



MICHAEL POLANYI, FRS

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Michael Polanyi – doctor, scientist, economist, philosopher, political commentator – was one of the most important, but often underrated, thinkers of the 20th C. From 1914 to 1933 he experienced at first-hand the great upheavals of Europe: the First World War, the break-up of the Austro-Hungarian Empire, independence for Hungary, the Bolshevik regime of Béla Kun, civil war, the establishment of the Horthy regime, emigration to Germany, the great German inflation, the rise of the Nazi Party and Hitler's accession to power, and emigration again, to England. On his visits to the USSR in the 1930s he saw the workings of the Soviet state and economy for himself. All this, as well as his professional experience of scientific research as an internally recognised scientist, influenced his increasing turn, completed in 1948, from science to philosophy. He traced the self-inflicted destruction of European civilisation to a group of grave philosophical errors which had seeped their way into every part of life, and had discredited everything and anything – moral, political and artistic ideals and standards, religious beliefs, human freedom and creativity – which could not meet what were taken to be the precise, impersonal and wholly objective methods of natural science. The erosion of traditional beliefs inhibited the defence of civilisation, freedom and science itself against both outright barbarism and demands for the total reorganisation of society, most notably by Marxism, in order to realise a kingdom of man upon earth.

Consequently he was never a closet philosopher, and even the most philosophical of his books do not conform to academic conventions. They usually start with some aspect of the political, cultural and moral problems of the age; formulate the fundamental and erroneous assumptions embodied in or presupposed by them; present, often with a wealth of empirical detail especially from the history and practice of natural science, his alternative principles; and then close with a return to contemporary life. Consequently, he wrote no separate treatises upon epistemology, language and meaning, philosophy of science, political and social philosophy, ontology and metaphysics, or aesthetics, though he wrote much about some of these and illuminatingly touched upon all, and upon others in addition, in addition to his specific writings on politics and economics.

Life and Work

1. Hungary and Germany:

He was born in Vienna on March 11th 1891, the fourth child of Michael and Cecilia Pollacsek, liberal Jews from, respectively, Ungvár (then in Hungary, but now known as Uzhgorod and in the Ukraine) and Vilnius in Lithuania. The family moved to Budapest where their surname was Magyarised to Polányi. Michael Polanyi (Polányi Mihály, in the Hungarian style), the elder, built much of the Hungarian railway system but lost a lot of money in 1899 and died in 1905. Cecilia Polanyi established a *salon* in their home and continued to run it until her death in 1939.

The young Michael grew up in a rapidly expanding city and at the centre of several artistic, intellectual and political circles. While still at school, he joined his next elder brother Karl (Károly) in the Galilei Circle, a students' society aiming at political reform. He also supported Oscar Jaszi and his Society for Social Sciences and journal, *Huzsodik Század* (*Twentieth Century*), also aiming at political reform, and Count

Michael Karolyi's Hungarian Independence Party. But then, as later, he rejected Socialism and all comprehensive schemes of radical change. In 1909 he entered Budapest University to read medicine, perhaps because as a Jew it was easier to obtain employment as a doctor than in some other professions. But his interests were primarily in chemical research, and so, after graduating, he went to the Technische Hochschule in Karlsruhe. When war broke out in August 1914 between Austria-Hungary and Serbia and then among all the Great Powers, he returned to serve in the army as a medical officer and was sent to the Serbian front. On sick-leave in 1916, he wrote his Ph.D. thesis. A year later, he published his first non-scientific article, 'To the Peacemakers'.¹ In October 1918, Karolyi established the independent Hungarian Republic, and Polanyi became Under Secretary for Health. In February 1919 he published his second political article, 'New Scepticism'.² The following month, Karolyi ceded power to Béla Kun and the Communists. When, after a few months, Kun and the Hungarian Soviet were overthrown, Polanyi, thwho had moved to the University of Budapest and was the only one in his department to refuse to serve in the Red Army, incurred, as Jew and because of his Liberal past, the disfavour of the new régime under Admiral Horthy. Along with many others, including his brother Karl and both opponents and supporters of the Kun régime, Michael Polanyi chose emigration and returned to Karlsruhe, from where he moved in 1920 to the Kaiser Wilhelm Institute for Fibre Research in Berlin. During his time in Germany, he also acted as a consultant for Tungsram, an Hungarian company manufacturing electrical equipment. (When later he came to defend the rights of pure science against its subservience to technology and welfare, he knew what he was talking about on both sides.) In 1923 he moved to the Max Planck Institute in Berlin-Dahlem, and in 1926 became a full Professor in physical chemistry. He was now at the height of the scientific profession in Germany.

