

# Tradition & Discovery

## The Polanyi Society Periodical

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This is the last issue of *Tradition and Discovery* before the June 8-10 conference at Loyola University, Chicago, sponsored by the Polanyi Society. *TAD* has been plugging this conference since last summer. It is still not too late to submit a proposal for a paper (see the facing page), but it will be after March 31, 2001. You certainly don't have to present a paper to attend the conference. Come and enjoy the plenary sessions, the papers by other participants, and a trip to the archival collection of Polanyi materials at the Regenstine Library. The conference registration form is in this issue (p. 4) as is the tentative schedule (p. 5). Since the planning of this event has turned out to be somewhat more complicated than originally anticipated, co-chair Marty Moleski and I would appreciate it if you sent in your conference registration early. If you have not paid your annual Polanyi Society dues, please do, since we need to funds to support this conference in addition to other Polanyi Society activities. At the end of this issue (pp.46-47) is membership information and a form. You can also find a conference registration form and other information about the conference on the Polanyi Society web site: <http://www.mWSC.edu/~polanyi/>.

In this issue is a note (p. 7) about the special program of the Polanyi Society annual meeting that is being planned for next November in Denver. Thanks to the hard work of Phil Rolnick, two promising discussion sessions with Phil Clayton and others who are currently working on religion and science questions are slated.

There are four interesting but quite different essays included here. Chris Goodman offers a lucid account of Polanyi's discussion of a free society. Thomas Torrance's essay is a very personal recount of his relationship with Michael Polanyi and his understanding of Polanyi's religious ideas and practices. The discussion of Polanyi's religious ideas and commitments is, of course, a topic that reaches back many years, with several articles in *TAD*, in other journals as well as a few books. Percy Hammond's brief piece is actually a response to the discussion of Polanyi's "realism" treated in the essays included in *TAD* 26:2. Speaking as an engineer, Hammond offers some interesting comments on the philosophical discussion of realism, on Polanyi's account of technology and on Polanyi's discussion of the ontological aspect of tacit knowing. Finally, Richard Gelwick's essay introduces Lesslie Newbigin's (Polanyi-influenced) theology and George Hunsberger's discussion of Newbigin. In dialogue with Newbigin, Gelwick raises some very interesting questions about pluralism.

Phil Mullins

*Tradition and Discovery* is indexed selectively in *The Philosopher's Index* and *Religion One: Periodicals*. Book reviews are indexed in *Index to Book Reviews in Religion*.

# Polanyi's Post-Critical Thought and the Rebirth of Meaning

## Call for Papers

The Polanyi Society will sponsor a conference on the theme "Polanyi's Post-Critical Thought and the Rebirth of Meaning" on June 8, 9, and 10, 2001 at Loyola University, Chicago. This conference is an occasion to reflect on themes and possibilities found in Polanyi's thought twenty-five years after Polanyi's death in 1976. Chicago is an apt site for the conference, since interested participants will be able to access the archival Polanyi papers at the Regenstein Library of the University of Chicago.

Proposals are invited for papers that examine connections between Polanyian perspectives and those of other thinkers, schools of thought or domains of inquiry. Papers can explore prospects for post-critical thought. The following are some suggested general categories within which specific papers might be grouped. [Please do not think of them as a limit for submissions but as a springboard for your own reflections. The final program will reflect groupings adjusted in light of proposals submitted.]

Postmodernism and Post-Critical Thought  
Polanyi and the Analytic Tradition  
Polanyi and American Thought  
Polanyi and Continental Thinkers

Polanyian Approaches to Conceiving God  
Polanyian Links Between Religion and Science  
Polanyi and World Religions  
Polanyi and Education

Polanyi in the Light of Developments in Psychological Theory  
The Tacit Dimension: Skills, Practice and the Subliminal  
Personal Knowledge As True, Public, and Reasonable

Post-Critical Ethics  
Polanyi's Axiology  
Post-Critical Aesthetics

Polanyi's Antireductionism and the Logic of Emergence  
Metaphysical Issues in Polanyi's Philosophy  
Thought  
Developing Polanyi's Notion of Meaning  
Community and Conviviality in Post-Critical Perspective

Polanyian Responses to Pluralism  
Polanyi's Social/Political

Polanyian Foundations of Law  
Polanyian Themes in Management

Putting Polanyi into Practice: Art, Artistry, and Audience

Polanyian Explorations in Economics

Proposals for panel presentations on any topic are invited.

Proposals will be reviewed by a panel of jurors and should be no more than 250 words. Mail an electronic copy (preferred) to Phil Mullins at [mullins@mWSC.edu](mailto:mullins@mWSC.edu). Paper copies may be sent to Phil Mullins, MWSC, St. Joseph, MO 64507. Proposals should include e-mail address (or fax number) as well as preferred mailing address and phone number of the author. Proposals cannot be considered after March 30, 2001. Please forward proposals early in order to facilitate conference planning. The conference registration form is on the following page and is online at the Polanyi Society web site (<http://www.mWSC.edu/~polanyi>).

### Respondents and Moderators Needed

**If you are willing to be a respondent to papers presented in one of the concurrent sessions or if you are willing to moderate a session, please contact Phil Mullins at the addresses provided above.**

**“Polanyi’s Post-Critical Thought and the Rebirth of Meaning”**  
**June 8-10 Loyola University, Chicago**  
**Conference Registration Form**

Name\_\_\_\_\_

Address\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

E-mail\_\_\_\_\_

Telephone: Day\_\_\_\_\_ Evening\_\_\_\_\_

Date of Arrival\_\_\_\_\_

Date of Departure\_\_\_\_\_

(Limited accommodations are available before and after the conference for those who wish to work in the Polanyi Archives at the Regenstein Library of the University of Chicago)

Check desired dormitory accommodation:

\_\_\_\_\_Room (double occupancy) plus meals : \$50/day

\_\_\_\_\_Room (single) plus meals: \$70/day

If you elect for double occupancy, please indicate either the name of your roommate or that you wish to be assigned a roommate.

Name of Roommate:\_\_\_\_\_ Please Assign \_\_\_\_\_

Total number of nights in residence: \_\_\_\_\_ x per diem = \_\_\_\_\_ subtotal (room/board).

Conference Fee( registration, banquet and coffee breaks): \$100

Late registration surcharge (after May 8): \$25.

Choice for Saturday night banquet: \_\_\_\_beef \_\_\_\_chicken \_\_\_\_vegetarian.

Wine at banquet: yes\_\_\_\_\_ no\_\_\_\_\_ (\$5 charge).

Bus to Regenstein Library for Polanyi Archives--Leave Friday at 11a.m.: \$10: yes\_\_\_\_\_ no\_\_\_\_\_

Total Fee\_\_\_\_\_

Proposals for presentations can be accepted until March 31, 2001.

*Payment of Conference Fees*

*Please make checks to the Polanyi Society and send them to Phil Mullins, Missouri Western State College, St. Joseph, MO 64507. If you wish to pay by credit card (sorry but no American Express), please provide the exact name on the card \_\_\_\_\_, card number\_\_\_\_\_, and date of expiration\_\_\_\_\_.*

# Tentative Conference Schedule

## Friday June 8

9 a.m. Registration Opens

11 a.m. -Trip by bus to Regenstine Library, University of Chicago for a visit to the Polanyi Archives.

6 :30 p.m. Dinner

8 p.m.

Plenary Address: Andy Sanders (University of Groningen), author of *Michael Polanyi's Post-Critical Epistemology*

9:15 p.m. Social Hour

## Saturday June 9

7:30 -8:30 Breakfast

9 a.m. Concurrent sessions with conference participants' papers

10:30 a..m.Coffeebreak

11 a.m Christopher Fuchs

12:15 p.m. Lunch

2 p.m. Concurrent sessions with conference participants' papers

3:30 p.m. Coffeebreak

4 p.m. Concurrent sessions with conference participants' papers

6 p.m. Banquet

Plenary Address: John Haught (Georgetown University), author of *God After Darwin*

8 p.m. Social Hour

## Sunday, June 10

7:30 -8:30 a.m. Breakfast

9 a.m. Concurrent sessions with conference participants' papers

10: 30 a.m. Coffeebreak

11--Concluding Plenary: "Michael Polanyi Remembered"

Charles McCoy--Professor Emeritus, Pacific School of Religion

Richard Gelwick--Professor Emeritus, University of New England

Marty Moleski, S.J.--Canisus College, Polanyi biographer, with William Scott

12 p.m. Lunch

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## NEWS AND NOTES

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Mary Jo Nye's essay "Laboratory Practice and the Physical Chemistry of Michael Polanyi" was recently published in *Instruments and Experimentation in the History of Chemistry* (eds. Frederick L. Holmes and Trevor H. Levere, MIT Press, 2000: 367-400). This essay includes a clear, readable summary of Polanyi's work as a chemist. The discussion of Polanyi's early career experience is also helpful for understanding themes that are developed in Polanyi's philosophical thought.

Please note the following changes for *Appraisal: A Journal of Constructive and Post-Critical Philosophy and Interdisciplinary Studies*: The telephone and fax for *Appraisal* is now 01509 552743. The *Appraisal* web site is now found at <http://homepage.ntlworld.com/rt.allen>. The October 2000 issue of *Appraisal* (3:2) has as its theme "Minds and Machines, God." Included in the issue are two articles: Wolfe Mays, "Turing and Polanyi On Minds and Machines"; Philip van der Elst, "Is There No God? The Implausibility of Atheism." Additionally, R. T. Allen reviews both Aurel Kolnai's *Political Memoirs* and Harold Turner's *The Roots of Science*. Robin Hodgkin reviews the Mars Hill Audio Book *Tacit Knowing, Truthful Knowing*.

