

The Problem of Objectivity in Post-critical Philosophy

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In this essay, I wish to suggest a series of parallels between Michael Polanyi's post-critical philosophy and the work of other thinkers. I will use the problem of objectivity to illuminate these parallels, and will try to suggest a way of approaching Polanyi's notion of personal knowledge through treating objectivity through the dual themes of appropriation and passion. This account will reveal what I think is a possible limit of post-critical philosophy, which I will frame in terms of the problem of hegemony. Briefly exploring this limit will allow me to conclude by situating Polanyi's position, as I understand it, with respect to certain currents of postmodern thought.

I focus on objectivity in this essay, since elucidating in what ways it is possible is fundamental for how we understand scientific practice. The question of objectivity, in turn, impinges on how we understand a number of related issues concerning the role and status of science in our culture. Let me mention some of these issues by means of several alternative dichotomies. First, is science to be thought of as providing universal, trans-cultural knowledge, applicable to all humans in all times and places; or is it specific to a particular technological and social infra-structure, culture-specific, and even gender-specific? Second, does science, in some way, "mirror" nature, revealing the "real," that is, essential ontological structures of the world; or is science primarily a sophisticated instrumentality for achieving limited human ends? Third, does the accumulation of scientific knowledge within disciplines indicate "progress," in the sense of both deepening our understanding and also bettering the quality of human life; or is this accumulation simply domain- or research community-specific, reflecting an overall increase of information but, precisely because it is community-specific, offering no further purchase on more general human concerns? Has our increased knowledge of information-management and the computer sciences made us wiser? our increased understanding of medicine less disease-ridden? our advances in cognitive science and neuropsychology any more sane?

These questions over the degrees of science's universality, realism, and progress are not new, but our continuing inability to resolve them indicates that they may reflect fundamental tensions in how we, in the West, have conceived the relation between our theories and the world. That is, these questions may not be simply the consequence of conceptual confusion, but may be *aporia* at the core of our thinking. That, at least, is how I think of them; they implicate our historical condition as knowers. In part, they reflect a lingering fascination with empiricist epistemology and the ideological supremacy of Western thought, both the positive ideal of certain knowledge and the reluctance to subject our praxis to critical scrutiny. In turn, this willed effort *not* to see ourselves clearly has supported the myth of objectivism, which emerged during the hegemony of logical empiricism, by assuming the epistemological status of the observation to be unproblematic. While the critiques provided by Polanyi and others -- I believe Brown (1987) provides the best recent account -- may help us definitively undermine objectivism and concomitantly foster a richer and more tenable

notion of objectivity, it is not clear that such critiques enable us to overcome these *aporia*. Indeed, I will try to elucidate a fourth *aporia* that emerges from Polanyi's thought, between the individual's personal knowing and the community of knowers through whom such knowing is made possible.

I. Polanyi and Postempiricism

The presupposition with which objectivism rises and falls is that observation is transparent, that it is possible to perceive without also apperceiving. The tenacity of this position is all the more remarkable given its repeated refutation by the actual practice of scientists. A number of postempiricist philosophers of science, of whom Kuhn is the best known, have begun to consider the social practice of science. We have become more conscious of how scientists are educated within particular paradigms or research traditions, consisting of theory, method, and research strategy centered around a few key exemplars which embody the central assumptions and promise of the tradition. Budding scientists learn particular ways of seeing, usually by studying textbooks written by the skilled practitioners of the paradigm, and are taught by professors who themselves subscribe to it. Postempiricist philosophers of science, such as Hesse (1979), have shown how images, models, and habits of language -- in addition to exemplars -- lead members of a disciplinary community to apperceive the novel as in some way familiar, as another instance of a well-understood range of phenomena to which already known understandings can be applied or easily adapted. For the logical empiricists, discovery remained an uninvestigatable phenomenon, unclearly related to protocol statements. For postempiricists, discovery is the process of analogizing the strategies that were successful in the case of exemplars to new phenomena, new "puzzles." Observations are tightly wed to theory, for it is the ability to see a hitherto unexplained problem as a puzzle, as one more instance of the same kind of phenomenon that has been successfully explicated in other instances, that allows normal science to proceed. In this view, observation without theory, even if possible, could only generate pre-paradigmatic science, science bereft of a fruitful research program.

