larger goal. His philosophy was not calculated to win him a place in the profession, but to "restore the health of the modern mind."<sup>197</sup> There are four sections that frame this sickness-to-health metaphor: diagnosis, prescription, treatment, and evaluation. Here I will focus only on the first three since these are the ones that might be used as an introduction to Polanyi. The evaluation section provides Prosch's response to a number of sympathetic Polanyi interpreters who, nevertheless, criticized Polanyi on certain points. Prosch comments here not

only on some of the discussion about *Meaning* during the previous ten years after *Meaning's* publication, but he also outlines and responds to critical comments about Polanyi's perspective from philosophers such as Marjorie Grene and Rom Harre.<sup>198</sup>

Finally, it should be noted that Prosch seems to have thought of his book not only as a corrective interpretation of Polanyi's ideas about art, ritual, and religion and as a response to a range of different kinds of criticisms of Polanyi, but also as a book unlike any of the existing Polanyi introductions insofar as it emphasizes the overall coherence of Polanyi's thought: ". . . I wish to do for Polanyi's work something which no one has yet done, not even Polanyi himself. I want to show how the various subjects and areas he has taken up belong together in terms of his fundamental objectives."<sup>199</sup> To this reader, Prosch does effectively show the coherence of Polanyi's perspective, but I think Gelwick's and Scott's earlier introductions as well as Mitchell's new introduction also do this reasonably well. Prosch notes that he has "avoided a chronological or historical approach"<sup>200</sup> in presenting Polanyi's views in order to focus upon matters of coherence. Gelwick, Scott, and Mitchell do include more historical details, showing how Polanyi's philosophy emerged from his life experiences, hinting also at how his ideas evolved over the course of his life. Prosch does this too, but this is a matter underplayed in his book. The organization of Prosch's book sometimes leaves the reader unclear about how ideas developed in one area led Polanyi toward other areas for exploration.

Prosch's opening three chapters outline Polanyi's "diagnosis" of the plight of the modern mind. He later clearly summarizes the material here in this way:

[T]he modern mind is suffering from two diseases. These consist of two false ideals: that of detached objectivity or explicitness as the ideal of knowledge and that of perfectionism as the ideal in moral and social concerns. Together these two ideals—actually incompatible—have worked themselves into what he called "moral inversion."<sup>201</sup>

There are many very interesting and incisive elements in Prosch's discussion of modern habits of thought in these chapters. In his opening chapter, Prosch carefully outlines Polanyi's account of how modern European intellectuals helped destroy the free cultural and cosmopolitan environment they needed to thrive. He discusses Polanyi's clear vision that a utilitarian commitment to science serving the public's material interest was a betrayal of what is primary in science. Science must accept as its guide the power of thought to see the truth. Prosch very aptly describes Polanyi's sense that intellectuals and others in the twentieth century acquired an "all-pervasive moral dissatisfaction"<sup>202</sup> with everything about modern industrial civilization. They were captivated by social planning as a solution to the disorder and suffering of modernity. Polanyi saw that even neoclassical economists who argued against social planning in the name of freedom failed to see how complexity works to make impossible certain kinds of planned programs. Prosch also does a very credible job of showing how Polanyi, as a chemist in the mid-thirties, was already working on ideas that later become his theory of tacit knowing. Polanyi saw the modern obsession with exactitude and countered it by hinting at the value of the inexact in most areas of inquiry.

Prosch's second chapter lays out Polanyi's case that the modern mind is the victim of passions working at cross purposes. Polanyi claims that modern desires for a better planned society led modernity toward totalitarianism and violence. General aspirations operating vaguely and pluralistically in a free society were undercut by specific social aims in the early twentieth century. Fanaticism and widespread sympathy for fanaticism followed. Polanyi located the clues for this modern mental pathology in the combination of excessive but hidden moral passions, drawn from Christianity and the progress since the Enlightenment, and enthusiasm for an ideal of absolute objectivity, drawn from the traditions of the scientific revolution. Moral perfectionism and the notion of a complete objectivism produce what Polanyi called "modern moral inversion."<sup>203</sup> Moral inversion involves the aban-

donment of vague but transcendent ideals while surging subterranean moral passions drive toward absolute rebellion or nihilism.

Prosch's final chapter in the "diagnosis" discussion turns to the "causes" of modernity's unbalanced mental outlook which has been so prone to violence. This chapter incisively reviews the case Polanyi makes for how Enlightenment ideals were subverted in the developing history of modern ideas as romantic thought emerged and converted the affirmation of rationality and transcendent ideals into service to radical individualism, nation state, raw power, and materialism. The discussion of Polanyi's account of the evolution of the modern mind is a careful summary that picks up Polanyi's subtle nuances. Prosch makes excellent use of Polanyi material written in the late forties. Surprisingly few people interested in political philosophy, ethics, the history of ideas, or even Polanyi's epistemology and views on the history and philosophy of science are aware of the depth and coherence of Polanyi's analysis of the evolution of modern thought. Polanyi is, of course, recognized as an opponent of Marxism and "planned science," but there is much more to Polanyi's analysis than such tags connote. Although the Mitchell, Scott, and Gelwick introductions all have discussions of moral inversion and the origins of modern nihilism and totalitarianism, Prosch, an ethicist deeply interested in the history of ideas before he ever met Polanyi, offers a thorough discussion of these topics and their roots.

The second section of Prosch's book moves from a review of Polanyi's diagnosis of the sickness of the modern mind to a five-chapter discussion of his prescription to cure the sickness. The cure was, of course, to develop a new understanding of knowledge and how persons acquire knowledge. All of these chapters treat important topics as they build on each other. First Prosch sets forth Polanyi's ideas about how tacit knowing operates at a foundational level in human perception. He then moves to a broader discussion of Polanyi's account of indwelling and generalization, followed by his analysis of Polanyi's ideas about scientific discovery and the problems of verification.

Prosch's fourth chapter outlines why Polanyi turned to epistemology and what sort of epistemology he affirmed. This is an intricate discussion that again shows how much Prosch aimed his book at a projected audience of philosophers. Polanyi came to see the ideal of detached objectivity as problematic, and his own experience as a scientist had taught him both the deeply personal nature of scientific inquiry and the value of the inexact. This turned him toward epistemology, and what he eventually did was work out a strikingly new account of knowing, one that has had few connections with the discussion of philosophical problems in the West. Prosch then works through the basic claims in Polanyi's theory of tacit knowing, which he does primarily by carefully summarizing Polanyi's account of perception as a purposeful and skillful personal act of integrating subsidiaries. Prosch labors through the many complicated discussions in Polanyi texts about experiments concerned with perception. It is often such discussions in books like *Personal Knowledge* that novice Polanyi readers find impenetrable. While Prosch does a sound job analyzing and representing this material (and this may be particularly of interest to philosophers), even in Prosch's hands, this is difficult terrain. In the final analysis, I think Prosch does do a credible job of explaining the basic elements of Polanyi's epistemological model.

In the fifth chapter titled "Indwelling," Prosch shows how Polanyi's tacit integration is bound up with a vision of the person as active and intentional. Polanyi built his conception upon ideas first developed in Gestalt psychology's partial rejection of mechanical approaches to perception, but he also rejected Gestalt notions about spontaneous equilibration. Prosch discusses how Polanyi conceived the operation of signs: they "function as clues and are known in a subsidiary way as bearing upon a meaningful integration of them forming that which is known in a focal way."<sup>204</sup> There is a discussion in this chapter of the functional, phenomenal, and semantic structure of tacit knowing as well as the ontological aspect. These are matters that Polanyi discusses in a very condensed section of *The Tacit Dimension*. Prosch's treatment is itself dense, but it does help illumine Polanyi's discussion,

especially since Prosch links his account with a broader discussion of how Polanyi thought of meaning and mind.

