

MICHAEL POLANYI'S CONCEPT OF TACIT KNOWLEDGE AND ITS IMPLICATIONS FOR CHRISTIAN APOLOGETICS

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Prolegomena to Knowledge and Truth

ALMOST two thousand years ago Pontius Pilate uttered an epistemological question that has echoed throughout the ages: "What is truth?" Today, society's quest for an answer continues, and although there are many venues available for the search there is a tendency towards a polarity of views with little ground left in the center. On the one extreme, the realm of science is still thought by many to be mankind's one real hope for answering life's ultimate questions about reality, origins, and values. For those of this ilk, man is still viewed as ever progressing towards a future filled with more useful technology and an ever-broadening grasp on what makes the universe "tick."² Such a view of the universe has been summed up in following observations:

The scientific way of looking at and explaining things has yielded an immensely greater measure of understanding of, and control over, the universe than any other way. And when one looks at the world in this scientific way, there seems to be no room for a personal relationship between human beings and a supernatural perfect being ruling and guiding men.³

At the other end of the spectrum one finds the postmodern alternative, which asserts that truth is but a useful social construct, and that each community is free to construct its own "truth." For the postmodernist, there can be no

overarching "truth," no meta-narrative that can address the ultimate questions concerning reality, origins and values.⁴ Postmodernism has become pervasive in popular culture (consider the frequent use of "true for you but not for me") in addition to its increasing dominance across the academic disciplines. It has been noted that:

Today many eminent professors in some of our most esteemed universities disparage the ideas of truth, knowledge, and objectivity as naive or disingenuous at best, as fraudulent and despotic at worst. Indeed, the very words—truth, knowledge, objectivity—now habitually appear, in scholarly journals and books, in quotation marks, to show how spurious they are.⁵

The work of the Michael Polanyi can prove useful to the twenty-first century Christian who seeks to engage his contemporaries apologetically: those who cling to scientism as well as those who seek solace in postmodernism. For, in Polanyi's thoughts on both the nature of science and of knowledge⁶, the apologist can find a point of contact—a

able at <<http://www.bu.edu/wcp/Papers/Scie/ScieCorn.htm>> accessed 21 Nov. 2001.

3. Kurt Baier, "The Meaning of Life," in *Critiques of God*, ed. Peter Angeles (Buffalo: Prometheus Books, 1976), p. 296. Though views like those expressed by Baier are widely held among the public masses as well as by many in the sciences, there is one branch of science that in the past quarter century has seen many move away from positions that are grounded in the naturalist view of reality. The realm of physics has evidenced an increased willingness to acknowledge the necessary existence of something beyond the physical. See Paul Davies, *God and the New Physics* (New York: Touchstone, 1983), pp. vii–ix; also, Gordon H. Clark, "The Limits and Uses of Science" in *Horizons of Science*, ed. Carl F. H. Henry (San Francisco: Harper Collins, 1978).

4. For a sampling of postmodernism see: Hilary Putman, *Reason, Truth and History* (Cambridge: Cambridge University Press, 1981); Richard Rorty, *Contingency, Irony, and Solidarity* (Cambridge: Cambridge University Press, 1989); and Jean-Francois Lyotard's postmodern classic *The Postmodern Condition* (Manchester: Manchester University Press, 1984). For an analysis of postmodernism from a Christian perspective see: Gene Edward Veith, *Postmodern Times* (Wheaton: Crossway, 1994); Douglas Groothuis, *Truth Decay* (Downers Grove, IL: InterVarsity, 2000); and Millard Erickson, *Truth or Consequences* (Downers Grove, IL: InterVarsity, 2001).

5. Gertrude Himmelfarb, "The Christian University: A Call to Counterrevolution," *First Things* 59 (Jan 1996) available at <<http://www.firstthings.com/ftissues/ft9601/articles/himmelfarb.html>> accessed 23 Nov. 2001.

6. It is possible that some might criticize Polanyi's concept of "tacit

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2. One need only to consider the popularity of the PBS series "Cosmos," hosted by the late astronomer Carl Sagan. His book of the same title is the largest selling scientific work in history. The series has been seen by some 600 million people in over 60 countries, and has recently been released on DVD. See Ray Bohlin, "A Eulogy to Carl Sagan," available at <<http://www.probe.org/docs/contact.html>> accessed 21 Nov. 2001, and Cosmos Studios' press release dated 27 Sep. 2000, available at <<http://www.carlsagan.com>> accessed 21 Nov. 2001. Additionally, consideration must be given to the widespread influence of Stephen Hawking's *A Brief History of Time* (New York: Bantam, 1997); it first appeared in 1988, and by 1997 was in its twenty-first revised edition. See Gustaaf C. Cornelis, "Is Popularization of Science Possible?" a paper presented at the Twentieth World Congress of Philosophy; Boston, Massachusetts, 10–15 August 1998 avail-

common ground—which may then be used as the jumping off point towards more meaningful discussions about the ultimate grounding of reality, origins and values: the character and nature of the one true God. It has oft been asserted that, “All truth is God’s truth.”⁷ That this state of affairs should be the case seems properly basic, and yet it is not uncommon to encounter those who profess Christ and yet lack the ability to articulate what lies beneath the surface of what has sadly become a cliché among Christians. As the infinite creator of all that exists, it could not be otherwise than that the mind of God should contain perfect knowledge of all true propositions.⁸ Isaiah 46:10 informs us that God declares “. . . the end from the beginning, and from ancient times things which have not been one, saying, ‘My purpose will be established, and I will accomplish all My good pleasure.’”⁹ Elsewhere, God has asserted that he is the God of truth (Isa. 65:15–17), and Jesus as God incarnate stated that he was the truth (Jn 14:6).

The salient points relative to the present discussion of truth and knowledge and Polanyi’s work may be put forth as follows:

1. God is the source of all that is true, truth being but one aspect of his infinite nature.
2. Man carries in his being the *imago Dei*.
3. Man has innate knowledge of God’s existence placed in him by virtue of the *imago Dei*.
4. Because of his fallen nature, man tries to suppress this innate knowledge of God.
5. Though fallen, man nonetheless still carries the *imago Dei*. Even in his fallenness, he still at times acts in ways that demonstrate this truth.

