A Free Society: The Polanyian Defence

C.P.Goodman

ABSTRACT Key words: corporate order, spontaneous order, span of control, dedicated community, private liberties, public liberties, transcendent ideals, value neutrality, nihilism, moral inversion, specific authority, general authority, interpretative tradition.

Polanyi supports institutional autonomy against political control, and advocates free markets rather than central planning. Value neutrality is replaced with dedicated communities, and explicit rules are taken to require interpretative practices. Knowing is situated, but viewed as a source of progress. Attention is drawn to the role played by authority, but the universal values to which he believes a free society ought to be dedicated are identified as transcendent.

Introduction

There are four pillars which underlie a free society: autonomous institutions, free markets, tolerance, civic accountability. They all serve to disperse power away from the centre. Polanyi believes that it is a mistake to seek to justify a free society only in terms of individual liberty. While he accepts that within a free society the State is not the supreme end of our lives, but is rather a means which facilitates the pursuit of various self-set ends, he reminds us that maintaining a free society requires us to submit to those disciplines which render it possible. Institutional freedom does not imply the freedom to do as we please, but the freedom to act in accordance with those practices which justify our membership. An accredited member of the scientific community, for example, is subject to an unending process of peer review. The market imposes its own disciplines. It relies, among other things, upon a respect for property. A free society has only a limited toleration of behaviour judged to be anti-social. Even when those with political power are required to account for their decisions, it is not the case that we need only act in accordance with their decisions when we agree with them. We may refuse to accept the beliefs of a group with whom we disagree; we may refuse to buy the products of a company we dislike. We may go out of our way to tolerate behaviour of which we disapprove, but even within a free society acceptance of the authority of the State is compulsory. The State has a role to play in a free society, but its power is such that Polanyi seeks to disperse authority away from it, even when the authority it exercises has a democratic mandate.

When Polanyi, like many others in the thirties of the last century, began to direct his attention to political questions, the fashion then, as now, was to seek to extend the power of the State. Those who advocated limiting its power were despised as reactionaries. It is clearer than ever, however, that it is the *bien pensant* supporters of Stalin and Hitler in that decade, not the defenders of a free society, who merit our contempt. It is tempting to conclude that as a result of economic and military success, it is the vision of a free society, which defended by Anglophile liberals such as Polanyi, that has triumphed: and in a real sense that would be correct. The appeal of authoritarianism is too great, however, for it to disappear. As long as there are communities, the opportunity will be taken to impose dogmas, as long as there are politicians, attempts will be made to direct our choices within the marketplace, as long as there are moral convictions, there will be efforts to force us to act in accordance with them, and as long as there are positions with power, there will be opposition to public scrutiny. The defenders of a free society will always have to fight both the tendency of public institutions to be used for

private ends (a constant temptation for bureaucrats) and the conviction that we know best how others should live their lives (a constant temptation for intellectuals). For Polanyi, however, a free society is not value neutral. On the contrary, he defends it as a vision of the good.

A free society for Polanyi is a means for pursuing universal values. The absence of any pursuit of such values, either because we believe that we have already comprehensively established them, or because we believe that any such quest is illusionary, undermines its justification. Indeed, those who seek to undermine a free society (religious fundamentalists and totalitarians, for example) do so precisely on those grounds. Why have a free society? For Polanyi, freedom is necessary because universal values transcend our conception of them. A free society enables us to pursue transcendent ideals. It gives us the liberty to realise them. A classical liberal might respond that by allowing the possibility that progress can be made in the pursuit of values, Polanyi fails to take into account either the diversity of our choices, or the argument that the freedom to make choices about values is not a means but rather an end in itself. For Polanyi, however, the freedom to make choices is not an end in itself; it is a means. Attempts by liberal theorists to establish rules for political practice independently of any conception of values, succeed only if we accept them. But in the absence of an appeal to values, we have no reason for accepting them: no more reason than those provided by thinkers, such as Kojeve and Heidegger, who sought to defend Stalin and Hitler. It is not on the grounds of an appeal to value neutrality, but on the grounds that freedom gives us the liberty to realise transcendent values, that Polanyi defends a free society.

Freedom of Thought

In 1935, Michael Polanyi, who was regarded as one of the leading theoretical chemists of his generation, while on a visit to the Soviet Union, was told by Bukharin, at that time the chief theoretician of Soviet Communism, that 'under socialism the conception of science pursued for its own sake would disappear, for the interests of scientists would spontaneously turn to the problems of the current Five-Year Plan.' Polanyi came to regard this as a key personal turning point. In order to substantiate his opposition to the position taken by Bukharin, he began to turn to philosophy. Melvin Calvin has written that

When I first met Michael Polanyi in Manchester in 1935 he was well into a second career...Towards the end of my stay there, in 1937, it got so it became difficult often for me to talk with him because he was thinking in terms of economics and philosophy.²

In 1948, the University of Manchester responded to this change of direction by setting up a personal chair for him in Social Studies. Given the traumas of that period, it is not surprising to find intellectuals reflecting upon social questions. What is a surprise is to discover some philosophers sneering at Polanyi because he sought to address such questions.³

What disturbed Polanyi about the policy defended by Bukharin, and advocated in Britain by writers such as J.D.Bernal,⁴ that scientific research ought to be subordinated to the demands of human welfare, was its denial of the importance of freedom of thought:

In Marxism a distinction between pure science, which seeks to find the truth for its own sake, and the application of science to practical purposes is not admitted, because all intellectual

processes are assumed to be equally determined by the mode of production of the material means of life.⁵

Polanyi, however, viewed science as a community of inquirers who share a common belief that they can discover truths about an objective reality. Because scientific research advances in unpredictable ways, the imposition of welfare tasks would only serve to destroy it: not least because the practical benefits of any discovery are accidental, and therefore doubly unpredictable. In order to flourish, a scientific community needs the freedom to pursue its own ideals. He then extends this analysis into a more general defence of freedom of thought:

I mean the whole spiritual realm of truth, justice, humanness, beauty, and its organisation in the form of laws, politics, moral customs, arts, and religion. The same reasons which cause science to be paralysed by any imposition of secular authority make all the wealth of this realm turn to dust the moment it is made subject to the demands of the State.⁶

It was the coming to power of the National Socialist Party which had forced Polanyi to resign his chemistry chair in Berlin. His visits to the Soviet Union confirmed his impression that, in their enthusiasm for central planning, intellectuals were ignoring liberal arguments about limiting the power of the State:

The Marxist doctrine of social determinism, and the kindred teachings of Fascism, which claim that thought is the product of society and ought therefore to serve the State, remove all ground on which to consolidate an authority to which man could justifiably appeal against the commands of the State.⁷