Polanyi not only anticipated many of these arguments (Kuhn, Hanson, and Toulmin are all cited by Polanyi (1946, p. 12) as having done work "whose conclusions overlap[ped]" his own), but provided accounts which continue to surpass the understandings of many postempiricists. Postempiricism in general has remained enthralled to the allure of a Cartesian tradition that both privileges cognition over the affect and that continues to subscribe to the possibility that epistemic processes may be made fully explicit (the Cartesian "clear and distinct"). So impoverished does the understanding of affect continue to be among postempiricists that the most persistent strains within contemporary philosophy of science have been concerned with questions of paradigm allegiance, paradigm change, and paradigm incommensurability, as though insofar as such commitments were not exclusively cognitive they must be irrational. This denigration of the affect also informs the practice of science in the reigning traditions of experimental psychology. Cognitive psychology has been dominated by information-processing models of the mind, which treat mental processes as though they had the clarity of algorithms; and cognitive science has largely endorsed models that postulate modular organization of mental capacities, as though epistemic functions were ontically distinct.

Polanyi's emphasis on personal knowledge completely challenges these understandings. In the particular case of scientific discovery cited above, where Polanyi's description of a "heuristic field" suggests discovery is far more than a tactic of analogizing, as well as in the general case of how the affect stands with respect to the cognitive, Polanyi describes a far more deeply embedded relationship between knower and reality than postempiricism offers. He notes that at the heart of our ability to acquire knowledge about the world "is an indwelling: that is, a utilization of a framework for unfolding our understanding in accordance with the indications and standards imposed by the

framework” (Polanyi, 1969, p. 134). Our living is not only within a paradigm community that legitimates a particular way of seeing and doing, as postempiricists would have it. It is also an indwelling within a life-world that sustains a deeply personal sense of how things are, a metaphysic which guides our empirical inquiry. Personal knowledge encapsulates this indwelling, prizing our commitment as individuals to the fiduciary mode, “to realize that we can voice our ultimate convictions only from within our convictions -- from within the whole system of acceptances that are logically prior to any particular assertion of our own, prior to the holding of any particular piece of knowledge” (Polanyi, 1962, p. 267). At the same time, it is this “act of commitment in its full structure that saves personal knowledge from being merely subjective. Intellectual commitment is a responsible decision, in submission to the compelling claims of what in good conscience I conceive to be true” (Polanyi, 1962, p. 65).

In unpacking the fiduciary mode of personal knowing, Polanyi anticipated much of Habermas’ concern with universal pragmatics, specifically Habermas’ identification of the human interests of truth, appropriateness, and truthfulness. Habermas writes,

A participant in communication acts with an orientation to reaching understanding only under the condition that, in employing comprehensible sentences in his speech acts, he raises three validity claims in an acceptable way. He claims truth for a stated propositional content or for the existential presuppositions of a mentioned propositional content. He claims rightness (or appropriateness) for norms (or values), which, in a given context, justify an interpersonal relation that is to be performatively established. Finally, he claims truthfulness for the intentions expressed (Habermas, 1979, pp. 65-66).

As Habermas suggests, my intending of truth is equally an intending of truth addressed to others as well as to self and world. And thus within science, the ground is laid for what Polanyi called “conviviality” (cf. Polanyi, 1962, pp. 203-245).

A critique which further supplements Polanyi’s is made by the phenomenology of Schutz and Heidegger. I will not explore their contributions in any detail here, except to point out that the articulation of the structure of intentionality by Schutz (1967) provides a cogent account of the intersubjective conditions of the constitution of knowing, while Heidegger extended Husserl’s transcendental analysis to the existential problematic of *Dasein* in-the-world. Both, with Husserl (1970), pointed out that that which objectivism would unproblematically take as “given” is only transparent because the presuppositions through which the “given” is apperceived mutually co-define the possibilities of perception within a life-world. The life-world, like the research community which shares a paradigm, is intersubjectively maintained. It is a *Mit-welt*, a living-with-others, resulting from a unique historical determination, developing its own ethnography. The intentionality of the knower is embedded within it. Intentionality cannot be reduced to reified cognitive functions, as postempiricism would have it. Rather, it is a synthetic moment in which *noesis* and *noema* are one, in which a disciplined and circumspect inquiry anticipates the elucidation of as yet unknown ontological profiles. As anticipatory, it embodies Heidegger’s insight in *Being and Time* (1962) that the primordial *ec-stasis* of *Dasein*’s temporality is openness to the future.

Heidegger specified three forms of pre-understanding which make possible focal knowing. *Vorhabe* (or fore-having) is the totality of our skills and ways of seeing resulting from our education into a tradition; *Vorsicht* (or fore-sight) are our theoretical understandings; *Vorgriff* is our hypothesis. In a particular instance, *Vorhabe* and

Vorsicht function peripherally (i.e., tacitly) to define a horizon for our intuitions. The act of knowing brings into conscious reflection that which has already been anticipated by the life-world.