Philip Rolnick's "Persons, Purpose and Grace" was included in a *festschrift* for the late Thomas Langford: Robert K. Johnson, L. Gregory Jones, and Jonathan R. Wilson (eds.) *Grace Upon Grace: Essays in Honor of Thomas A. Langford* (Abingdon Press, 1999).

Barbara Baumgarten's *Teach Us to Number Our Days* was published by Morehouse in 1999.

James H Charlesworth's essay "Polanyi, Merleau-Ponty, Arendt, and the Foundation of Biblical Hermeneutics" (*Journal for the Study of the Old Testament*, Supplement Series 289 [Sheffield Academic Press, 1998]) argues these three thinkers show how

"we engage an ancient author in ways analogous to the means we communicate among ourselves *viva voce*."

The publication of the Mars Hill Audio Book *Tacit Knowing, Truthful Knowing* has stimulated interest in Polanyi and the Polanyi Society; perhaps, especially inquiries from physicians are notable. Some recent medical literature seems also to pick up Polanyi articles or Polanyian themes: An article by Hewson, Kindy, Van Kirk, Gennis and Day titled "Strategies for Managing Uncertainty and Complexity" (*Journal of General Internal Medicine*, 11 [1996]: 481-485) investigates the role of tacit knowledge in promoting clinical competence in medical students and residents. Kristi Malterud's "The Legitimacy of Clinical Knowledge: Towards A Medical Epistemology Embracing the Art of Medicine" (*Theoretical Medicine* 16 [1995]: 183-198) suggests that the concept of tacit knowing seems an appropriate expansion of traditional medical epistemology. Mark Tonelli's "The Philosophical Limits of Evidence-based Medicine" (*Academic Medicine: Journal of the Association of American Medical Colleges* 73 [1998]: 1234-1240) calls for a broader understanding of medical knowledge and reasoning.

Lee Congdon's *Seeing Red: Communism and Hungarian Emigre Intellectuals* will soon be published by Northern Illinois Press. *TAD* will review this book in which Michael Polanyi is to be one of the major figures.

# Polanyi Society Annual Meeting in November 2001

The Polanyi Society will have its annual meeting, as in previous years, in November 2001 in conjunction with the annual meeting of the American Academy of Religion and the Society for Biblical Literature. An application is pending for a Friday night session, November 16, and a Saturday morning session, November 17, at the meeting in Denver.

Since the Polanyi Society is sponsoring a special conference at Loyola University, Chicago on June 8-10, 2001 (and this conference will include many papers by Society members), the November annual meeting sessions will be utilized for a new venture in outreach. The Friday night session will feature Philip Clayton, author of *God and Contemporary Science*, in a discussion of his Templeton Award winning book. There will be two formal responses to Clayton's book, followed by a reply from Clayton, an exchange among panelists and response to questions from the audience. Participants in the session are encouraged to read *God and Contemporary Science* (available from Amazon.com for \$25) before the session.

The Saturday morning session will focus on the topic "Emergence and Supervenience." Philip Clayton will give a position paper (to be posted on the Polanyi Society web site in the fall) which will relate these themes in the current science and religion dialog to Polanyi's earlier development of similar ideas. Following Clayton's paper, there will be three responses, one from a Polanyi scholar, one from a theologian, and one from a scientist.

The 2001 meetings featuring Philip Clayton are an opportunity for the Polanyi Society to broaden its contacts with persons in the AAR Science and Religion program unit, which is a large and active section of the AAR annual meeting. Convinced that Polanyi deserves an important place in the current discussion, the Polanyi Society is exploring the option of co-sponsoring, with the Science and Religion program unit, the upcoming November 2001 sessions with Philip Clayton. Every effort will be made to invite to the sessions those who have participated in the recent science and religion programs.

## Electronic Discussion List

**The Polanyi Society supports an electronic discussion group exploring implications of the thought of Michael Polanyi. Anyone interested can subscribe; send a query to [owner-polanyi@lists.sbu.edu](mailto:owner-polanyi@lists.sbu.edu) Communications about the electronic discussion group may also be directed to John V. Apczynski, Department of Theology, St. Bonaventure University, St. Bonaventure, NY 14778-0012 E-MAIL: [apczynsk@sbu.edu](mailto:apczynsk@sbu.edu) PHONE: (716) 375-2298 FAX: (716) 375-2389.**

# 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 illusory, 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 Kojève 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.’<sup>1</sup> 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.<sup>2</sup>

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.<sup>3</sup>

What disturbed Polanyi about the policy defended by Bukharin, and advocated in Britain by writers such as J.D. Bernal,<sup>4</sup> 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.<sup>5</sup>

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.<sup>6</sup>

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.<sup>7</sup>

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.<sup>8</sup>

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.<sup>9</sup>

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.<sup>10</sup>

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.<sup>11</sup> 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.<sup>12</sup> 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.<sup>13</sup>

## 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*,<sup>14</sup> 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,<sup>15</sup> 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.<sup>16</sup>

In the *Logic of Liberty*,<sup>17</sup> 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 systems<sup>18</sup> 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 economist<sup>19</sup> Ludwig von Mises wrote an article entitled 'Economic Calculation in the Socialist Commonwealth'<sup>20</sup> which set off what became known as the socialist calculation debate.<sup>21</sup> 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 Lange<sup>22</sup> 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.<sup>23</sup>

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*,<sup>24</sup> Polanyi defended the argument set out by Maynard Keynes in *The General Theory of Employment, Interest and Money*<sup>25</sup> 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 critics<sup>26</sup> 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.<sup>27</sup> 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.<sup>28</sup> 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.<sup>29</sup>

Polanyi argues that a free society is not an 'Open Society.'<sup>30</sup> 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.<sup>31</sup> 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.'<sup>32</sup>

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.<sup>33</sup>

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.'<sup>34</sup> 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.<sup>35</sup> 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.'<sup>36</sup>

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.<sup>37</sup> 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.<sup>38</sup>

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.<sup>39</sup>

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.<sup>40</sup>

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.<sup>41</sup>

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.<sup>42</sup>

In *Science, Faith and Society*,<sup>43</sup> 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.<sup>44</sup> Nor is there a rule that can determine when to uphold, and when to abandon, a scientific theory when confronted with opposing evidence.<sup>45</sup> 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.<sup>46</sup>

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.<sup>47</sup> 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 neo-classical 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.<sup>48</sup>

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,<sup>49</sup> 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 *a priori* rules of the game, the business of science should start anew? I think it is.<sup>50</sup>

In his early work on the methodology of mathematics,<sup>51</sup> 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*.<sup>52</sup> 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.<sup>53</sup>

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,<sup>54</sup> *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.<sup>55</sup>

## 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.<sup>56</sup> 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.'<sup>57</sup>

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*,<sup>58</sup> and the three volume *Law, Legislation and Liberty*,<sup>59</sup> to his last work, *The Fatal Conceit*.<sup>60</sup> 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.<sup>61</sup>

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'.<sup>62</sup>

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

The Polyanian 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.<sup>64</sup>

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.<sup>65</sup> 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.<sup>66</sup>

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.<sup>67</sup>

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*,<sup>68</sup> 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*,<sup>69</sup> 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*.<sup>70</sup> 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.<sup>71</sup>

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.<sup>72</sup>

Oakeshott suggests that such a claim smacks of Platonism/Hegelianism<sup>73</sup> For Polanyi, however, a free society is not justified by its value neutrality, but by its belief in transcendent ideals.

## Endnotes

<sup>1</sup> Polanyi (1966) pp.3-4.

<sup>2</sup> Calvin (1991) p.40.

<sup>3</sup> 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.

<sup>4</sup> Bernal (1936).

<sup>5</sup> Polanyi (1997) p.62.

<sup>6</sup> Ibid p.67.

<sup>7</sup> 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).

<sup>8</sup> Polanyi (1946) p.531.

<sup>9</sup> 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).

<sup>10</sup> Polanyi (1997) p.139.

<sup>11</sup> '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).

<sup>12</sup> 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).

<sup>13</sup> 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).

<sup>14</sup> Polanyi (1935) pp.67-89.

<sup>15</sup> Hayek (1944).

<sup>16</sup> Polanyi (1951) p.126.

<sup>17</sup> Polanyi (1951).

<sup>18</sup> 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).

<sup>19</sup> 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.

<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).

<sup>27</sup> The Financial Times 2:9:1999.

<sup>28</sup> 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).

<sup>29</sup> 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).

<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).

<sup>36</sup> Roberts (1969) p.273.

<sup>37</sup> 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).

<sup>38</sup> Polanyi (1951) p.97.

<sup>39</sup> 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.

<sup>40</sup> Polanyi (1951) p.106.

<sup>41</sup> Polanyi (1945) p.15.

<sup>42</sup> Polanyi (1969) p.36.

<sup>43</sup> Polanyi (1946).

<sup>44</sup> 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.

<sup>45</sup> 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).

<sup>46</sup> Polanyi (1946) p.58.

<sup>47</sup> 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).

<sup>48</sup> Lakatos (1978) p.112.

<sup>49</sup> Toulmin (1976) pp.655-675.

<sup>50</sup> Quoted by Toulmin (1976) p.661.

<sup>51</sup> Lakatos (1976).

