The Real As Meaningful Phil Mullins

ABSTRACT Key Words: Polanyi's use of "real"; reality and meaning; polyvalence, bodily realism, Polanyi's participative realism; Gulick

This essay examines Michael Polanyi's comments about "reality" over a forty year career and argues that there are many nuances. However, Polanyi is a peculiar kind of philosophical realist, a participative realist. There are polyvalent and a bodily aspects of Polanyi's realism. Against Walter Gulick's criticisms of Polanyi, I contend that a strong distinction between reality and meaning is not warranted.

1. Introduction

As he acknowledges, Walter Gulick's interesting essay "The Meaningful and the Real in Polanyian Perspective" was in part provoked by my own and John Puddefoot's efforts to set forth a clear account of Polanyian realism.¹ Puddefoot has written about Polanyian "resonance realism" and the limits of a correspondence theory of truth.² I have dubbed Polanyi a "participative realist." Gulick (1999, 8) finds that both of these readings of Polanyi "amalgamate reality and meaning into a reality/meaning holism." His essay argues against such "monistic interpretation of Polanyi's thought" (*ibid.*). Gulick's argument is a complex and lengthy one that I cannot hope here to address systematically. Perhaps, however, the three short sections of discussion that follow will help to sharpen the issues. In the opening section, I note that Polanyi's writing, spanning a long career, includes many comments about "reality" and that these references do not all have the same nuance. However, I conjecture that Polanyi's took a new philosophical interest in "reality," beginning about the time of *Personal Knowledge*. I look briefly at relevant sections of a few late articles to show how Polanyi makes "reality" central to discussion. Since I continue to believe the case I made for Polanyi's "participative realism" is cogent, in the second section, in modestly recast form, I succinctly review the major claims put forth in my *Polanyiana* (1997) article. In the final section, I respond to a few carefully selected points Gulick argues in his effort to separate and yet link the real and the meaningful.

2. A Historical Note on Polanyi's Interest in "Reality"

A reader can find many references to "reality" if he or she examines a large sample of Polanyi's non-scientific writing selected from every period of his life (roughly the thirties into the seventies). To this reader, there seem to be tensions between some uses—surely this is normal for a forty-year stretch. Different uses don't always seem to imply that Polanyi has exactly the same thing in mind. In some early discussions, for example, Polanyi identified science as a "spiritual reality" even though he described scientific research in terms of making contact with "reality" (e.g., SFS 24, 35; LL 39, 40). He speaks of the "spiritual reality of science" (LL 40, italics mine, PM) as well as the efforts of the discoverer to "reach out for contact with a reality in which all other scientists participate with him" (*ibid*.). The "spiritual reality of science" seems to be an expression Polanyi uses to point to his conviction that scientists accept transcendent ideals such as truth and affirm that they must be at liberty to pursue such ideals. The reality that the discoverer contacts is a reality that is there for other investigators also to grasp or discover as well as a reality that remains partially hidden.

It appears that about the time of the publication of *Personal Knowledge*, Polanyi rediscovered his own emphasis upon "reality" in earlier writing. I think John Puddefoot is basically right in saying that in some ways realism was simply something Polanyi took for granted and it has a largely "subsidiary status in most of

his written work" (Puddefoot 1993-94, 30). Nevertheless, in writing of the late fifties and sixties, in what appears to be a more deliberate fashion, Polanyi seems to have chosen to make "reality" a more important term in his philosophical lexicon. There is ample evidence for this; below I briefly comment on three different essays from this period, which reflect somewhat different nuances of Polanyi's renewed emphasis.³

In the 1963 new introduction to the University of Chicago reprint of SFS, Polanyi comments that

to hold a natural law to be true is to believe that its presence will manifest itself in an indeterminate range of yet unknown and perhaps yet unthinkable consequences. It is to regard the law as a real feature of nature which, as such, exists beyond our control (*SFS* 10).