Michael Polanyi’s work was evidence of the fact that fallen man still bears the *imago Dei*. His creativity in the realms of science and philosophy bear evidence of the truth that he was created in the image of the God who himself is creative.¹⁰ Though in need of redemption, fallen man cannot destroy the *imago Dei* that was placed in him by the sovereign act of the creator God. It is not only Christians who may

knowledge” as a misuse of the term “knowledge,” asserting that all he has identified is some type of belief that people may hold for unspecified reasons. Such attempts to make a distinction between knowledge and belief are not uncommon; they posit that while one may believe something to be true, one cannot also know it to be true. This attempted dichotomy seems to create more problems than it solves. For it would force one to reject innate knowledge as “knowledge,” thus leaving only empiricism as an epistemological basis for knowledge. However, as will be noted later in this paper, this position is self-refuting, and if innate knowledge must be rejected then we are left with no basis for knowledge and would have to conclude that we can know nothing. This is, however not philosophically satisfying for it too would be a self-refuting position since there would be one thing we could know, that we could know nothing.

7. An in depth fleshing out of this assertion is beyond the scope of this present paper. For a thorough examination of the underpinnings of this claim see Chris Schlect’s “Scriptural Worldview Thinking” in Douglas Wilson, ed., *Repairing the Ruins* (Moscow, ID: Canon, 1996), pp. 47–57.

8. Stephen Wellum, “Divine Sovereignty, Scripture, and Open Theism: An Evaluation.” Paper presented at the 53rd Annual Meeting of the Evangelical Theological Society, 14–16 Nov. 2001, Colorado Springs CO.

9. Unless otherwise noted, all biblical quotations come from the NASB (La Habra, CA: Lockman Foundation, 1995).

10. David Estrada deals with this relationship between creativity and the *imago Dei* within the context of a discussion of the Arts, see, “Christian Suspicion of the Arts,” *Christianity and Society* Vol. 1x:4 (Oct 1999), pp. 21–22.

create things of beauty: beautiful because they reflect in some manner the truth of what God has made, which in turn flows forth from his nature.¹¹ In his *magnum opus*, *God, Revelation and Authority*, theologian Carl F. H. Henry has asserted that God is not only the source of truth and knowledge, but the giver of them as well.¹² He also notes that, “Christianity contends that God is truth, that revelation is the source of all truth, and that truth is one.”¹³

Along similar lines, Ronald Nash has observed of Augustine’s views on *imago Dei*, that man, having been made in God’s image can thus possess knowledge only because God constantly sustains him. Man must, of necessity, possess a mind (over against the physical organ known as the brain) in order to know truth; his brain alone is not sufficient towards attaining such a goal.¹⁴ These observations echo the thoughts of B. B. Warfield who posited that, “God, having so made man, has not left him deistically, to himself, but continually reflects into his soul the contents of His own eternal and immutable mind—which are precisely those eternal and immutable truths which constitute the intelligible world.¹⁵ Thus, apart from the providence of a gracious God who gives all good gifts (James 1:17), thought as humans everywhere experience it would be impossible.

Polanyi’s theories about knowledge and the way in which the human mind cognates rest upon the idea of knowing a “. . . knowledge that we cannot tell.”¹⁶ This is the basis of what he termed *tacit knowledge*. For Polanyi, this tacit knowledge was knowledge that was not learned, but known nonetheless.¹⁷ Polanyi’s concept reflects the biblical truth of innate knowledge as seen in man’s knowledge of God’s existence that was placed within him by the creator. This article will assay the implications of Polanyi’s work within the broad context of its application to apologetic endeavors to engage culture, giving consideration to both its positive and negative aspects of the same.

A Brief Biographical Excursus

Michael Polanyi’s work was multifaceted, and its influence has been far reaching.¹⁸ Born to a Jewish family in Budapest, Hungary in 1891, he was educated at the University of Budapest, receiving his Doctor of Medicine in 1913. This led to him serving as a medical officer in the Austro-

11. Francis Schaeffer, *How Should We Then Live?* (Westchester, ILL: Crossway Books, 1976), p. 97f.

12. Carl F. H. Henry, *God, Revelation and Authority*, 6 vols. (Waco, TX: Word Books, 1976–1983), Vol. 1, p. 223.

13. *Ibid.*, Vol. 1, p. 396.

14. Ronald Nash, *The Light of the Mind: St. Augustine’s Theory of Knowledge* (Lexington, KY: The University Press of Kentucky, 1969), p. 110f.

15. B. B. Warfield, *Calvin and Augustine* (Philadelphia: Presbyterian and Reformed, 1956), p. 397, as cited in Nash, *The Light of the Mind*, p. 111.

16. Michael Polanyi, *The Tacit Dimension* (Gloucester, MA: Peter Smith, 1983), p. 5.

17. *Ibid.*, pp. 5–9.

18. Much of the biographical information for this article comes from the audio documentary, “Tacit Knowing, Truthful Knowing: The Life and Thought of Michael Polanyi,” A Mars Hill Audio Report (Quinque, VA: Mars Hill Audio, 1999). Other sources consulted include: The web pages of the Polanyi Society, available at <<http://griffon.mwsc.edu/~polanyi>> accessed 30 June 2001; and “Leading Lights: Michael Polanyi,” The Deep Insight Trust; available at <<http://www.deepinsight.org/articles/polanyi.htm>> accessed 21 Nov. 2001.

Hungarian army during World War One. He suffered a wound, and during a long convalescence formulated the basic ideas that would lead to his development of the theory of absorption, which in turn was formalised in his dissertation for a Ph.D. in chemistry in 1917. After making his mark with the theory of absorption, he later worked on topics such as the study of x-ray diffraction of cellulose fibers. This later work was done during his years at the Kaiser Wilhelm Institute in Berlin, where he remained until leaving for England in 1933. During World War Two, he became interested in philosophical issues. Attracted at first to the areas of economic and political philosophy against the backdrop of the war, he was later drawn into a search for a new epistemological system. This desire grew out of his dissatisfaction with the dangers of the scientism he observed growing out of logical positivism. As great as his achievements had been in chemistry, it would be in the area of philosophy that he would leave his most lasting legacy. There exists today a Michael Polanyi Society, a scholarly society that publishes *Tradition and Discovery*, a journal dedicated to the thought of Polanyi and its influence on present scholarship. They also hold annual meetings in conjunction with the American Academy of Religion and its Michael Polanyi Study Group. For a short time, Baylor University operated the Michael Polanyi Center, which sought further application of his ideas to the intersection of faith and science.¹⁹

Polanyi's transition from scientist to philosopher was made complete during the post-war years at the University of Manchester with the publication of *Science, Faith and Society* (1946). This work laid the foundation of thought that he would later flesh out more fully in such works as *Personal Knowledge* (1958) and *Tacit Dimension* (1966). The acceptance of his philosophical views reached its zenith when he was invited to give the Gifford Lectures at the University of Edinburgh in 1951. It was at this same time that he began to travel to the US for various lectures and guest faculty residencies at such prestigious schools as the University of Chicago and Princeton. Although he spent many years as a research fellow at Merton College, Oxford, it is ironic that over the last twenty-five years of his life that he was better known in the US than in Europe. What were the details of Polanyi's new epistemological system and what might its possible implications be for apologetic dialogue?