<sup>52</sup> Kuhn 9 (1962).

<sup>53</sup> Ibid p.150.

<sup>54</sup> '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 inarticulate 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).

<sup>55</sup> 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).

<sup>56</sup> 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).

<sup>57</sup> 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 analyse the reasons for that decline and to suggest ways in which that decline might be reversed' (Crockett [1995] p.9).

<sup>58</sup> Hayek (1960).

<sup>59</sup> Hayek Volume 1(1973) Volume 2 (1975) Volume 3 (1979).

<sup>60</sup> Hayek (1988).

<sup>61</sup> Ibid p.88.

<sup>62</sup> Machlup (1977) p.36.

<sup>63</sup> 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).

<sup>64</sup> Gray (1986) p.15.

<sup>65</sup> 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:

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).

<sup>66</sup> Polanyi (1951) p.166.

<sup>67</sup> '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.

<sup>68</sup> Oakeshott (1962).

<sup>69</sup> Oakeshott (1975).

<sup>70</sup> Oakeshott (1958) pp.77-80.

<sup>71</sup> Wells (1994) p.137.

<sup>72</sup> Polanyi (1969) p.71.

<sup>73</sup> Oakeshott (1958) p.79.

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## 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.**

# Michael Polanyi and the Christian Faith —A Personal Report

Thomas F. Torrance

[**Editor's Note:** Readers should recognize that Thomas Torrance's comments here are part of a many dimensional discussion reaching back several years and including several discussants. Much has been said and written about what Polanyi says about religion and what it means as well as about Polanyi's own religious commitments. In his introductory letter to the editor, Dr. Torrance identified the following essay as "a very personal contribution." At least a couple of earlier *TAD* pieces that are a part of the larger stream of discussion have some direct bearing on Torrance's article: In *TAD* 24:1 (1997-98), John Apczynski wrote a review article (pp. 32-34) on Colin Weightman's *Theology in a Polanyian Universe: The Theology of Thomas Torrance*. In the same issue, Weightman responded to Apczynski's review (pp. 35-38); both articles comment on Torrance's interpretation of Polanyi. Further back in *TAD*'s history (*TAD* 14:1 (1987-88): 30), there is a letter from Torrance criticizing Harry's Prosch's comments made in a review of Drusilla Scott's *Everyman Revived: The Common Sense of Michael Polanyi*, as well as comments in Prosch and Polanyi's *Meaning*. Harry Prosch responded directly to Torrance's charge that he "'bowdlerized' Polanyi's work and that Michael objected to this" (*TAD* 15:1 (1987-88): 24) in the following issue (pp. 24-25). Due to the incapacities of a stroke, Dr. Prosch cannot directly respond to the present essay. There are, of course, also discussions about *Meaning* and the status of religious meaning in the articles in the 1982 *Zygon* issue (17: 1 [March, 1982]) thematically devoted to "science and religion in the thought of Michael Polanyi." More recently, the *TAD* special issue on "Polanyi's realism" (26:3[1999-2000]) again touches similar issues.]

**ABSTRACT Key Words:** Christian faith, grace, worship, realism, tacit dimension, personal knowing, objectivity, science, real meaning, phenomenalism.

*My personal relation with Polanyi, discussions with him in Oxford, contribution to the International Academy of the Philosophy of Science, the relevance of his innovative thought for Christian worship and theology, Magda and Michael in Oxford, the role of his literary executor.*

Michael Polanyi was born of Jewish parents in Hungary, but before or after his engagement to Magda Polanyi, a Christian, he committed himself to the Christian faith and in 1919 was baptised in the Roman Catholic Church. When I came to know Michael and Magda Polanyi, I realised that like her he was a Christian believer, but claimed that he did not have a strong feeling or urge toward Roman Catholicism, for in Hungary he felt that Catholicism was tarnished by an unfair treatment of the Jews. His thinking reveals the impact of classical Christian thought, such as that of St Paul and St. Augustine. He felt rather differently about Protestant Christianity, but was shocked by what he found in Germany. On the completion of his university studies in physical chemistry and medical science, he became a medical officer in the Austro-Hungarian Army, when he reflected not a little about the relation between medical and scientific thinking and faith and activity. In his first academic appointment to a chair in Berlin, he lived near Albert Einstein, who at that time was married to a Serbian Orthodox scientist whom he had met in his studies in Switzerland, and who had an impact on his religious beliefs. However, she declined to live with him in Berlin, due to her antipathy to Germans, and they

were divorced. I know of nothing bearing directly on Christian belief in her relations with Einstein. But in Berlin, Einstein came under severe attacks from militant Nazis - again and again they prevented Einstein from getting the Nobel prize when he was in Berlin, and finally obstructed the awarding of the Nobel prize to him for his work on relativity theory. When the Nobel Prize was finally given to Einstein, it was for his work on Brownian motion, not for relativity theory. The situation became so hostile in Germany that Einstein wisely left Berlin for Princeton, to join the newly established Institute for Advanced Studies and Research, and there became known for his sympathy to Protestant Christian thought. He hung on the wall of his study a portrait of James Clerk Maxwell, the most devout and evangelically committed Christian scientist who, he claimed, had fundamentally altered the rational structure of science. There, probably due to him, the main avenue on the campus was called "Maxwell Avenue". In Princeton, Einstein was also befriended by Christian clergy and theologians in Princeton Theological Seminary, and lived on its campus, with theologians on both sides of his house.

Although Michael Polanyi was committed, as he once wrote, to the transcendent origin of his beliefs --"unless you believe, you will not understand", he reiterated. There is no evidence (known to me) of any discussion between Polanyi and Einstein about Christian belief. But in Princeton Einstein was daily in contact with Christian believers, theologians and scientists, and without doubt Christian institutions in the university and the city. One of Polanyi's school friends in Budapest, John von Neumann, was also given a post at the Advanced Institute. Eugene Wigner, one of his first pupils in Germany and a very good friend, had been given a chair in physics in Princeton University, but when he tried to get Polanyi to join him there, he was obstructed by fiercely anti-Marxist Americans who confused Michael with his brother. In Manchester, it was Professor T. W. Manson, the Principal and Vice-Chancellor of the University, a noted New Testament scholar, and a Scots Presbyterian, who befriended Michael Polanyi and used to take him to worship in the Presbyterian Church which Manson attended. As a Christian believer, Michael Polanyi took God as real and worship as important, and often referred to the latter, as also to the Pauline conception of salvation by grace, as analogous to the process of scientific discovery. Gracious and modest with high moral standards, his theology was largely "tacit" in his distinctive sense of that term and deep-seated. Both Polanyi and Manson were rather critical of the Marxist, and anti-Christian thinkers, such as Professor Blackett, and their positivist philosophy of natural and social science, in Manchester. Michael Polanyi engaged in critical discussion with Blackett and other Marxists in the university and their positivist notions of science and philosophy. He does not seem to have had a close contact with Bernard Lovell, the radio astronomer at Jodrell Bank, although he and Magda played tennis with him and his wife Joyce, a cousin of my wife Margaret.

Michael regarded the relation between faith and reason as fundamental, and was committed to restore the priority of belief even in science: he loved to recall the Augustinian statement, "Unless you believe, you will not understand" (actually it derives from Clement of Alexandria!). In face of the growing impact of secularism being fostered by Marxist naturalism on society, he felt increasingly the need to restore believing commitment to academic and scientific pursuits. It was clear to Polanyi that the relation of faith and reason in the Christian tradition, and classical ways of thinking about science and society, needed to be recovered. Man needs a purpose in science as in life that bears on eternity, as he wrote at the conclusion of his little book *The Tacit Dimension*. "Perhaps this problem cannot be attained on secular grounds alone. But its religious solution should become more feasible once religious faith is released from the pressure by an absurd vision of the universe, and so there will open up interest a meaningful world which could resound to religion"(92). Although that was written in 1966, it was these convictions that led him to ask for a new chair in the philosophy of science to be established, in his desire to counter the programme of secularist science and materialist and

positivist scientific method in British universities which was distorting the understanding of science through a false and deadening scientism, and to foster free personal inquiry sustained by commitment and heuristic vision which was fostered by Christian worship. It was under this conviction that his early books, *Science, Faith and Society*, and *The Logic of Liberty*, were published. A new chair concerned with post-critical thinking, heuristic knowledge and the philosophy of science was established in spite of sharp opposition and Michael Polanyi was appointed to it. Through that chair, he was concerned to restore the balance between faith and reason in science, and to argue for the concept and pursuit of pure science dedicated to the service of a transcendent reality, free from all temporal authority.