Prosch's sixth chapter, "Generalization," is built upon the account he has earlier given of Polanyi's understanding of perception and, more generally, tacit knowing. Here Prosch shows that Polanyi's understanding of the activities of scientists affirm that tacit knowing is foundational for inquiry and discovery. As Prosch puts it, for scientists such as biologists learning to identify species, "these operations of science thus have to be understood basically as skills . . . not fundamentally different from that of the tightwire performer, the bicycle rider, or the swimmer."<sup>205</sup> Polanyi respects the "'ineffable' processes of thought" which "are operative in science whenever a scientist structures a whole from parts."<sup>206</sup> Prosch's discussion of Polanyi's views on matters like conceptions of classes and problems of induction is particularly good since he deftly uses many of Polanyi's own insightful comments. Nevertheless, as I have noted above, Prosch's review of Polanyi's account of science does seem to be a representation mindful primarily of the issues likely to be of concern to philosophers (and perhaps especially philosophers of science). At the end of this chapter, he summarizes his review:

Thus Polanyi made a thorough examination of our most trusted mode for establishing a cognitive beachhead among the welter of our perceptions, viz., the "scientific" mode, and showed that it makes use of the same kind of integrative action that perceptions do, namely a dwelling in an unspecifiable conglomeration of subsidiary clues that we bring to bear upon the object of our focal attention.<sup>207</sup>

The final two chapters in Prosch's "prescription" section of his book focus on Polanyi's ideas about scientific discovery and verification. This is a natural next step, moving from the foregoing treatment of classes, induction, and the epistemology of tacit knowing, all of which emphasize the integration of tacitly known subsidiaries. Somewhat like the earlier discussed Polanyi intro-

ductions, Prosch suggests that for Polanyi the problem of discovery came to be the paradigm case of knowing. Understanding discovery should be recognized as central to a philosophy of science, and the key to discovery is understanding how scientists come up with good problems. Prosch lays out Polanyi's views about discerning good problems, as well as the way Polanyi emphasizes commitment and universal intent, and the passionate and deeply personal nature of the discoverer's contact with reality. He also perceptively sets forth the way Polanyi thinks imagination and intuition complement each other in the work of scientific inquiry. All in all, Prosch's treatment of Polanyi's study of discovery successfully pulls together the many threads that are integral to Polanyi's discussions, and then he turns from how discoveries are made to how they become accepted in the scientific community. The short chapter on verification in science outlines Polanyi's claim that scientific value is determined by three coefficients—accuracy, systematic importance, and intrinsic interest—which often are mixed in different proportions in different areas of scientific work. Prosch notes why Polanyi perceived plausibility and originality as important in science. He explains that what Polanyi really wanted to show was "what the *logic* of discovery really is."<sup>208</sup> At the same time, Polanyi was attentive to the larger dynamics of scientific opinion and emphasized that the scientific community is situated within a broader naturalistically disposed fabric of belief in Western culture. Prosch ends the second section of his book by discussing what he calls the five indeterminacies that Polanyi affirmed as "necessarily part and parcel of what knowledge is" and which "necessitate that an ideal of pure objectivity not only is in full perfection unattainable . . . but that such an ideal itself, *as an ideal* is false."<sup>209</sup>

The third division ("Treatment") of *Michael Polanyi: A Critical Exposition* consists of five chapters that fill out the statement of Polanyi's philosophical perspective by moving from the discussion of tacit knowing (in perception and scientific discovery) to the larger implications of this new epistemology. Prosch opens this section by treating Polanyi's ontological claims. Polanyi was

steadfastly an opponent of reductionism, which he firmly believed was well entrenched in the sciences and, more broadly, in modern culture. He argued that we particularly needed to reform prevailing "notions about the nature and status of living things."<sup>210</sup> Prosch tries succinctly to lay out in this chapter some of the antireductionist themes that Polanyi developed. He summarizes Polanyi's ideas about the operation of principles within boundary conditions and his account of "ontological hierarchies as structuring everything."<sup>211</sup> He outlines Polanyi's notions about the "achievement" of living beings, which is for Polanyi an "essential concept."<sup>212</sup> He summarizes Polanyi's criticisms of the reductionistic accounts of evolution in his time. Although the discussion in this chapter is dense, Prosch does succeed in bringing together in eleven pages the several important ontological implications of Polanyi's epistemology.

In his tenth chapter, "Personal Participation," Prosch turns to a more detailed analysis of Polanyi's discussion of the nature and kinds of meaningful integrations achieved by humanity: Polanyi intended "to show us that personal participation is involved in all knowing, which is, moreover, always a sort of doing or creating."<sup>213</sup> Polanyi held that

the meaningful integrations achieved by man in the noösphere form a continuum with those achieved in perception and knowledge, in the sense that they are all examples of the tacit triad: (1) a mind (2) dwelling in subsidiary clues and (3) creating a meaningful integration of these clues into a focally known whole.<sup>214</sup>

But Prosch wants to make plain his view that "Polanyi, of course, never lost sight of the fact that there are differences between the integrations and realities forming the noösphere and those existing prior to the noösphere."<sup>215</sup> In the very careful discussions in this chapter, Prosch lays the groundwork for his account in the following chapters of Polanyi's views of art and religion. Here he sets forth the basic elements of his particular

interpretation of ontological distinctions Polanyi made between different kinds of realities, an interpretation that I have, above, pointed out is at odds with interpretations of Gelwick and Scott. Prosch is quite self-conscious about this difference and, as I have suggested, wants to set the record straight in regard to what precisely he believes Polanyi claimed about different kinds of realities. Anyone reading *Michael Polanyi: A Critical Exposition* should at least be mindful that this is a point of contention in Polanyi scholarship rather than a settled matter. Prosch's reading of Polanyi texts is, in my view, one defensible reading, but it is not the best reading. Prosch makes Polanyi into a philosopher much more conventional than he was.<sup>216</sup>

Prosch emphasizes that Polanyi understood the origins of different kinds of realities in different ways: the origins of realities of the noösphere

are different from the realities that perception and scientific knowing are concerned with. These latter are understood by us to exist, Polanyi said, independently of man's activities. Man's perception and his science thus strive to attain to an adequacy to what is already there. Polanyi held, therefore, that their truth is subject to what we must call a process of verification. The truth of what man has created, on the other hand, must he said, be subject rather to a criterion of their validity.<sup>217</sup>

Polanyi did, of course, discuss the differences between "verification" and "validation" in *Personal Knowledge*, but Prosch construes this distinction in an essentially neo-Kantian manner. For Prosch, much turns on this distinction since it sets off empirical realities that exist from those "noöspheric realities engendered by man."<sup>218</sup> But Prosch makes the case that Polanyi clearly recognized the "noöspheric realities" as most important to humanity. He argues that Polanyi emphasized the function of such realities was "to create obligations binding upon us and thus to direct our lives."<sup>219</sup> Prosch holds it was Polanyi's

hope that his new insight into epistemology, and into an ontology correlated with it, would lay the foundations for a rebirth of faith in the reality of these "spiritual entities," as he sometimes called them, and therefore in the integrations created in science, poetry, art, religion, and morality.<sup>220</sup>

In his discussion, Prosch helpfully outlines the way in which Polanyi recast and expanded the contemporary understanding of biology. He shows how Polanyi analyzed the types of commitment involved in biological inquiry and ultimately suggested that responsible commitments of the highest order involve a kind of participation of the knower that transforms biology into what Polanyi called "ultra biology." As in the previous chapter, Prosch explains Polanyi's frequent attacks upon reductionism popular in biology, neurology, and behaviorist psychology, which are all "logically related to the basic assumption of a one-level universe of atoms, which alone possess true 'reality.'"<sup>221</sup> In sum, what Prosch makes very clear in this chapter is that Polanyi's theory of tacit knowing underscores the various degrees of personal participation in the different types of knowledge. Our tacit participation in our knowledge of physics, for example, is not like that in our knowledge of history. While Polanyi distinguished different degrees of personal participation, he respected the full range of types of human inquiry. He emphasized the need of modern culture to recover confidence in a worldview attuned to ever emerging possibilities for richer fields of meaning.