The economic dislocation caused by the war, the great inflation and rising unemployment, radicalised German politics. The Weimar Republic was threatened by both Nazis and Communists. These events led Polanyi to read and think about economics and economic policy. When Hitler came to power and began to remove Jews from public positions, Polanyi tried without success to organize a protest among his fellow scientists. Thereupon he accepted the offer, which he had previously refused, of the Chair in Physical Chemistry at the University of Manchester.

2. Manchester

According to his own account,³ it was on one of his visits to the USSR, to give lectures for the Ministry of Heavy Industry, that his wider interests began to revive. Bukharin told him that the distinction between pure and applied science was false and that in the new socialist harmony scientists would follow their interests freely yet would be led inevitably to work that would fit in with the Five Year Plan. At the time Polanyi smiled at 'this dialectical mystery-mongering' but soon after Lysenko's persecution of Vavilov caused him to change his mind. Yet already Polanyi was studying on these visits the Soviet economy and publishing his results.⁴ These concerns came together when, led by Bernal and Hogben, demands were made in Britain for the planning of science in line with the economy and the rest of society, so much so that even the British Society for the Advancement of Science set up an enquiry into it. For Polanyi found that the usual sceptical and utilitarian defences of science and of freedom in general – that we should be free to think and do as we like because no system can be shown to be true, undercut what they were invoked to defend. Hence in order to defend the freedom of science, he had to defend freedom in general, and that also meant providing an alternative to collectivist schemes for the economy which were being proposed as the cure for unemployment. And so we find Polanyi from the late thirties onward, writing and speaking more and more about political and economic themes, and even producing the first diagrammatic films, on the role of money, in order to counter Soviet propaganda films that showed what their factories (supposedly) could produce as if increasing production were the only economic task. With J.R. Baker, he formed the Society for Freedom in Science, and later joined his friend F.A. Hayek in the Congress for Cultural Freedom and the Mont Pélerin Society.

The principal publications of this period are *The Contempt of Freedom* (1940), which consists of his aforementioned study of the Soviet economy, and his devastating reviews of the Webbs' *Soviet Communism: A New Civilisation* (1936) and J. Bernal's *The Social Function of Science* (1939), plus 'Collectivist Planning' in which he first formulated his central distinction between corporate (planned and imposed) and spontaneous (unplanned) order.⁵

That distinction was revised and elaborated in 'The Growth of Thought in Society' (1941), which,

though not as a whole,⁶ was reprinted in *The Logic of Liberty* (1951) along with nine other articles. In that collection, starting as he would continue to do, with the example of science, Polanyi demonstrates the limits of planning and the far greater possibilities of the spontaneous adjustment of polycentric efforts (those undertaken by individuals and organizations on their own initiative) in science, law, the economy and other areas of human life. His idea of freedom, he makes clear, is not the merely 'negative' one of private liberties, as usual among Liberals, but the more 'positive' one of public liberties for self-dedication to transcendent ideals. A value-less 'open society' has no reason for its existence and defence; freedom cannot be merely doing as we like; and the fundamental choice is between subservience and self-dedication to transcendent ideals.