He identifies this view as "a new definition of reality" but one which he regards as presupposed throughout his writing:

Real is that which is expected to reveal itself indeterminately in the future. Hence an explicit statement can bear on reality only by virtue of the tacit coefficient associated with it. *This conception of reality and of the tacit knowing of reality underlies all my writings (SFS* 10, italics mine, PM).

In a 1967 essay titled "Science and Reality," Polanyi forthrightly announces that

The purpose of this essay is to reintroduce a conception which, having served for two millennia as a guide to the understanding of nature, has been repudiated by the modern interpretation of science. I am speaking of the conception of reality (SEP 225).

Clearly, Polanyi believes that Marxist, positivist, and other interpretations of science have dropped the connection between science and reality. Even those who oppose positivism, Polanyi says provide "no statement on the true metaphysical foundations of science" (SEP 227). Science and philosophy of science are thereby "left today without any accepted theory of the nature and justification of natural science" (SEP 227). Reintroducing "reality" is thus an important corrective:

Rarely will you find it taught today, that the purpose of science is to discover the hidden reality underlying the facts of nature. The modern ideal of science is to establish a precise mathematical relationship between the data without acknowledging that if such relationships are of interest to science, it is because they tell us that we have hit upon a feature of reality. My purpose is to bring back the idea of reality and place it at the centre of a theory of scientific enquiry (SEP 226).

Polanyi acknowledges that his effort to reintroduce "reality" is effectively an effort to reintroduce into accounts of science a notion that differs somewhat from earlier conceptions of reality in philosophy:

The resurrected idea of reality will, admittedly, look different from its departed ancestor. Instead of being the clear and firm ground underlying all appearances, it will turn out to be known only vaguely, with an unlimited range of unspecifiable expectations attached to it (*ibid*.).

Those things that are real, as far as science is concerned, Polanyi is claiming, are not merely those things that underlie appearances, despite the fact that the recent philosophical tradition has framed the matter in this dualistic fashion. But science does pursue and affirm a "hidden reality underlying the facts of nature" (SEP 223). Such hidden real things are presently vaguely known entities that hold yet unrecognized potential meaning. That which is real, for Polanyi, seems unquestionably to be tightly linked to future investigation and future meaning discovered in such investigation. Further, Polanyi argues that his conception of truth necessarily is intimately bound to his resurrected idea of reality:

If anything is believed to be capable of a largely indeterminate range of future manifestations, it is thus believed to be real. A statement about nature is believed to be true if it is believed to disclose an aspect of something real in nature (*SEP* 240).

In his 1963 "The Republic of Science" essay, Polanyi seems to have focussed new attention on "reality" in part as a way succinctly to convey a perspective which binds together the metaphysics of science and the governance of science. Professional standards in science, as they are embodied in the practices of scientists and in scientific institutions (in journals, appointments, etc.), in Polanyi's account, provide the essential structure for the governance of science. Standards embodied in practices and institutions generate scientific opinion that stretches across the overlapping neighborhoods of science. Standards enforce discipline and also promote progress in science. But such standards are in a strong sense rooted in certain metaphysical convictions. Polanyi makes this clear by pointing out how the functioning of standards to encourage both conformity and originality entails certain broader presuppositions about the nature of the things:

This dual function of professional standards in science is but the logical outcome of the belief that scientific truth is an aspect of reality and that the orthodoxy of science is taught as a guide that should enable the novice eventually to make his own contacts with this reality. The authority of scientific standards is thus exercised for the very purpose of providing those guided by it with independent grounds for opposing it. The capacity to renew itself by evoking and assimilating opposition to itself appears to be logically inherent in the sources of the authority wielded by scientific orthodoxy. (*KB* 55)