Bernard Lovell was somewhat disappointed not with Polanyi's convictions but with the idea he was moving from his chair in pure chemistry made famous by Dalton. However it became more and more clear that it was the role of religious commitment, and indeed of belief or the kind of faith found in the Christian tradition, evident in his frequent appeal to St Paul and St Augustine, that came to occupy an underlying role in Polanyi's post-critical basic heuristic thinking both in science and philosophy. That was later given outstanding exposition in his Aberdeen Gifford Lectures which he entitled *Personal Knowledge*. His conception of reality even in science, and of the all-important role of meaning in science, had undoubtedly a deep Christian orientation and feeling, even if it did not betray an explicitly asserted or denominational commitment. Yet it is as impossible to be religious, Polanyi used to say, without having a religion, as it is impossible to speak without having a language. Christian inquiry, he insisted, is worship, and it is as such that it fosters the kind of heuristic vision and inquiry that break free from traditional frameworks of thought into what is quite new. He once wrote: "Christian worship sustains, as it were an eternal, never to be consummated hunch, a heuristic vision which is accepted for the sake of its unresolvable tension. It is like an obsession with a problem known to be insolvable, which yet follows, against reason, unswervingly, the heuristic command: 'Look at the unknown!'. Christianity sedulously fosters, and in a sense permanently satisfies, man's craving for mental dissatisfaction by offering him the comfort of a crucified God."<sup>1</sup>

"The assumption that the world has some meaning, which is linked to our calling, as the only morally responsible beings in the universe, is an example of the supernatural aspect of experience which Christian interpretations of the universe explore and develop"<sup>2</sup>. Polanyi often referred to the creative power in the universe which meets our striving in terms of the Christian word for "grace". That is very evident, for example, in the way in which the personal character and thrust of his scientific thinking and activity were due to a deep Christian commitment influenced particularly by St Paul's teaching about redemption and Augustine's stress upon faith as the door to understanding, and upon the objective nature of meaningful reality. That was a primary aspect of Michael's thinking which, it seems to me, was set aside by Harry Prosch in his editing and reworking of Polanyi's book *Meaning* in which he reverted to what Drusilla Scott (recalling *The Tacit Dimension*, p. 32f) called "a cobblestone definition of reality"<sup>3</sup> That appeared to be a merely symbolical and phenomenalist conception of reality and free floating meaning which Michael Polanyi, in his conversations with me in Oxford, rather resented and repudiated. That is why, as I shall relate, he asked me to act as his literary executor after his death so that kind of twisting of his thought and his writings could not take place. What we miss in *Meaning*, as Prosch edited it, is the bearing in Michael Polanyi's thought of the actual effect of divine action in the life of people, and its objective ground and force. Thus, for example, the resurrection, would have no meaning for Christians if it had not actually taken place. Thus, as Drusilla Scott says: "What we miss in *Meaning* and what Polanyi's whole thought leads us to, is this actuality; the effect in the lives of ordinary suffering men of what actually happened in the life and death of Jesus, and of the meaning for them that these events revealed."<sup>4</sup>

I myself did not get to know Michael Polanyi until after he had delivered his Gifford Lectures in Aberdeen entitled, *Personal Knowledge: Towards a Post-Critical Philosophy*, published in 1958. He had been proposed as Gifford Lecturer by my friend Professor Donald MacKinnon who then held the Chair of Moral Philosophy in Aberdeen University and was enthusiastically supported by Principal Tom Taylor. Donald had got to know Michael Polanyi in connection with the *Moot* (probably in 1944), a high-level group of Christian thinkers assembled by J.H. Oldham during the war who met in the Athenaeum in London. He had invited Michael Polanyi to join them in discussing important Christian issues pressing upon the Church and society as a result of the war. I was not a member of the Moot--John Baillie had objected to my being a member as a "Barthian" ! Nevertheless I was asked by Oldham to present them with a paper in reaction to one by the philosopher H. A. Hodges of Oxford, who had a special interest in the writings of the German philosopher Wilhelm Dilthey. That was in August 1941. I was very familiar with the work of Dilthey, whom I cited fully in my reply to Hodges, but was not present at that meeting of the Moot in the Athenaeum in London, nor was Michael for he did not actually become a member until later. I was greatly excited by the Aberdeen Gifford Lectures when published in 1958. And so I arranged with John Baillie to have Michael Polanyi invited to give us some lectures in New College, Edinburgh, when our friendship began. Before long, I was to get to know him very well in Oxford. Polanyi had by then retired from Manchester to a house in Oxford. There he was invited to become a Fellow at Merton College, where for several years until his death he took part in the life and worship of the college, where one of my friends, John R. Lucas, a devout Anglican, was the resident philosopher who was deeply concerned with mathematics and physics, and space and time. But that was the heyday of the linguistic philosophy dominated by the positivist and logicist thinking of the Vienna Circle, and its Oxford counterpart the linguistic philosophy and logical positivism of Gilbert Ryle and A.J. Ayer, the very kind of arid meaningless philosophy, hostile to Christian theology, of which Polanyi was very critical!

That was the situation in Oxford in 1969 when my book *Theological Science* was published by the Oxford University Press in which I had given not little attention to Michael Polanyi's thought, and was critical of Ryle and Ayer. Michael welcomed it very warmly, and we became fast friends, and met not infrequently when I was back in Oxford. After he read my *Theological Science* and we engaged in discussion about the relation of science to faith and theology, his Christian commitment seemed to be more and more firm and open (or less tacit!). I also got to know his dear wife Magda rather well, and was welcomed by her and Michael as a clergyman, as well as a theologian, in their home at 22 Upland Park Road, and stayed with them as a frequent visitor--that in fact became my home away from home in Oxford. When I stayed with Michael and Magda there or nearby, I learned how devout both he and she were and sensed the deep quiet Christian spiritual affinity between them. As a rule, Michael Polanyi was rather reticent about discussing his own religious beliefs, for some of his ardent supporters in the philosophy of science, like Marjorie Grene, were, I learned, rather hostile to religion. However, from my personal relations with them in their home, I had no doubt about the quiet depth and commitment of his faith, and of Magda's Christian devotion as well. As I learned from Magda, Marjorie Grene was rather hostile to her, as she did her best to shelter Michael from the attentions of admiring women!

In the rather critical thought of Oxford in those days, the Polanyis were not befriended very much by college dons, nor by the Anglican clergy but were by the Methodist minister who lived near them, and they not infrequently attended his church. One of their best friends was Lady Drusilla Scott, the wife of a retired diplomat, and the daughter of the Scottish philosopher A. D. Lindsay, the former Master of Balliol. Michael and I had common friends, T. M. Manson and Donald Mackinnon. We were also associated through our membership of the International Academy of the Philosophy of Sciences, a Dominican foundation based in Brussels. Some of Michael's most important papers were given there, and printed in the Proceedings of the

Academy, as well as elsewhere, and were later edited by Marjorie Grene and published by Routledge & Kegan Paul in 1969, as *Knowing and Being*, the year when the Oxford University Press published my *Theological Science*. Einstein was a member of the Academy, but I never saw him there. Karl Popper was also a member, but he and Michael did not get on very well together for, as Magda told me, Michael felt that Popper had “pinched” some of Michael’s distinctive ideas on the nature of scientific discovery, such as those presented in his paper, “The Unaccountable Element in Science”, later published in *Knowing and Being*. Evidently when Polanyi was present at the Academy, Popper stayed away, and when Popper was present Polanyi often was not! Another member of the Academy was Freddie Ayer, but it was a Dominican foundation, and I noticed him only once at a special anniversary meeting in Brussels after Polanyi had died.

Michael told me that he found my book *Theological Science* rather difficult because of its theological content, but appreciated what I had tried to do in it--in arguing for a proper realist scientific approach to theology--and applauded it! *Theological Science* was a revision of lectures I had given in the USA in 1959. When in our discussion about it, I asked Michael about his occasional references to Paul Tillich, he told me that he had turned away from his thought; and when I asked him about the relation of his thinking to French philosophers like Merleau-Ponty, he insisted that he was not a phenomenalist. It was then that he told me about his chagrin and disappointment with what Harry Prosch had done in his editing and presentation of *Meaning* which had been published by University of Chicago Press under both their names. In editing it, Prosch had given a somewhat phenomenalist slant to Michael Polanyi’s post-critical thought as a movement away from his critique of scientific objectivity, with a rather mystical view of Christianity, detached from the actual historical events and objectivity of the Christian message. In speaking of what Prosch had done, Michael referred to the fact that after the death of Einstein, something similar had been done in the presentation of his writings when they had sometimes been twisted round in an alien way. That was, Michael felt, rather like what Harry Prosch had done to his thought in *Meaning*. Then he turned to me, and asked me if I would act as his literary executor after he died, to prevent that sort of thing happening again. And I promised to do so. That is also why I have never referred to the book *Meaning* in what I have written about Michael Polanyi and his thought, for it distorts it rather seriously, especially after chapter three. However, someone called Colin Weightman has now published a book called *Theology in a Polanyian Universe: The Theology of Thomas Torrance*, in which he accuses me of misunderstanding Polanyi, but has in fact, I believe, severely misunderstood Polanyi and my theology. In it, he has in fact bowdlerized my interpretation and use of Polanyi’s thought, charged me with not paying attention to *Meaning*, and backed up his attack on me by references to *Meaning*!

Unlike Prosch, Michael Polanyi, as I knew him, was certainly a Christian. Of particular importance in assessing his devout Christian commitment and belief, which he never paraded, is the powerful chapter in *Personal Knowledge* which he entitled “The Critique of Doubt”. In it, he wrote of the Christian faith as “a heuristic impulse”:

A heuristic impulse can live only in the pursuit of its proper enquiry. The Christian enquiry is worship. The words of prayer and confession, the actions of the ritual, the lesson, the sermon, the church itself, are the clues of the worshipper’s striving towards God. They guide his feelings of contrition and gratitude and the craving for the divine presence, while keeping him safe from distracting thoughts (*PK*, 281).

Only a Christian who stands in the service of his faith can understand Christian theology and

only he can enter into the religious meaning of the Bible. Theology and the Bible together form the context of worship and must be understood in their bearing on it...(PK. 281).

That was how some of us in Britain presented and discussed his thought in the book *Belief in Science and in the Christian Life. The Relevance of Michael Polanyi's Thought for Christian Faith and Life* (Edinburgh, 1980).