19. Housed in the university's Institute for Faith and Learning and directed by William Dembski, a leading figure in the Intelligent Design movement, the center's purpose was to explore opportunities for engagement between faith and academic pursuits. Though its existence was short, its influence was widespread, culminating in an April 2000 conference entitled "The Nature of Nature: Examining the Role of Naturalism in Science." Paradoxically, this was both the high point for the center as well as the cause of its demise, as the majority of the science faculty of Baylor (largely dominated by those still holding to some variation of scientism and/or theistic evolution) rose up in opposition to not only the conference, but also the very existence of the center. Eventually dissolved, the center was replaced by the less threateningly named Baylor Center for Science, Philosophy and Religion. Ironically this was placed under the interim directorship of a Baylor professor of Philosophy of Science who is presently co-editing with Dembski a representative selection of Michael Polanyi's writings, with an introduction and commentary. Those interested in this matter should consult Bill Heeren's "The Lynching of Bill Dembski," *The American Spectator* (Nov 2000) and "The Deed is Done," *The American Spectator* (Dec 2000–Jan 2001), both of which are available in online versions at <<http://www.gilder.com/amspec/classics.html>>.

The Genesis of Polanyi's Concept of Tacit Knowledge

Polanyi was highly critical of any view that saw science as the sole purveyor of truth, being guided by a perceived objectivity and detachment, which had earned for it among the general populace a reputation as fact gatherers free from any presuppositions in their search for ultimate reality. In actuality, the scientist acts upon what he already believes on some level to be true (tacit knowledge according to Polanyi).²⁰ In fact, Polanyi's own theory of absorption was first worked out in this manner during his military service. This almost cost Polanyi approval on his dissertation, as his advisor noticed some slight irregularities in his mathematical calculations. When, during the oral defence of the dissertation he queried Polanyi about the discrepancies, he was none too pleased to find out that Polanyi had done his research "backwards" of the norm.²¹

In this regard, the Christian apologist has found a potential ally, for he too must see the myth of rational neutrality as an enemy to his work. Of such positivist thought it has been observed that science counts as factual propositions only, ". . . those which science can process in the laboratory by an operational experiment terminate with reality."²² Such a view has been criticised as lacking the ability to move from the descriptive to the normative. This follows because a positivist basis for science cannot provide any adequate basis for formulating either ethical or metaphysical propositions.²³ Polanyi recognised that scientism was a threat to non-tangibles such as justice and beauty that could never be quantified by the scientific method.²⁴ If science were to be the sole arbitrator of truth, such concepts would no longer be able to be viewed as truths.²⁵ This conclusion logically followed from the presumed truth that such abstract concepts lay beyond the pale of the empirical investigation of science. While it is certainly true that one may recognise instances of justice and beauty, such manifestations are all that one may observe empirically. Lying beyond the senses are the non-tangible concepts. It was in the realization of such relationships between extra-physical concepts and their application to the physical world that Polanyi found the basis for what he would term tacit knowledge.²⁶

If one were to grant the assumptions of scientism, its principles could easily be extended into the disciplines of theology and ethics. Polanyi despaired at the thought of a society of moral lethargists who knew what was right but failed to act upon it since they no longer viewed it as any sort of ultimate truth. He rightly recognised that it was just such an application of scientism that was what lay (at least in part) behind the rebellion of the youth culture of the '60s and '70s.²⁷

20. Michael Polanyi, *Science, Faith and Society*, paperback ed. (Chicago: University of Chicago Press), p. 13.

21. "Tacit Knowing, Truthful Knowing."

22. John Edward Carnell, *A Philosophy of the Christian Religion* (Grand Rapids, MI: Eerdmans), p. 139.

23. *Ibid.*, p. 140ff.

24. "Tacit Knowing, Truthful Knowing."

25. Michael Polanyi, *The Study of Man*, paperback ed. (Chicago: University of Chicago Press, 1959), 37–39. Here, Polanyi argues for a unity of truth that leaves no room for a disjunction between fact and value.

26. Michael Polanyi and Harry Prosch, *Meaning* (Chicago, University of Chicago Press, 1975), pp. 32–35.

27. *Ibid.*, p. 23.

The late Francis Schaeffer viewed this pivotal period in a similar vein. Schaeffer suggested that such a correlation should have been anticipated. Commenting on the student unrest on the university campuses he questioned, “Why would anybody have been surprised? Many of the teachers taught the ultimate meaninglessness of man and the absence of absolutes . . . Was it not natural that one generation would begin to live on the basis of what they had been taught?”²⁸

These insights are also of interest to the apologist, for he too sees scientism as the enemy of the ultimate truth found in the nature of the one true God. It is impossible for the apologist to prove the existence of God (at least the biblical God) by employing Enlightenment influenced rationalism within a supposedly neutral arena. In Polanyi the apologist finds a friendly source to employ with the skeptic who claims that science is always on their side. Additionally, just as Polanyi saw a future society that knew what was right but failed to do it, the apologist recognises that fallen man knows God and his truth but refuses to submit to either (Rom. 1:18–23). Instead, he suppresses the truth so that he might pursue the sensate desires of his fallen nature.