In this essay, Polanyi suggests that governing through scientific opinion does not mean, in a simple sense, that authority is evenly distributed in the scientific community. Clearly, some scientists are distinguished figures and their ideas carry special weight in scientific affairs. Nevertheless, Polanyi claims, the authority of scientific opinion is in important ways a mutual authority between scientists; that is, "scientists exercise their authority over each other" (*KB* 56). Every mature scientist (i.e., those who have assimilated professional standards and other requisite skills) is recognized as capable of making independent contact with reality. Such contact joins all scientists in a rational enterprise which Polanyi dubs an exploration striving towards "a hidden reality, for the sake of intellectual satisfaction" (*KB* 70). Once the novice becomes a mature scientist, she joins a "chain of mutual appreciations" and bears an "equal share of responsibility for the authority to which he submits" (*KB* 56). It is the mature scientist's contact with reality that provides the "independent grounds" (*KB* 55) for opposing and reforming prevailing scientific opinion.

To summarize, Polanyi claims that professional standards in science are "the logical outcome of the

belief that scientific truth is an aspect of reality" (*KB* 55). He is arguing that the metaphysical foundations of science have lead to the governance structure found in science. That is, belief that scientific truth is an aspect of reality leads logically to governance through scientific opinion generated by the teaching and enforcement of professional standards.

3. Main Points in "Polanyi's Participative Realism"

- 1. Polanyi's uses the term "reality" in a striking way. His notions of reality seem to come primarily from experience as a research scientist rather than from acquaintance with medieval philosophy or interest in modern debates by professional philosophers; he does however, as the previous section has argued, intend to counter philosophical accounts of science that fail to link science and reality.
- 2. Polanyi's interest in the indeterminate range of meaning of real things might be termed the polyvalent focus (or aspect) of his realism. Real things are preeminently signifiers for Polanyi. He affirms that some real things or kinds of real things are potentially more richly meaningful and thus "possess a deeper reality" (*TD* 32) than other real things. When Polanyi dubs minds and complex problems "more real" (*TD* 33) than merely tangible cobblestones, he means that they are richer signs that seem to hold the potential to generate a whole field of meaning or future significance not presently recognized. Sometimes Polanyi links the indeterminate range of meaning of real things with his discussions of that which is true. He argues we recognize true statements by appreciating the wealth of yet undiscovered consequences. Humans can do this because we "have a tacit foreknowledge of yet undiscovered things" (*TD* 23).
- 3. Polanyi's interest in the tacit foundation of human knowledge of real things can be somewhat distinguished from (although it is woven with) his discussion of the polyvalent aspect; this interest might be dubbed the bodily or incarnate focus (or aspect) of his realism. The bodily focus of Polanyi's realism is concerned with all the elements of the process of tacit integration.
- 4. Polanyi suggests real things are marked by power—they are frequently portrayed as animated or agent-like and revelatory. Real things can and do affect knowing persons. Human beings are engaged in adjustive acts of sense-reading; so also are other living creatures to whom we are akin, but human sense-making is much more sophisticated since we use language. Certainly, sense-reading which deploys tacit powers is fallible, but Polanyi does affirm that we can know the truth. Polanyi suggests that richly real things that affect us are also largely hidden; the composite of all real things seems to be an inexhaustible, interesting field that humans are peculiarly challenged and gifted to explore. Humans are, of course, a part of that very field and are capable of recognizing this. Our inquiry into the field (into different aspects of reality or different real things) is a discovery process that presupposes those real things we seek to understand are "there to be discovered" (KB 172). Discovery "comes to us accredited by our conviction that its object was there all along, unrecognized" (ibid.). Polanyi notes that the "paradoxical qualification of all intellectual creativity" is that "we can exercise originality only while assuming that we originate nothing but merely reveal what is there already" ("Beauty" 105). Further, "the nature of what it is that we discover" is presented "as something possessing reality" and that reality is "external to us" which means that when it "satisfies our intensely personal intellectual passions, it satisfies them impersonally, with universal intent" (ibid.). Truthful human claims, our discoveries, disclose in part that which is hidden about real things but they also anticipate the emergence of yet unknown or presently still hidden things.
- 5. Especially in the period of Personal Knowledge, Polanyi emphasizes that personal commitment is bound