Along with *Full Employment and Free Trade* (1945, 1948), in which he sets out his own account of the role of the money supply in the economy and of how monetary policy can reduce the heights of boom and the depths of slump by economically neutral means (contrary to most interpretations of Keynes), *The Logic of Liberty* sums up his specifically economic and political ideas.⁷

But, as is shown in *Science, Faith and Society*, in which he argues that science and a free society depend upon faith and a general authority upholding standards and ideals but not specific doctrines, his thinking about freedom was taking him beyond politics altogether towards a fiduciary philosophy of methods that cannot be reduced to explicit and exact rules and of truth that can be known although it cannot be demonstrated nor fully and precisely stated.

3. From Manchester and science to Oxford, America and philosophy

These deeper and more specifically philosophical interests eventually overtook his scientific work altogether. He was invited to give the Gifford Lectures in 1951-2 at Aberdeen, and a special chair in Social Studies was created for him at Manchester in 1948 so that he could concentrate on this work.

The revised version of the Gifford Lectures was published in 1958 as *Personal Knowledge*, his *magnum opus*, a profound, powerful and wide-ranging book. His previous work feeds into it, and from its central theme of tacit integration, introduced for the first time, emanate virtually all his subsequent publications.

The target of *Personal Knowledge* is what Polanyi called 'Objectivism': the assumption that genuine knowledge can result only from an impersonal operation of exact and explicit rules upon data and a thorough testing of each stage, and that such knowledge is actually achieved in physics and chemistry, to which all other forms of knowledge should be assimilated. Whatever the individual himself puts into these processes must render the product 'subjective'. The scepticism and reductionism embodied in and following from these assumptions have corrupted, Polanyi argued, our views of knowing, ourselves and the world, and have made it very difficult explicitly to uphold the intellectual, moral and political ideals of human civilisation. Hence his aim is to show that

into every act of knowing there enters a passionate contribution of the person knowing what is being known, and that this coefficient is no mere imperfection but a vital component of his knowledge,⁸

and to 'restore to us once more the power for the deliberate holding of unproven beliefs'.⁹

He seeks to do this by showing that natural science itself, which he knew from the inside, does not and cannot meet the Objectivist ideal, for its rules and methods cannot be explicitly articulated and thus it necessarily requires the personal engagement and judgment of the scientist himself. Scientific research is an art, the deployment of skills, and so too are all our acts and forms of knowing. All 'impersonal' measurements, readings, observations, 'data', etc., have to be personally understood, appraised, and accepted or rejected by the individual scientist using his own informed personal judgment.

In the pivotal Chapter 4 of *Personal Knowledge*, he demonstrates that skills are *tacit integrations* of subsidiary details into comprehensive and focal wholes, in which we attend *from* the latter and *to* the former. For the most part, we do not know the details in themselves but only as we *use* them to know the focal objects of our attention or to perform what we intend to do. Nor do we know *how* we integrate the details into the focal whole or complex performance. These tacit dimensions of all our knowing and action, he illustrates with homely examples, episodes from the history of science, and the findings of empirical psychology. It follows that we can never completely test our knowledge, for in doing so we *acritically* rely

upon our personal judgment and skills. Language, through which we make explicit what we know and extend our knowledge far beyond what we can perceive, is itself always controlled by essentially tacit powers, such as choosing the right word for what we want to say. Language has meaning only as we attend *from* it to what it tacitly means, and not *to* it, which destroys its meaning, as can be experienced by repeating a word in isolation.

Hence, instead of the critical philosophy that has been dominant from Descartes onwards, and has employed the method of doubt in order to find a bedrock that cannot be doubted and upon which a body of wholly tested and certain knowledge can be erected, Polanyi concludes that only a post-critical and fiduciary philosophy is self-coherent, one which accepts that we have to believe in order to know and understand, as St Augustine (and St Anselm) had affirmed, and that knowledge is always coupled with uncertainty and the possibility of error, but which also holds that, contrary to positivism, scepticism and relativism, we can apprehend and comprehend the real world around us. Knowing is something we do, and therefore can do wrongly. But it is self-contradictory to claim that therefore we know that we cannot know anything.