My last discussions with Michael Polanyi had to do, if I remember correctly, with the nature of light in the thought of Einstein and James Clerk Maxwell. I had become increasingly interested in the science and faith of James Clerk Maxwell, and wanted to discuss it with him. But I had really left it too late. The last letter I had from him was after the death of his elder son George, the economist, which he and Magda felt very deeply. In it he wrote about the visit he and Magda had paid to Guildford Cathedral to celebrate Easter, where in their worship he was overwhelmed with the actual resurrection of Christ. He was not to live very long afterwards.

Magda and her younger son, John, asked me to take the funeral service in Oxford. He was a Nobel Laureate Professor of Chemistry in Toronto, who had married the daughter of an Anglican clergyman in Shanghai, and attended St Thomas Church in Toronto. Alas, I was quite unable to take the funeral as I was completely tied up with my moderatorial engagements in the Church of Scotland at that time, but my younger son, Iain, who was a postgraduate student at Oriel College, Oxford, represented me at the funeral services.

I visited Magda at 22 Upland Park Road, as soon as I could afterwards, and arranged to return to help her with Michael's papers and affairs when she confirmed that she and John wanted me to act as Michael's literary executor. This called for a long visit to Oxford to check over and make a preliminary inventory of his books and pamphlets. After some discussion, she agreed to accept the offer of the University of Chicago to establish a special section of the Regenstein Library devoted to Michael's books and papers. It was hoped at first that they might be kept and housed in Oxford, but Magda needed the financial resources the University of Chicago offered for the books in support for her retirement. After a while, I returned to Oxford with a friend and helper in New College, Dr Christopher Kaiser (now Professor of Theology at Western Theological Seminary in Michigan) who was both a scientist and a theologian, to assist me in making an inventory of Polanyi's papers and books, which took us several days to do. Among them I found a copy of Kurt Gödel's epoch-making little book, *Über formal unentscheidbare Sätze der Principia Mathematica und verwandter Systeme I*, which he had arranged to be made for him by Edinburgh University Library, and which he used in writing *Personal Knowledge*. It was in Edinburgh later that Gödel's work was translated by one of our mathematicians, Bruce Meltzer, and published by Oliver & Boyd in 1962. I asked Magda if I might keep that xeroxed copy in memory of Michael, to which she gladly agreed. All the other books, pamphlets, scientific papers, and relevant correspondence, from Michael's library, were duly collected by Chicago University for housing and display in their Regenstein Library. In it, they lodged their own scientifically checked and prepared catalogue. They include, it may be added, the correspondence between Michael Polanyi and Thomas Kuhn, in which Kuhn admitted that he had taken the concept of paradigm from Michael!

I visited Magda Polanyi in Oxford as often as I could, and we corresponded with one another regularly for several years, until she too died to rejoin Michael in heaven waiting for the resurrection which they had already experienced together in spirit in Guildford Cathedral.

When Magda died, I asked John Polanyi in Toronto to take over from me the role of literary executor

of his father's works, especially as the copyright had now devolved from Magda to him. Again and again, questions of copyright raised by authors in different countries, who wished to cite from Michael's writings, had cropped up, when I always consulted with Magda. But when she died, I persuaded John to take over the role of literary executor from me, which he has done. I hope and pray that those who now write for *Tradition and Discovery* will remain faithful to Michael and his thought and not try to twist his ideas for their own ends.

## Endnotes

1 Cited by Drusilla Scott from *Personal Knowledge*, p.199, *Everyman Revived, The Common Sense of Michael Polanyi*, 1985, p.185.

2 Drusilla Scott, op.cit. p.,186.

3 Op. cit, p. 190.

4 Op.cit, p. 194.

5 *Personal Knowledge*, pp. 280 & 281.

## 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. Abbreviate frequently cited book titles, particularly books by Polanyi (e.g., *Personal Knowledge* becomes *PK*). Punctuation and spelling may follow either British or American standard practices. Shorter articles (10-15 pages) are preferred, although longer manuscripts (20-24 pages) will be considered.

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

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# Polanyi's 'Ontological Equation': A Response to Recent Discussions of Polanyi's 'Realism'

**Percy Hammond**

ABSTRACT Key Words: Polanyi, technological analogies, complexity, emergence.

*Although Polanyi regards technological knowledge as inferior to scientific knowledge, he uses the idea of machine-like operational principles as an analogy for both his epistemology and his ontology. Since his epistemology is based on personal knowledge, this suggests the need for a personal ontology. Polanyi tries to avoid such a conclusion by invoking impersonal evolutionary factors.*

The amazing range of Michael Polanyi's ideas was well reflected in the various contributions to the recent issue of *Tradition and Discovery* (26:3). The unifying theme of that issue was the problem of 'realism' as seen by a group of contributors, who could loosely be described as 'Polanyians', all of whom are experienced philosophers.

All of us have to start from our own traditions and experiences. According to Polanyi, this is not only inevitable but also a source of strength. He had the advantage of a most unusual breadth of education and experience that enabled him to cross the boundaries of academic disciplines. Of course that laid him open to the criticism of academics who dislike trespassers on what they consider as their own territory. Philosophers in particular resented his intrusion. Except for Polanyians, they still do so

Philosophers start from philosophy. As an engineer I start from engineering. During my career I have had one foot in industry and the other in academia. I have had no training in philosophy and my view of philosophy is almost a 'view from nowhere'. In daring to comment on the philosophical articles in *Tradition and Discovery*, I plead the example, although not the wisdom, of Polanyi. It is relevant that Polanyi has several references to engineering and technology in his book *Personal Knowledge*, although he had no first-hand engineering experience. However, as the son of a railway engineer, he probably had a good deal of tacit engineering knowledge and, as an experimental scientist, he must have valued engineering skill. Because of my engineering background, I was particularly grateful to Dr. Jha for her comments on Polanyi's use of engineering analogies. These seem to me to be at the heart of Polanyi's understanding of reality. However, before discussing Dr. Jha's paper, I should like to make some remarks that apply to the other contributions as well.

## **A Newtonian Universe?**

It is not surprising that philosophers generally seem to operate with the assumptions made by Newton in elucidating the problem of motion. These assumptions are so widely accepted that they appear as obvious to most of us unless our particular speciality forces us to question them. Newton described space in terms of a reference system of Cartesian coordinates. A universal set of such coordinates could be constructed using Euclid's axiom of parallel lines. Newton considered time to be independent of space, so that a universal clock

could measure it. The problem of motion consisted therefore of formulating the laws governing the trajectories of particles in an empty space-time. Gauss, however, pointed out that Newton's space-time was the special case of a flat manifold and that the Euclidean axiom had to be experimentally tested. Geometry was therefore experimental rather than axiomatic. Faraday and Maxwell showed experimentally that time was not independent of space and that space-time was far from empty. Instead of being a mere reference system, space-time was therefore a physical object. All this is, of course, well known. Nevertheless, the fact that the speed of electromagnetic waves is so enormous means that in ordinary circumstances it is usual to think in Newtonian terms. I hope I shall be forgiven if I say that my impression of the articles in the 'realism' issue of *Tradition and Discovery* is that the writers are Newtonians at heart.

Let me explain what I mean. First, their mental picture of making contact with reality appears to be spatial. Reality is seen as based on real objects 'out there'. True, there are persons as well as things. But the persons are as seen from outside. They are complex objects, but objects all the same. As Polanyi, the writers are convinced that their knowledge is personal and that there is a bond of conviviality linking them with other persons. However, the discoveries they make relate to entities that are objects and not subjects.

Secondly, the entities are akin to Newtonian particles. They act on each other and can be used as building blocks. Moreover, these particles can also be considered in isolation. A recurring theme is the complexity that is supposedly the hallmark of entities at a higher level. The term complexity implies that the complex object consists of pieces like a construction kit. The Newtonian notion of interacting particles was dominant in science until Faraday and Maxwell questioned it. It is still a common assumption in popular accounts of science. The spatial terms of higher and lower and the frequent allusion to a hierarchical ordering carry the same Newtonian message.

Thirdly, the writers separate time from space in the Newtonian manner. Simultaneity seems to be assumed. Real entities are located in a conceptual space. Of course there is a lot of truth in such a view. Any observation or measurement is necessarily static or quasi-static. All numbers are static. Even the terms 'event' or 'process' are quasi-static terms describing what has happened, not what is happening. What is missing in this picture is the irreversibility of time. Time without its arrow may give information, but it cannot give adequately meaningful personal knowledge to human persons immersed in time.

## **Polanyi's Attitude to Technology**

Technology was not one of Polanyi's primary concerns. The Society for Freedom in Science, which was one of his great interests, attracted some eminent engineers like E B Moullin, who later became President of the Institution of Electrical Engineers. However, its object was to defend pure science against those who wanted to subject science to a criterion of social usefulness enforced by central planning. Polanyi held that technological knowledge was vastly inferior to scientific knowledge. The latter was true discovery of reality, whereas technology at best was concerned with inventions leading to material advantage. He wrote that such inventions have no permanent value, but are subject to fluctuations in the market place. "In science originality lies in the power of seeing more deeply than others into the nature of things, while in technology it consists in the ingenuity of the artificer in turning known facts to a surprising advantage" (*PK*, 134) More damning still is Polanyi's remark that technology is akin to trick learning in animals, while scientific work is a kind of latent

learning involving interpretation.