Polanyi asserted that the popular view of science was not only dangerous, but just as importantly, it was not true. This observation was based upon his years as an internationally respected researcher. Polanyi claimed that in actuality no scientist could achieve an absolutely detached impartiality in their research; that as humans, their beliefs and experiences (that is their presuppositions) would always shape their work.²⁹ He further asserted that these presuppositions affected research at its most basic level: the choices made by scientists in deciding what to explore in research. He further proffered that one who is said (in scientific terms) to be “testing” a theory is in actuality doing nothing more than relying on his presuppositions, many of which he is employing at a non-conscious level.³⁰ Polanyi recognised that everyone sees the universe from the perspective of their inner selves, formulating opinions about it in human language shaped by human intercourse. To eliminate such a human perspective would lead to absurdity.³¹

Again, we see a view that is compatible with a presuppositional apologetic approach: everyone always operates from their presuppositional perspective, and not even science, the allegedly unbiased guardian of truth, can avoid this. It is important that each individual give consideration to the logical conclusion of their presuppositions. Polanyi saw clearly the implications of the presuppositions of scientism for science itself. He proposed that such an approach “. . . appeared to have produced a mechanical conception of man and history in which there was no place for science itself.”³² The basis of this truth is found in the scriptural admonition of Pr. 14:12. There we are informed that, “There is a way which seems right to a man, but its end is the way of death.” The human mind, affected by the fall deceives the individual into thinking that their understanding will lead towards a

particular goal, when in the end it does just the opposite, ultimately leading to their own demise. It is important to remember that in the OT, the heart is not so much the seat of emotions, but rather the seat of the mind and will—the whole of a person’s thinking and decision-making.

The need to think through to the logical conclusions of one’s presuppositions has been noted by more than one Christian theologian. Carl Henry has stated that in apologetic endeavors, the Christian must, “. . . reduce to absurdity the successively proffered alternatives to Christian theism and force the intellectual abandonment of speculative views.”³³ In like fashion, Polanyi rejected the skepticism to which scientism inevitably leads. This rejection was based upon his recognition that knowledge ultimately rests upon givens that themselves cannot be proved: such things as the nature of human beings, the world, and our ability to understand both. Once more one may see that Polanyi’s assertions ring true, for they agree with presuppositional apologetics, which in turn rests upon the “givens” of God and his Word. Schaeffer, speaking of the superiority of the Christian worldview over against the syncretism of the ancient Romans pointed to the grounding of the Christian view in the truth of God’s Word.³⁴

The Use of Tacit Knowledge

Polanyi observed that science actually operated within previously asserted givens. Without employing such assumptions as the basic consistency of the processes of nature, how could scientists ever hope to have confidence in results gained through observation? He asserted that belief always precedes knowledge; that scientists had to have faith in some certainty even to begin working on the acquisition of knowledge.³⁵ Without these presuppositions, scientific inquiry would have no starting point from which to operate.³⁶ In a like fashion, the apologist recognises that commitment to God’s revelation always precedes knowledge, that God as the ultimate norm for truth must be his starting point.

All of the above led Polanyi to conclude that some knowledge is rooted in the person, that is, that knowledge is tacit in nature. Commitment ultimately must be to things one can grasp but cannot prove, thereby requiring that one employ faith. Polanyi identified these skills as tacit knowledge. As has already been noted, he defined tacit knowledge as using that knowledge an individual knows, but cannot tell exactly what it is, or how they know it. This knowledge is employed in the working out of other knowledge, for Polanyi asserted, “. . . that tacit knowing is in fact the dominant principle of all knowledge, and that its rejection would, therefore automatically involve the rejection of any knowledge whatever.”³⁷ Polanyi goes on to expose the weakness of empiricism as the basis for knowledge, for he correctly

28. Schaeffer, p. 206.

29. Polanyi, *Science, Faith and Society*, pp. 11–14.

30. Polanyi and Prosch, p. 37.

31. It is significant to note that this position rests upon the sufficiency of language to communicate something meaningfully true; the importance of this assertion will be more fully addressed later within the context of using Polanyi’s thought in engaging those of postmodern persuasions.

32. Polanyi, *Tacit Dimension*, p. 3.

33. Henry, *God, Revelation and Authority*, Vol. 1, p. 241. Along similar lines, Gordon H. Clark has pointed out the inadequacies of constructing a belief system upon presuppositions that are in opposition to those of Christian belief. See *Thales to Dewey* (Unicoi, Tennessee: Trinity Foundation, 1997), p. 533f.; Colin Brown shows the bankruptcy of the logical conclusion of the presuppositions in Paul Tillich’s theology in *Philosophy and the Christian Faith* (London: Tyndale, 1969), p. 198ff.

34. Schaeffer, pp. 22–26.

35. “Tacit Knowing, Truthful Knowing.”

36. Polanyi, *Science, Faith and Society*, pp. 30, 35, 37–38.

37. Polanyi, *The Study of Man*, p. 13

asserts that if empiricism were a valid epistemological base, it could not be consistently applied, for it would become self-refuting, since knowledge of experience being the validator of what is true could not itself be gained by experience.³⁸

For Polanyi, tacit knowledge involved the relationship between two terms: we know the first term only by relying on our awareness of it for attending to the second. He asserted that the first was knowledge that was proximal, for it was innately in us; this knowledge in turn facilitated the second term of knowledge—that which he termed distal.³⁹ To clarify the meaning of this somewhat technical terminology, Polanyi enlisted several analogies.⁴⁰ He suggested that one is able to recognise the face of an acquaintance by tacitly registering recognition of the distinct features of the face, and then combining this knowledge (which we can articulate to some degree, but not fully) with the visual stimuli of the physical presence of the person in order to “know” whom they are interfacing with.⁴¹ Polanyi recognises, though, that a danger exists if one is to attempt to focus only on the particulars of an object. He notes that, “The structure of tacit knowing is manifested most clearly in the act of understanding. It is a process of comprehending: a grasping of disjointed parts into a comprehensive whole.”⁴² He further asserts that if one focuses too much upon the parts of a whole, one risks losing sight of the whole altogether.⁴³

In another analogy, Polanyi notes that there are many skills necessary for successfully riding a bicycle. Balancing is the key, and the correct balance is predicated upon a specific formula: to counter an imbalance, he noted that one must turn the bicycle away from it in a curve. Not just any curve will do, it must be one whose radius is proportional to the square of the bicycle’s velocity over the angle of imbalance. Polanyi posits that no one thinks in these terms when riding a bicycle, and very few people could even articulate the formula that is employed, if they are aware of it at all. It is just something that people do. For Polanyi, such knowledge was seen as dwelling in the person—it was tacit knowledge.⁴⁴

Once more one might find that Polanyi has correctly grasped truth, for underlying these assertions are the sure foundation of biblical truth. Several times in scripture the importance of seeing the “big picture” over against the smaller details is emphasised. Jesus frequently confronts the Pharisees for their attention to miniscule details at the expense of the larger whole. An example of this may be seen

in his rebuke of the Pharisees when he states, “Woe to you, scribes and Pharisees, hypocrites! For you tithe mint and dill and cummin, and have neglected the weightier provisions of the law: justice and mercy and faithfulness; but these are the things you should have done without neglecting the others” (Mt. 23:23).

