

The Polanyi - Kuhn Issue

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ABSTRACT Key Words: Polanyi, Kuhn, politics, social sciences, education, training

This brief sketch affirms my agreement with Martin Moleski's essay ("Polanyi vs. Kuhn: Worldviews Apart") on the relationship of Polanyi to Kuhn. In this piece, I raise issues that revolve around the relationship of Polanyi to Kuhn in the field of the social sciences, and more especially in the field of politics.

Despite the long lapse of time since I last wrote formally on this subject, my views have not changed. Having read Martin Moleski's thoughtful piece with interest, particularly as it relates to the behind-the-scenes correspondences and exchanges of Kuhn and Polanyi—information that was not available to me in 1989 when I published "A Comment on Polanyi and Kuhn"¹—I am more convinced than ever that it is a mistake to associate Polanyi's thinking with Kuhn's thinking. These two men were, it seems to me, without a doubt, engaged in very different and, I believe it fair to say, inimical undertakings, and Martin Moleski's article confirms it in a way that I could not in 1989. Consequently, my belief is still that (a) Kuhn did not understand Polanyi's thinking with respect to *personal knowledge* and the role that it plays in relation to the advancement of knowledge in general, and, in particular, in regard to the revelation of the *real* and the *true*, (b) that Polanyi was deeply committed to revealing the *real* and the *true*, which was something that was not of concern to Kuhn (indeed, it was something that he thought was impossible, given that, for him, there was no real and no true, and he makes this patently clear), (c) that Kuhn's thinking took place entirely within the confines of what Polanyi called "explicit knowledge," and as a consequence, there is nothing like Polanyi's "tacit dimension of knowing" in Kuhn's thought,² (d) that no matter how one interprets Kuhn's notion of the "Gestalt shift," in no sense is it equivalent to anything that Polanyi might have meant by the expression "tacit knowing,"³ (e) and finally, like Martin Moleski, I still believe that Polanyi, unfortunately, but likely, saw Kuhn as a much-needed ally in his struggle against positivist empiricism.⁴ It seems to me that this was a serious mistake on Polanyi's part, a mistake which, while understandable under the circumstances, has done Polanyi more harm than good. It has led many to want to meld Polanyi's thinking with that of Kuhn, and presumably with the thinking of other contemporary relativists as well.⁵ Polanyi was not a relativist or conventionalist, and Professor Moleski has, it seems to me, done a good job of informing us why we should not accept this overlapping of Polanyi and Kuhn. I cannot but agree whole-heartedly with him on this point.

In this short piece—in which I concern myself with matters that are of interest to political philosophers, as well as others, I hope—I want to draw attention to an issue which rarely gets mentioned in comparisons of Polanyi's thinking with that of others, and, in particular, with that of Kuhn. Very briefly, I want to shed a little light on the different understandings of *who man is* for Polanyi and for Kuhn, since this reveals a great deal about the differences between the two.⁶ Allow me to begin this reflection by speaking about *who man is* for Kuhn, since it is by far the easier to render, and is also perhaps one of the more shallow description of who man is that I can think of. As we will see, Kuhn's account of who man is speaks volumes about the underpinning of Kuhn's ideas, which, I believe, are ultimately to be found in the Enlightenment and in the intellectual and political history of the late nineteenth and early twentieth centuries.

To the best of my recollection, nowhere does Kuhn speak explicitly about who man is. However, this does not mean that we are left in the lurch or that we have little to go on when it comes to constructing a picture