As an undergraduate, Polanyi, together with his brother Karl, was a founding member of the Galileo Society, an influential Hungarian student association dedicated to the promotion of science and social reform. The conservatism of the Austro-Hungarian establishment led many intellectuals to desire radical political change:

When I was a boy...I used to cherish great hopes for a new world organised by science. At that time...I was a great reader of Mr Wells's novels. I devoured them almost as they came from the press in England. They made me impatient with traditional statesmanship and I firmly determined to follow Mr Wells in sweeping aside all this gimcrack world - as he thought it was - putting in its place a new world on scientific lines.⁸

But instead of supporting the demands for greater central planning, Polanyi sought to promote human advancement by preserving the autonomy of the institutions that make up a civil society.⁹

Polanyi argues, however, that a doctrine which objects to every intervention by the State, on the grounds that a free society ought to be morally neutral, is contrary to the principles of civilisation:

The fact that certain individual actions are under public protection does not characterise them as private affairs...Public protection should, as a rule, be given to such individual actions in which there is a real public interest to preserve...not in disregard of the action's social consequences, but precisely because of them.¹⁰

According to Polanyi, the defect of a wholly private conception of liberty is that it neglects the social dimension of our actions. The defect of a wholly public conception of liberty, on the other hand, is that we give up our freedom to the State. Any action with social consequences becomes subject to political approval. To assert, for example, that truth is a universal ideal that transcends the State is to undermine the supreme authority of the State. Polanyi, however, asserts that truth does transcend the State, and that communities dedicated to its pursuit therefore require the freedom to pursue their work free from political control. To do biological research, for example, it is necessary for biologists not to have their work subject to political approval. This is then extended into the claim that, just as scientific communities are brought into being by the shared belief, it is possible for us to discover truths about the natural world, so free societies are brought into being by a shared belief that universal ideals transcend the purposes of the State.

Polycentric Orders

According to Marx, in a society that serves all its members, rather than the interests of the owners of capital, the market system would be replaced by an economic system based upon need. In his earliest published economic study, *USSR Economics - Fundamental Data, System and Spirit*, ¹⁴ Polanyi was one of the first commentators to notice that, as early as 1921, the attempt in the USSR to replace what Marx had described as a 'commodity market' - i.e., an economy which produces for the market - with one based upon production for 'direct use' had to be abandoned. In the 'New Economic Policy' - which replaced what was then re-labelled as 'War Communism' - the market system was not rejected, but supplemented with production targets. Polanyi noted that Soviet planning had in practice largely become a matter of forecasts handed to State owned enterprises, with instructions to perform a few percentage points better than the previous target. Instead of focusing upon the way in which central planning undermined freedom, ¹⁵ Polanyi thus sought to deny that a central authority could successfully direct a complex economy:

Rarely does one find this pointed out. Leon Trotsky is one who placed it on record. In 1918-20 he himself had been the protagonist of a rigorously centralised system. But later, chastened no doubt by its disastrous results, he declared that it would require a universal mind as conceived by Laplace to make a success of such a system.¹⁶

In the *Logic of Liberty*,¹⁷ Polanyi makes a link between the problems which confront the planner who, in pursuit of human welfare, attempts to control the development of science, and the problems which confront the planner who, in pursuit of human welfare, attempts to control the development of an economy. According to Polanyi, both are polycentric systems¹⁸ whose order is generated spontaneously via interactions between a number of centres. The concept of a spontaneous order has its origin in the claim made by Bernard de Mandeville in his *Fable of the Bees* [1705] that if individuals pursue their own desires, they will unintentionally generate an order which maximises the number of satisfactions within a society. This analysis was then further elaborated by Adam Smith, who used it to undermine mercantilism - i.e., government directed mercantile policies - on the grounds that direction by the State distort the more efficient process of the market. Marx asserted that a free market system generates alienation and exploitation. His followers therefore sought to replace it with a system of centrally planned production for direct use. In 1922, however, the Austrian neo-classical economist¹⁹ Ludwig von Mises wrote an article entitled 'Economic Calculation in the Socialist Commonwealth'²⁰ which set off what became known as the socialist calculation debate.²¹ According to von Mises, in the absence of free market pricing, central planners would not have the information

that would enable them to rationally allocate resources.

Oskar Lange²² responded to von Mises by arguing that, once central planners had established producer prices, all other prices could then be set by the mechanism of market exchange:

Underlying this judgement was an assumption that, since markets were always imperfect in reality, a socialist economy might actually be able to come closer to the models of neo-classical economics...A central authority armed with the insights of neo-classical economics should be able to design a market system which would improve upon the unplanned market orders that had grown up under capitalism.²³

This defence, although it concedes that markets, money, and commodity production are indispensable features of a modern economy, something which Marx denied, convinced many that von Mises had been refuted. In the *Logic of Liberty*, however, Polanyi argues that no central agency can cope with the number of mutual adjustments which a complex economy requires. To justify this claim, he compares two alternative orders. In the hierarchy of what he described as a corporate order, everybody, with the exception of a supreme authority, is assigned their tasks by an immediate superior. Some autonomous mutual adjustment between its members takes place, but this is limited. If actions were primarily determined by autonomous mutual adjustments, this would undermine the workings of a corporate order.

Polanyi then demonstrates that, with increases in size, the span of control – i.e., the number of adjustable relations - within a corporate order continues to be small, but the span of control which autonomous mutual adjustment renders possible is potentially infinite. It thus follows that there is a level of complexity at which only a system based upon autonomous mutual adjustment can cope. The reason why it is not possible to centrally plan a developed economy is not as von Mises argued, because if we are rationally to allocate resources we need the prices generated by a free market, nor is it as Fredrick Hayek was to argue, because the information which central planners require exists only within dispersed practices. It is rather because the adjustments which underlie the possibility of a modern economy exceed the span of control of any possible central agency. Even if we had the information which free market prices supply, even if we knew all we needed to know about the practices in an economy, for the effective operation of even a modestly complex economy, the number of decisions would exceed the capacity of any central agency to deal with them. Polanyi also responded to the charge, made with added force during the economic dislocations of the inter-war years, that free market systems are unreliable because they are prone to depressions. In Full Employment and Free Trade, 24 Polanyi defended the argument set out by Maynard Keynes in The General Theory of Employment, Interest and Money²⁵ that too high a level of saving reduces the level of demand below that which is sufficient to sustain full employment. He thus agreed with Keynes that, in a depression, governments ought to stimulate the economy by increasing aggregate demand.