Prosch's eleventh and twelfth chapters turn directly to the material that is the focus of the book *Meaning*. First, Prosch summarizes Polanyi's discussion of symbol, metaphor, and art, and the following chapter then focuses on rites, myths, and religion. Polanyi late in life came to distinguish the class of tacit knowing operations involved in normal sign operations (indication) from symbolic operations, calling the integrations that recognize symbolic meaning "self-giving" as opposed to the "self-centered" integrations of indication ("self-centered" here does not suggest an egotistical focusing upon oneself but refers to the

way the self participates in the processes of integration). The subsidiary particulars of self-giving integrations are intrinsically interesting, unlike the focal object of such integrations; such integrations produce meaning that moves us deeply because the focal object is a perceptual embodiment of diffuse memories and other inchoate but emotionally important matters. Self-giving integrations thus involve a kind of engagement or participation that is not present in self-centered integrations. Prosch lays out carefully the elaborate diagrams that Polanyi used late in life to explain the dynamics of signs and symbols; he then moves on to show how Polanyi's account of metaphor was built upon his understanding of symbol. The subsidiary tenor of a metaphor bears on the focal vehicle of the metaphor but the focal vehicle, somewhat like a symbol, enhances or embodies the tenor in an emotionally rich manner. Metaphors are meaning structures that require imaginative participation and they move us: "Metaphors, through our participation in them, literally establish meaning in our lives—a meaning that could never be established through perception or scientific knowing, and certainly never rendered explicit and 'told' in any prosaic fashion."<sup>222</sup> Prosch reviews Polanyi's discussion of the framing devices in representational art. Such devices are elements incompatible with other subsidiaries, but those who can find meaning in art are able finally to perform integrations that bring together even the most incompatible elements. What Polanyi termed "visionary" art, much more than representational art, emphasizes the element of incompatibility among subsidiaries, but modern people have learned to make the kinds of imaginative integrations necessary to appreciate the meaning of visionary artifacts. The meanings of symbols and art are thus a special class of meanings that Polanyi designated "transnatural," and the transnatural meanings of works of art are set off from the ordinary run of daily life in which the indicative integrations of perception and non-symbolic inquiry are normative. The self-giving integrations of representational arts thus always involve incompatibility and require imagination in a way that self-centered integrations which produce natural



meaning do not. Certainly, Prosch's summary of the explorations represented in Polanyi's last North American lectures, which is the material Prosch labored to make into the co-authored book *Meaning*, is a competent summary. Prosch's review is, however, one that emphasizes what he thinks is important for the task of correcting the discussions of Polanyi's views in the earlier published Gelwick and Scott introductions:

Works of the arts cannot, we can surely see by now, be verified for Polanyi. If we can consider them true and real in any sense, it is not because they truly portray anything that exists—the world, ourselves, our lives. In a very real sense they can be said rather to create a world, a self, and a life for us—or rather perhaps induce us through the work of our imagination to create these things. Their validity therefore rests for him precisely in their power to do this and to continue to do this for us.<sup>223</sup>

The twelfth chapter, "Religion" turns to Polanyi's treatment of rites, myths, and religion, three topics that are clustered together in the same way that Polanyi's treatment of symbol, metaphor, and works of art are clustered. Rites or rituals have an artificial character that sets them off from daily life. Although the modern temper disposes us against confidence about the importance of rites and ceremonies, we can learn to dwell deeply in such artificial forms and integrate their incompatible elements. What we discover is a moving and comprehensive vision of our own lives. Prosch points out that Polanyi wanted to claim that in some sense the myths that rites and ceremonies are rooted in are true. Modern scientific culture discourages any talk of truth in connection with rites, ceremonies, and myths, but Polanyi made a serious effort to address this matter. Prosch reviews some of Polanyi's discussions that relied heavily upon Eliade's notions about the sacred, summarizing his understanding of Polanyi's position thus:

So Polanyi maintained that myths also can affect us only if they can detach us from our ordinary world of experience. But this

they can do, he held, because the events described or portrayed are wholly other than actual human experience. To believe the myth and to live it though its rites is thus to carry us away to a transnatural integration, such as exists also in art and poetry, in which incompatibles (which remain incompatibles) are combined into a meaningful integration by a feat of our imagination.<sup>224</sup>

Prosch's lengthy analysis of Polanyi's discussion of myth carefully reviews Polanyi's effort to sort out differences in the archaic and modern mind. Archaic minds that were able comfortably to dwell in myth worked like modern minds integrating subsidiaries but archaic minds apparently had a different framework of plausibility: "Modern man differs from archaic man only in his judging whether certain kinds of observed spatial or temporal contiguities should be regarded as coincidental or as causal."<sup>225</sup> Archaic man, by invoking magic, worked toward the elimination of the uncertainties represented by temporal coincidence in his world. Archaic minds seem to have been more impressed by the "sensory quality of meaningful relations, and imagination greatly exaggerated (in our judgment) the interactions of subsidiaries and their focus, especially when the object is a human person."<sup>226</sup> This enabled archaic minds to view their tangible world far more holistically than is possible in the critical-analytic perspective of modernity. Polanyi thought the archaic mind tended to exaggerate coherences to the point of absurdity, but it did (unlike many reductionistic modern minds) recognize "indwelling as the proper means of understanding living things."<sup>227</sup> The myths of archaic people were meaningful forms supporting life because archaic people understood that they were "works of the imagination as are works of art. And, like works of art, their truth can consist only in their power to evoke an experience in us which we hold to be genuine."<sup>228</sup> Certainly more than any of the other books on Polanyi's thought discussed here, Prosch's analysis of the *Meaning* material, and particularly his treatment of myth, digs into the details and tries to present what Prosch takes to be the cogency of Polanyi's perspective.