For Polanyi, the tacit skills necessary to accomplish a task cannot be reduced to brute facts one memorises and then applies. This is true not only for simple biomechanical functions like riding a bicycle, but also more complex mental tasks such as the skill of medical diagnosis. If logical positivism were correct, then after medical school, doctors would move immediately into practice, bypassing internship and residency.⁴⁵ Such is not the case, for diagnosis requires tacit knowledge that can only be developed by intuitively using and applying it under the guidance of a more skilled diagnostician. These views parallel the truth of Scripture found in the first chapter of Romans: that all men have knowledge of God and his truth. In a sense, it might be said that this is tacit knowledge, though it has certainly been obscured by man’s rebellion, it is nonetheless there at some level. It could be further suggested that the apologist functions in a manner similar to the mentor. It is his job to bring to the surface that “tacit” knowledge of God.⁴⁶

To posit a parallel between innate knowledge and Polanyi’s concept of tacit knowledge seems a reasonable assertion. He observed, “For to see a problem is to see something that is hidden. It is to have an intimation of the coherence of hitherto not comprehended particulars.”⁴⁷ This is the same notion that all have personally experienced, and that those who have children experience a second time. No one has to teach a child the concepts of equal and just. When “goodies” are passed out to a group of children, any of them old enough to verbalise their cognitive thoughts will announce, “that’s not fair” if they perceive that they have not received an equal proportion of the treats. C. S. Lewis uses this as the starting point for his argument for an actual, objectively existing basis for the moral law that is written on the hearts of everyman.⁴⁸

The seventeenth century French philosopher, scientist,

45. “Tacit Knowing, Truthful Knowing.”

46. It is worth noting that though it is oft asserted that belief in God is but a socially constructed belief; no culture has been found that was by nature atheistic. All have had a concept of divinity; the differences are found in the nature of the divine. Both Calvin and Luther asserted that there was a “. . . general awareness of God that all men have. It is not a matter of the Scholastic proofs. It is a profound inner awareness of God over against us.” See Brown, p. 45. Polanyi even admits that humanity is wired to think in terms of the religious; he posits that this what makes religious belief plausible. See Polanyi and Prosch, p. 158ff. Assertions along similar lines can be found in the 7 May 2001 *Newsweek* cover story, “Religion and the Brain,” by Sharon Begley and Anne Underwood. These latter two examples reflect the truth of Rom. 1:19, which states that, “. . . that which is known about God is evident within them; for God made it evident to them.”

47. Polanyi, *Tacit Dimension*, p. 21.

48. Lewis goes on to expand upon this idea, showing that the only explanation for such a state of affairs is the grounding of the moral law in the personal God of the Bible; this is the only view of the world that can adequately explain what we experience both internally and externally. It is a presupposition that can be carried out to its logical conclusion since the failure of humans to live the Christian worldview consistently lies not in the worldview itself—it is without flaw as presented in scripture. The problem lies in the flawed sinful natures of humanity. See in particular pp. 17–30 in *Mere Christianity* (New York: Touchstone, 1996).

38. *Ibid.*, p. 21. For a similar analysis of empiricism from an explicitly Christian perspective see: Ronald Nash, *The Word of God and the Mind of Man* (Phillipsburg, NJ: Presbyterian and Reformed, 1992), pp. 71–78, 116–120.

39. Polanyi, *The Tacit Dimension*, p. 10.

40. For examples of this see: *Ibid.*, p. 8–13; *The Study of Man*, 28–33; *Meaning*, pp. 37–45. In his employment of several, varied analogies, it would appear that Polanyi was being consistent with his foundational presupposition—namely that the basis of all knowledge lies in a “knowing that we cannot [at least with clarity] tell.” For, if he were able to succinctly and clearly account for all that his concept entailed, he would then have posited some basis of knowledge that lay beyond what he had already claimed to be the basis of knowledge.

41. Michael Polanyi, “Transcendence And Self-Transcendence,” *Soundings* 53:1 (Spring 1970), p. 92.

42. *Ibid.*, p. 28.

43. *Ibid.*, p. 29.

44. Polanyi and Prosch, p. 41. This would seemingly be the explanation of the old saying that, “you never forget how to ride a bicycle.” It would seem that the basis of this truth lies in the innate knowledge needed to “learn” how to ride in the first instance.

and mathematician, Blaise Pascal asserted that, “There is a God-shaped vacuum in the heart of every man which cannot be filled by any created thing, but only by God the Creator, made known through Jesus Christ.”⁴⁹ The basis for this claim can be found in Scripture: 1 Cor. 4:4 states that it is God who gives us knowledge of himself; additionally, Eccl. 3:11 testifies that God has “set eternity in their heart.” Abraham Kuiper also addressed the concept of innate knowledge in his development of the argument for the spheres of authority.⁵⁰ Included in this would be the God-given character of the order of creation as found in Isa. 28:23–29. There one discovers that the knowledge of how to farm is taught to the farmer by God himself. This is accomplished not by some specific teaching of scripture, but through the structures of creation, delivered to the farmer via the experience of working with soil, seeds, and plough. Polanyi echoed the truth of this pattern in his conceptualisation of tacit knowledge. A grasp of that parallel can be noted by considering yet another analogy: the use of a stick pressing against the palm of one’s hand as one tries to find one’s way along a pathway in the dark. One is tacitly aware of the stick in one’s palm, yet on another level, which is more focused upon, one is aware of the far end of the stick as it strikes against obstacles along the pathway.⁵¹

Polanyi made the bold assertion that some of the greatest discoveries of science would never have been discovered if scientists only operated within the bounds of the narrow limits of detached analysis. He argued that unless the scientist presumed that the substance and method of science are sound he would never develop a sense of science’s value and acquire the skill of scientific inquiry.⁵² This could leave the scientist open to the accusation that he is working from within a view that is based on circular reasoning. While technically true, it is true only a narrow sense, and in reality, all views ultimately rest upon such a narrow line of circular reasoning.