of who man is for Kuhn. Kuhn does say enough about related matters in his writings for us to extract a reasonably accurate picture of who he thinks man is. More importantly, the implications of what he has to say are maybe not as innocuous as it might at first seem when one takes into account the overall architecture of his argument. Not unlike other thinkers of the modern era, Kuhn did not see man as a single entity, inasmuch as he alternatively characterised man (a) as being an extremely creative being with a charismatic and very persuasive personality, and (b) as being a pedestrian labourer in the vineyard of knowledge.⁷ The first category, of course, is the category into which “great scientists” fall—the Newtons and the Einsteins in the history of science—the scientists who, through the sheer power of their creative imagination, bring forth a new vision (i.e., a new paradigmatic order) around which they construct a world, proselytise in its favour, and eventually succeed in imposing it on the scientific community, usually by converting the more youthful members of the community to their way of seeing things. The older members of the scientific community, being less adaptable and having invested more of themselves in “the old vision,” remain usually with the old vision.⁸ Facts, of course, play no role in the “shift” from the old to the new vision. Facts, as Kuhn never tires of telling us, are *theory-laden*, that is to say, facts are created by the “theory” that one espouses, and, hence, are theory and ultimately paradigm-specific. The theory, the paradigm, conceptual framework, etc.—however one decides to call the “vision” of the “great scientist”⁹—creates its own world of “facticity,” such that there can be no appeal to the facts to arbitrate disputes between or amongst visions. Indeed, visions are wholly incommensurable with one another, as Kuhn also repeatedly informs us, and disputes between visions cannot be arbitrated, unless, of course, there is a more general vision residing at a higher level of abstraction that can serve as the common ground on which to base the arbitration, and then this more general vision is itself wholly arbitrary (and this is so even if there are two more general vision, with no still more general vision above them). The vision brought into being by the creative imagination of a “great scientist,”—who, by definition, must be a mesmeriser more than what we traditionally mean by a “great scientist,” since he foists his vision upon the members of a scientific community with nothing but his charismatic personality, given that there is no supporting evidence—is in the nature of a hermetically sealed jar which contains all of the contents needed to furnish a world. And so, once one has opted into a hermetically sealed jar, be it new or old, and assuming that it is of the highest level of abstraction, one cannot access the contents of another jar at a similar level of abstraction. In fact, if one has recently shifted jars, one’s old jar is nothing other than a piece of furniture within one’s new jar, and it (the old jar) exists according to the exigencies of the new jar. Of course, it is all important that we understand that the shift that takes place when a presumably young scientist converts from an old view to a new view is accompanied by something like amnesia, such that memories of an earlier order are not really memories at all, but elements of the present order presented to us as if they were memories of the past.¹⁰ Kuhn speaks of this shift as being analogous to a Gestalt-shift. But this is not quite accurate, if we assess this shift by the standards of the overall argument that Kuhn advances, for it is always possible to shift back and forth when confronted with a Gestalt-image, and thus compare the elements of one form with the elements of another. Think here of the classic Gestalt-image of the young girl and the old woman. But this shifting is precisely what ought not to be possible, if we credit Kuhn’s argument to the effect that visions, theories, and paradigmatic orders are incommensurable. And so, the shift has to include something like amnesia. In fact, Kuhn’s notion of incommensurability demands it.

The second type of human being—i.e., the pedestrian labourer in the vineyard of knowledge—is essentially an “under-labourer,” if I may be permitted to use John Locke’s expression.¹¹ He or she is the one who devotes himself or herself to the task of cleaning-up those out-of-the-way places and obscure corners that are part of the vision of every “great scientist.” He or she is the one who, convinced of the correctness (whatever that may mean under the circumstances) of the vision of his illustrious leader, elucidates and illuminates those blank-spots that the “great scientist” left in the shadows for want of time and perhaps energy when he proclaimed

his or her vision. The under-labourer is unquestionably schooled in the exigencies of the new vision. But he differs from the “great scientist,” not because he shows less ability to read the true and the real, since there is no true and no real for him or anyone else to read. And he certainly does not differ from the “great scientist,” his leader, because he is less able to read the facts, for facts are, as we know, theory-laden or theory-dependent. He differs from the “great scientist” because he is less daring, less charismatic, less creative, and less visionary. He is after all an “under-labourer.” He is well intentioned, he likely is scrupulous in his judgements, and he is committed to the advancement of knowledge (again, whatever that signifies in the Kuhnian context), but he simply has none of the political skills that are essential for him to persuade his fellow scientists of the value of their espousing a new vision, namely, his vision. And so, for Kuhn, the “under-labourer” is more like a “good house-keeper,” while the “great scientist” is like a great modern politician, namely, a creator of conventionalities for us to live by, rather than being what we traditionally understand by “great scientists,” i.e., a revealer of the true and the real. What all of this means, of course, is that Kuhn has reduced man to being either a mesmeriser, of which there are few in number, or a mesmeriser’s acolyte, of which there are many. And the precise location in which an individual person finds himself or herself will depend on his or her daringness, his or her assertiveness and his or her capacity to take action in the face of meaninglessness.