Prosch summarizes Polanyi's understanding of religion as incorporating all of the elements found in myth and works of art:

Religion . . . is also a work of the imagination. It is a sprawling work, since it incorporates myths, rites, and ceremonies . . . and also doctrines and worship. As a transnatural integration, it is, for Polanyi, an integration of incompatibles. Moreover, it is detached from our ordinary life by a "frame"—as are works of art.<sup>229</sup>

Polanyi believed that the imaginative transnatural integrations producing religious meaning were extraordinarily comprehensive in scope. For those who can achieve such integrations, "it is our *total* life that becomes at last integrated in the presence of God."<sup>230</sup> Polanyi held that the key to the plausibility of religious integrations lies in whether or not human beings have a deep sense that the world is fundamentally meaningful. This is the basic "religious hypothesis" and, although there is much in contemporary culture that discourages people from making such a hypothesis, there is "no scientific reason why we cannot believe the religious hypothesis that the world is meaningful."<sup>231</sup> Polanyi's post-critical reformation of epistemology and philosophy of science, in Prosch's account of Polanyi, have thus opened the way to "restoring the possibility of our belief in those intangible, transnatural comprehensive entities that enable us to acquire more integrated and meaningful selves."<sup>232</sup>

In the final chapter of this section entitled "Treatment," Prosch turns from the review of Polanyi's ideas about art and religion to a consideration of Polanyi's liberal political vision. This might seem an odd concluding note for his summary of Polanyi's philosophical views, but in fact it is not, for, as Prosch makes clear, all of the broader human endeavors of the noosphere that Polanyi affirms as worthy pursuits are possible only in a certain kind of social environment. Thus Polanyi was vigilantly "concerned about securing the conditions essential for these activities."<sup>233</sup> Prosch's discussion thus returns, in part, to some of the themes in the opening two chapters of his book. He discusses

Polanyi's account of freedom and his criticisms of Marxism, fascism, utilitarianism, and pragmatism as popular modern perspectives that all fail to recognize the importance of specialized communities (e.g., science, law, religion, etc.) that serve transcendent ideals. Later, he suggests how Polanyi's views are an outgrowth of his account of polycentrism, as it applies to culture. Governments should not interfere in the name of purported social utility or public good with the spontaneous initiatives within specialized communities where members serve ideals such as truth. Prosch however somewhat oversimplifies Polanyi when he makes it appear that serving transcendent ideals is an ultimate commitment that is simply either made or not made and when it is made it is an acceptance of the heritage of the past. Polanyi uses the term "calling" to talk about a person's vocation, but Prosch neglects to emphasize that Polanyi uses the term broadly to point to the opportunities that are present in any person's historical-social setting. Polanyi consistently resists deterministic modern historicist views and Prosch should make such convictions clearer.

In this chapter, Prosch includes a discussion of Polanyi's opposition to the "planned" science movement, and he links this to a lengthy review of Polanyi's contributions to economics and a discussion of Polanyi's ideas about economics education. Regarding Polanyi's account of economics, Prosch provides more detail than any of the other books reviewed here (although Mitchell's book is also very insightful about Polanyi's work in economics). Polanyi supported a free economy, "centering around open markets, supply-and-demand pricing, and profits," but about the market economy Polanyi also had "an understanding of its deficiencies, and how to remedy them, he held, was not at all based on the notion that any of these economic matters entailed transcendently spiritual or ideal ends, intrinsically valuable in themselves."<sup>234</sup> In no other publication that I know has any scholar so carefully as Prosch laid out (making excellent use of archival materials) Polanyi's pragmatic discussions about how to eliminate some of the undesirable effects of a market economy. Polanyi believed that it was possible to preserve a basic polycentric system

and yet also make significant socially desirable modifications of the system of spontaneous order that the market establishes. Nevertheless, Polanyi recognized that even while humans work for the moral improvement of society "we must acknowledge that we can reduce unjust privileges only by graded states, and never completely."<sup>235</sup> Prosch suggests that Polanyi thought Moral ideals, like the meaningful artifacts of art and religion, are purposes bearing on eternity which human beings seem to need. Polanyi sternly warned about the modern dangers of moral perfectionism and Polanyi is thus "an incurable moralist."<sup>236</sup> Human beings "have moral duties" but Polanyi "did not think that religion was the source of all our moral duties nor of all the other duties entailed by the noöspheric firmament of obligations which we have set over ourselves."<sup>237</sup> While religion for Polanyi "seemed to have been connected with morality primarily in making us better able to live with our necessarily limited moral achievements,"<sup>238</sup> Polanyi was not prescribing religion as the cure for the problems of the modern mind. In Prosch's view, it was a recovery of belief in transcendent ideals that grounds a free society; this recovery most concerned Polanyi. Polanyi argued, "we needed to develop an epistemology adequate to humane thought and to use it in the reformation of those views of man which will lend an ontological basis for his grasp of his own dignity and high calling in the universe."<sup>239</sup>

All things considered, Harry Prosch's *Michael Polanyi: A Critical Exposition* is a thoughtful book about Polanyi's philosophy written by an author who co-authored Polanyi's last book *Meaning*, a book that could never have been published without his help. Prosch's "critical exposition" presents Polanyi's thought from the point of view of this final co-authored Polanyi book. Certainly a novice Polanyi reader can make good use of the first three sections of *Michael Polanyi: A Critical Exposition* to get a foothold helpful for hiking the difficult terrain of Polanyi's primary texts. Prosch's command of Polanyi's ideas is masterful, but readers should also be aware that his interpretation of some elements of Polanyi's thought is overtly shaped to be a counter to earlier introductions to Polanyi's thought.

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#### NOTES

1. Michael Polanyi, *Personal Knowledge: Towards a Post-Critical Philosophy* (Chicago: University of Chicago Press, 1958; New York: Harper & Row/Torchbook, 1964). References are to the Torchbook edition.

2. Even Friedrich Hayek, one of Polanyi's long-standing friends, made this confession: "I never got really through Polanyi's *Personal Knowledge*, though I made two attempts, but on both occasions got lost as soon as I could not give my continuous and exclusive attention to his exposition." (Letter to Ludwig M. Lachmann, 24 November 1959, Hayek Archives, box 32, folder 2, Hoover Institution, Stanford University). For this tidbit, I am indebted to Eric Howard's interesting paper "Why Didn't Hayek Finish Reading *Personal Knowledge*? An Investigation into the Methodological and Philosophical Relationship between Fredrich Hayek and Michael Polanyi" (delivered at the November 2004 Southern Economic Association Annual Meeting). The introduction to an important collection of essays on Polanyi's thought, Thomas A. Langford and William H. Poteat's *Intellect and Hope: Essays in the Thought of Michael Polanyi* (Durham, NC: Duke University Press, 1968), is titled "Upon First Sitting Down to Read *Personal Knowledge*." Its opening sentence proclaims "*Personal Knowledge* is an exasperating book" (p. 3). The editors thought it important to address the difficulty of the book and say something about its rhetoric.

3. For an account of how Scott somewhat unexpectedly became acquainted with Polanyi and his philosophy and later came to be asked to write a biography see Phil Mullins and Marty Moleski, S.J., "Obituary for William T. Scott," *Tradition & Discovery* 25, no. 3 (1998-99): 5-9. For Scott's early and positive review of *Personal Knowledge*, see William T. Scott, "Polanyi's Theory of Personal Knowledge: A Gestalt Philosophy," *Massa-*

chusetts Review 3, no. 2 (1962): 349–68.

4. Michael Oakeshott, "The Human Coefficient," *Encounter* 11, no. 3 (1958): 77–80.

5. In a letter to the editor in a subsequent issue of *Encounter*, Marjorie Grene (who worked for years with Polanyi in putting together *Personal Knowledge*) provided a very interesting response to Oakeshott's review. She acknowledged "how difficult philosophical innovation is" and then very circumspectly outlined in two pages, the case Polanyi makes, section by section, and why he makes in the way he does. Her brief discussion might still be useful to those struggling with *Personal Knowledge*. See Marjorie Grene, "Personal Knowledge," *Encounter* 11, no. 4 (1958): 67–68.