The scientific method must first have an ordered universe for it to function properly. Without the presumption of the repetition of patterns inherent in order, scientific experimentation would be impossible. Science must presuppose the order, for it cannot use the deduction of the scientific method to “prove” its own starting point. This is also seen in the study of geometry, where one uses various “proofs” that themselves cannot be “proved.” Take for example the congruency of triangles; if one were to presume the truthfulness of any singular proof, it could in turn be employed to “prove” the others. But in both of these instances, the congruency of triangles and the order of the universe, a form of mildly circular reasoning has occurred. Yet, no reasonable person would challenge the validity of these assumptions. One may observe on their own the repeating patterns of the physical world (after all, have you ever seen the sun rise in the West?). In like fashion, one can note the similarity between two different triangles whose sides are of the same length. If one did not act with certain presuppositions, then no significant actions could ever be undertaken. This is likewise for the rationalists and empiricists who too must

assume their respective starting points to be true in arguing for the validity of their positions. The presuppositional apologist is not immune to this narrow circularity; he must begin with Scripture, resting upon the claim that the Bible is God’s Word because it says so. However, in doing so, he is arguing from no more logically invalid a position than the aforementioned examples.

Polanyi also recognised the link between knowledge and morality. He posited $2+2=4$ to be true not only mathematically, but morally as well. In like manner, he asserted that not only was $2+2=5$ a lie mathematically, but morally also.⁵³ In other words, to be true, knowledge must be morally correct. He stated that there was a profound interconnectedness between epistemology and ethics, and that the knowledge found in them obligated one to the responsibility of acting in accordance with the truths therein expressed. Once more we see agreement between the views of Polanyi’s system of tacit knowledge and the views of the Christian apologist who too recognises that all knowledge is ultimately ethical in nature. It is thus because he knows that God as truth is the ultimate source of knowledge, and therefore all knowledge must conform to its source: the nature of God himself. For, ultimately, ethics reduces to the question of conformity or non-conformity to the nature and character of God.

Closely related to this idea of ethics is the interconnectedness of the concepts of fact and value. A thoroughly Christian view must assert that there is no disjunction between the two. The point of unity between these two categories can be found in the fact that both derive their existence from God. What is true? As noted earlier, that which is consistent with the character and nature of the one true God, and also the thoughts that comprise the knowledge contained in the mind of God. God’s knowledge is exhaustive knowledge, “. . . because he knows all true propositions about everything that has been, is, and will be, and he does so in a manner that extends to the minutiae of the past, present and future reality.”⁵⁴ Polanyi recognised the existence of an intrinsic bond between fact and value that necessitated a unity of all true propositions.⁵⁵ If there could be a unity of value and fact in the sciences, he asserted that this must of necessity also be true within the humanities. He further posited that one could not know truth if all one knew was facts devoid of value. Polanyi held that facts must be internalised and employed (implying value), or they were ultimately useless.⁵⁶ Polanyi termed this concept “indwelling,” going so far as to assert that one sees God through the act of worship via indwelling.⁵⁷ In this regard we see a tension in the thought of Polanyi that manifested itself not infrequently (and will be addressed more fully later): a tendency to assert the need for an objective basis for truth on the one hand, while leaning towards a subjective verification of it at other times. However, all things considered, Polanyi’s

53. Polanyi and Prosch, p. 195f.

54. Paul Helseth, “On Divine Ambivalence: Open Theism and the Problem of Particular Evils,” *JETS* 44:3, (Sept. 2001), p. 493.

55. Polanyi, *The Study of Man*, pp. 37, 85.

56. Polanyi, *The Tacit Dimension*, p. 16; Polanyi and Prosch, p. 39.

57. Polanyi, *The Tacit Dimension*, p. 17; Polanyi and Prosch, p. 156. Regrettably Polanyi’s “God” was not the biblical God, for he saw the religions of the world as paralleling the different areas of scientific study. As each branch focuses on different areas of reality, Polanyi saw all religions focusing on different parts of the divine.

49. As quoted in Ann Lamont, “Blaise Pascal,” *Creation Ex Nihilo* 20:1 (Dec. 1997–Feb. 1998), p. 38.

50. Abraham Kuiper, *Christianity: A Total World and Life System* (Marlborough, N.H.: Plymouth Rock Foundation, 1996), pp. 49–60.

51. Polanyi and Prosch, p. 35f.

52. “Tacit Knowing, Truthful Knowing.”

concept of tacit knowledge intersects the truth of Scripture at many junctures, and offers the Christian apologist numerous potential points of contact with those who have affinities for viewing science as a sure means of attaining true knowledge. For, as has been demonstrated, Polanyi's system of knowledge undermines this popular view of science.

Polanyi and Postmodern Thought

Central to the views of the Enlightenment period was the assertion that fact was both public and universal, while value and opinion were private and particular. Conversely, the reigning paradigm of postmodernism holds that values and opinions are everything while facts are nothing. This reduces all thought to subjective value. Contrasting with both of these Polanyi argued that truth and values are neither relative nor subjective, and that there is no epistemological blank slate (despite John Locke's claim to the contrary), but that there is an ultimate basis for knowledge.⁵⁸ He argued that false ideas about these matters would ultimately destroy reality. Again we find essential agreement between Polanyi and the view of the biblical apologist who knows that there is an ultimate norm for both truth and value, but that that ultimate norm can be known personally, as contrasted with the abstract norm posited by Polanyi.

At one point, Polanyi assaulted head-on the notion of socially constructed truths and morals. He denounced in the strongest terms those who assert that each society is free to maintain its own standards of "truth," thus enabling them to have a society that functions efficiently within the bounds of those culturally defined standards. Polanyi noted that it was in this manner that anthropologists have upheld the propriety of such barbaric practices as head hunting. Furthermore, he pointed out that if there were no trans-cultural values, there would yet be one value that seemed pervasive: the claim that all societies should be free to practise their own values. He correctly asserts that this view would then become a trans-culturally cherished value, and thus the entire enterprise collapses as a self-refuting system of values.⁵⁹

Polanyi recognised the necessity for something more than an attempt at anthropological determinism as a basis for morals and truth. He went so far even as to appeal to C. S. Lewis' arguments against positivism as put forth in *The Abolition of Man*. Polanyi recognised that an impersonal universal mind such as that which was part and parcel of positivism would ultimately make meaning impossible, not only in science, but in everyday life as well. This follows from the view that nothing of value can come from something incapable of ascribing value.⁶⁰