The ramifications, in many areas of life and thought, of the philosophy of tacit integration are explored, developed, and applied to further spheres of life and reality in the subsequent chapters of *Personal Knowledge* and in most of his later books and articles, beginning with its extended application to the human sphere in *The Study of Man* (1959). Those ramifications include:

refutations of the reductions of persons, their actions and history to 'behaviour' (behaviourism), economics, psychology, physiology and biology; and of organism, life and biology to chemistry and physics;

an alternative hierarchical ontology of levels of increasing complexity, each governed by its own principles of operation which determine the boundary conditions left open by the previous and lower level;

the abolition of the dichotomies between fact and value and between description and evaluation on the levels of life, sentience, intelligence and personhood, where achievements, which succeed or fail, replace mere processes and events, and which can be known only in and through evaluating them as successes or failures;

an account of 'dwelling' in our bodies, perceptual organs, intellectual frameworks and languages, which *we* use and primarily and tacitly attend *from* in order to attend *to*, know, understand and cope with the world, by assimilating and incorporating things to and within them;

plus an account of 'breaking out' of them, when intellectual and moral conflicts lead us tacitly to reach out to realities that cannot be assimilated to them, and thus to adapt our frameworks, etc., to those new realities;

the abolition of the dichotomy between reason and emotion, for even in scientific research emotion has an essential 'selective' function to appraise the value of science itself and those facts of significance for science from those of no significance, a similar 'heuristic' one to sustain the scientist in his labours and to help him to cross the logical gap which opens up between the new realities which he vaguely discerns when attending from his existing knowledge which he uses as a clue to what lies beyond it, and a 'persuasive' one which he needs to help him to persuade his fellow scientists to follow him in crossing that gap.

Polanyi retired from Manchester in 1958, and became a Senior Research Fellow at Merton College, Oxford. There philosophy was dominated by Linguistic or Conceptual Analysis, according to which traditional philosophy was mostly a set of linguistic mistakes, and so Polanyi was mostly regarded, rather disregarded, as an outsider and even 'a charlatan'. He found more of an audience in America where he gave several courses of lectures at universities from Yale to Berkeley, expounding and developing his philosophy of tacit integration, one of which was published as *The Tacit Dimension* (1966). Other essays from this period were collected by Marjorie Grene and published as *Knowing Being* (1969). A final extension of tacit integration, a

course of lectures on *Meaning* (published in 1974), was edited by Harry Prosch because Polanyi was unable to concentrate. Polanyi's memory continued to deteriorate and eventually he had to go to a private hospital in Northampton, where he died in February 1976.

Notes

For the abbreviations used, see the Bibliography

1. Trans. E. J. Nagy, in SEP.
2. Trans. E. J. Nagy, in SEP.
3. SFS, 2nd ed., p. 8.
4. 'USSR Economics – fundamental data, system and spirit', 1935; reprinted as a book, *USSR Economics* (1936), and also in CF.
5. All except the first have been reprinted in SEP.
6. For details, see the entry in the Bibliography in SEP.
7. Other important political and economic papers prior to LL are included in SEP, and later ones on political themes in KB or SEP.
8. PK pp. viii, 312.
9. PK p. 268.

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Polanyian Societies

The Michael Polanyi Liberal Philosophical Association (Hungary)
publishes *Polanyiana*, alternate Hungarian and English issues;
www.kfki.hu/chemonet/polanyi/

The Polanyi Society (USA)
publishes *Tradition and Discovery*, 3 issues per year:
www.missouriwestern.edu/orgs/polanyi/

The Society for Post-Critical and Personalist Studies (UK)
publishes *Appraisal*, 2 issues per year
www.spcps.org.uk