Now, how do we translate this into the study of the social sciences, and more particularly into a set of recommendations for the study of social and political reality? Not much ingenuity is required in order to do this. An increasingly large number of social scientists have adopted a Kuhnian perspective since the appearance of *The Structure of Scientific Revolutions* in the early 1960s. Not unlike Kuhn’s great natural scientist, the great political leader, it is held, is not a someone who seeks to bring about a way of life that privileges the true and the good for his community—at least, not since the beginning of the modern era has this been the case. Rather, the great political leader is he or she who, with the assistance of his under-labourers, seeks to impose an order, namely, his or her order—an arbitrary order, to be sure—on the political community over which he or she rules, and if it turns out to be liberal democratic, then so much the better, since this will likely occasion less friction. But if it is something other than liberal democratic, then, so what? There is no true, i.e., right, and no good way for us to live with one another. There are only conventions to guide us, and while it is true that conventions that favour predictability and stability are better than those that do not, sometimes they are impossible to achieve and we have to settle for what is practicable.¹² Of course, no one wants to say this out loud. In fact, it may even be a good idea to hide it from public view. Leo Strauss (and his followers, the Straussians) seemed to think so. But the overwhelming arbitrariness of all public order is well known to the few who know such things.^{13 14} Now, obviously, from this perspective, absolutely any order is better than no order, and, before everything else, action in the face of meaninglessness (“meaningless” is the pre-paradigmatic or inter-paradigmatic chaos) is better than hesitancy and inaction. Act to bring about order, any order, and then allow yourself to reflect on the order that you have brought about, for prior to your acting, there is nothing for you to reflect on or think about. “*On s’engage, puis on voit,*” said Napoléon. Now, where else have we heard this? Could it be that we have read it in the writings and sayings of some of the great tyrants of modern times?^{15 16}

Turning now to Polanyi, we can say with little fear of being wrong that Polanyi’s conception of *who man is* is almost completely at odds with that of Kuhn both as regards its insight into the character of who man is and the implications that flow therefrom. At a very basic level, Polanyi does not divide the scientific community into two groupings, one small group composed of *creative cognoscenti*, i.e., “the great(s)” in the world of the natural sciences, and a much larger group made up of under-labourers. Nor does he speak to us about how “great scientists” differ from the rest of us in terms of their creativity, or about how their less assertive and less creative acolytes, namely, Kuhn’s “under-labourers,” mop-up after them. Polanyi knows that scientists

are not engaged in *creation*, but in *discovery*. But, more importantly, Polanyi speaks about the oneness of the structure of the knowing process, and by implication of the human species. The scientific community, and by implication, the human community generally, cannot be fragmented into two or more segments. Whether we be speaking of the knowing process at the level of simple perception or at the level of the most abstract of disciplines, it is one, Polanyi informs us. Whether we be concerned with questions of simple sense perception, nuclear physics or Italian Renaissance history, the same bi-dimensional structure of knowing is in play. All human beings know in exactly the same way. We know things focally or explicitly in the sense that at a given moment in time a certain thing is at the centre of our attention. It stands before our consciousness as an object (an otherness) to our subjectivity. It is known to us, or experienced by us, as being apart from us or at a distance from us (Polanyi speaks of it being *distal*). However, at the same time that we know a certain thing explicitly and experience it as being at the forefront of our mind and at the centre of our attention, so to speak, we know other things tacitly or subsidiarily, in the sense that we experience them as if they were part of us, that is, of us as the experiencing subject, so that if asked the question: on which side of the divide do these tacitnesses reside, on the you or no-you side of the divide? All of us would be inclined to want to respond, *on the me side of the divide*. They are *not* experienced as being at a distance from us, or as being at the forefront of our mind, or as objects of our attention. Rather, they are experienced as dwelling within us, as being rooted, and sometimes deeply rooted, within us. Of course, we can move most of the things that are tacit to the forefront of our mind, and have them become focally present to us. However, when we focus our attention on something that was formerly tacit, we cannot know it, i.e., experience it, as we knew it when it was tacit for us. We now know it explicitly. Simply put, we cannot call the tacit, in its tacitness, to the forefront of our mind, and have it remain tacit. When something is at the centre of our focus, it cannot be tacit. It is, of necessity, explicit. Now, I just stated that “we can move *most* tacit matters to the forefront of our minds,” which implies that some tacit matters cannot be brought forward into the focal field. Indeed, this is the case. Some tacitnesses, with the passage of time, become so deeply rooted within us that they cannot be resurrected into explicitness. They have become us, and we them, to such a degree that it can be said of these tacitnesses that they constitute part of our very identity as Tom, Dick or Harry.¹⁷ Now, the point to my saying this is that, with the passage of time, the person who masters a discipline, let us say, one of the natural sciences, social sciences or humanities, does more than know it in the conventional sense of the term “know.” That is, he or she knows more about this discipline than he or she can recollect into explicitness. The subject in question, or more accurately aspects of the subject, are not things that stand explicitly before the consciousness of the knower as an object to the knower’s subjectivity. Rather, they are tacitly present to the knower’s consciousness; indeed, so deeply rooted in that consciousness that they are experienced as being one with the knowing subject. Polanyi says, in such instances, that “we know more than we can tell.” In fact, the truth is that the knower incarnates the subject’s aspects (Polanyi speaks of *indwelling*), in the sense that they have become him or her, and he or she has in part become the them, such that the subject and its aspects have fused with and modified “the way of being in the world” of its practitioner, and made of its practitioner a master of that field. Of course, the consequence of this is that we, of necessity, have to say of that subject that it does not reside within books, as many of our contemporaries might be inclined to say. Rather, it resides in the ways of being of its greatest practitioners.¹⁸