Polanyi understood that for particular things to have meaning, they must be related to some overarching whole. Thus he hoped to guard against the systematic dismembering of a text's meaning by way of over analysing its constituent parts.⁶¹ In taking this position, he sat himself in opposition to one of the hallmarks of postmodernism—the deconstructing of texts, whereby the reader becomes the authority over its meaning (in contrast to the long held view of the author as authority over his creation). This, of course, raises questions of whether or not language is able to transcend

personal knowledge and communicate something of meaning beyond the self. Polanyi asserted that words had meaning, and that the meaning arose not from the subjective understanding of the receiver of the language, but in the object that the word designates.⁶² Additionally, he drew a parallel between a child learning to talk who does so only because he assumes that the words he hears have meaning, and the scientist who employs scientific doctrine and methods that can be used to communicate in a manner that will be understood by those who likewise know the "language."⁶³ Consequently, for Polanyi, words and their meaning were able to transcend culture. This view has been elaborated upon by one of his modern interpreters, who posits that for Polanyi, "... the pursuit of science transcends the limitations of culture."⁶⁴

This view of language as capable of communicating truth external of the speaker or receiver is essential to the truthfulness of the Christian message. From the beginning of creation, God used words to communicate with the creatures he had made to be his image bearers. God spoke to Adam in words that conveyed real content both before and after the fall. Jesus as God incarnate is said to be the Word made flesh (John 1:14). Language is not limited to the objects it refers to at any time and place. It is able to transcend both, allowing intelligent beings to share non-physical ideas. It is sufficient for communication between God and man in both the written revelation of Scripture, and in prayer.⁶⁵

There are those however who would lay claim to Polanyi as a point of contact between postmodernism and the disciplines of philosophy and science. It has been proffered that Polanyi is in actuality a scientist who has, "... abandoned the attempt to analyse science as the form of culture capable of complete objectivity, to analyse language solely in terms of its referential force, and to make representational knowledge impersonal and to split fact from value."⁶⁶ Such a position shows evidence of either a selective or less than thorough reading of the whole of Polanyi's work (as has been demonstrated by the preceding analysis of his writings). It is certainly true that there are aspects of Polanyi's thought that can be viewed as showing affinities for aspects of postmodernism. Chief among these was his concept of indwelling. However, it is also true that he continually asserts that the indwelling of information via tacit knowledge, though internalised, is not subjectified.⁶⁷ Making his view more clear he further asserts that each person has, "... some measure of direct access to the standards of truth and rightness."⁶⁸ Botez has chosen to ignore these disclaimers. It seems as though Botez has mistakenly assumed that since Polanyi's model for knowledge is *contra* modernism, it is de

62. *Ibid.*, p. 69f.

63. Polanyi, *Science, Faith and Society*, p. 45.

64. Sheldon Richmond, "The Two Cultures Problem," paper presented at the 20th World Congress of Philosophy, Boston, Massachusetts; pp. 10–15 August 1998. Available at <<http://www.bu.edu/wcp/Papers/Scie/ScieRich.htm>> accessed 21 Nov. 2001

65. Gordon R. Lewis, *Testing Christianity's Truth Claims* (Chicago: Moody, 1976), p. 115.

66. Angela Botez, "Michael Polanyi and Lucian Blaga as Philosophers of Knowledge," paper presented at the 20th World Congress of Philosophy Boston, Massachusetts; pp. 10–15 August 1998. Available at <<http://www.bu.edu/wcp/Papers/Comp/CompBote.htm>> accessed 21 Nov. 2001.

67. Polanyi, *Science, Faith and Society*, p. 46.

68. Polanyi, *The Study of Man*, p. 89.

58. "Tacit Knowing, Truthful Knowing."

59. Polanyi and Prosch, p. 26f.

61. Polanyi, *The Tacit Dimension*, p. 18ff.

60. *Ibid.*, pp. 27–30.

facto *pro* postmodernism. While Polanyi rejects essential elements of modernism, he likewise (as already demonstrated) rejects essential elements of postmodernism. One may correctly assert that Polanyi's thought is postmodern (coming after, or in reaction to that which may be identified as modern), but such an assertion fails to distinguish between postmodern and postmodernism—the former refers largely to a timeframe, the latter to an encompassing worldview.

Botez further claims that within Polanyi's tacit dimension, "Humans rely upon elements from their social location, tradition, and community in order to affirm that what they believe is knowledge."⁶⁹ Such a claim makes "truth" a prisoner of subjective opinion. It is at this point that an attempt to clearly articulate Polanyi views becomes a challenge. On the whole, the breadth of his writings lean towards an informed view of knowledge that recognises that humans are more than just physical creatures, that they possess another dimension that is beyond the physical. This aspect of humanity is succinctly articulated in his theory of tacit knowledge. He asserts the reality of non-tangibly existing things;⁷⁰ even more, he argues for the priority of the non-physical over the physical, insisting that

I shall say, accordingly, that minds and problems possess a deeper reality than cobblestones, although cobblestones are admittedly more real in the sense of being tangible. And since I regard the significance of a thing as more important than its tangibility, I shall say that minds and problems are more real than cobblestones.⁷¹

It is important to note that Polanyi's comments in the above passage follow on the heels of a thought that closely parallels the quote employed by Botez as evidence of Polanyi's rejection of an objective basis for epistemology.⁷² In both instances, Polanyi comments upon the nature of things to reveal themselves, at some future point, in unexpected ways that are not limited by one's ability to conceptualise in the present.

However, this is of no concern to the Christian, for it closely approximates the state of affairs that actually does exist in the world as we know it from God's revelation. 1 Cor. 2:9 states that there are, "Things which eye has not seen and ear has not heard, and which have not entered the heart of man, all that God has prepared for those who love him." Clearly, an inability to accurately conceptualise a future state of affairs does not preclude one from having some measure of understanding of future things. God as the source of metaphysical reality is himself spirit (Jn 4:24); thus, the physical realm owes its existence to the infinite spiritual existence of God. Additionally, the physical is only temporal, but the spiritual is eternal.⁷³ Again, the Bible gives us the basis of this truth, asserting that, "Heaven and earth will pass away, but My words will not pass away" (Mt. 24:35).