Heidegger called this moment of understanding one of *ereignis*, “appropriation” or “enownment.” It is a moment in which truth unveils itself, makes itself accessible to the knower. Objectivity, far from being decontextualized, is the act of appropriating through the horizons of one’s world. It is to anticipate *that* one will fulfill an ontological horizon prior to knowing *what* one will find; anticipation is not determinate, but it is heuristic. Heidegger’s hermeneutic is analogous to Polanyi’s concept of the heuristic field. “We assume that the gradient of a discovery, measured by the nearness of discovery prompts the mind towards it” (Polanyi, 1962, p. 403).

The lines of force in a heuristic field should stand for an access to an opportunity, and for the obligation and the resolve to make good this opportunity, in spite of its inherent uncertainties (Polanyi, 1962, p. 403, Polanyi’s italics).

For Heidegger as for Polanyi, acquiring knowledge about the world is not an act of detachment, but of collaboration between a circumspectful approach by the knower to the phenomenon, guided by an allowed accessibility of the phenomenon to be known. The dangerous fiction of objectivism, that it is both possible and desirable to avoid such guidance, destroys the very conditions for objectivity.

While postempiricist philosophy of science now generally acknowledges that background knowledge does play a legitimate role in objective inquiry, it has a much more difficult task clarifying the role that affect plays. As I have indicated above, treatment of the affect for the most part has not advanced beyond the position of the logical positivists, who held that value inquiries are meaningless by definition and the intrusion of them into scientific discourse can only contaminate it. Postempiricists in their turn effectively disregard the affect altogether, thereby rendering scientific practice arational while alienating us from the deepest currents of our existence.

However, even in formulating the problem of the affect, we pre-judge it through a set of cultural presuppositions that indiscriminately lumps together all value categories. The positivists made this prejudice a virtue by seeking the complete separation between fact and value, and though this demarcation has proved to be untenable, the denigration of all value categories continues to haunt our thinking about science. Just as the lingering fiction of objectivism that observer and object are epistemologically separate must be replaced by the reality of their joint complicity in appropriation, so the lingering fiction that all value categories are anathema to science must be replaced by a revised and differentiated understanding of them.

To a limited extent, this has been attempted. Both Polanyi (1946) and Jacob Bronowski (1958), for instance, pointed out the dependence of science on the democratic values of respect for truth, open inquiry, and free communication and criticism among members of the scientific community, and more recently, Israel Scheffler (1982) has argued for recognition of what he calls “cognitive emotions,” such as curiosity and a readiness for surprise. I might also note Piaget’s lifelong concern with the affective experience of “felt necessity” (1986), which provides the legitimating moment in cognitive advance. And of course, Polanyi made intellectual passions central to personal knowledge. Sadly, though, these have been relatively isolated currents in a much larger stream which continues to conceive scientific inquiry in terms of disembodied reason. If the ideal of decontextualized reason, reason independent of its life-world, has been only reluctantly abandoned within philosophy of science, the ideal of disembodied reason, reason independent of affect, has continued to dominate how scientific inquiry is understood. We need a way to

re-incorporate the affect with the cognitive while at the same time preserving a legitimate suspicion toward it. Let me try to provide an initial demarcation that I believe to be both necessary and useful of two areas encompassed by the affect, that of “passion” and that of “emotion.”

Speaking roughly, we can say that emotion is that which moves us. The impetus for it comes from without, but it activates a powerful unconscious force within. When we are caught up in the throes of emotion, our experience is frequently that we have been seized by a power stronger than we intend, that both the stimulus and the response whirl in a frenzy that the *cogito* at best can witness but not control. In some cases, the *cogito* may be lost entirely to what we refer to as a “state of abandon.” It is affect-as-emotion that corrupts objectivity, that we need to guard against.

But passion is significantly different. The phenomena about which I am passionate invite the manner of approach to them. Passion is simultaneously that to which I am committed, and with respect to which I am passive, patient. My passions are directed toward those areas of experience which, as I appropriate them, guide me in turn. Passion is akin to the erotic of Plato; it is the love for truth that motivates. Rather than being swept away, we are impelled onward by passion. This does not mean that we may not also be observant, cautious, expectant. More to the point, it means that we need not be so enraptured with the conviction of our insight as to be blinded by emotion, as to lose our critical sensibility. To be passionate in inquiry is to prize the truth; it is to manifest a circumspection and care that, in its turn, is rewarded by that which is unveiled.