The supply-side critics²⁶ of Keynes have responded that in the long term it is not possible to reduce unemployment by stimulating the economy: if a stimulus to the economy decreases unemployment below the natural rate (i.e., the rate consistent with longer term stable prices), this will generate inflation, which will eventually increase unemployment. In other words, there is an underlying or structural rate of unemployment which, in the longer term, it is only possible to reduce by making supply-side change in production costs. As Samuel Brittan points out, however, there are almost no practicing economic advisors who believe that an economy ought to be left to approach an underlying equilibrium on its own. It can be knocked off course by

events such as oil price hikes, or the consequences of funding German reunification. Most contemporary economists, in other words, accept that monetary policy has a role to play in the fight against both inflation and depression.²⁷ Although Polanyi saw himself as a Keynesian, his contribution was characteristically original. He asserted that low demand increases unemployment, and that in these circumstances the 'deflationary gap' between savings and investment ought to be bridged by stimulating the economy. But he rejected the arguments of those who argued that governments ought to spend their way to higher employment.²⁸ He also warned about the inflationary dangers of too great an expansion in the money supply, and the futility of seeking to control inflation by imposing price controls. Nor did he accept the view that there is a trade off between unemployment and inflation - that is, that monetary expansion should take place regardless of the consequences for inflation.

The Value of Freedom

As an alternative to the view that planners, in the pursuit of human welfare, ought to direct society from a single centre, Polanyi postulates the concept of a supervisory authority. A supervisory authority presupposes that human activities will be initiated from a great multitude of centres, and is concerned only with securing general conditions for independent action. Polanyi, however, makes a distinction between the spontaneous order which occurs as a result of individuals seeking to pursue individual interests, and the order which is generated when individuals seek to adjust their actions in accordance with the pursuit of universal ideals. The weakness of economic liberalism, for Polanyi, is its presumption that a market system can be applied to all human relationships. If we defend the need for a free society solely on the grounds of an appeal to the sovereignty of the individual, we end up by depriving liberty of any moral conscience, giving support to those who turn to the State as the only guardian of public goods. The notion that a market system promotes selfishness, instead of promoting common needs, renders collectivism appealing:

While it is true that private matters deserve protection, I consider that the alternative to the planning of cultural and economic life is not some inconceivable system of absolute *laissez-faire* in which the State is supposed to wither away, but...freedom under law and custom as laid down and amended when necessary by the State and public opinion, which ought to govern society in such a way that by the guidance of their principles the energies of individual exertions are sustained and limited.²⁹

Polanyi argues that a free society is not an 'Open Society.'³⁰ It is a community dedicated to public liberties, on the basis that they facilitate progress towards transcendent ideals. He does not defend freedom as an end in itself, nor does he defend freedom by arguing that we have a right to pursue our own conception of the good. His defence of a free society is not derived from the conviction that the State ought to be value neutral; it is derived from his assumption that our judgements about the world are fallible. According to the economic liberals Frank Knight, the father of the Chicago School in economics, and James Buchanan, the founder of the Virginia School of Public Choice, political life is best understood as a debate about how best to balance rival visions of the good. They seek to limit the power of the State on the grounds that a free market system is the best way of satisfying a plurality of different visions of the good life. Knight takes Polanyi to be arguing that the highest form of freedom is not individual liberty, but liberation from individual ends via a submission to universal ideals. His response is to claim that the primary task of a free society ought to be the protection of individual liberties.³¹ Buchanan remarks that a conception of politics rooted in the quest for

truth 'lends itself, more or less naturally, to what amounts to an attitude of basic intolerance on the part of those who hold that certain political "truths" have...been discovered.'32

But truth for Polanyi is a transcendent ideal. As Paul Craig Roberts notes, the pursuit of scientific inquiry

is not characterised as an advance from certainty towards certainty, but by the entanglements of truth and error...Progress in science is seen as a move from a position felt to be too problematic to another position that is found more satisfying.³³

The argument that a free society ought to be neutral about values draws upon a liberal tradition which dates back to at least John Locke, who, in *A Letter Concerning Toleration* (1689), declares that 'the business of laws is not to provide for the truth of opinions but for the safety and security of the commonwealth, and of every particular man's goods and person.'³⁴ More recently, Berlin has sought to defend a free society on the grounds that incommensurabilities among our values have the consequence that we shall never be able to agree upon the character of a good life.³⁵ Roberts points out however that a free society does have a vision of the good: 'A free society can be accurately defined only in terms of its commitment to a set of beliefs that uphold freedom.'³⁶

To understand this claim, it is helpful if we look at the historical summary which Polanyi provides in Chapter 7 of *The Logic of Liberty*. Anglo-American liberalism, he suggests, was first formulated in opposition to religious intolerance. In the *Areopagitica*, Milton asserts that freedom from authority is required so that truth may be discovered. To this Locke added the argument that because we can never be sure of the truth in religious matters we should refrain from imposing our views.³⁷ Polanyi, however, responds that this latter argument carries within it the implication that we should refrain from imposing beliefs that are not demonstrable:

But of course, ethical principle cannot be demonstrated. We cannot prove the obligation to tell the truth, to uphold justice and mercy. It follows therefore that a system of mendacity, lawlessness and cruelty, is to be accepted as an alternative to ethical principles on equal terms. But a society in which unscrupulous propaganda, violence, and terror prevail, offers no scope for tolerance. Here the inconsistency of a liberalism based upon philosophical doubt becomes apparent.³⁸

Polanyi claims that the potentially destructive implications of a liberalism secured by the argument from doubt, was avoided in Britain and America by a reluctance to pursue theoretical premises to their logical conclusion. Some intellectuals however began to explore the implications of the argument that it is not possible to justify moral standards.³⁹

In his novel *Fathers and Sons*, Turgenev describes a new figure, the nihilist, who, on the basis of a dedication to materialism, combines contempt for existing society with a rejection of moral values:

In such men the traditional forms of holding moral ideas had been shattered, and their moral passions diverted into the only channels which a strictly mechanistic conception of man and society left open to them. We may describe this as a process of moral inversion.⁴⁰

Marxism served to channel the moral fervour released by the secularisation of Christian hopes in those who could only allow themselves to believe in materialism. Fascists, who denounced all humanitarian ideals as dishonest, channelled their moral passion into a cult of naked power:

It is a mistake to regard the Nazi as an untaught savage...His contempt for humanitarian ideals has a century of materialist schooling behind it. It goes back to the same origin as Marx's hatred of moral arguments – and for that matter, Nietzsche's similar hatred of morality. The Nazi disbelieves in public morality in the way we disbelieve in witchcraft.⁴¹

Instead of advocating value neutrality, Polanyi defends a free society on the grounds of its dedication to the pursuit of transcendent ideals. But if a free society is a dedicated community, how are its judgements established? In order to answer this question, Polanyi uses the way in which decisions are arrived at within the scientific community as his model.