up with acts of understanding and should be acknowledged. The closure of any serious effort to understand has linked to it "universal intent" (cf. *PK* 311). A god's eye view is impossible for humans who are bodily or incarnate knowers. Nevertheless, in serious acts of embodied, personal knowing, humans believe that similarly skilled social companions can and should arrive at the conclusions we believe to be true. That is, our discoveries, disclosing in part that which is hidden about real things, are not private. Human knowledge, however partial or fragmentary, about real things, is public. To affirm the independence of real things is *de facto* to affirm the power of real things to affect humans and that knowers can arrive at common truth. After the period of *Personal Knowledge*, Polanyi emphasized overt commitment less because he understood the pervasive tacit underpinnings of knowledge more adequately (cf. *TD* x). In this sense, it seems appropriate to suggest that "universal intent", the claim that others can and should acknowledge discoveries, is always already embedded in knowing as a tacit presupposition; it is an element in the bodily or incarnate aspect of Polanyi's realism. Thought "lives by the body, and by the favour of society" (*KB* 134) and pursues truth, which means that thought is "free to act on its own responsibility, with universal intent" (*ibid.*), Polanyi claims.

- 6. Interpreters such as Prosch argue that Polanyi sharply distinguishes the ontological status of external, natural "real" entities from that of humanly created "real" entities of the noosphere. While natural realities can be affirmed to exist independently from human articulate systems (i.e., they already existed before being known), non-natural realities, must be recognized as existing only in conjunction with articulate systems (i.e., they do not exist before being known). Fairness requires admitting that there is some warrant for such a reading of Polanyi's discussons of "real" entities, although clearly many of these discussions are extraordinarily dense and ambiguous passages. On the whole, however, I believe Polanyi's discussions of "reality" should not be construed in this bifurcated way since Polanyi does not give philosophical priority to the project of articulating an ontological or metaphysical scheme. His claim concerning the independence of real entities is not primarily an ontological or metaphysical claim (i.e., a claim that affirms as a philosophical beginning point a metaphysical dualism). The independence thesis is fundamentally an affirmation about the nature of discovery, the public nature of knowledge and the importance of inquiry. The few ontological or metaphysical claims that Polanyi makes grow out of epistemological claims and not vice versa.
- 7. A reading of Polanyi's realism that is preoccupied with metaphysical dualism is a reading that makes Polanyi's constructive thought more conventional than it is. In the final analysis, many of the dualistic conceptual metaphors—mind and matter, subject and world, idealism and materialism—that are deeply embedded in the traditions of modern philosophical thought are not very helpful points of reference for Polanyi's constructive thought. From his interest in political questions bearing on the success of scientific work, Polanyi's thought grows into a Lebensphilosophie and an evolutionary cosmology, but both components are grounded in an epistemological model. The broader aim of Polanyi's constructive thought is to reject reductionism and recast evolutionary theory in order to develop a panoramic vision of responsible humanity at home in the universe. It is important to situate Polanyi's discussions of "reality" in a context serving these larger ends. Polanyi's idea of the comprehensive entity is a key idea that helps clarify Polanyi's realist stance. It is an idea that seems to bring together the polyvalent and bodily aspects of reality discussed above. Comprehensive entities unite higher and lower strata of reality; higher principles operate in the margin left open by lower levels of control. Polanyi's open-ended evolutionary vision reflecting the growth of complexity among living beings incorporates his ideas about comprehensive entities. Evolutionary emergence for Polanyi is an analog of discovery. Comprehending is also something knowers do; comprehensive entities are thus a skillful achievement, a conjoining of particulars into the unity of personal understanding. The theory of tacit knowing, with its emphasis upon the physical, social, and fiduciary roots of knowledge is

a vision of persons deeply participating in their environment. Polanyi's focus is upon persons as members of interpretative communities using our unspecifiable powers to indwell and discover new meaning that transforms us.