Of course, the point to all of this is that, with time, the connoisseur of any subject (“the sage” is the expression that the Taoist would have used to speak of Polanyi’s connoisseur) is that person who has undergone “*une déformation professionnelle*,” a deformation that is at once a deformation and a reformation such that he or she no longer is the person he or she was prior to his having undergone his or her apprenticeship.¹⁹ And the most remarkable thing of all, according to Polanyi, is that it is this *déformation* that enables the person, who has allowed himself or herself to experience it, to make contact with what is real and what is true, not in all areas

of scholarship, to be sure, but in that area in which he or she has been “deformed.” The idea is that subsidiarisation and indwelling, for Polanyi, does not relativise or historicise the knowing process, as many who root their understanding of knowing in Enlightenment thinking are inclined to want to argue,²⁰ but becomes instead the means of transcending relativism and historicism and of allowing us to get at aspects of the real and the true, which is something that the Taoist, Chuang Tzu, understood very well. And so, evidently, according to Polanyi, calling forth the real and the true is not a function of implementing a method, or of reading the records of the sages so as not to make a mistake or in order to get a head-start. That is the manner of understanding of a technician. Calling forth the real and the true into explicitness is a function of bringing to bear on a problem that is of interest *all that one has come to be at a given point in one’s life*, and then making a decision about what is real and true. Hence the importance of the Taoist wheelwright wanting to know if the sages are alive, for, if they are alive, we can almost hear the unknown wheelwright say to the Duke, “then tell me Duke, where do they live, for I want to see them *be*. I want to be in their presence, and see for myself how a sage comports himself, since it is the comportment (the way of being) of a sage that makes a sage a sage.” In short, the wheelwright wants to see how the sages have deformed and transformed themselves.²¹ Now, Polanyi, in perfect Taoist form, although somewhat less poetically, in *Science, Faith and Society*, speaks to us about the same phenomena—the phenomena of being alive and of being a sage—in connection with Nineteenth and early Twentieth Century physics, chemistry, etc. He informs us that there was something like an “apostolic succession” in the field of i.e., physics, when each individual person in a long line of soon to be famous physicists, spent time with a famous predecessor, not primarily in order to receive explicit information from his great predecessor about how to do physics, for he was already explicitly knowledgeable in the field, but in order to absorb the way of being of the great predecessor in the field, i.e., in order to acquaint himself with the character and the comportment of a great physicist, i.e., a great *sage*, or in the language of the Indian sub-continent, of a *mahat’ma*, for Polanyi too knows the importance of the question “are the sages alive?”²²

This brings me to say a few words about education, which, it is said, is something that should be available to all in a modern liberal democracy. Based on the foregoing, we must understand that if education has something to do with the acquisition of knowledge of what is real and what is true, then it is not true that knowledge of the real and the true is equally available to every human being, in the sense that all human beings are capable of acquiring such knowledge given the opportunity to attend school, etc., at least, not according to Polanyi. Polanyi makes it clear that some people are quite incapable of arriving at the knowledge of the real and the true either (a) by virtue of the fact that, though, in principle, *open to their reception*, they have, through no fault of their own, developed few or none of the requisite tacitnesses in any recognised field of study, or (b) by virtue of the fact that they are *closed to the reception* of the requisite tacitness as a consequence of their having fallen victim to a blindness that results from ideological thinking.²³ One’s capacity to know the real and the true is a function of one’s being *open*, which in turn is related to who one *is* as a human being, in the deepest sense of the word “is.” And so, while *training* may be the great equaliser amongst men, inasmuch as it liberally distributes procedural know-how across a wide spectrum of people, *education* is definitely not an equaliser of men, according to Polanyi. Education is, in fact, the great differentiator of men, inasmuch as it separates us from one another in the most profound sense imaginable. Education is about the transformation of our *self*, a transformation that takes place in a multiplicity of rich and wholly unpredictable ways depending on one’s antecedents, that is to say, on the history of one’s embodied knowledge ranging from the elementary levels of simple perception to the most demanding levels imaginable for those who are able to acquire such knowledge.²⁴