The Republic of Science

Polanyi argues that independent initiatives by members of the scientific community generate a spontaneous order which is unpremeditated by any of its individual participants. Because it is a dedicated community, the initiatives which generate this order are assessed with reference to standards. Members first decide whether or not a contribution has a sufficient degree of plausibility to merit attention. Then a decision is made about whether or not it has any scientific value, this value being a co-efficient of accuracy, systematic importance, and intrinsic interest. Finally, questions are asked about its originality. These judgements are made within the context of unending debates between networks of specialists:

Scientific opinion is an opinion not held by any single human mind, but one which split into thousands of fragments, is held by a multitude of individuals, each of whom endorses the others opinion at second hand, by relying upon consensual claims which link him to all the others through a sequence of overlapping neighbourhoods.⁴²

In *Science, Faith and Society*,⁴³ Polanyi claims that science is not the product of following abstract rules. It is that which is generated in the interplay between individual participants and the authority of a general consensus. While a specific authority imposes every major decision from the centre, a general authority is the consensus which emerges among the members of a community. Although some members of a community have greater influence than others, innovation takes place at growing points dispersed throughout the community.

A view popular, then as now, among scientists, is the claim that scientific laws are inductive generalisations from observation data, from which empirically testable predictions are deduced. For Polanyi, however, no rule can locate, among the infinite number of numerical relationships that exist within measurement data, the function that describes a scientific law.⁴⁴ Nor is there a rule that can determine when to uphold, and when to abandon, a scientific theory when confronted with opposing evidence.⁴⁵ Polanyi asserts that relying upon assumptions, and guided by clues, an innovator (in a manner akin to the pattern recognition abilities investigated by Gestalt psychology) integrates data in the hope of discovering an order that tokens

a real structure. Innovations are then assessed not with reference to abstract rules, but in accordance with the judgement of specialists, in an art embodied within an evolving tradition:

Being incapable of precise formulation, rules of art can be transmitted only by teaching the practice which embodies them...How can we ever interpret a rule? By another rule? There can only be a finite number of tiers of rules, so that such a regression would soon be exhausted. Let us assume then that all existing rules were united into a single code. Such a code of rules could obviously not contain prescriptions for its own reinterpretation.⁴⁶

Scientific research, in short, does not take place in isolation. It takes place within the norms supplied by the general authority exercised by members of the scientific community.

Imre Lakatos argues that by making the scientific establishment the ultimate judge of what is good and bad science, on the grounds that no statute law exists which can serve as a universal criterion for any normative appraisal, Polanyi is in effect defending an 'elitist' philosophy of science.⁴⁷ In this account, laymen are not allowed to appraise scientific theories, because only a skilled elite has the requisite tacit knowledge that underlies scientific judgement. His response to Polanyi is to argue that, while it may be the case that articulated knowledge is only the tip of an iceberg, this is where rationality resides:

Elitism (like scepticism) thrives on the defeats of earlier versions of the demarcationist programme. The downfall of classical inductivism, the apparently incurable poverty of neoclassical inductive logic, the recent degeneration of falsificationism, and finally the need for external explanations to resolve some historiographical anomalies in the methodology of scientific research programmes, have all helped the propaganda for the elitist claim that no universal criterion of scientific progress is possible. Elitists generally ascribe the failures and anomalies of demarcationism to the disregard of the tacit dimension. But elitists should remember that demarcationists may lose a few battles and still win the war.⁴⁸

Lakatos associates 'elitism' with four 'abhorrent' doctrines:

- 1) Psychologism: The appraisal of producers rather than products.
- 2) Authoritarianism: The claim that only insiders are qualified to judge.
- 3) Historicism: The idea that history has a logic which delivers truth.
- 4) Pragmatism: The belief that truth is settled by the biggest battalions.

Toulmin notes, however,⁴⁹ that, towards the end of his life, Lakatos came to regard the claim that there are universal and immutable statute laws that can distinguish between good and bad science as illegitimately *aprioristic*:

Until now all the "laws" proposed by the *apriorist* philosophers of science have turned out to be wrong in the light of the verdicts of the best scientists. Up to the present day it has been the scientific standards, as applied "instinctively" by the scientific *elite* in *particular* cases, which has constituted the main - although not the exclusive - yardstick of the philosopher's *universal* laws. But if so, methodological progress, at least as the most advanced sciences are concerned, lags behind common scientific wisdom. Is it not then hubris to demand that

if, say, Newtonian or Einsteinian science turns out to have violated Bacon's, Carnap's or Popper's *apriori* rules of the game, the business of science should start anew? I think it is.⁵⁰

In his early work on the methodology of mathematics,⁵¹ Lakatos gave a crucial role to the collective judgements of mathematicians. For some reason, however, he was slow to apply this approach to the methodology of the natural sciences. Toulmin speculates that his reluctance was due to the controversy sparked off by Thomas Kuhn's *The Structure of Scientific Revolutions*.⁵² For Kuhn, what he describes as 'normal science' takes place within disciplinary ideals or 'paradigms' that regulate scientific practices. Training to be a scientist involves mastering textbooks, which rely upon model problems and solutions to inculcate within students a particular way of viewing the world. Paradigms, however, accumulate anomalies (and may eventually lead to the creation of a new paradigm), which give rise to periods of 'revolutionary science'. Kuhn argues that the shifts in the paradigm which occur during such a period resemble Gestalt shifts, in that they create new ways of looking:

the proponents of competing paradigms practice their trades in different worlds. One contains constrained bodies that fall slowly, the other pendulums that repeat their motions again and again...Practising in different worlds, the two groups of scientists see different things when they look from the same point in the same direction.⁵³

According to Kuhn, the 'normal science' which emerges from a scientific revolution is not only incompatible, it is often incommensurable with what has gone before. Different paradigms rely upon different world views; no formal argument therefore may be able to convert a scientist from one paradigm to another. Although Kuhn acknowledges that Polanyi influenced him,⁵⁴ *The Structure of Scientific Revolutions* has relativist implications that are inconsistent with a pursuit of universal values. Accepting that no formal argument may be able to convert a scientist from one paradigm to another still leaves us with the problem of accounting for how the process of scientific change takes place.⁵⁵

Conclusion

Polanyi supports institutional autonomy against political control, and advocates free markets rather than central planning. To this extent, he is a liberal. Polanyi replaces value neutrality with dedicated communities, and asserts that rules require interpretative practices. To this extent, he is a communitarian.⁵⁶ Polanyi defends liberty on the grounds of an appeal to progress. He takes knowledge to be an instrument of reform. To this extent, he is a radical. Polanyi seeks to constrain the liberty of the individual by defending the role played by authority. He situates, and thus limits, our understanding of the world, advocating the transcendent nature of our values. To this extent, he is a conservative. As is usually the case with Polanyi, you cannot attach a philosophical label to him, in this case liberalism, without the addition of significant qualifications. The reason for this is clear. He begins with existing practices, in this case the functioning of a free society, not abstract theories. As a result, his conclusions are often difficult to classify. But they have been influential. In 1947, Polanyi was one of the founding members of the Mount Pelerin Society: 'a group of 39 persons...called together by Frederick von Hayek to exchange ideas about the nature of a free society, about the dangers to its survival, and about the ways and means of strengthening its intellectual support.'⁵⁷