6. It is for this reason that I am suspicious about the common suggestion that novices should start reading Polanyi by reading *The Study of Man* or *The Tacit Dimension* (brief late works) rather than *Personal Knowledge*. Those who already have mastered the basic ideas in Polanyi perspective do find these books particularly illuminating but uninitiated readers find them puzzling. Polanyi himself I think was not very helpful when he suggested in the preface (p. 9) to *The Study of Man* (Chicago: University of Chicago Press, Phoenix Books edition, 1963) that this book might "be read as an introduction to *Personal Knowledge*." For those seeking an alternative to the daunting *Personal Knowledge*, I suggest Polanyi's book from the mid-forties, *Science, Faith, and Society* (London: Oxford University Press, 1946; Chicago: University of Chicago Press, 1964) whose 1964 reprint includes a straightforward introduction (pp. 7–19) written in 1963 after his philosophical ideas developed further.

7. Polanyi certainly did not belong to any of the mid-twentieth-century philosophical camps, the Anglo-American, the Marxist, or the Continental. He attacked many of the assumptions of the former two camps and likely did not know much, at least at the time he was writing *Personal Knowledge*, about phenomenology and its variants. In *The Tacit Dimension* (Garden City, NY: Doubleday & Co., 1966), Polanyi suggests that becoming a

philosopher was something of an afterthought (see p. 3). Polanyi provides a brief discussion of his own development as a thinker in his 1963 introduction (see pp. 7–19) to the reprint of his 1946 volume *Science, Faith and Society* noted above. Most of the introductions treated in this essay try to clarify how Polanyi came to be a philosopher and how he tried to reconceive the nature of philosophical reflection. That reconception often makes professional philosophers uncomfortable. The uniqueness of Polanyi's contributions to philosophy, like some of his contributions to science and economics, are likely the result of the fact that he had very broad interests and knowledge which he tried to integrate, but he was often not well socialized by the mainstream suppositions in particular disciplines, even scientific ones. The Mitchell book (see n. 12 below) discussed below as well as the new Polanyi biography (see n. 15 below) emphasize this point. For an interestingly similar discussion of Polanyi's innovations in chemistry see P. H. Plesch, "Michael Polanyi and the Discovery of Co-Catalysis," *Journal of Polymer Chemistry* 42, no. 7 (April 1, 2004): 1537–46.

8. See the chapters in *Personal Knowledge* with these titles (pp. 132–243).

9. *Ibid.*, xi.

10. *Ibid.*, xiii.

11. *Ibid.*, 327–407.

12. Mark T. Mitchell, *Michael Polanyi: The Art of Knowing* by (Wilmington, DE: ISI Books, 2006).

13. *Ibid.*, xii.

14. *Ibid.*, xiii.

15. William Taussig Scott and Martin X. Moleski, S.J., *Michael Polanyi: Scientist and Philosopher* (New York: Oxford University Press, 2005). This biography was a long time in the making. Bill Scott, a physicist, philosopher, and friend of Polanyi, began the work shortly after Polanyi's death in 1976. He gathered volumes of material but his own debilitating illness and death prevented him from completing the book. Marty Moleski took on the task of completing the biography when it was clear that Scott would

never be able to finish his work, and this 350-page volume was published only in 2005. As the title suggests, this biography works in some detail through Polanyi's extensive work as a research scientist (he published over 200 scientific papers) as well as his contributions to other areas. The biography is a major contribution to Polanyi scholarship but most of the introductory books reviewed here provide a short biographical sketch that makes clear how Polanyi's interests and ideas arose in the context of his experience.

16. Mitchell, *Michael Polanyi: The Art of Knowing*, 11.

17. Mitchell later notes (p. 118) that some (at least Drusilla Scott) have suggested Polanyi's Roman Catholic baptism may have been largely pragmatically motivated. But see also Paul Knepper's discussion of Polanyi and Roman Catholicism ("Michael Polanyi and Jewish Identity," *Philosophy of the Social Sciences* 35 (2005): 271-74), as well as William Scott's comment on a 1916 Polanyi letter ("The Question of A Religious Reality: Commentary on the Polanyi Papers," *Zygon* 17, no. 1 [March 1982]: 86) which Knepper uses.

18. Mitchell, *Michael Polanyi: The Art of Knowing*, 20.

19. *Ibid.*, 22.

20. *Ibid.*

21. *Ibid.*, 25. Mitchell comes back to emphasize the same point in his last chapter: "While it is correct to situate Polanyi's work in the broad context of classical liberalism, he was no apologist for laissez-faire capitalism. He believed there is a proper and necessary role for government, and that this extends well beyond the minimalist 'night-watchman' state" (p. 138).

22. *Ibid.*, 25.

23. *Ibid.*, 35.

24. *Ibid.*, 33.

25. See especially Polanyi's discussion in his important 1941 article "The Growth of Thought in Society" (*Economica* 8 [1941]: 429-30, 438-40).

26. *Ibid.*, 438.

27. Mitchell, *Michael Polanyi: The Art of Knowing*, 46.

28. *Ibid.*, 50.

29. *Ibid.*, 35-36.

30. *Ibid.*, 42.

31. *Ibid.*, 37.

32. *Ibid.*, 55.

33. *Ibid.*, 57.

34. *Ibid.*, 58.

35. Polanyi, *Personal Knowledge*, ix, 264-272.

36. Polanyi, *The Tacit Dimension*, x.

37. Mitchell, *Michael Polanyi: The Art of Knowing*, 62

38. *Ibid.*, 67.

39. *Ibid.*, 67.

40. *Ibid.*, 69.

41. Walter Gulick has pointed out in a recent review of Mitchell's book that Mitchell sometimes has an odd way of describing the functional structure of tacit knowing. See Walter Gulick, "Polanyi as a Political and Economic Thinker: Mark Mitchell's Account," *Tradition & Discovery* 34, no. 2 (2007-8): 34. See also Mitchell's response to this point in the same article in "Reviewing the Reviews," 37.

42. Marjorie Grene suggests that much of the contemporary philosophical discussion of realism in philosophy of science has formalistic suppositions about knowledge and misguided notions about perception rooted in empiricism. She suggests the contemporary debate about realism and antirealism is an in-house debate about "scientific realism." (See Greene, *A Philosophical Testament* [Chicago and LaSalle, IL: Open Court, 1995], 113-26.) Mitchell's intention is simply to introduce Polanyi's realism and he does a good job of this. Grene's discussion of realism, however, makes clear that there is a disjunction between Polanyi's realism and contemporary philosophical discussions. It might be helpful to some Polanyi readers to know about this disjunction at the beginning. I have recently suggested that Polanyi's realism perhaps should be linked to ideas about realism that Charles S. Peirce held. Peirce's realism and Polanyi's realism have more in common with medieval realism than contemporary discussions of realism.

See my article "Comprehension and the 'Comprehensive Entity': Polanyi's Theory of Tacit Knowing and Its Metaphysical Implications," *Tradition & Discovery* 33, no. 3 (2006-7): 35-38.

43. Mitchell, *Michael Polanyi: The Art of Knowing*, 85.

44. Few recent thinkers have absorbed Polanyi's ideas more deeply than the late Charles McCoy. In all of his publications, he emphasizes the implications of the Polanyian theme that Mitchell here calls "embeddedness." McCoy contends that the "Polanyian Revolution unfolding around us shows that we still occupy the particularity of human location in our knowing and action. Polanyi provides a method that combines critical rigor and impetus for discovery with the pre-critical respect for tradition, culture, community, and faith, which he brings together in his post-critical thought. In post-critical perspective, uncritical adherence to critical method leads toward an objectivism in knowing that does not take account of the tacit coefficient upon which it depends, and is as inadequate as the post-modern rejection of the modern that leaves itself adrift without connection to a context of tradition, community, and commitment. Post-critical thought discloses the pre-critical passion and faith underlying critical rigor and the potential of pre-critical traditionalism as a springboard for discovery, thus providing fiduciary roots in tradition and community for post-modern creativity." See Charles McCoy, "Ethics For The Post-Critical Era: Perspectives from the Thought of Michael Polanyi," *Tradition & Discovery* 29, no. 1 (2002-3): 9.