Now, what does this lead us to say about Kuhn’s understanding of who man is versus Polanyi’s understanding of who man is? For one thing, it teaches us that Kuhn had a rather superficial understanding of

who man is compared to Polanyi. In fact, it hardly ranks as an understanding of who man is. Kuhn's human being lacks density, i.e., lacks a full panoply of elements that lead to his having identity. For Kuhn, one is either a creator or an under-labourer, and a serious account of how one becomes either is missing, except for the fact that a creator identifies himself by means of his inflated view of himself and by means of his charismatic character and persuasive abilities, while an under-labourer defines himself by his plodding disposition. But do not expect Kuhn to go into these matters more deeply than that. Polanyi, on the other hand, presents us with a rich picture of who man is, a picture that very much accords with our experientially based understanding of this matter. It is a picture that measures man and the society of which he or she is a part against a standard that is knowable and real, and that is not the product of an arbitrary creative imagination, which sets no standard at all, other than the meanderings of the capricious mind of a wilful person, who need not even be "in his or her right mind."²⁵ Now, were this all that Polanyi did, it would be sufficient. However, Polanyi did more than that. He provided us with the means for intelligently critiquing the foundations of the social and political order in which we find ourselves in these late modern times. He provided us with a theory of knowledge that is also a theory of education, capable of drawing a distinction between training and education, a sorely needed ability in these times when "higher education" is under attack. He awakened us to the need to combat ideological thinking in all of its expressions, but particularly in the philosophy of science, where, if sane thinking is to prevail, scientism cannot be allowed to become more important than science.

Since I agreed with what Professor Moleski had to say in his interesting paper, my aim in this too brief piece was to draw attention to the implications of Polanyi's versus Kuhn's thinking for the social sciences, and more specifically for the study of politics. And one of the things that I have learned from Polanyi is that the pursuit of order in the field of politics is infinitely more worthy, interesting and rewarding when it is seen not as an opportunity to deny the real and the true in order to create an arbitrary order and system of control over a population where it is presumed that neither would exist otherwise, but as an opportunity to bring about the conditions that will make it possible for individual persons to realise, as best they might, their potential as responsible human beings and citizens living in conformity with what is real and what is true as it is discovered by an active community of explorers. Unfortunately, I have to report that the trend in the social sciences, and more specifically in political science, at the moment, is in the opposite direction. It is to ignore Polanyi's recommendations, and accept that we, as a community, move in the direction of the dehumanisation and infantilisation of the person, such that gradually we will no longer find it possible to speak knowingly of "the citizen," but instead we will accept to speak of subjects, of populations, etc., and where, when we do speak of "the citizen," "the citizen" will have become synonymous with "the population."

Endnotes

¹ *The Thomist* 53 (1989) 259-279.

² What I mean here is that Kuhn's understanding of how scientific knowledge emerges makes no reference to anything that could be seriously conceived of as "tacit knowing." Kuhn's understanding of the growth of scientific knowledge unfolds entirely within the confines of the Enlightenment project, that is, within the confines of what Polanyi means by "explicit knowledge," and this includes Kuhn's understanding of "paradigmatic shifts." In short, Kuhn will always be a late Enlightenment thinker for me, whereas Polanyi will never be someone who was completely "at home" in the Enlightenment setting.

³ In fact, I should go further than that and say that Kuhn's notion of "Gestalt-shift" ought not to be associated with Polanyi's understanding of "tacit knowing," since it is nothing more than a mystification of an easily described experiential reality called "the tacit," which Polanyi illuminated quite well. Unable to shed light on how new

knowledge comes to be, Kuhn simply confounds his reader with a magician's trick, which is actually in contradiction with his notion of "incommensurability," since the elements of a Gestalt image are always comparable across the shift. In fact, it is their very comparability that draws our attention to the Gestalt image in the first place.

⁴ I speak of "positivist" empiricism in order to highlight the distinction between non-ideological British empiricism, a form of empiricism with which Polanyi agreed, and ideological "positivist" empiricism, that Polanyi rejected outright. It is noteworthy here that in *The Structure of Scientific Revolutions* (1962), Kuhn countered positivist empiricism with an ideological position of his own, namely, relativist subjectivism. It was around this time, I suspect, that Polanyi saw Kuhn as a potential ally in his struggle against positivist empiricism. Unfortunately, Polanyi apparently may not have spotted the ideological character of Kuhn's thinking at this time. All he saw was an ally. In any case, in the "Postscript 1969"—after being challenged by the positivist empiricists to acknowledge that his thinking undermined *their* understanding of scientific thinking, which, it seems, Kuhn curiously thought was synonymous with scientific thinking—Kuhn espoused the positivist empiricist position. In subsequently published works, i.e., *The Essential Tension*, Kuhn seems to have moved back to his original position as expressed in the pre-script version of *The Structure of Scientific Revolutions*.