I would argue that culturally we have covered over, to our loss, this distinction between passion and emotion by leaving them largely undifferentiated within a global model of affectivity, and relegating the affect to a secondary status below the primacy of cognition. This covering over is not accidental, but reflects the general thrust of Western thought to celebrate the mind and reason at the expense of the body and affect. It was a danger of which Polanyi was well aware (e.g., Polanyi, 1962, p. 182).

Polanyi’s solution was to try to consciously re-incorporate what he called the “intellectual passions” back into our conception of science. Interestingly, much of his insight was shared by Charles Sanders Peirce. Polanyi pointed out that we know more than we can say; likewise, Peirce saw that “however man may have acquired his faculty of divining the ways of nature, it has certainly not been by a self-controlled and critical logic. Even now he cannot give any exact reason for his best guesses” (Peirce, CP, 5.173). To elucidate this feat, Peirce described what he called “abduction,” that is, the human power to make fruitful guesses, which bears strong affinities to Polanyi’s sense of the intellectual passions that underlie the fiduciary mode. The success of abduction is based on the premise that “the human mind is akin to the truth in the sense that in a finite number of guesses it will light upon the correct hypothesis” (Peirce, CP, 7.220). Similarly, Polanyi pointed out that,

Our vision of reality, to which our sense of scientific beauty responds, must suggest to us the kind of questions that it should be reasonable and interesting to explore....Intellectual passions do not merely affirm the existence of harmonies which foreshadow an indeterminate range of future discoveries, but can also evoke intimations of specific discoveries and sustain their persistent pursuit through years of labour. The appreciation of scientific value merges here into the capacity for discovering it (Polanyi, 1962, pp. 135, 143).

To summarize my remarks to this point, I would offer a model of objectivity that stresses the dual aspect of

passion and appropriation. Passionate appropriation results from a careful submission to the phenomenon that clarifies what it anticipates. Knowledge is personal, in Polanyi's sense, precisely because it results from lived-experience, experience fore-shadowed by the guidance of one's interpretive horizon, and unveiled through one's circumspectful approach.

II. Polanyi and Postmodern Thought

If the preceding section has presented a defensible model for objectivity grounded in personal knowledge, we must still consider how the objectivity of the single individual stands with respect to that of other individuals. One common solution, understanding objectivity in terms of intersubjective corroboration as Popper proposed and postempiricism has generally endorsed, is simply to beg the question. Unless the claims of each subjectivity are warranted, those claims taken collectively have no necessary purchase on truth. That is, intersubjective corroboration may legitimate intersubjective delusion as readily as objectivity. We must, then, ground the truth-claims of a collective in the individual personal knowledge of its membership.

The ontological orientation of personal knowing, while realized and enacted within a community, was seen by Polanyi to have precedence over the community: "The discipline required to regulate the activities of scientists cannot be maintained by mere conformity to the actual demands of scientific opinion, but requires the support of moral conviction, stemming from devotion to science and prepared to operate independently of scientific opinion" (Polanyi, 1946, p. 54). It is the common dedication to truth shared by scientists that bonds their community, rather than any prior link to each other. Thus, even though tacit knowledge is initially constituted by means of an apprenticeship within the scientific community, such mediacy is eventually abandoned with mastery. "The authority to which the student of science submits tends to eliminate its own functions by establishing direct contact between the student and the reality of nature. As he approaches maturity the student will rely for his beliefs less and less on authority and more and more on his own judgment" (Polanyi, 1956, p. 45).

The question raised by Polanyi's position is whether it is in fact possible for knowers to function as virtually independent epistemic agents, or whether the tacit dimensions of knowing absorbed through a knower's education not only enable but also constrain the epistemic act. That is, might the very passion that roots us in fiduciary commitments also condition what and how we see, on the one hand, while preventing us from seeing phenomena of equal or greater significance, on the other? I can frame this issue by asking whether such commitment is properly understood as personal (in a Polanyian sense) or as hegemonic (in a Gramscian sense). I believe that this is another limit question, a further *aporia* revealed at the point where an individual emerges from his formative traditions. I feel that Polanyi's thought takes us to this point but not beyond it. However, other streams within contemporary thought can help us explore it further. The intent of such exploration is not to discredit or undermine Polanyi's contribution, nor is it to resolve this *aporia*. Rather, it is to elucidate a region into which Polanyi's thought did not extend.