45. Polanyi, *Personal Knowledge*, 311.

46. Mitchell, *Michael Polanyi: The Art of Knowing*, 101.

47. *Ibid.*, 106.

48. *Ibid.*, 114.

49. Richard Gelwick, "Michael Polanyi: *Credere Aude*: His Theory of Knowledge and Its Implications for Christian Theology," Th.D. dissertation, Pacific School of Religion, 1965, p. 11, n. 8. See also my discussion of Polanyi, Oldham, and Polanyi's involvement in Oldham's discussion groups in "Michael Polanyi and J. H. Oldham: In Praise of Friendship," *Appraisal* 1, no. 4 (October 1997): 179-89.

50. In his notes and to some degree in his text, Mitchell does provide information that would allow the interested reader to follow up on much of the scholarly discussion about Polanyi's ideas about religion. In the discussion of the Prosch book below, I follow up on some of this. In a nutshell, one might say the scholarly discussion first concerned (A) how to interpret what Polanyi suggested about the ontological status of known religious realities. Interest in this question led to (or actually was bound up with) debate about broader questions. First there emerged questions about (B) the relation between views of religion and the arts and science in *Personal Knowledge* and in Polanyi's last book *Meaning* co-authored by Harry Prosch. Some accused Harry Prosch of misrepresenting Polanyi in *Meaning*. Others, like Marjorie Grene, Polanyi's closest philosopher friend who was the most important collaborator helping to produce *Personal Knowledge*, thought Polanyi simply failed to think carefully through his late ideas about art, myth, and religion. Subsequently, there was a broader debate among Polanyi scholars about (C) the nature of Polanyi's metaphysical orientation; what sort of realist was Polanyi? As I discuss below, the question about the ontological status of known religious realities (A) first emerged in reviews that Harry Prosch wrote of Richard Gelwick's introduction to Polanyi, *The Way of Discovery* (treated below), and Drusilla Scott's introduction to Polanyi, *Everyman Revived: The Common Sense of Michael Polanyi* (treated below). Subsequently there was discussion of issues (particularly A and B) at the annual meetings of the Polanyi Society and in a 1982 issue of *Zygon* (17, no. 1) on science and religion in the thought of Polanyi. Over the years, there have been a number of articles in the Polanyi Society periodical *Tradition & Discovery* that have treated all three questions (A, B, and C); Mitchell mentions several of these. Harry Prosch wrote some of these *Tradition & Discovery* articles, but he also addresses these questions (A, B, and C) in his book, *Michael Polanyi, A Critical Exposition* (treated below). Very recently (probably after Mitchell's book was in press), after the death of Harry Prosch, Polanyi biographer Marty Moleski and I looked very carefully at the

substantial correspondence (most of which is preserved in the Polanyi Archival Collection at the University of Chicago Library) between Prosch and Polanyi about *Meaning*. Our essay "Harry Prosch: A Memorial Re-Appraisal of the Meaning Controversy," tries to set the historical record straight about the Prosch-Polanyi collaboration. The article also criticizes some of the statements about Prosch and Prosch's role made by Thomas Torrance, the first literary executor for Polanyi. Some of what Torrance says is simply unreliable. Our article tracks the decades-long discussion among Polanyi scholars in great detail; anyone interested can use it to supplement Mitchell's text and notes. (See "Harry Prosch: A Memorial Re-Appraisal," *Tradition & Discovery* 32, no. 2 (2005-06): 8-24.

51. See, for example, my own essay "Religious Meaning in Polanyi's *Personal Knowledge*," *Polanyiana* (vol. 2, no. 4/vol.3, no. 1) 1992/1993: 75-83.

52. Mitchell, *Michael Polanyi: The Art of Knowing*, 128.

53. *Ibid.*, 135.

54. *Ibid.*, 140-41.

55. *Ibid.*, 162.

56. *Ibid.*, 165.

57. Some of the themes in Mitchell's discussion of "Polanyi's Legacy" (*Ibid.*, 162-169), in particular his analysis of consumerism, suggest ways that a Polanyian philosophical perspective could be fruitfully linked to the work of a figure like Albert Borgmann, an insightful philosopher of technology.

58. One of Richard Allen's most important publications is his 1997 collection of Polanyi essays, titled *Society, Economics, and Philosophy: Selected Papers* (New Brunswick, NJ: Transaction Publishers, 1997), that supplements the other major collection of Polanyi essays, *Knowing and Being: Essays by Michael Polanyi* (Chicago: University of Chicago Press, 1969), that Marjorie Grene put together while Polanyi was still alive. The twenty-five essays in Allen's collection range from Polanyi's earliest non-scientific writing (1917) to publications near the end of his life (1972). Allen selected articles that Polanyi had not incorporated

in other books, articles which cover not only philosophy of science but also topics in economics, politics, religion and aesthetics. In this book, Allen provides a remarkably concise introduction to the collection and to Polanyi's life and work; and he also assesses Polanyi's place in the history of Western thought. There are also two appendices that can be helpful to anyone seeking some orientation in Polanyi's writing. One of these is an annotated bibliography of Polanyi's writing, and the other is a set of summaries of Polanyi articles that are not incorporated in Polanyi's major books or in essay collections. More recently, Richard Allen and Struan Jacobs have published *Emotion, Reason, and Tradition* (Burlington, VT: Ashgate, 2005), which is a good collection of secondary essays on Polanyi's ideas that they wrote or invited from competent Polanyi scholars. For detailed discussions of both of these collections, see my reviews in *Tradition & Discovery* 25, no. 3 (1998-99): 33-36 and 32, no. 2 (2005-6): 53-59.

59. Richard Allen, *Thinkers of Our Time: Polanyi* (London: Claridge Press, 1990).

60. See Andy Sanders' review in *Tradition & Discovery* 20, no. 2 (1993-1994): 43-44. Another reviewer, N. E. Wetherick, contends that Allen's introduction is written for an audience already interested in Polanyi's epistemology because they are Christian "religious thinkers" (*Tradition & Discovery* 20, no. 2 [1993-94]: 45-46).

61. See Allen's letter to the editor, *Tradition & Discovery* 20, no. 3 (1993-94): 4.

62. Allen, *Thinkers of Our Time: Polanyi*, 9.

63. *Ibid.*, 9.

64. *Ibid.*, 10.

65. *Ibid.*, 20.

66. For example, Allen notes that objectivism holds that emotional and personal involvement in knowing is a defect and it therefore proclaims as important detachment and a "value-free" perspective. Chapter 6 in *Personal Knowledge*, titled "Intellectual Passions," makes a solid case that in the practice of science those

who do research are passionately involved. In fact Polanyi shows that intellectual emotions "have a constitutive and guiding role in scientific discovery" (p. 28).

67. Allen, *Thinkers of Our Time: Polanyi*, 33.

68. *Ibid.*, 56.

69. *Ibid.*, 54.

70. *Ibid.*, 59.

71. *Ibid.*, 73.

72. Drusilla Scott, *Everyman Revived: The Common Sense of Michael Polanyi* (Lewes, Sussex: Book Guild, 1985; Grand Rapids, MI: Eerdmans, 1995).

73. *Ibid.*, ii.

74. *Ibid.*

75. *Ibid.*, 7.