⁵ Aspects of Kuhn's thinking are frequently associated with the thinking of N. R. Hanson (*Patterns of Discovery*, [1958]), Stephen Toulmin (*Introduction to the Philosophy of Science* [1953] and *Insight and Understanding* [1961]), and Paul K. Feyerabend (*Against Method* [1975]).

⁶ For the benefit of those who may not be engaged in the study of the social sciences, I draw attention here to the fact that there is a large and growing body of literature on the applications of Kuhn's thinking to the study of the social sciences, and some of this literature gives cause for concern. Characterising regional, linguistic and cultural communities, historical eras, and ultimately even individual persons themselves as incommensurable paradigmatic orders may seem to be an appropriate way to render these complex orders and the communications breakdowns amongst them during the modern era. But are these complex orders ever as incommensurable as Kuhn and Kuhnians would have us believe? Are the breakdowns ever as complete as the term "incommensurability" implies, and is force and violence necessarily the only efficacious means for opening up a seemingly unreachable paradigmatic order? In this regard, consider Samuel P. Huntington's "clash of civilizations" thesis. Cf., Samuel P. Huntington, "The Clash of Civilizations," *Foreign Affairs*, Vol. 72 no. 3, (Summer 1993) p. 22-28. Huntington does not mention Kuhn or Kuhn's incommensurability thesis, and I am not claiming that he even had Kuhn in mind when he wrote his famous paper, and later his book. However, if we pay attention to Huntington's language, and particularly to his almost single-minded focus on fundamental differences amongst civilisations, it is rather clear that he understands civilisations as insulated wholes creating serious barriers to cross-civilisation communication and the peaceful settlement of disputes. As a result, one is entitled to wonder if he is not responding to the same climate of opinion that Kuhn was responding to when he penned his thesis. By contrast, the explicit application of Polanyi's thought to the study of the social sciences is, it must be said, very much a minority concern, and, when Polanyi is referred to in social science literature, interest in him is fortunately not driven by the need to systematise one's thinking. Indeed, it most often comes about as the result of the exercise of common sense and prudential judgement, both of which are rare commodities in the social sciences during these ideological times. In short, one cannot conceive of a Polanyi-influenced social scientist advancing a view that would be as imprudent as the Huntington thesis, which, by virtue of its epistemological presumptions, leaves little room for political negotiation, and, as a consequence, is a little too given to speaking about the inevitability of the clash of civilisations.

⁷ Marx did not see man as having a single identity. There was alienated man (i.e., all of mankind to date) and "new communist man." Likewise, Hitler spoke of non-Aryan man and Aryan man. And, although they would certainly not agree with the designations assigned by Kuhn, some of Leo Strauss' followers (but maybe not Strauss himself) appear also to be of the view that man is not a single entity. The "philosopher," according to some Straussians, is not a being like the rest of mankind. He is a being who appears to reside on a different plane, and he has available to him insights that mere mortals do not and cannot have.

⁸ It needs to be stated here that Kuhn does not hold that the older members of the scientific community are wrong, from the scientific perspective, because they refuse to adopt the new vision. There is neither right nor wrong in the world of science, according to Kuhn, because there is no *real*. The older members of the scientific community

are simply being traditional, which they have every right to be, if they feel so inclined. See *The Structure of Scientific Revolutions*, p. 206

⁹ Note that for the very same reason that older members of the scientific community are not wrong for rejecting a new “theory,” the “greatness” of the “great scientist” is not a function of his or her getting things right. There is no such thing as “getting things right” because there is no *right*. The greatness of a “great scientist” is always a function of his or her persuasive abilities, abilities which he or she brings into play when he or she proselytises in favour of his or her vision. The growth of scientific knowledge is, of necessity, based on effective propaganda, according to Kuhn.

¹⁰ It should be noted here that if Kuhn’s view is accepted, there can be no such thing as “the past” (i.e., history) or the future, understood in the conventional sense. The past and the future can only be understood by Kuhn and his followers as categories within the present.

¹¹ See John Locke’s use of the term “under-labourer” to refer to *something’s or someone’s playing a supportive subsidiary role to something or someone else* in various places in his famous work *An Essay Concerning Human Understanding* (1689-90).

¹² Some contemporary scholars assert that Machiavelli’s prince was one such creative genius. He literally created a world and maintained it by the exercise of *virtu* (strength and will-power), until *fortuna* got the better of his creation.

¹³ It is not my intention here to suggest that there is some sort of connection between Kuhn and Strauss. There is not. Strauss was not a relativist, and he was most definitely not a historicist.