In view of this critical attitude to technology, it is not surprising that Polanyians have paid little attention to technology or engineering in their analysis and use of Polanyi's epistemology and ontology. Equally, it is not surprising that engineers have taken little interest in his ideas.

### **Polanyi's Technological Analogies**

As a successful research chemist, Polanyi was well aware that scientific discovery was not an algorithmic procedure. One of his great insights concerned the role played by tacit knowledge. He also describes vividly the sense of an attractive force exerted by a solution to a scientific problem. Moreover, the solution once found has unforeseeable consequences that confirm that there is contact with an external reality. From an engineer's point of view, Polanyi's description of the act of discovery is overly individualistic. True, he speaks of a 'society of explorers', but the communal role of this society relates more to the conservation of tradition and to the accreditation of discoveries than to the actual process of the discovery. In engineering, research and development are closely coupled. Invariably, this involves a group rather than an individual, although, of course, some individuals make more valuable contributions than others. Creativity in engineering is a communal property. Apart from this difference between science and engineering, Polanyi's account of discovery fits well into the practice of engineering, not only in research and development but also in the central activity of engineering design. It is likely that his concern for the defence of pure science, which was essentially political rather than scientific, prevented him from seeing the wider applicability of his ideas.

Polanyi's description of the process of discovery exhibits the irreversibility of time, which is missing from the Newtonian world-view. The Newtonian universe is closed causally. Polanyi's universe is open in the sense of allowing progress in science. The possibility of progress is due to his insertion of the personal pole of knowledge into science. Polanyians cannot be Newtonians!

Although Polanyi was dismissive of technology and engineering in the context of knowledge, he very skilfully used engineering analogies. One of these is the concept of the operational principles, which define the value of a machine. Such principles can be embodied in patent specifications. Polanyi observes that patents are always written in the widest possible terms in order to try to cover as many embodiments of the operational principle as possible. The parts of the machine are important only in their relation to the whole and have no independent significance. That is a very important insight. There is an asymmetry in the relationship between the parts of the machine and the machine as a whole. This asymmetry is related to the irreversibility of time involved in personal knowledge. An operational principle applies to a complete entity and not to an assemblage of parts. A house is different from a pile of bricks. The statement that a house is made of bricks is profoundly different from the assertion that it consists of bricks. Polanyi points out that the failure of a part of a machine will lead to the failure of the whole, but the converse is not true. Successful operation is a property of the entire machine. He also draws the conclusion that natural laws like the laws of physics and chemistry cannot specify operational principles. That conclusion plays havoc with his ordering of the superiority of pure science above engineering and results in great difficulties for his ontology.

Polanyi uses the notion of operational principles in many different contexts. He applies it to the uses of language and also to evolutionary processes in living beings. It is in fact a vital feature of his entire theory

of knowing and being. By means of this central idea, he is able to refute the theory that analysis is the road to knowledge and the Cartesian insistence on the role of doubt as a means of attaining certainty. Moreover, he demolishes the Newtonian idea of a universe of particles.

## **The Ontological Equation**

As Dr. Jha shows in her paper, Polanyi's engineering analogies are a strength in his epistemology, but they present difficulties in his ontological speculations. I am not qualified to comment on the philosophical aspects of Dr. Jha's critique. What I can do is to offer some remarks from an engineering point of view.

Polanyi attempts to construct a meaningful universe using the insights of his theory of knowledge. It seems to me that these insights are insufficient for his purpose. His ontology comprises a hierarchy of increasingly complex entities subject to an evolutionary process of emergence. Let us consider some of the terms used in this explanatory scheme.

Complexity is invoked not only as a descriptive term, but also as being in some sense teleological. However, there is no logical connection between operational principles and the complexity of the structures in which the principles are embedded. In engineering, there is no virtue in complexity. For example, a jet engine for aircraft propulsion is less complex than the reciprocating engines that preceded it and an optical fibre cable is less complex than the copper cable used previously. Complexity of structure may be necessary for a particular solution of an engineering problem, but it can never be regarded as desirable. Nor can it be thought to lead to an operational principle. As Polanyi realised, there is an essential asymmetry involved in any discovery or invention. These cannot happen without creativity.

Nor can increasing complexity lead to a hierarchy of entities. Polanyi seeks to construct such a hierarchy by invoking a set of interlocking operational principles connected through their boundary conditions. To an engineer, this makes no sense at all. The use of boundary conditions is analytical and not synthetic. They divide an entity into separate domains. In any case, Polanyi's hierarchical structure of reality is far too simple to serve his purpose. There is an unspecifiably complex system of connections between all entities involving tacit links.

Another important term used by Polanyi is emergence. In engineering, this term is occasionally used to describe a temporal process of development. Polanyi uses emergence in this descriptive manner, but he also relates it to the operational principles of living beings. In that context, emergence is located outside time. The inherent difficulty of this double use is noted by Thomas Nagel in his book *The View From Nowhere* in the context of a discussion of the explanatory power of the theory of evolution through natural selection. Polanyi seems to be aware of the difficulty and tries to meet it head-on by a defence of a modified kind of vitalism.

It seems to me that Dr. Jha is right in questioning the transference of the engineering analogy of operational principles from epistemology to ontology. In his epistemology, Polanyi is successfully relying on personal factors such as tacit knowledge and passionate commitment. There is, however, no straightforward way in which he can transfer these ideas to an impersonal reality. His ontological equation does not carry conviction.

## **An Anthropomorphic Universe?**

In Polkinghorne's evocative and often repeated phrase, 'epistemology models ontology'. The absence of an ontological equation does not necessarily sever the connections between epistemology and ontology. Let us consider whether there are such connections in Polanyi's thought.

The best place at which to start is the recollection of the strengths of Polanyi's epistemology. By his discovery of tacit knowledge, Polanyi showed that apart from persons there could be no such thing as knowledge. Popper's third world of well-tested hypotheses stored in libraries could not provide the objective knowledge claimed by its author. On the other hand, personal knowledge is no mere 'construction of reality' as described by Arbib and Hesse, or as denounced by Feyerabend. The unforeseen consequences of scientific discoveries suggest that personal knowledge makes contact with a hidden reality. There is a connection between the knowing human persons and the external world.

Polanyi's world is an open world in time. It accommodates the irreversibility of time as well as the passage of time. Unusual among philosophers of science, Polanyi is able to distinguish between wholes and parts. His idea of the separation of operational principles from their embodiment enables him to include technological development as well as scientific discovery in his scheme. He is aware, if reluctantly, that scientific laws cannot give a total account of human experience. This means that he is able to include human beings in his theory. It stands in sharp contrast to popular accounts like Hawking's *A Brief History of Time* (1988), which seek for a total explanation in terms of natural laws. Polanyi's epistemology is truly anthropomorphic. That is its strength.

Dr. Jha rightly suggests that a transference of these ideas from epistemology to ontology may encourage a theistic interpretation of reality. Polanyi does not grasp this nettle. Instead, he seeks refuge in such impersonal abstractions as emergence. He tries to explain personal knowledge by an appeal to an impersonal reality that supposedly generates and supports it. This is equivalent to an attempt at deriving an operational principle from its embodiment. It reverses the arrow of time.

If there is to be a connection between knowing and being, then Polanyi's anthropomorphic epistemology points towards an anthropomorphic ontology. Such an account of reality is given by the Judaeo-Christian view of the world, in which man is created in the image of God and God is revealed in human form as the incarnate Word. Of course an acceptance of that ontology must be, as Polanyi has taught us, a matter of passionate commitment rather than detached objectivity.

# Christian Faith In A Pluralist Society

Richard Gelwick

ABSTRACT Key Words: Michael Polanyi, Lesslie Newbigin, George Hunsberger, plurality and pluralism, mission, objectivity and objectivism, public truth, biblical election, Christian theology.

*Lesslie Newbigin and his interpreter, George Hunsberger, see Polanyi's epistemology giving a basis for the objectivity of the Christian message in a pluralistic world. But Polanyi's view of science and of theology is differentiated leaving open the choice of religious faith.*

George R. Hunsberger, *Bearing The Witness of the Spirit, Lesslie Newbigin's Theology of Cultural Plurality*. Grand Rapids: William B. Eerdmans, 1998. ISBN: 0802843697

## Introduction: The Gospel and Public Truth

In 1989, Lesslie Newbigin (1909-1998) in his book *The Gospel in a Pluralist Society* made extensive use of Polanyi's critique of objectivism.<sup>1</sup> Building on Polanyi's epistemology and critique of the modern scientific outlook's impersonal view of knowledge, Newbigin argues for Christian mission in a pluralistic world. In his preface, Newbigin says: "Throughout the work and especially in the first five chapters, I have relied heavily on the work of Michael Polanyi, especially his *Personal Knowledge*."<sup>2</sup>

Newbigin's use of Polanyi has worldwide influence among Christians because of his international leadership and ministry for sixty-three years. His stature and significance rests in large measure on two facts. First, he was a prominent and a practical theologian of the church's mission on a global scale. Throughout his career, he wrote and lectured internationally in church conferences and in academic theological centers.<sup>3</sup> Second, he was a world ecumenical leader for Christian unity in missions and in the World Council of Churches. In India, he was one of the first bishops of the Church of South India and familiar with the problem of addressing the gospel to renewed and vibrant non-Christian faiths. In the World Council of Churches, Newbigin was a leader for unity among Christian missions in a pluralistic age and helped to integrate the International Missionary Council into the World Council organization.<sup>4</sup>

When Newbigin retired and returned to England, he discovered that Great Britain and Western Christianity were a mission field, too. The challenge in his homeland was not to revive a weakened Christianity but a mission to convert even its leaders. In his 1993 autobiography, Newbigin spoke of this challenge of ministry in England compared to India. He said that it "...is much harder than anything I met in India. There is a cold contempt for the Gospel which is harder to face than opposition.... England is a pagan society and the development of a truly missionary encounter with this very tough form of paganism is the greatest intellectual and practical task facing the Church."<sup>5</sup> Seeing this challenge, Newbigin continued to write and to teach, and he found a responsive audience. He became in 1984 the motivating founder of the Gospel and Our Culture movement that now reaches around the world including the Gospel and Our Culture Network in North America.<sup>6</sup> This growing organization and network is focused on the basic assumptions underlying our contemporary Western worldview and how to address the Christian message to this Western culture now gripped by a relativism rooted in pluralism.