76. *Ibid.*, 15.

77. *Ibid.*, 16.

78. *Ibid.*, 20.

79. *Ibid.*

80. *Ibid.*, 27.

81. Although she does not make a great deal of use of the 1977 Gelwick introduction treated below, Scott's introduction resembles the Gelwick book insofar as she orients much of her larger discussion around an account of discovery.

82. *Ibid.*, 34.

83. *Ibid.*, 45.

84. *Ibid.*, 51.

85. *Ibid.*, 60.

86. *Ibid.*, 64.

87. *Ibid.*, 68.

88. *Ibid.*, 73-74.

89. Polanyi, *Personal Knowledge*, 203-248.

90. Scott, *Everyman Revived*, 81.

91. *Ibid.*, 89.

92. *Ibid.*, 91.

93. *Ibid.*, 90.

94. *Ibid.*, 95.

95. *Ibid.*, 99.

96. *Ibid.*, 103.

97. The best single short essay evaluating Polanyi's achievement as a philosopher, which also outlines how he is regularly misunderstood as well as how he sometimes misunderstood the implication of his own ideas, is Marjorie Grene's "Tacit Knowing: Grounds for a Revolution in Philosophy," *Journal of the British Society for Phenomenology* 8, no. 3 (October 1977): 164-71.

98. Scott, *Everyman Revived*, 145-46.

99. *Ibid.*, 149.

100. *Ibid.*, 158.

101. *Ibid.*, 166.

102. See Polanyi's discussion in Michael Polanyi and Harry Prosch, *Meaning* (Chicago: University of Chicago Press, 1975), 125.

103. Scott, *Everyman Revived*, 173.

104. *Ibid.*, 176.

105. *Ibid.*, 180.

106. *Ibid.*, 184.

107. *Ibid.*, 185.

108. *Ibid.*, 186.

109. See N. E. Wetherick's review, 45, cited above in note 60.

110. Richard Gelwick, *The Way of Discovery: An Introduction to the Thought of Michael Polanyi* (New York: OUP, 1977; Eugene, OR: Wipf & Stock, 2004).

111. This early bibliography goes up to 1968. See Richard L. Gelwick, "A Bibliography of Michael Polanyi's Social and Philosophical Writings," *Intellect and Hope: Essays in the Thought of Michael Polanyi*, 432-446. Subsequent bibliographies are more comprehensive. See especially those in the biography *Michael Polanyi: Scientist and Philosopher*, 327-350, *Society, Economics and Philosophy: Selected Papers of Michael Polanyi*, 361-389, and Harry Prosch's *Michael Polanyi: A Critical Exposition*, 319-346 (cited and discussed below). Maben Walter Poirier has compiled a bibliography that includes not only Polanyi's nonscientific writing but also a large collection of secondary writing. See



Maben Walter Poirier, *A Classified and Partially Annotated Bibliography of Michael Polanyi, the Anglo-Hungarian Philosopher of Science* (Toronto: Canadian Scholars' Press, 2002).

112. Galwick, *The Way of Discovery*, xii.

113. *Ibid.*

114. *Ibid.*, xiii

115. *Ibid.*, xiv.

116. This is for Polanyi a rich term with many associations. There are more than thirty references to "heuristic" in the index to *Personal Knowledge*.

117. Gelwick, *The Way of Discovery*, xviii.

118. *Ibid.*, 3.

119. *Ibid.*, 6

120. *Ibid.*, 11.

121. *Ibid.*, 7.

122. *Ibid.*, 9.

123. *Ibid.*, 12-13.

124. *Ibid.*, 125.

125. *Ibid.*, 15.

126. *Ibid.*, 26.

127. *Ibid.*

128. *Ibid.*, 26-27.

129. *Ibid.*, 27.

130. *Ibid.*, 28.

131. *Ibid.*, 27.

132. *Ibid.*, 30.

133. *Ibid.*, 31.

134. *Ibid.*, 82.

135. *Ibid.*

136. *Ibid.*, 84.

137. *Ibid.*, 83-84.

138. *Ibid.*, 84.

139. *Ibid.*, 84-85.

140. *Ibid.*, 84.

141. *Ibid.*, 97.

142. *Ibid.*, 98.

143. *Ibid.*

144. *Ibid.*, 157.

145. Jerry H. Gill, *The Tacit Mode: Michael Polanyi's Postmodern Philosophy* (Albany, NY: SUNY Press, 2000).

146. Another interesting book on Polanyi's thought that is, strictly speaking, not an introduction is Andy Sanders, *Michael Polanyi's Post-Critical Epistemology: A Reconstruction of Some Aspects of 'Tacit Knowing'* (Amsterdam: Rodopi, 1988). Sanders's book might be a helpful aid to understanding Polanyi for a reader solidly grounded in analytic philosophy. He identifies the aims of his book as follows: "My aim, then, is not a general exposition of Polanyi's 'Life and Work' or his 'Thought' but, rather, to clarify and develop certain aspects of his work *in connection with* some contemporary positions within analytical philosophy (broadly so called)" (i).

147. Gill, *The Tacit Mode*, xi.

148. *Ibid.*, 1.

149. *Ibid.*, 10.

150. *Ibid.*, 31.

151. *Ibid.*

152. *Ibid.*, 34.

153. *Ibid.*

154. *Ibid.*, 38.

155. *Ibid.*

156. *Ibid.*, 44.

157. *Ibid.*, 51.

158. *Ibid.*, 54.

159. *Ibid.*

160. *Ibid.*, 57.

161. *Ibid.*

162. *Ibid.*

163. *Ibid.*, 59.

164. *Ibid.*, 61.

165. *Ibid.*, 10.

166. *Ibid.*, 71.

167. *Ibid.*, 72.

168. *Ibid.*, 74.  
 169. *Ibid.*, 77.  
 170. *Ibid.*, 80.  
 171. *Ibid.*, 83.  
 172. *Ibid.*, 84.  
 173. *Ibid.*, 83.  
 174. *Ibid.*, 84.  
 175. *Ibid.*, 85.  
 176. *Ibid.*  
 177. *Ibid.*, 91.  
 178. *Ibid.*, 107.  
 179. *Ibid.*, 137.  
 180. Harry Prosch, *Michael Polanyi: A Critical Exposition* (Albany, NY: SUNY Press, 1986).  
 181. *Ibid.*, 9.  
 182. *Ibid.* Note also Prosch's introductory comment (6) in which he laments that philosophers have ignored or discounted the importance of *Polanyi*, leaving Polanyi to sociologists, economists, psychologists, scientists, and theologians. He notes that in his book he hopes "to be able to show to my own doubting colleagues in philosophy that his key term, "personal knowledge," which sounds to many something like "square circle," is a very meaningful and important term when understood in the context of his whole philosophy, and that, moreover, in its proper meaning, it is not even a startling innovation" (p. 6).  
 183. Michael Polanyi and Harry Prosch, *Meaning* (Chicago: University of Chicago Press, 1975).  
 184. Prosch, *Michael Polanyi: A Critical Exposition*, 2.  
 185. *Ibid.*, 1. Although the comments on *Meaning* that I quote come primarily from the introduction of Prosch's *Michael Polanyi: A Critical Exposition*, essentially the same account is in the introductory material of *Meaning* and in the archival correspondence from Prosch to Polanyi in the Polanyi archives.  
 186. See the extensive analysis of the Prosch-Polanyi correspondence which Martin Moleski and I provide in "Harry Prosch: A Memorial Re-Appraisal of the *Meaning* Controversy," *Tradi-*