¹⁴ The “few who know such things” are those whom many Straussians call “philosophers.” Plato was one of them, according to Straussians.

¹⁵ In a manner that was entirely consistent with the ideas of the movement to which he belonged, Joseph Goebbels is reported to have once said: “Whenever I hear the word ‘culture,’ I go for my gun.”—by which he apparently meant to signify that man, in the chaotic context in which he always finds himself in society, ought to act first and think later. Acting has the effect of creating order, i.e., “culture.” Once order is created, then we can debate and discuss. See also Ernst Nolte, *Three Faces of Fascism* (New York: Holt, Rinehart and Winston, 1965), Chapter III.

¹⁶ In a very interesting piece on Italian fascism that deals with the necessity and priority of acting in a context of meaninglessness, H. Stuart Hughes writes: “In a philosophy of action, the theoretical premise came first. In philosophy as action, the order not only was reversed; action itself *became* philosophy.” See H. Stuart Hughes, “Action as Philosophy: The Void in Italian Fascism,” *The Journal of Value Inquiry*, XXIX, (1995), p. 368. We might want to ask ourselves if, for Kuhn, ‘action’ (i.e., creation), in a climate of meaninglessness, *becomes* science.

¹⁷ Were it possible—which it is not—calling forth these tacitnesses into explicitness would be as if we were becoming transparent unto ourselves. (It was this sort of total transparency that I had in mind earlier when I spoke of the Enlightenment project in n. 2.)

¹⁸ There is a famous Taoist parable that captures the essence of what Polanyi appears to have had in mind here. The author of the parable is reported to have been the great Taoist sage and scholar Chuang-Tzu (c. 369-286 B.C.), and the parable is known in English by the title “The Duke and the Wheelwright.” Below is an English translation of the parable provided us by Arthur Waley. While reading it, have in mind what it means to be an educator:

Duke Huan of Ch’i was reading a book at the upper end of the hall; the wheelwright was making a wheel at the lower end. Putting aside his mallet and chisel, he called to the Duke and asked him what book he was reading. “One that records the words of the Sages,” answered the Duke. “Are those Sages alive?” asked the wheelwright. “Oh, no,” said the Duke, “they are dead.” “In that case,” said the wheelwright, “what you are reading can be nothing but the lees and scum of bygone men.” “How dare you, a wheelwright, find fault with the book I am reading? If you can explain your statement, I will let it pass. If not, you shall die.” “Speaking as a wheelwright,” he replied, “I look at the matter in this way; when I am making a wheel, if my stroke is too slow, then it bites deep but is not steady; if my stroke is too fast, then it is steady, but does not go deep. The right pace, neither slow nor fast, cannot get into the hand unless it comes from the heart. It is a thing

that cannot be put into words; there is an art in it that I cannot explain to my son. This is why it is impossible for me to let him take over my work, and here I am at the age of seventy, still making wheels. In my opinion it must be the same with the men of old. All that was worth handing on, died with them; the rest, they put into their books. That is why I said that what you were reading was the lees and scum of bygone men.” (Attributed to Chuang Tzu, and taken from Arthur Waley, *Three Ways of Thought in Ancient China*, who in turn took it from a text given in Huai-nan Tzu, XII.)

¹⁹ Note that the word “apprenticeship” is just another term for “subsidiarisation.”

²⁰ The propensity of Enlightenment thinkers and their descendants to assert that rooting knowing in the person leads to relativism and historicism is, of course, misguided. But, it is more than just misguided. It reflects a gnostic tendency at the heart of modern thinking, namely, a belief that there can be absolute knowledge, disincarnate knowing and knowledge, knowledge without a human knower, and that this knowledge is available to human beings if they know the incantation, which is *method*.

²¹ Note here that the wheelwright does not ask our question, that is, the question that the great majority of us today would ask, namely, “Please tell me, what do the records say?” No. The wheelwright does not care about what the records say or do not say. The records are of no importance. Asking that question is asking the “critical” question, and he is not interested in having the “critical” question answered. He asks the pre-critical, or is it post-critical, question, the question that we today rarely, if ever, think of asking. He asks the Duke if the sages are alive. That is the post-critical question, and that is the question that absolutely floors the Duke. It is a question from which the Duke does not and cannot recover, and he does not even know it until the wheelwright reaches the end of his story. The Duke even has the nerve to threaten the wheelwright with death for being too alive, until it likely dawns on him that he is searching for guidance in the detritus of the dead where no guidance is to be found, and, as a result, he himself is more dead than alive.