Hayek, like Polanyi, came to make an unfavourable contrast between the order created by planning - which he calls a taxis - and the order created by a market - which he calls a catallaxy – arguing that central

planning disrupts the more efficient workings of the market; the market, by relating a plurality of ends with a scarcity of means, integrates the disparate practices which make up a modern society into a common order. The harm caused by disturbing the spontaneous order which markets generate becomes the ever more central theme of his later works, from *The Constitution of Liberty*, ⁵⁸ and the three volume *Law, Legislation and Liberty*, ⁵⁹ to his last work, *The Fatal Conceit*. ⁶⁰ In this latter study, Hayek notes that

I confess that it took me a long time from my first breakthrough, in my essay on *Economics and Knowledge* (1936), through to the recognition of *Competition as a Discovery Procedure* (1978) and my essay on *The Pretence of Knowledge* (1978), to state my theory of the dispersal of information, from which follows my conclusions about the superiority of spontaneous formations to central direction.⁶¹

The argument that only a market order is able to utilise the tacit knowledge dispersed among the various practices of a society is often cited as one of Hayek's 'most original and important ideas'.⁶²

Because Hayek derived the phrase 'spontaneous order' from Polanyi, 63 some commentators have acknowledged the existence of an intellectual influence. John Gray suggests that

The Polanyian element which enters into Hayek's work from at least the fifties consists, first of all, in the refinement of his view of knowledge as *au fond* practical, and his exploitation of Polanyi's insight that, since much of the knowledge we use is inarticulate, we always know more than we can ever say. In *The Constitution of Liberty* and elsewhere, this insight gives a wholly new twist to the argument for liberty from human ignorance. It is not just the fact that our knowledge is extremely limited that supports a regime of liberty...Rather, a regime of liberty permits knowledge to be used which we never knew...we had.⁶⁴

Hayek, like Polanyi, claims that only a market system can cope with the complexity of a developed economy. Unlike Hayek, however, Polanyi takes the spontaneous order which a market generates to be a reduced form of the mutual adjustment which takes place within a dedicated community. ⁶⁵ Whereas the co-ordination of individual efforts which takes place within a market order is only motivated by financial gain, the standards which operate within a dedicated community are supplemented by professional standards.

A market order cannot in itself be a source of professional standards because, in the absence of any dedicated societies, there exist no systems of thought from which such standards could be derived:

An intellectual system of spontaneous order can arise only within an existing system of thought. Such a system, transmitted by tradition, may absorb new entrants and guide their contributions in accordance with the traditional standards inherent in it. Systems of this kind may be in danger of exhaustion; they may be undermined by the growth of an internal contradiction or disrupted by dissension over some new issue. But so long as such a system is believed to be true, its cultivation is recognised as a purpose in itself and its standards are accepted in their own right as guides to the cultivators actions.⁶⁶

Polanyi defends a free society on the grounds that it gives dedicated communities the freedom to pursue their

ideals. Indeed, for Polanyi, a free society is itself a dedicated community. According to Hayek, self-directed actions generate a spontaneous order within a catallaxy because the individuals which make up that order follow abstract rules – the rules of property, tort, and contract. Polanyi observes, however, that all rules have to be interpreted. It thus follows that, just as doing science is not simply a question of following a methodology, so becoming a free society is not simply a matter of acting in accordance with abstract laws. All such rules rely upon interpretative practices.⁶⁷

The claim that the practices which underlie a free society go beyond any formal account, are similar to the views of Michael Oakeshott. Oakeshott, in *Rationalism in Politics and other Essays*, ⁶⁸ asserts that by only recognising the sort of general rules we find in textbooks, rationalism neglects the practical knowledge from which such knowledge is abstracted. In *On Human Conduct*, ⁶⁹ Oakeshott declares that all human associations are structured by practices, and that practices are either prudential associations in which members have a common purpose, or moral associations in which members are united by no more than the authority of common practices. Oakeshott declares that human ends are too various for a prudential association to be an appropriate political model. One of the few contemporary references in his essay *Rationalism in Politics* is to *Science, Faith and Society*. He also wrote a review of *Personal Knowledge*. ⁷⁰ Harwell Wells observes that

Polanyi preceded Oakeshott and was an admitted influence upon him. Oakeshott's views of knowledge, as expressed in his 1947 *Rationalism in Politics* appear to be almost identical to those espoused by Polanyi in his 1945 lectures. Both Polanyi and Oakeshott rejected the rationalistic claim that a practice can be known solely through ratiocination, or knowledge of its rules, as such a claim ignores tacit knowledge.⁷¹

For Polanyi, however, a free society is a dedicated society – i.e., the practices that constitute a free society have the common purpose of seeking to realise transcendent ideals. Nor is Polanyi interested in seeking to use tradition as a substitute for critical reflection. Interpretative practices serve as the context within which individuals change existing practices in the pursuit of transcendent ideals. Drawing our attention to the debate which took place between Burke and Paine about the character of the French Revolution, Polanyi observes that while Paine asserted the right of every generation to self-determination, Burke opposed any attempt to effect a revolutionary transformation of existing institutions, on the grounds that radical breaks from tradition inevitably lead to despotism. Polanyi notes that his account of what it is to be a free society transcends this controversy:

It rejects Paine's demand for the absolute self-determination of each generation, but it does so for the sake of its own ideal of unlimited human and social improvement. It accepts Burke's thesis that freedom must be rooted in tradition, but transposes it into a system cultivating radical progress.⁷²

Oakeshott suggests that such a claim smacks of Platonism/Hegelianism⁷³ For Polanyi, however, a free society is not justified by its value neutrality, but by its belief in transcendent ideals.