4. Response to Gulick

As a global criticism, Gulick (1999) suggests that I am interpreting Polanyi through C.S. Peirce. He uses some of the familiar philosophical criticisms applied to Peirce (monist, idealist, rationalist) to characterize my reading of Polanyi. I acknowledge that C.S. Peirce's resolution to some important philosophical problems seems akin to Polanyi. This should not be a great surprise: although Peirce was an American and was fifty years older than Polanyi, he was a first rate scientist and polymath like Polanyi. Peirce was deeply interested in nurturing and justifying the traditions of modern science and in linking them with the broader modern problems of justifying and recovering meaning. I take it as confirmation of some of Polanyi's basic claims about knowledge that ideas of philosophers with similar background and interests should converge. Truly, I have regarded such convergence as an opportunity rather than a threat.

Gulick's paper in its constructive thrust develops a vision of human meaning around seven points. His criticism of Polanyi is that Polanyi's scheme does not have a rich enough account of symbols and their bearing upon human life. This is an interesting criticism and one that I believe has some warrant. However, I do not believe that Polanyi's shortcomings can be repaired, as Gulick proposes, following Langer, by building upon a sharp distinction between denotation and connotation. This distinction Gulick ultimately seems to extend into his account of the difference and overlap of "reality" and "meaning." Gulick, of course, begins by criticizing Polanyi's notion that some real things can be "more real" than others (cf. *TD* 32f.). Ultimately, he argues for a strong distinction between what he terms the "realm" of reality and the "realm" of meaning:

My proposal, already ventured in slightly different form, is that we acknowledge that culture belongs to the vast realm of meaning and distinguish this realm from the infinitely vaster realm of reality. Reality is known through sensation vaguely, through perception within a restricted area, and through scientific knowledge in ways that reach from the micro- to the macrocosm (Gulick 1999, 19).

Gulick's strong distinction severs what Polanyi has worked so hard to show is one seamless piece. In *PK* and *SM* (and other writings), Polanyi struggles to sketch out the spectrum of scientific and humanistic thought (the overlapping neighborhoods which run from physics to dramatic history) whose kinds of inquiry do have some differences. But it is the connection of all kinds of inquiry and the value of inquiry across the spectrum that Polanyi primarily emphasizes.

I do not find warrant for Gulick's strong distinction between the realm of reality and the realm of meaning since it appears that he roots this distinction in certain metaphysical suppositions. Gulick (1999, 15) posits a direct link between sensation and reality: "The sensation that is available to us as potential subsidiaries is mediated by sensors, the activation of nerves, and brain states, but it is nevertheless in contact with reality in this transmuted, translated form" (9). He invokes what Sanders (1988, 150f.) terms a homomorphic account of the fit between tacit knowing and the object it knows⁶, points out the risks involved in sophisticated knowing and concludes: "That is, healthy individuals are veridically in contact with reality via our senses in the from dimension of experience" (1999, 15). In his reference to the "from dimension of experience," Gulick seems to be claiming that uninterpreted sensation functions as a tacit element in human (and perhaps

all) life, an element that directly wires persons to the realm of reality: "On the whole, it is legitimate to claim that sensation prior to its interpretation gives us veridical (although, of course, partial) access to contiguous reality" (1999, 18). Following Polanyi, I affirm the contrary position: sensation provides mediated and not direct access to real entities. All our access to reality comes to us as we integrate that in which we dwell. While Gulick might not deny that access comes through integration, he, nevertheless, re-orients Polanyi's approach to philosophy by focusing not on indwelling, integration and meaning but on the dynamics through which an external world impacts a worldless subject.