Addressing these deep-underlying assumptions of our culture is the point where Newbigin found helpful the thought of Michael Polanyi. As Newbigin experienced Christian understanding in Western culture, he saw its diminished outlook. Christian faith was intimidated and confined by a secular and a pluralistic society. It had lost its nerve and authority in a society controlled by an ideology of pluralism. This pluralism had led Christians as well as others to regard all faiths as private and subjective concerns. One of the principal reasons for this retreat to privacy was the pluralist belief that only ideas and truths established by scientific standards should be accepted as true. All religious beliefs are finally just private preferences and therefore without universal validity.

Against the pluralist ideology, Newbigin aimed to show that its assumptions are falsely grounded in a mistaken view of scientific objectivity, particularly as shown in the work of Michael Polanyi in *Personal Knowledge*. From this critique of the relativism of ideological pluralism, Newbigin went on to argue that Christian faith ought to be proclaimed and regarded as “public truth.”<sup>7</sup> Newbigin’s challenge is emphatic:

In this cultural milieu, the confident announcement of the Christian faith sounds like an arrogant attempt of some people to impose their values on others. As long as the Church is content to offer its beliefs modestly as simply one of the many brands available in the ideological supermarket, no offense is taken. But the affirmation that the truth revealed in the gospel ought to govern public life is offensive.<sup>8</sup>

Newbigin finds in Polanyi’s redefining objectivity the basis of Christian faith, “the total fact of Christ,” a claim to objectivity in the public square. In short, Christian faith is the announcement of “a new fact - namely that in the ministry, death, and resurrection of Jesus, God has acted decisively to reveal and effect his purpose of redemption for the whole world.”<sup>9</sup>

## **A Christian Theology About Cultural Plurality**

George Hunsberger, in his recent book *Bearing The Witness of the Spirit, Lesslie Newbigin’s Theology of Cultural Plurality*, embraces Newbigin’s approach and covers studiously the totality of Newbigin’s teaching and writing. Hunsberger says that Newbigin “...modeled for a coming generation what we must follow as a major agenda for a very long time into the future.”<sup>10</sup> Besides Newbigin’s arguments for the public mission of the Christian gospel, Hunsberger elucidates the meaning of Newbigin’s conception of a theology of plurality. Hunsberger sees Newbigin contrasting with Paul Tillich’s theology of culture, which sought to find the theology or religious dimension in various cultural expressions. In this way, Tillich made manifest underlying ultimate concerns of many different cultural movements and institutions and tried to correlate them with his understanding of the Christian faith. What Newbigin is doing, however, is developing a theology about cultural plurality and how a Christian missionary church should address the universality of the gospel to plurality.<sup>11</sup> Newbigin’s work is a theological response to the plurality of cultures. Newbigin accepts plurality as true and normal in our world condition. What he does not accept is the ideology of pluralism that reduces Christian faith to a private and relativistic matter.

In considering Newbigin’s goal of a theological response to the plurality of cultures, some of his basic guidelines must be noticed. One is about the imperialist danger of any religion claiming to be based

on objective truth. Newbigin's view is that there are two parts to this problem. One is that Christian faith rests on historical events that Christians believe to reveal saving truths for all human kind, and they have a calling to share that knowledge. Second is that Christians, according to scripture, do not know the fate of non-Christians or anyone. The Christian role is to be a part of a missionary church sharing, not imposing, the gospel.<sup>12</sup> Newbigin is agnostic about the salvation of those outside the Christian faith, but he is committed to belief in the saving deeds of God in Christ and the mission to tell this story to the entire world.

Central to Newbigin and to Hunsberger's thorough exposition of Newbigin's thought is the biblical doctrine of election. The grand biblical story of creation, fall, election of a covenant people and then a savior to redeem humankind is one of the principal facts to be shared in the Christian mission to the plurality of cultures.<sup>13</sup> The gospel is based upon response in faith to historical events focused upon the life, crucifixion, and resurrection of Jesus. These events are authoritative for Christians, make truth claims, and invite belief or unbelief.

The biblical doctrine of election is not only central to Newbigin's thought, it is also one of the reasons why Michael Polanyi appealed to Newbigin.<sup>14</sup> Newbigin points out that the doctrine of election in the biblical story teaches that God is personal and comes to us through persons. God's gift of salvation works by one being chosen to be the means of God's saving grace to others. Underlying this notion is the interpersonal and relational nature of human beings. General philosophical truths or mystical understandings are less social in nature. They tend to be individualistic. Election works by personal communication from one person to another. God works through a chosen one so that we come to salvation by relationship to our neighbor. Personal encounter breaks open the egotism of the self and opens the self to the corporate and cosmic nature of redemption. God chooses specific persons and events for communicating with humans. God is known not as a set of propositions but as personal encounter with the Christian community's faith and action. This community is rooted in the good news of God's saving acts in history and in Jesus Christ.

In the relation of pluralism and the biblical doctrine of election, Newbigin makes an important distinction. Plurality and pluralism are not the same thing. The plurality of cultures is not new, but the ideology of pluralism is a recent view that does not examine its own assumption of knowing the truth about all views. Pluralism presumes that all truths and all valid religions, if there are any, must be based on the standards of physical scientific research. With this assumption comes a requirement that all truths be like universal laws in physics and chemistry. In this regard, Newbigin found in his experience in India that trying to make his faith fit the reasonableness of timeless truths available to all people in all times led to a domestication of Jesus into the Hindu worldview. For pluralism, Hinduism would be the model religion for all, since it includes all faiths.<sup>15</sup> Pluralism rules out *a priori* the possibility of a particular religion having a universal truth. What such pluralism, as opposed to plurality, denies is the Christian biblical view that we are in a drama of creation, fall, redemption, and consummation. In this drama, truth is revealed as unfolding in history, which challenges the person to choose between the gospel and other faiths. Thus, Newbigin accepts the particularity of the Christian revelation as the way a personal God chooses to redeem humankind in a pluralistic world.

In his book, Newbigin employs Polanyi's analysis of the problem of objectivism and the general skepticism of our culture. Agreeing with Polanyi, Newbigin sees the need for a new epistemological outlook that will allow people to have a new "plausibility structure" through which they can hear and receive the gospel.<sup>16</sup> When this new understanding occurs, conversion also can happen. Conversion for Newbigin includes what we today call a paradigm shift or finding a new plausibility structure.<sup>17</sup>

Against the notion of objective truth as like scientific detachment, Newbigin uses Polanyi's Augustinian understanding of the relation of tradition, authority, and faith.<sup>18</sup> All notions of ultimate truth are dependent upon unproven assumptions that the knower seeks to understand. Science begins from the assumption that the universe is rational and accessible to understanding. It seeks against difficult odds to show that this belief is true. The pursuit of science is guided by the community of science that holds this belief and guides its explorers, but it is the personal grasp of the truth by the inquirer who shows the tradition new dimensions of its basic beliefs. In this way, the authority of the tradition continues as the faith of the individual scientist discovers and renews the general authority of what is held to be true. In this way, followers of the scientific model ought to see how faith is vital to knowledge and how it works through a community and a tradition both reforming and sustaining itself.

Besides the recovering of knowledge as based on faith and criticizing scientific objectivism, Newbigin is also close to Polanyi in including the importance of the social dimensions of knowledge that shape our subsidiary awareness. Hunsberger sees this side of Newbigin in a triangular model: the gospel at the apex, and culture and church at the base corners, forming three relationships of gospel-culture, gospel-church, and church-culture.<sup>19</sup> The gospel-culture encounter takes place in "the language of the receptor culture," but it is from and toward an "other" beyond them both. This dialogue is the work of the Holy Spirit, the presence of God. The second side of the triangular model is the gospel (or Bible)-church relationship. Here the Bible operates as the authority for the church but it is a challenging and renewing authority as it includes the impact of converts from plural cultures in its community. These new members open up and extend the meaning of the scriptures so that the total church is pluriform.<sup>20</sup> In the third part of the triangle, the church-culture relationship, new converts and renewing understanding of the gospel join other Christians in their dialogue within the church and the outward dialogue with all others and their cultures. In this outward dialogue, Newbigin reminds us again that all thinking begins from some faith-decision and that all positions depend upon some ultimate axioms that cannot be proved by any other set of axioms that are more ultimate. So a Christian speaks to non-Christians out of a conversion or paradigm shift known and practiced in a community of believers.