The way in which discursive practices such as science exercise hegemonic control over regimes of knowledge, especially within the human sciences, has been a central concern for both Marxist and poststructuralist thought. For instance, Foucault's (1977) work has been important in indicating that knowledge and power are fundamentally intertwined, not only in the explicit Baconian sense that knowledge allows us instrumental control over nature, but in the more subtle ways in which our constitution of a world leads us to demean and derogate any who would challenge that constitution (knowledge as the power of exclusion, of repression, of labeling), while ignoring the consequences

of knowledge for social regulation. On the one hand, we have a stake in legitimating our own submission to the forces of discursive regimes prevailing during our own periods of apprenticeship. On the other, our necessary participation in discursive practices as mature practitioners involve us in the modern forms of power, which for Foucault no longer take the shape of repression by force (which was the form of repression of most concern to Polanyi), but of the use of knowledge for discipline by normalization and the internalized imperatives for efficiency and production -- of goods and services, of regulated behaviors, of health, of more information and knowledge.

I interestingly Polanyi conceded much of this though without the cautionary overtones of poststructuralism. His distinction between General and Specific Authority (1946, pp. 59 ff) or between free and totalitarian societies (1962) is precisely Foucault's distinction between forms of oppression through force emanating from centralized authorities and the diffuse forms of control through self-restraint characteristic of discursive practices. Polanyi argued that the gamble of an "emotional and moral surrender to science" during apprenticeship was redeemed by the access to reality which this gamble made possible with maturity. He believed that the hegemony within science was benign: "The government of science...exercises no specific direction on the activities under its control. Its function is not to initiate but to grant or to withhold opportunity for research, publication, and teaching, to endorse or discredit contributions put forward by individuals. Yet this government is indispensable to the continued existence of science." Otherwise "the journals would be flooded with rubbish," with the "nonsense" of "cranks," with "immature, confused, fantastic, or else plodding, pedestrian, irrelevant material," with the publicity of "swindlers and bunglers" (Polanyi, 1946, pp. 49-50).

One may grant Polanyi's point that a great deal of shoddy work is done under the name of science while still asking if we may be so sanguine about its powers of exclusion. Since the early fifties, there has been a continuing series of critiques which indicate hegemonic consent and ideological bias shaping not merely the sociology of science (e.g., the small numbers of women and minority scientists) or the styles of scientific research, but the actual content of scientific findings. These studies have been conducted in a range of areas including, but not limited to, molecular biology, primatology, anthropology, and cognitive and moral development. To cite only one example, Keller (1983) has shown how Barbara McClintock's "lifetime of cultivated attentiveness" to the genetics of corn revealed the hitherto unsuspected activity of cytoplasmic DNA. This finding was marginalized for many years by molecular biologists who refused to consider that such a phenomenon was possible, whose personal knowledge privileged only the activity of nuclear DNA.

Again, Polanyi anticipated in a general way the points made in these specific studies. "I accept it moreover as inevitable that each of us must start his intellectual development by accepting uncritically a large number of traditional premisses of a particular kind; and that, however far we may advance thence by our own efforts, our progress will always remain restricted to a limited set of conclusions which is accessible from our original premisses" (Polanyi, 1946, p. 83). The question raised by postmodern concerns, then, lies in understanding the degree of constraint entailed in those premisses, both in terms of conclusions drawn and the use of those conclusions to delegitimize various groups and perspectives, and in terms of the complicity to participate in the regimes of democratic inquiry through which the production of knowledge for social regulation is encouraged. Under this reading, objectivity, even as passionate appropriation in the context of personal knowledge, is severely compromised by a social embeddedness which it can afford neither to discount nor acknowledge, and so to which it must remain systematically blind. Whether we ultimately rest easy with Polanyi's account of personal knowledge or come to historicize it within the peculiar coerciveness of modernity I leave as an open question.

I believe there are several morals to be drawn from seeing Polanyi's post-critical thought from the perspective of other traditions. First, I have argued for a model of objectivity as passionate appropriation, grounded primarily in phenomenological considerations, which I believe complements Polanyi's model of personal knowledge. Second, I believe that raising the issue of hegemony in the discursive practices of science lets us see one way in which objectivity may be fallible. The gap between our embeddedness in tradition (a central issue for poststructuralism) and the fiduciary component of affirming our beliefs out of our deepest commitments (a central issue for post-critical philosophy) points toward an *aporia* in the structure of human knowing deserving of further exploration, even as it eludes resolution. Further, if the creation of consensus among scientists indicates the play of hegemony within scientific communities, then the poststructuralist critique of science as a discursive practice may be seen as having extended Polanyi's critique of logical empiricism into the social realm. Third, the epistemic models emerging from postmodern thought, particularly from feminism, are informed by insights into knowing that are compatible with Polanyi's. For instance, McClintock's "cultivated attentiveness" can be elucidated in the context of personal knowledge. Finally, the concerns raised here may provide a ground to link Polanyi's prescience with contemporary traditions of inquiry, and thereby engage his thought as an active voice in current debates.

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