Endnotes

- ¹ Polanyi (1966) pp.3-4.
- ²Calvin (1991) p.40.
- ³ Wolfe Mays (1978) has written that relations between Polanyi and the Department of Philosophy at Manchester University were cool. It has also been reported to me that when Polanyi was made a Fellow of Merton College Oxford, one of the Fellows was heard loudly to exclaim "That Charlatan!" The polite version of this, given by G.J.Warnock to Marjorie Grene, was that Polanyi should be described as a *philosophes* not a philosopher.
- ⁴ Bernal (1936).
- ⁵ Polanyi (1997) p.62.
- ⁶ Ibid p.67.
- ⁷ Ibid p.67. In an address delivered in 1942 to the Manchester Literary and Philosophical Society, Polanyi was one of the first commentators to draw attention to the State imposed Lamarckism under Lysenko. Lamarckism was being promoted on the political grounds that it supported the view that if human beings were given the same conditions of development physical inequalities could be eliminated. See Polanyi (1951).
- ⁸ Polanyi (1946) p.531.
- ⁹ Polanyi belonged to a family of assimilated Jews. According to Lee Congdon, 'Because Nineteenth Century Liberalism had set him free, opposition to its ideals took on for him a very personal character' (Congdon [1992] pp.99-100).
- ¹⁰ Polanyi (1997) p.139.
- 11 'Freedom is ambiguous because there are different ways of being free. One way is to be free from external constraint. The rational limits to this freedom are set by the condition that it must not interfere with other people's right to the same freedom... Its fundamental opposition to all restraint can easily be turned into nihilism. Another conception of freedom in its extreme form is almost the opposite of the first. It regards freedom as liberation from personal ends by submission to impersonal obligations... Such surrender to moral compulsion is certainly a form of liberation. But the theory of such freedom can become very much like a theory of totalitarianism. It does become altogether totalitarian if you regard the State as the supreme guardian of the public good' (Polanyi [1951] p.33).
- ¹² Polanyi traces the notion that the State ought to have supreme authority over society from Hobbes, who claimed that any division of its power would lead to a conflict between its parts, via Rousseau, for whom the supreme authority of the State was justified by an appeal to the General Will, to those for whom the needs of the Party overrode all other considerations. See Polanyi 1945b. See also Talmon (1952) and Milosz (1953).
- ¹³ When individuals pursue general principles, this generates a communal life governed by these principles 'By apprenticing himself to an intellectual process based upon a certain set of ultimates, the newcomer enlists as a member of the community holding these ultimates, and his commitment to these necessarily involves the acceptance of the rules of conduct indispensable for their cultivation' (Polanyi [1946] p.64).
- ¹⁴ Polanyi (1935) pp.67-89.
- 15 Hayek (1944).
- ¹⁶ Polanyi (1951) p.126.
- ¹⁷ Polanyi (1951).
- ¹⁸ As Roberts explains, 'Traditionally, economic analysis has been circumscribed by the economist's concern with optimal resource allocation. This concern originates in the economist's definition of a market system as a price system. By thus defining

an organisational system in terms of the signals upon which it relies, economists have restricted artificially their understanding of the generality of market processes. In this chapter [following Polanyi] the market system is treated as a member of the class of polycentric organisational systems, and is defined in terms of the organisational principles general to polycentric systems. When organisation is achieved among people by their mutual interaction and initiative, the result is a system of mutual interaction that cannot be subdivided into consecutive stages. Such a system is termed 'polycentric' because all the members in the interlocking and overlapping network of organisation are free to take autonomous action that will bear on the actions of other members. Each member's automatically chosen task comprises a part of the overall outcome and contributes toward it achievement...The organisation of science, democratic politics, and economic activity in a market system are characterised by polycentrism' (Roberts [1990] p.49).

¹⁹ Rejecting the labour theory of value Neo-Classical economics declares that nothing has any intrinsic value: having a value is a subjective relationship between subjects and objects. Free markets allow exchanges of goods and services which generate rates of exchange called prices, which balance supply and demand, with value determined by the aggregated demand of individual consumers.

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<sup>20</sup> Von Mises (1981).
<sup>21</sup> Polanyi (1985b)
<sup>22</sup> Langre (1936-7)
<sup>23</sup> Gamble (1996).
<sup>24</sup> Polanyi (1945).
<sup>25</sup> Keynes (1936).
<sup>26</sup> For example, Friedman (1970).
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<sup>30</sup> See Popper (1945).
<sup>31</sup> Knight (1949) p.248.
<sup>32</sup> Buchanan (1967) p.310.
<sup>33</sup> Roberts (1969) p.238.
<sup>34</sup> Locke (1963) 45.
<sup>35</sup> See Berlin (1991).
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³⁶ Roberts (1969) p.273.

²⁷ The Financial Times 2:9:1999.

²⁸ Polanyi argued that in a depression, when high savings create a high demand for money, the government should decrease that demand by lowering taxes. Conversely when there is an inflationary boom, the government should reduce the amount of money in circulation by increasing taxes. Keynesians advocated increases in government spending. For Polanyi, however, this would undermine the principle of neutrality – the principle that investment decisions ought to be determined by the merits of the investment. See Allen (1996). According to the economist Paul Craig Roberts, 'Polanyi synthesized Keynesian economics with the monetary school of economics later associated with Milton Friedman. In this synthesis Polanyi was at least two decades, and perhaps three, ahead of the best minds in the economics profession' (Roberts [1998-9] p.26).

²⁹ Polanyi (1940) p.59. Fukuyama notes that 'Both Tocqueville and Hegel emphasised the importance of associational life as a focus for public spiritedness in the modern State...because it is through such civic associations that people are drawn outside of themselves and their private selfish concerns' (Fukuyama [1992] p.32).

³⁷ Polanyi observed that in England many Protestant sects defended freedom on the grounds that it facilitated the pursuit of religious truths. Many of those in France who sought to defend freedom also, however, sought to attack religious ideals. See Polanyi (1943).

- ⁴⁰ Polanyi (1951) p.106.
- ⁴¹ Polanyi (1945) p.15.
- ⁴² Polanyi (1969) p.36.
- ⁴³ Polanyi (1946).
- ⁴⁴ Polanyi notes that a table once appeared in the science Journal Nature pointing out that the time of gestation, measured in days, of a number of animals ranging from rabbits to cows is a multiple of the number p. No amount of empirical evidence however is likely to convince a biologist that this numerical relationship has any significance. See Polanyi (1951) p.16-17.
- ⁴⁵ Polanyi gives as an example the periodic system, the theory of which was contradicted by the fact that argon and potassium, as well as tellurium and iodine, only fit in a sequence of decreasing instead of increasing atomic weights. This contradiction did not lead to the system being abandoned. It was assumed that future discoveries would eliminate the problem, something which did indeed eventually take place. According to Polanyi, however, eliminating contradictions to a theory does not necessarily require new discoveries:

All theories are epicyclical in the sense that reasons are always conceivable which will account for observed deviation. It always remains for the scientist to decide in the light of the general premises of science, and of the particular assumptions considered plausible at the time, what weight to attach to any given set of observations in support or refutation of a theory on which they are judging (Polanyi [1946] p.93).