With his emphasis upon the personal side of God and the doctrine of election, it is also important for Newbigin that it be seen how the gospel is a basis for political action and involvement.<sup>21</sup> Newbigin particularly objects to the dualism of private and of public and the separation of the individual from society. The personal encounter of the gospel is through a specific event of Christ but it is about the meaning of the whole of history. The liberation personally experienced is also meant for all humanity. Separating the public and the personal leads to dehumanizing the individual and to isolation. Sole emphasis upon the public leads to individuals being subordinated to the state. Sole emphasis upon the individual leads to non-involvement in the life of humanity. The biblical story of redemption centered in Christ is one of both personal encounter and community involvement.

## **Scientific Objectivity and Objectivity in Christian Theology**

Newbigin's and Hunsberger's approach to pluralism and to plurality leads to discussion of their interpretation of Polanyi's implications for this topic. Certainly Polanyi would find much agreement with the criticisms of the way scientific objectivism has weakened the voice and the authority of Christian faith and of other religious faiths. Polanyi's theory of knowledge would also agree that Christian faith and theology have

a contact with reality and are not purely subjective. Newbigin would seem to be correct in saying that Christians following Polanyi's theory of knowledge ought to dare to assert the truth claims of their faith. Polanyi, however, did not equate science and theology in the way they bear upon experience. While Polanyi in response to Tillich's separate dimensions for science and for theology argued for common ground in their use of tacit knowing,<sup>22</sup> Polanyi saw also a different function for theology and religion. Polanyi's vision of the relationship was a contrast between verification and validation, between frameworks of indwelling, and between horizons of reality. The facts of experience in science are more specific which makes them more suitable to verification. The experiences of mathematics, art and religion are more general and suitable to validation.<sup>23</sup>

In *Personal Knowledge*, in the 1969 University of Texas and University of Chicago lectures on "Meaning: A Project," and in *Meaning*, Polanyi sees science and religion as sharing the common ground of tacit knowing but also functioning in different ways in their epistemic claims. Science, art, myth and religion all share in the use of tacit integrations to form meaningful subjects. In *Personal Knowledge*, Polanyi says that Michaelangelo's painting of the Sistine Chapel tells us more about ourselves than science's view of the origin of the universe as a chance collocation of atoms. In "Meaning: A Project," Polanyi says: "What science says about its own subject is, for the most part true and interesting. But it does not give us an image of the world in which our position as responsible creative beings can be understood."<sup>24</sup> In *Meaning*,<sup>25</sup> Polanyi and Prosch continue to differentiate science from religion in the way it takes us to a sacred level of experience that is beyond the verifiable facts of science. They say:

It is therefore only through participation in acts of worship - through dwelling in these - that we see God. God is thus not a being whose existence can be established in some logical, scientific, or rational way before we engage in our worship of him. God is a commitment involved in our rites and myths. Through our integrative, imaginative efforts we see him as the focal point that fuses into meaning all the incompatibles involved in the practice of religion. But, as in art - only in a more whole and complete way - God also becomes the integration of all the incompatibles in our lives.<sup>26</sup>

Throughout, Polanyi sees both science and religion as bearing on reality, involving our personal commitment, but art, myth, and religion have a more comprehensive integration of experience and of meanings. This difference has to correct theology as Newbigin is doing it.

Polanyi would object to "the fact" of Christ if it were equated with the kind of facts that science uses for verification. Polanyi would not object to the claims of Christian faith as resting on facts of history, but he would not think that the meaning of those facts should be compared to the level of the facts of science. To choose the level of factuality used in scientific work as the norm for the truth of religion would be to fall prey to the very scientific reductionism that Polanyi is trying to overcome. Both science and religion are integrations of incompatibles, but the meaning offered by religion through using the "facts" of its history and of its continuing experience leads to truths beyond science's domain.

The strength of Newbigin is that he calls attention to the central biblical story that forms the core of Christian faith and dares to point out that it cannot be understood if one does not challenge the ideology of pluralism that has denied truth claims about the meaning of life. Newbigin is also strong in showing that one can be committed to the foundations of Christian faith and also be open and progressive. The weakness of Newbigin's

discussion in *The Gospel in a Pluralist Society* and Hunsberger's discussion of Newbigin is that, despite Newbigin's major encounter with both the non-Western Christian communities and with non-Christian religions, there does not seem to be a revisioning or renewal of Christian theology. The book itself does not embody the dialogue and vitality of the triadic formulation of gospel, church, and cultures that Hunsberger formalizes, as indicated above. One could wish that Newbigin, or Hunsberger as his exponent, had tried to advance the encounter of plurality as Charles McCoy did in *When gods Change, Hope for Theology*.<sup>27</sup> Thoroughly aware of Polanyi's critique of scientific objectivism and its influence, McCoy sought to show that plurality or "pluralism," as he calls it, is an opportunity for theology to reflect and to grow in understanding. Besides upholding the validity of the gospel in a pluralist context, there is much need for discussing how Christians relate to the Spirit's leading in the global search for peace and justice.

Newbigin's and Hunsberger present at least two major considerations that will not disappear. First is the importance of recovery of confidence in the authority of the Christian message as a truth-bearing message in a pluralistic world. Second is a calling to engage the plurality in a way of mutual interaction between the preacher and the hearer. But with the Spirit's calling of humankind to deal pluralistically with the global problems of ecological devastation, poverty, health, justice, and peace, it is important for Christian mission to have not only integrity and confidence in the gospel, but also openness to the acts of God through those outside its community.

## Endnotes

<sup>1</sup> William B. Eerdmans, 1989, 244 pages.

<sup>2</sup> P. X

<sup>3</sup> George R. Hunsberger in his book, *Bearing The Witness of the Spirit, Lesslie Newbigin's Theology of Cultural Plurality*, Grand Rapids: William B. Eerdmans, 1998, 341 pages, lists over 200 publications from 1933-95, including *That All May Be One, The Household of God, Honest Religion For Secular Man, Foolishness To The Greeks, The Open Secret, and The Other Side of 1984*.

<sup>4</sup> Hunsberger, pp. 22-25.

<sup>5</sup> Tim Safford, "God's Missionary To Us," <http://www.deepsight.org/articles/stafford.htm>.

<sup>6</sup> See the website: <http://www.deepsight.org/goscul>.

<sup>7</sup> *The Gospel in a Pluralist Society*, p. 5.

<sup>8</sup> *Ibid.*, p. 7.

<sup>9</sup> *Ibid.*, p. 5.

<sup>10</sup> Hunsberger, p. 1.

<sup>11</sup> *Ibid.*, p. 9.

<sup>12</sup> *The Gospel in a Pluralist Society*, pp. 84-88, Hunsberger, pp. 166-67, 225-34.

<sup>13</sup> *The Gospel in a Pluralist Society*, p. 6, 116, *ET passim*, and Hunsberger, p. 44.

<sup>14</sup> Hunsberger, p. 56.

<sup>15</sup> *The Gospel in a Pluralist Society*, p. 3.

<sup>16</sup> *Ibid.* pp. 8, 53.

<sup>17</sup> Hunsberger, p. 158

<sup>18</sup> *Ibid.*, p. 48.

<sup>19</sup> *Ibid.*, pp. 237-238.

<sup>20</sup> *Ibid.*, p. 258.

<sup>21</sup> *The Gospel in a Pluralist Society*, Chpts. 16,18, and 19; Hunsberger, pp. 123-138.

<sup>22</sup> Michael Polanyi, "Science and Religion: Separate Dimensions or Common Ground?" *Philosophy*

*Today*, 7, Spring, 1963, pp. 4-14.

<sup>23</sup> *Personal Knowledge*, p. 202.

<sup>24</sup> Unpublished lecture circulated as part of "Meaning: A Project," "Acceptance of Religion," Soc Th 443, Supplement 4, p. 11.

<sup>25</sup> Michael Polanyi and Harry Prosch, Chicago: University of Chicago Press, 1975.

<sup>26</sup> *Ibid.*, p. 156.

<sup>27</sup> Nashville: Abingdon, 1980.

## Polanyi Society Membership

*Tradition and Discovery* is distributed to members of the Polanyi Society. This periodical supersedes a newsletter and earlier mini-journal published (with some gaps) by the Polanyi Society since the mid seventies. The Polanyi Society has members across the world though most live in North America and the United Kingdom. The Society includes those formerly affiliated with the Polanyi group centered in the United Kingdom which published *Convivium: The United Kingdom Review of Post-critical Thought*. There are normally three issues of *TAD* each year.

Membership dues for the Polanyi Society are regularly paid in the fall at the beginning of the academic year. The first issue of a new *TAD* volume normally includes the dues payment notice. Because the Polanyi Society is sponsoring a major conference in June of 2001 (see p. 3), you are invited to combine your dues payment with a contribution. In order to encourage you to “think generously,” the chart on the facing page sets forth some “rungs” on the contribution ladder. We hope you will reach as high as it is possible for you conveniently to stretch. Unlike the Public Broadcasting System and National Public Radio drives in the US, we do not have Polanyi Society coffee mugs, book bags and other memorabilia to distribute to those who are generous. But for those who do stretch (at least the first 50) to the Benefactor or Patron level, we can provide a copy of Andy Sanders’ very good 1988 (Rodopi) book, *Michael Polanyi’s Post-Critical Epistemology: A Reconstruction of Some Aspects of “Tacit Knowing”* (currently being sold by Amazon.com for \$47).

The Polanyi Society is presently applying for tax deductible status in the US. If that application is approved and we are allowed to provide a charitable donation letter, we will do so later in the year. Dues and donations can be sent by post, fax or e-mail. Credit cards donations are welcome.

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