This is not to dismiss lightly the postmodern affinities read into Polanyi by Botez. However, the most problematic to deal with is not the insistence on the indwelling of knowledge for it to be true knowledge. Scripture asserts in

James 2:19 that intellectual acknowledgment of a true state of affairs (that God is one), is not sufficient for biblical faith, for it goes on to note that, ". . . the demons also believe, and shudder." Thus, the idea of internalisation of knowledge is not in and of itself problematic. The challenge for the Christian who would seek to make use of Polanyi's epistemological system as a point of contact between himself and the non-believer is how to deal with those aspects that do bear a correspondence to postmodernism. Such ideas include:

1. *Community as the loci of truth*—Polanyi depicts scientists as working in community to determine what constitutes scientific truths that are somehow binding on everyone.⁷⁴

2. *A pluralistic view of religion*—Polanyi sees all religions as having useful myths containing truth that is made manifest in the act of worship, allowing the worshipper to "see God" via their imagination fueled by the myth.⁷⁵

3. *The lack of an overarching meta-narrative for life*—Everyone can experience the reality of tacit knowledge since it is a framework that all facets of society work through; but the content is supplied by individual disciplines. Thus, each is free to cultivate its independent truth that has no authority beyond that discipline's pale.⁷⁶

One needs to remember that though Polanyi held that tacit knowledge was internalised, and thus contained an element of personalisation, it was not left unanchored to reality. He asserted that perception as an act of tacit inference must correctly correspond to the external reality that objectively existed outside of an individual's observation.⁷⁷ He posited that this reality was ultimately of some spiritual quality, even at times referring to the reality as God, and suggesting that humanity is able to sustain communication with, ". . . the same source that first gave men their society-forming-knowledge of abiding things."⁷⁸ It would also be useful to consider Polanyi's premises about tacit knowledge in a manner suggested by Jeff Siemon, lecturer in Presbyterian Studies at Christian Theological Seminary in Indianapolis. He has recommended that one approach Polanyi's thought along the following lines.⁷⁹

1. There is an intuitively moral level of knowledge that can be seen in the following:

- *You observe a stabbed body floating in a river.
 - Physics tells you there is light hitting your eyes; you notice how the body floats
 - Biology tells you the cause of death, and the rate of decay
- *But your focus *should be* that there has been a murder.

2. Science is Personal Knowledge

- *For something to be known, there must be a knower.

74. Polanyi, *Science, Faith and Society*, pp. 50–56.

75. Polanyi and Prosch, p. 154ff.

76. Polanyi, *The Tacit Dimension*, p. 83f.

77. Polanyi and Prosch, p. 108.

78. Polanyi, *Science, Faith and Society*, p. 83f.

79. Jeff Siemon, "Michael Polanyi: Alternative to Postmodern Philosophy," available at <http://www.cts.edu/FacHomePages/siemon/Power_Point/Michael%20Polanyi_files/frame.htm> accessed 3 June 2000. While Siemon provides several valuable insights, contrary to the power point presentation's name, he in the end succumbs to a pseudo-postmodern approach that focuses on "story" and "community" as key to communicating the exclusive message of the gospel.

69. Botez. 70. Polanyi and Prosch, p. 67.

71. Polanyi, *Tacit Dimension*, p. 32f.

72. Botez makes no citations in her paper, so it is difficult to ascertain with certainty the origin of her quote. The passage to which this paper refers is *Tacit Dimension*, p. 32.

73. David Noebel, *Understanding the Times* (Eugene: Or, 1994), p. 165f.

- *How does Polanyi overcome “subjectivism”?
 - Science is *personal knowledge* with *universal intent*
 - I believe that you can know what I know and will find it true if you act on it⁸⁰

3. Applying Polanyi to Christian Faith:

- *We proclaim, “Jesus Christ is Lord”
 - We confess this as: *personal knowledge* with *universal intent*

In conclusion though, it would seem that overall, Polanyi’s view of knowledge presents more challenges than affinities for a postmodern perspective. Such an assertion rests not only on the previous analysis of his position, but on the claim he made for science. He held that the act of scientific investigation resulted in the creation of knowledge, but not a subjective knowledge, for though the choices made by the scientist as to what inquiry to pursue are his own, “What he pursues is not of his making; his acts stand under the judgment of the hidden reality he seeks to uncover. His vision of the problem, his obsession with it, and his final leap to discovery are all filled from beginning to end with an obligation to an external objective.”⁸¹

A Brief Analysis of Polanyi’s Tacit Knowledge

Though there is promise for how Polanyi’s theory of knowledge might be incorporated by sensitive and mature believers for apologetical endeavors, it is not without its flaws. Ultimately these derive from internal inconsistencies

80. This interpretation is diametrically opposed to that given by Botez, who claimed that, “Polanyi emphasises the role of the activity of the knower in the formation of knowledge and also is aware of their variability while insisting that we aim at truth ‘with universal intent’ although we can never quite get there.”

81. Polanyi, *Tacit Dimension*, p. 77.

(such as those seen in the application of Polanyi’s system to interacting with postmodernism). Other anomalies would include the lack of a sufficient basis for a view of morality that can fully escape some measure of subjective relativism. For example, the validity of scientific inquiry is not ultimately linked to whether or not it arrives at some theory that corresponds to reality—the only necessity is that it becomes part of, “. . . the whole system of scientific life rooted in a common tradition. Here is the ground on which the premises of science are established.”⁸² In a similar vein he later proffers, “Hence tradition, which the rationalist age abhorred, I regard as the true and indispensable foundation for the ideals of this age.”⁸³

A Brief Concluding Postscript

It has been demonstrated that Polanyi’s ideas in the area of epistemology as expressed in his concept of tacit knowledge are at several points in agreement with the ideas of presuppositional apologetics. However, Polanyi cannot be the starting point for an assertion of the truthfulness of God nor of his Word. Nonetheless, Polanyi’s work might be of particular help when engaging someone caught up in the view that science alone is the source of truth, and perhaps as well for those who are trapped in the subjectivity of postmodernism. One might be able to employ effectively Polanyi’s insights after granting the non-believer his or her view for the sake of argument; in so doing the Christian apologist might find a point of contact that enables them to draw to the surface the one ultimate tacit truth that has been placed in the hearts of all humanity throughout all time: “. . . that which is known about God is evident within them; for God made it evident to them” (Rom. 1:19). *C&S*

82. Polanyi, *Science, Faith and Society*, p. 52.

83. *Ibid.*, p. 83.