- tion & Discovery* 32, no. 2 (2005-6): 8-24. Some of the comments briefly noted below are explored in more depth in this essay.  
 187. Prosch, *Michael Polanyi: A Critical Exposition*, 2.  
 188. *Ethics* 82 (January 1979): 211-16.  
 189. My introduction to the set of *Zygon* articles noted below makes an effort to chart the early history of the scholarly discussion. See Phil Mullins, "The Spectrum of Meaning—Polanyian Perspectives on Science and Religion," *Zygon* 17, no. 1 (March 1982), 3-8. The article Moleski and I wrote after Prosch's death on the *Meaning* controversy, cited above, ("Harry Prosch: A Memorial Re-Appraisal of the *Meaning* Controversy") updates the record of the discussion.  
 190. See articles by Ronald Hall, Bruce Haddox, Richard Gelwick, Harry Prosch, John Apczynski, Durwood Foster, and William Scott in *Zygon* 17, no. 1 (March 1982).  
 191. Richard Gelwick, "Science and Reality, Religion and God: A Reply to Harry Prosch," *Zygon* 17, no. 1 (March 1982), 25-40. Harry Prosch, "Polanyi's View of Religion in *Personal Knowledge*: A Response to Richard Gelwick," *Zygon* 17, no. 1 (March 1982), 41-48.  
 192. Harry Prosch, review of *Everyman Revived*, *Tradition & Discovery* 13, no. 2 (1985-86): 20-22.  
 193. I don't think Prosch would dispute many of the points identified here in my attempt to carefully and succinctly summarize the views of Gelwick and Scott. However, Gelwick and others ultimately imply that Prosch's interpretation of Polanyi's view of matters such as the reality of God undermines this area of inquiry. Prosch himself did not think this was the case. He was won over to what he insists was Polanyi's way of thinking about religion. Prosch's interpretation is treated below in the discussion of one chapter of Prosch's book. But Gelwick and others contend that making the "existence" of comprehensive realities such as God dependent upon the articulate system of a community or religious group is a step beyond Polanyi and is out of step with Polanyi's earlier discussion of the range of human inquiry in *Personal Knowledge* and *The Study of Man*. This scholarly debate in the late

seventies and eighties about Polanyi's metaphysics led eventually to discussions about "Polanyi's realism" that became a set of essays in a special issue of *Tradition & Discovery* 26, no. 3 [1999–2000]).

194. Prosch, *Michael Polanyi: A Critical Exposition*, 1.

195. For further details about the history of the book, based on correspondence, see Mullins and Moleski, "Harry Prosch: A Memorial Re-Appraisal of the *Meaning* Controversy," cited above in n. 185.

196. Prosch, *Michael Polanyi: A Critical Exposition*, 9.

197. *Ibid.*, 7.

198. My review of *Michael Polanyi: A Critical Exposition* in *Zygon*, 23 no. 2 (June 1988): 215–20 provides a careful summary of and response to arguments that Prosch develops in this fourth section (seven chapters) of his book.

199. Prosch, *Michael Polanyi: A Critical Exposition*, 8.

200. *Ibid.*

201. *Ibid.*, 205.

202. *Ibid.*, 17.

203. *Ibid.*, 28.

204. *Ibid.*, 65.

205. *Ibid.*, 77.

206. *Ibid.*, 78.

207. *Ibid.*, 91.

208. *Ibid.*, 112.

209. *Ibid.*, 115.

210. *Ibid.*, 124.

211. *Ibid.*, 133.

212. *Ibid.*, 127.

213. *Ibid.*, 135.

214. *Ibid.*, 134–135.

215. *Ibid.*, 136. Polanyi introduces the terms "noögenesis" and "noösphere" from Teilhard de Chardin only in the last chapter of *Personal Knowledge* (p. 388), where "noösphere" designates "the lasting articulate framework of thought," a framework which Polanyi seems to think emerges in human evolution-

ary history with the invention of language. Polanyi seems to hold that about 50,000 years ago human beings became no longer mute and that this was a turning point after which it makes sense to speak of human beings as acquiring and preserving in some manner "human knowledge." Polanyi speaks of this turning point as "the rise of human thought" (p. 389) and as the "second major rebellion against meaningless inanimate being" (p. 389). This term from de Chardin is likely introduced only at the end of *Personal Knowledge* because Polanyi thought it succinctly captured something that he thought was overlooked in most discussions of evolution. Polanyi struggled with the final chapter of *Personal Knowledge* and was working on it almost up until the book was published in 1958. He apparently read the French edition of *The Phenomenon of Man* when it was published in 1955 or not long afterward. See my reflections on the discussion Polanyi had with J. H. Oldham about appropriating de Chardin's term in his last chapter of *Personal Knowledge*, and more generally on Polanyi's very mixed review of de Chardin's thought ("Michael Polanyi on Teilhard de Chardin," *Appraisal* 4, no. 4 [October 2003]: 195–200). *Meaning*, as well as Prosch's *Michael Polanyi: A Critical Exposition*, make a great deal of the "noösphere." I don't believe the context in which the term emerges in *Personal Knowledge* and the meaning it has in that context suggest the kind of fundamental metaphysical/ontological distinction Prosch insists is basic to Polanyi's philosophy.

216. See my discussion of Polanyi's link to the medieval rather than the modern philosophical tradition in Phil Mullins, "Comprehension and the 'Comprehensive Entity': Polanyi's Theory of Tacit Knowing and Its Metaphysical Implications," *Tradition & Discovery* 33, no. 3 (2006–7): 26–43.

217. Prosch, *Michael Polanyi: A Critical Exposition*, 137.

218. *Ibid.*

219. *Ibid.*, 139.

220. *Ibid.*

221. *Ibid.*, 145.

222. *Ibid.*, 158.

223. *Ibid.*, 162.  
224. *Ibid.*, 167.  
225. *Ibid.*, 169.  
226. *Ibid.*  
227. *Ibid.*, 171.  
228. *Ibid.*, 172.  
229. *Ibid.*, 173.  
230. *Ibid.*  
231. *Ibid.*, 175.  
232. *Ibid.*  
233. *Ibid.*, 177.  
234. *Ibid.*, 198.  
235. *Ibid.*, 195.  
236. *Ibid.*, 197.  
237. *Ibid.*  
238. *Ibid.*  
239. *Ibid.*

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## *Edmund Burke and the Politics of Empire*

*On Empire, Liberty, and Reform: Speeches and Letters of Edmund Burke*, ed. David Bromwich (New Haven: Yale University Press, 2000).

*Empire and Community: Edmund Burke's Writings and Speeches on International Relations*, ed. David P. Fidler and Jennifer M. Welsh (Boulder, CO: Westview Press, 1999).

Edmund Burke was one of those rare figures who combined profound political-philosophical observation with a highly active political career. After he entered Parliament, almost all of his writings and speeches addressed some sort of pressing public policy concern, yet these works also form the major part of the basis for most interpretations of his philosophic thought. Although Burke's policy focus provides a great deal of material for political historians and biographers, it poses challenges for political theorists, who must tease political philosophy out of works which were not explicitly written as such. But, it also offers important advantages. For one thing, one might argue that Burke's public career helps keep his thought attuned to "real-world" issues in all their messiness and complexity, and forces him to consider information which more speculative thinkers might disregard. More significant for our immediate purpose is the fact that Burke's writings and speeches clearly demonstrate the application of particular political-philosophical perspectives to public policy questions.

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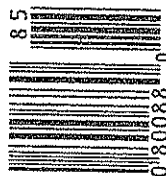
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