Clearly, I would concur it seems correct to say Polanyi holds all living forms are in tangible contact (i.e., are immersed, inseparably, in) and respond to their environment. Such responsive action is ongoing and, of course, occurs, in more simple forms in amoebas than in human beings, where Polanyi is more apt to talk about sense-reading and sense-giving. Although all living forms are in tangible contact with real things, I see no reason to hold that human beings are any less importantly in contact with largely intangible, complex real entities (e.g., problems and persons). Gulick does not claim that human beings are less significantly in contact with persons and problems. In fact he argues to the contrary. But persons and problems are classed as primarily part of the realm of meaning which he grounds in the realm of reality, a much broader domain which he links to the senses, some perception and scientific investigation. As I have noted above, what Gulick objects to is Polanyi's notion that entities like persons and problems can legitimately be called "more real" than merely tangible entities. Gulick would prefer to claim only that persons and problems are "more meaningful." But he can make this claim only by positing a primordial direct link between uninterpreted sensation and the realm of contiguous external reality that is describable primarily in terms of primitive causality. Thus, as he acknowledges, Gulick transforms Polanyi into a metaphysical or ontological dualist.

Polanyi develops a portrait of living beings as skillful beings. Human beings are especially skillful and our higher level skills are always built upon and work in combination with lower level skills. Since this is the case, it is not a surprise that Polanyi does not privilege tangible contact or the tangible level of real things by identifying this contact as veridical, although it is clear that without some tangibility no real things of any sort can appear. When Gulick argues that sensation is "our surest contact with reality" (1999, 18), he translates, into a metaphysical or ontological claim, Polanyi's claim that pre-articulate tacit processes are not subject to the same kinds of errors as articulate processes.

In the final analysis, what Gulick's account implies is that there are some brutal facts deep down at the bottom of things (an external world impinging upon our senses) and ultimately philosophizing must begin here in order to properly honor the rich domain of cultural meaning built upon them. As he sees, when one does begin here, many will dismiss all the rest as epiphenomena, although Gulick himself clearly does not wish to do so. I contend that beginning with sense contact with the external world is a philosophical cul de sac that I believe Polanyi avoided by focusing his attention on developing the theory of tacit knowing, which consistently avoids reductionism. Polanyi emphasizes indwelling and integration by a person. He does not take up the problem of knowledge at a point that already presupposes that there is matter and mind and a fundamental problem is access to an external world. A Polanyian approach is not one oriented toward articulating a metaphysical or ontological scheme and clarifying the parameters of primitive causality. Instead Polanyi was interested in meaning and the responsible meaning-seeking endeavors of human beings.

At the end of my essay, I pointed out, using John E. Smith's lucid summary, that Charles Peirce's comments about philosophical preoccupation with causality seem apt to Polanyi's position. At the risk of exciting Peirce-aphobia, let me end, by rephrasing Smith and Peirce.⁷ Peirce acknowledged as an internally

logical and sometimes useful explanation the philosophical account that thinks about real things primarily as externalities. He accepted that such externalities cause in human beings a common result and common belief in one identical object. The problem with such an explanation is that it fails to explain—and likely defers attention from—the more important philosophical issue, namely the issue of how we should search for and serve the truth. For this reason, it seems best to emphasize that real things in a Polanyian perspective—whether or not they belong to the noosphere—are not so much simple causes of cognition as they are the comprehensive entities whose emergence depends upon the active indwelling and integration of a person engaged with social companions in a community of inquiry.

Endnotes

¹ Cf. *Polanyiana* 8 (1999), nr.1-2, 7-26. For my part, I originally took an interest in questions about Polanyi's realism because they seemed (and still seem) to me a key to addressing the kinds of questions at the heart of the Gelwick-Prosch debate in *Zygon* 17 (1982), 25-48, and other publications about the ontological status of entities in the noosphere. I commented briefly on the Gelwick-Prosch debate in both my introduction to the 1982 *Zygon* volume on science and religion in Polanyi's thought ("The Spectrum of Meaning—Polanyian Perspectives on Science and Religion," 3-8) and in a later review of Prosch's *Michael Polanyi—A Critical Exposition (Zygon* 23 (1988), 215-220). My recent essay "Polanyi's Participative Realism," *Polanyiana* 6 (1997), nr.2, 5-21, grew out of a 1991 AAR paper in which I first explored Polanyi's realism as a key to resolving the debate. Sporadic discussions with Gulick, Sanders and others have followed since 1991. My article is on the Polanyiana WWW site: http://www.kfki.hu/chemonet/polanyi/9702/contents.html

² John Puddefoot, "Resonance Realism," Tradition and Discovery 20 (1993-94), nr.3, 29-38.