⁴⁷ Lakatos (1978) pp.107-20. Feyerabend (1985) pp.3-18 agrees with Lakatos that Polanyi was an elitist, but responds that Lakatos was even more of an elitist, because he believed that it should be philosophers who set the standards of evaluation. Polanyi, according to Feyerabend, gives an authoritarian solution to the problem of rationality. His response is to make science a 'free for all' in which boldness becomes acceptable. Agassi (1975) attacks the assertion that scientific journals are justified in protecting themselves from a flood of worthless writing. While worthless writing is harmless, censorship is harmful. Lavoie (1985) defends Polanyi, however, by noting that worthless publications are not harmless. They use up resources, such as time, which could be used more effectively. In any case,

this kind of censorship has nothing to do with "academic freedom" still less with political freedom. Those regarded today as crackpots are free to constitute, indeed do constitute, their own communities, in which they will find themselves exercising a similar censorship in their own journals. It is also conceivable that some group might ultimately vindicate its claims, and find itself willy-nilly accepted as part of the scientific community. It may be that something of this sort is happening in the case of chiropractic (Lavoie [1985a] p.265).

³⁸ Polanyi (1951) p.97.

³⁹ Polanyi observes that Diderot in the *Nephew of Rameau* contemplates an immoralism justified by the hypocrisy of society. The Marquis de Sade viewed himself as acting in accordance with the insight that man is no more than a machine, and law no more than the will of the stronger. Polanyi (1997) p.87.

⁴⁶ Polanyi (1946) p.58.

⁴⁸ Lakatos (1978) p.112.

⁴⁹Toulmin (1976) pp.655-675.

⁵⁰ Quoted by Toulmin (1976) p.661.

⁵¹ Lakatos (1976).

⁵² Kuhn 9 (1962).

⁵³ Ibid p.150.

⁵⁴ 'Mr Polanyi...has provided the most extensive and developed discussion I know of the aspect of science which led me to my apparently strange use [of the word paradigm]...Polanyi repeatedly emphasizes the indispensable role played in research by what he calls the 'tacit component' of scientific knowledge. This, if I understand him correctly, is the inarticulate and perhaps inarticulable part of what the scientist brings to his research problem; it is the part learned not by precept but principally by

example and practice' (Crombie [1963] p.392).

⁵⁵ Ibid p.380. Gelwick notes that 'Polanyi has discriminated between his position and that of Kuhn by insisting that we must go further than disproving the older objective ideal. We have to account for what it is in the nature of scientific knowing that leads the creative and original mind to hold to a new grasp of reality that appears at odds with the established paradigm. There are no rules for this procedure. Only a new theory of knowledge in science that allows for the risk of failure, and for the universal intent of the individual scientist, provides the grounds of such a change. This new theory is what Polanyi calls personal knowledge and tacit knowing' (Gelwick [1977] pp.128-9).

⁵⁶ It is no accident that two figures prominent in recent Communitarian attacks upon Classical Liberalism, Alasdair MacIntyre and Charles Taylor, are familiar with the writings of Polanyi. See MacIntyre (1977) and Taylor (1989).

⁵⁷ Machlup (1977) p.xi. Both Hayek and Polanyi participated in a symposium in Paris in 1938 set up in order to discuss The Good Society by Walter Lippmann: 'They were all drawn to Paris by a shared concern at the apparently inexorable decline of Liberalism in Europe - 'Le Colloque Walter Lippmann' represented the first coherent attempt to analyses the reasons for that decline and to suggest ways in which that decline might be reversed' (Crockett [1995] p.9).

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58 Hayek (1960).
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Buchanan: Let me ask you about your relationship, or did you know or how close were you to Michael Polanyi? Did you know him well?

Hayek: Yes, he was for a few years my colleague on the Committee on Social Thought (at the University of Chicago), and there was an interesting relationship for a period of ten years when we happened to move from the same problem to the same problem. Our answers were not the same, but for this period we were always just thinking about the same problems. We had very interesting discussions with each other, and I liked him personally very much (Quoted by Mirowski (1998) p.30 from an unpublished interview with Hayek in 1978).

⁵⁹ Hayek Volume 1(1973) Volume 2 (1975) Volume 3 (1979).

⁶⁰ Havek (1988).

⁶¹ Ibid p.88.

⁶² Machlup (1977) p.36.

⁶³ In The Growth of Thought in Society (Polanyi [1941]) published in *Economica* [Editor F.A.Hayek], Polanyi uses the phrase 'dynamic order' - which he seems to have derived from the Gestalt psychologist Wolfgang Kohler. His first published use of 'spontaneous order' occurs in Planning and Spontaneous Order (1948) pp.237-68. The first published use of the phrase by Hayek occurs in Hayek (1960).

⁶⁴ Gray (1986) p.15.

⁶⁵ Polanyi (1969) p.69. For the origins and different uses which Polanyi and Hayek make of the concept of spontaneous order see Jacobs (1997-98). Hayek recognises that, although he shares many of the same worries as Polanyi, he ends up with a different vision:

⁶⁶ Polanyi (1951) p.166.

⁶⁷ 'Can we find, as in the case of the premises of science, a practical art which embodies them; a tradition by which this art is transmitted; institutions in which it finds shelter and expression? Yes, we shall find them in the art of free discussion, transmitted by a tradition of civic liberties, and embodied in the institutions of democracy' (Polanyi [1997] pp.67-8). Allen (1998) pp.4-5 suggests that in Britain liberalism was largely a movement seeking to extend traditional rights, institutions, and principles, whereas on the Continent of Europe there was a greater emphasis upon the use of the State to replace traditions with a new order. Polanyi argues that theoretical accounts describing what it is to be a free society crossed from England to France during the French Revolution, but not the interpretative practices. See Polanyi (1958) p.54.

⁶⁸ Oakeshott (1962).

⁶⁹ Oakeshott (1975).

⁷⁰ Oakeshott (1958) pp.77-80.

⁷¹ Wells (1994) p.137.

⁷² Polanyi (1969) p.71.

⁷³ Oakeshott (1958) p.79.

Bibliography

Allen, R.T. (1996) Some Notes on Polanyi's Economic Appraisal 1:2 pp.95-6.

Allen, R.T. (1998) Beyond Liberalism: The Political Thought of F.A.Hayek and Michael Polanyi New Brunswick: Transaction Publishers.

Agassi, J. (1975) Genius in Science *Philosophy of the Social Sciences* 5 pp.145-61.

Berlin, I. (1991) The Crooked Timber of Humanity: Chapters in the History of Ideas London: Fontana Press.

Bernal, J.D. (1936) The Social Function of Science London: RKP.

Calvin, M. (1991) Memories of Michael Polanyi at Manchester *Tradition and Discovery* 18:2 pp.40-42.