²² See Michael Polanyi, *Science, Faith and Society*, (Chicago: The University of Chicago Press, 1946), p. 44. When Polanyi speaks of “apostolic succession,” he is not waxing poetic, as some of us may be inclined to think. He is reminding us of the fact that in the west too, there was once a time when the sage and the *mahatma* was revered because of who he was, and he is also telling us that that is still how it is within the world of the natural sciences, despite the fact that we have been brought up to think otherwise.

²³ We who reside in liberal régimes are inclined to think that knowing the real and the true is just a matter of someone exercising appropriate wilfulness. This is not so. Aristotle is especially illuminating on this point. In discussing tyrannical régimes, Aristotle informs us, in the *Politics*, that it is not just the tyrant who is a tyrant in a tyrannical régime. All who live under the rule of a tyrant become mini-tyrants, and are no better than tyrants. Every person living under the rule of a tyrant becomes obsequious with respect to all who are above him in the social hierarchy, and that same person is a veritable ogre with respect to his underlings. The tyrant corrupts the *psyché* of everyone who lives under his rule, the weak as well as the presumed strong. And when the tyrant, for one reason or another, disappears from the scene, the ordinary person who lived under his rule does not suddenly allow his better side to show through. Nor does he suddenly discover morality and become a genuinely decent person. He has no better side and good is completely foreign to him. The truth is that he remains who he was under the tyrant. In fact, if given the opportunity, he would take over from where the tyrant left off. We should not be deluded about this, Aristotle informs us. Indeed, that is why it is next to impossible to transform a tyranny into a liberal régime in the short or medium run of things. One has first to rebuild character from the ground up before that can happen. Parenthetically, this is why “bringing democracy to Iraq” was an ill conceived, not to say impossible, task. Creating a liberal democracy involves a great deal more than the imposition of a constitutional arrangement of offices. It is essentially a matter having to do with developing character and a way of being that sustains and is sustained by a practice of truthfulness and justice.

²⁴ The distinction between *education*, on the one hand, and *training*, on the other, is not a distinction that is frequently made in our day, and even when it is made, its implications are often not well understood. More often than not, the words “education” and “training” are used interchangeably. At a very general level, the distinction might best be defined in the following way: *An education is concerned with the transformation of the self, whereas a training*

is about the acquisition of a skill which can be sold, or the products of which can be sold, but it is not primarily about the transformation of the self. And yet, it is a great deal more than getting the distinction right that is important, particularly as it relates to the field of politics. The truth is that politics can only exist amongst the educated, and rarely exists amongst the trained. The fact is that it is this distinction between education and training that lends credibility and meaning to the words “citizen” and “citizenship,” and further refines their opposition to words like “a people,” “a national of,” “a resident of,” “a subject of,” “a Canadian,” “an American,” etc. A “citizen” is someone who, by virtue of his or her education, is not part of a body of people whose future is managed by the state. He or she is not someone who is ignorantly shunted from one niche in the economy to another as openings are opened and closed at the behest of various forces that seem beyond control and hard to identify. A citizen is not someone who is told, on leaving university, that he or she can expect to undergo retraining at least once, and perhaps twice, in the course of his or her working career, so rapid is the pace at which we are discovering new information. An educated person does not need to be re-educated after leaving university, for he or she has the wherewithal, and if not the wherewithal, then at least the means to obtain it, for as long as he or she lives. A citizen is someone who, as a consequence of his education, has a good sense of the overall workings of the community of which he or she is a part, and he or she can think for himself or herself about the important issues that need addressing in that community. A citizen does not want the state to do the thinking for him or her. A citizen does his own thinking because he can think. On the other hand, it is not just a matter of happenstance that the modern state is slowly but surely ruining education and substituting training for education. What modern state would want an educated citizenry interfering in what it perceives as its affairs and thus complicating its management of the state? And what better way for the state to assure itself that this will not take place than by focussing on training its nationals as against educating its citizens? In this connection, we should give thought to the writings of that old-fashioned American social critic Albert Jay Nock, who is still a delight to read. But let us also be aware that because of his focus on personal knowledge, Polanyi also is a profound critic of the direction in which the modern state is heading in regard to these matters.

²⁵ Being in one’s “right mind” means a great deal to Polanyi. What does it mean to Kuhn? Can we even speak of one’s being in his or her “right mind” when we speak of Kuhn? What part does being in one’s “right mind” play in Kuhn’s thinking, where being wilful is more important than being right?

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. MLA or APA style are preferred. Because the journal serves English writers across the world, we do not require anybody’s “standard English.” 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. Consistency and clear writing are expected. Manuscripts normally will be sent out for blind review. Authors are expected to provide an electronic copy as an e-mail attachment.

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