³ There is much in *PK* that implies that Polanyi intended, as I have carefully put it, to make "reality" a key term in his philosophical lexicon. He frequently comments on the "conception of reality" and what it means to "designate" something real. See, for example, *PK* 116f. Other articles in the period often overlap material in *PK*. See, for example, "Beauty, Elegance, and Reality in Science" in: *Observation and Interpretation: A Symposium of Philosophers and Physicsts*, (ed.) S. Korner (New York: Academic Press Inc., 1957) [hereafter cited as "Beauty"]. Such articles also seem rather self-consciously to explore the meaning of "reality." But as the citations discussed below from articles from the sixties show, Polanyi's references to "reality" become even more overt a little later.

⁴ For a succinct account, see Prosch's "Polanyi's View of Religion in *Personal Knowledge*: A Response to Richard Gelwick," *Zygon* 17 (1982), 41-47.

⁵ I take it as significant that Polanyi claims that from the other three aspects of tacit knowing, "the functional, the phenomenal and the semantic—we can deduce" what he calls the "ontological aspect" of tacit knowing (*TD* 13). That is, conclusions that we can legitimately draw or hold about the being of something (or what tacit knowing is knowledge of) should be recognized as inferences that follow from other aspects. Later in *TD*, referring back to his discussion on *TD* 13, Polanyi suggests that tacit knowing produces understanding of a comprehensive entity and what we understand should be identified as "an ontological reference" (*TD* 33) to the entity. This emphasis upon reference introduces his suggestion that it is "plausible" to assume in all instances of tacit knowing "correspondence between the structure of comprehension and the structure of the comprehensive entity which is its object" (*TD* 33f.). In discussing control in comprehensive entities, he also

speaks of "the ontological counterpart" (*TD* 34) of some elements of tacit knowing. He uses the same phrase in "The Body-Mind Relation" (*SEP* 322) where he ends his discussion on this note: "The logical structure of tacit knowing is seen to cover the ontological structure of a combined pair of levels" (*SEP* 323). In these references, it seems important to notice that Polanyi is also concerned with parallelism of levels, the way the logical structure of tacit knowing is mirrored. From the careful way in which Polanyi couches his discussions of "ontology," it seems clear that ontological claims follow from epistemological claims. Also it should be emphasized that Polanyi does not think "knowledge" is in any way finished or complete; we don't have nor can we get an "ontological" map. In his essay "Knowing and Being," Polanyi focuses on a discussion of knowing as an ongoing activity. He says of knowledge, "Knowledge is an activity which would be better described as a process of knowing" (*KB* 132). It is worth noting that when Polanyi speaks of "being" in this essay from which Grene's volume takes its title, it is in terms of the way the human being is altered by indwelling in frameworks with different standards and outlooks: "All thought is incarnate; it lives by the body and by the favour of society" (*KB* 134).

⁶ Cf. Andy F. Sanders, Michael Polanyi's Post-Critical Epistemology (Amsterdam: Rodopi, 1988), 151.

Submissions for Publication

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

Manuscripts normally will be sent out for blind review. Authors are expected to provide a hard copy and a disk or an electronic copy as an e-mail attachment. Be sure that electronic materials include all relevant information which may help converting files. Persons with questions or problems associated with producing an electronic copy of manuscripts should phone or write Phil Mullins (816-271-4386). Insofar as possible, *TAD* is willing to work with authors who have special problems producing electronic materials.

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⁷ See John E. Smith, "Community and Reality," in: *The Relevance of Charles Peirce*, (ed.) E. Freeman (LaSalle, IL: Monist Library of Philosophy, 1983), 39.