Congdon, L. (1992) The Origins of Polanyi's Neo-Liberalism *Polyanyiana* 2:1-2 pp.99-105.

Crockett, R. (1995) Thinking the Unthinkable London: Fontana Press

Crombie, A. (Ed) (1963) Scientific Change London: Heinmann

Feyerabend, P. (1985) Democracy, Elitism, and Scientific Method *Inquiry* 23 pp.3-8.

Friedman, M. (1970) The Counter-Revolution in Monetary Policy IEA.

Fukuyama F. (1992) The End of History and the Last Man London: Penguin Books.

Gamble, A. (1996) Hayek: Iron Cage of Liberty Oxford: Polity.

Gelwick, R. (1977) The Way of Discovery: An Introduction to the Thought of Michael Polanyi New York: Oxford University Press.

Gray, J. (1986) Hayek on Liberty Oxford: Blackwell.

Havek, F.A. (1944) The Road to Serfdom London: RKP.

Hayek, F.A. (1960) The Constitution of Liberty London: RKP.

Hayek, F.A. Law, Legislation, and Liberty Volume 1 (1973) Volume 2 (1975) Volume 3 (1979) London: RKP.

Hayek, F.A. (1988) The Fatal Conceit: The Errors of Socialism London: RKP.

Jacobs, S. (1997-8) Michael Polanyi and Spontaneous Order 1941-51 Tradition and Discovery 24:2 pp.14-28.

Keynes, J.M. (1936) The General Theory of Employment, Interest and Money London: Macmillan.

Knight, F. (1949) Virtue and Knowledge: The View of Professor Polanyi Ethics 59 pp.271-84.

Lakatos, I. (1976) *Proofs and Refutations: The Logic of Mathematical Discovery* (Ed) J.Worrall & G.Curry Cambridge: Cambridge University Press.

Lakatos, I. (1978) *The Methodology of Scientific Research Programmes* (Ed) J.Worral & G.Curry Cambridge: Cambridge University Press.

Langre, O. (1936) On the Economic Theory of Socialism *Review of Economic Studies* Parts I-II Volume pp.53-71.

Lavoie, D. (1985a) National Economic Planning: What Left? New York: Ballinger.

Lavoie, D. (1985b) Rivalry and Central Planning: The Socialist Calculation Debate Reconsidered Cambridge: Cambridge University Press.

Locke, J. (1963) A Letter Concerning Toleration Edited by A.Montuori Hague Martinus Nijhoff.

Machlup, F. (Ed) (1977) Essays on Hayek London: RKP.

MacIntyre, A. (1977) Epistemological Crises, Dramatic Narrative, and the Philosophy of Science *The Monist* 60 pp.453-72.

Mays. W. (1978) Michael Polanyi: Recollections and Comparisons *Jou. of the British Society for Phenomenology* 9:1, pp.44-55.

Milosz, C. (1953) The Captive Mind New York: Secker and Warburg.

Mirowski, P. (1998) Economics, Science, and Knowledge *Tradition and Discovery* 25:1 pp.29-42.

Mises, L. von (1981) *Socialism: An Economic and Sociological Analysis* Translated by J.Kahane Indianopolis: Liberty Classics.

Oakeshott, M. (1958) The Human Coefficient *Encounter* 9 pp.77-80.

Oakeshott, M. (1962) Rationalism in Politics and other Essays London: Meuthen.

Oakeshott, M. (1975) On Human Conduct Oxford: Clarendon Press.

Polanyi, M. (1935) USSR Economics – Fundamental Data, System, and Spirit *The Manchester School of Economic and Social Studies* 6 pp.67-89.

Polanyi, M. (1941) The Growth of Thought in Society *Economica* 8 pp. 428-56.

Polanyi, M (1943) The English and the Continent *Political Quarterly* 14 pp.372-81.

Polanyi, M. (1945a) Full Employment and Free Trade Cambridge: Cambridge University Press.

Polanyi, M (1945b) Science and the Modern Crisis Memoirs and Proceedings of the Manchester Literary and Philosophical Society 86:6 pp.107-16.

Polanyi, M. (1946) Science, Faith and Society Oxford: Oxford University Press.

Polanyi, M. (1948) Planning and Spontaneous Order *The Manchester School* 16 pp.237-68.

Polanyi, M. (1951) The Logic of Liberty London: RKP.

Polanyi, M. (1956) Oscar Jaszi and Hungarian Liberalism Science and Freedom 1 p.7.

Polanyi, M. (1958) Personal Knowledge: Towards a Post-Critical Philosophy London: RKP.

Polanyi, M. (1966) The Tacit Dimension London: RKP.

Polanyi, M. (1969) Knowing and Being: Essays by Michael Polanyi Edited by M.Grene London: RKP.

Polanyi, M. (1997) (Ed) R.T. Allen *Society, Economics & Philosophy: Selected Papers* London: Transaction Publishers.

Popper, K. (1945) The Open Society and its Enemies (Two Volumes) London: RKP.

Roberts, P.C. (1969) Politics and Science: A Critique of Buchanan's Assessment of Polanyi Ethics 79 pp.235-85.

Roberts, P.C. (1990) Alienation and the Soviet Economy: The Collapse of the Socialist Era New York: Holmes & Meier.

Roberts, P.C. and Cott, N. (1998/99) Polanyi's Economics Tradition and Discovery 25:3.

Talmon, J.L. (1952) The Origins of Totalitarian Democracy London: Secker and Warberg.

Taylor, C. (1989) Sources of the Self: The Making of Modern Identity Cambridge: Harvard University Press.

Toulmin. S. (1976) History, Praxis and the 'Third World' in *Essays in Memory of Imre Lakatos* Edited by R.S.Cohen Dordrecht: Reidel pp. 665-75.

Wells, H. (1994) The Philosophical Michael Oakeshott *Journal of Ideas* 55:1 pp.129-45.

WWW Polanyi Resources

The Polanyi Society has a World Wide Web site at http://www.mwsc.edu/~polanyi/. In addition to information about Polanyi Society membership and meetings, the site contains the following: (1) the history of Polanyi Society publications, including a listing of issues by date and volume and a table of contents for most issues of *Tradition and Discovery*; (2) a comprehensive listing of *Tradition and Discovery* authors, reviews and reviewers; (3) information on locating early publications; (4) information on *Appraisal* and *Polanyiana*, two sister journals with special interest in Polanyi's thought; (5) the "Guide to the Papers of Michael Polanyi" which provides an orientation to archival material housed in the Department of Special Collections of the University of Chicago Library; (6) photographs of Michael Polanyi; (7) the call for papers, programs and papers for upcoming (or recently completed) meetings; and (8) selected short writings of Michael Polanyi.