The apologetic issue the Church faces as it commends its truth claims to a secular world is not so much that of biblical authority as that of theological authority. In what sense can a secular world dominated by science take theological knowledge claims seriously? After all, science is about knowledge, truth and reality, while theology is about faith, belief and what can at best be described as subjective truth. Or perhaps not.

This essay outlines the epistemology of Michael Polanyi and highlights how his work complements hermeneutical theory. Polanyi turned to philosophy from a distinguished career as a scientist, publishing over two hundred papers. For him, objective knowledge, understood as knowledge that is impersonally detached and foolproof, is a contradiction in terms. As human agents we are inescapably committed to acting in faith upon sincere beliefs that we hold to be universally true. This we can do with confidence only when we have seen the error of equating knowledge with impersonal objectivism.

In this paper I outline Polanyi's view of knowledge and reality and then suggest that Polanyi's 'personal knowledge' bridges the gap between faith and science, and between hermeneutic understanding and scientific explanation. While science and theology study different aspects of reality they do so in remarkably similar ways, both resulting in 'personal knowledge'.

My project involves a bringing together of theological and philosophical hermeneutics with Michael Polanyi's view of scientific knowledge. This work arises out of research I did on Polanyi years ago and an intuition—also shared by many of his fans—that Polanyi's explanation of the scientific pursuit is remarkably amenable to theological adaptation. More specifically, I want to flesh out some theological aspects of what one scholar has called ‘the striking resemblance between Polanyi's model of scientific understanding ... and Gadamer's model of hermeneutical understanding’ both of which are based on a critique of objectivism within their fields of interest.¹

But here I hope simply to give us a taste of Polanyi's view of the natural sciences and indicate how such a view opens an apologetic door for theological realism. Why apologetic? My thinking is this: the common view of science—that it guarantees impersonal and objective truth about reality—has contributed to skepticism about all things non-scientific. On these grounds the possibility of theological truth claims seems ludicrous to many and in this sense the authority of theology in the marketplace of ideas is gravely in question. My suggestion is that such skepticism would be chastened if the true nature of the scientific endeavor were better understood.

Let me set the stage by citing one of my students from years past. He said:

> I believe there are no correct answers to moral questions, ... only what individuals believe to be correct. ... It can quite clearly be seen from [the abortion] question that there is no right or wrong answer, only what the individual believes to be right or wrong. The question is quite clearly a matter of taste where there can be a variety of answers. It cannot be scientifically proven whether women should be permitted to terminate pregnancies.

In a nutshell, this quotation captures the problem we are wrestling with today. The problem implicitly raised by my student might be put like this: how can we take the possibility of moral knowledge and by corollary theological knowledge seriously in an enlightened scientific world; a world where we know that true, objective and impersonal knowledge comes from science; a world where we know that religion and morality are relative, personal, subjective and merely a matter of taste?

The reason for using this quotation is not to provoke moral debate. The point is that my student's argument rests on a commonly held view of

science as the epitome of truth, and the only means of access to non-subjective reality. Central to this modern mythology is the belief that there is a yawning chasm between two sorts of human pursuits: We have the mutual exclusivity of knowledge and belief, of objectivity and subjectivity. We have facts and values, we have truth and opinion, we have proof and ignorance and we have certainty and faith, each one polar opposites. We call one side the realm of science and the other we call religion or philosophy or, in the ultimate of put-downs, we simply call the other side 'non-science'. The inevitable result is that it goes without saying that reality lies on one side of the chasm while theology as well as morality and aesthetics lie on the other.

It is this view of knowledge and reality that is implicitly summed up by my student when he says that there are no correct answers because there is no scientific proof. While my student may have been ignorant of the fact, there are clear echoes of Nietzsche's dictum that, ' ... there are no moral facts whatever. Moral judgment has this in common with religious judgment, that it believes realities which do not exist.'

Let's turn now to Michael Polanyi's view of science. In his magnum opus called *Personal Knowledge* Polanyi, already a successful world-class scientist, expressed his objective as follows, 'The principal purpose of this book is to achieve a frame of mind in which I may hold firmly to what I believe to be true, even though I know that it might conceivably be false.'

In an intellectual climate where knowledge is equated with objectivism and certainty, it seems grossly insufficient to talk of holding to what we believe to be true, even if we know it might be false. Polanyi's 'personal knowledge' not only challenges those views that accept the possibility of detached, objective knowledge but it also undermines those views which, while they reject the practical possibility of objectivity, nevertheless accept the ideal of knowledge as objective and impersonal. In this sense, Polanyi rewrites the rules about what counts as 'knowledge' by showing the incoherence of the way the concept is commonly used.

Polanyi shows that 'objective knowledge', understood as impersonal, detached and foolproof, is a contradiction in terms and that as human beings we are inescapably committed to acting in faith upon sincere beliefs which we hold to be universally true. This we can do with confidence only when we have seen the error of equating knowledge with impersonal ob-jectivism. But this must not be seen as a retreat into subjectivism for while we may not claim sure knowledge, we may still claim that our beliefs are about the real world and that they are universally true.

The contrast and challenge to common understandings of science that this view presents is clear, for the explicit aim of science is to establish an impersonal and objective knowledge. And in so far as science falls short of this ideal it is seen as a temporary state to be rectified by more and better science. But Polanyi's suggestion that there is an indispensable tacit element in all human knowing means that the ideal of attempting to eliminate all personal elements of knowledge would, in effect, be aiming at the destruction of all knowledge.

One approach to justifying the validity and reality of religious truth is to argue with Nietzsche's position by trying to show somehow or other the possibility of objective theological knowledge. An example might be an apologetic that claims to argue scientifically for the existence of God or more polemically, for a young earth creation on biblical grounds. But this approach, which doesn't question the objectivist view of knowledge, suffers from the same self-defeating misunderstanding about the nature of scientific beliefs that Polanyi exposed: it consists in accepting the received view of science and arguing that theology can be done the same way.

Another response of the theological fraternity is firstly to accept implicitly the received view of science as the only source of universal truth about any extra-human reality, and then to agree that theology does not meet such criteria. And so while theology might be appealing and personally significant it is ruled out of making universal truth claims.

My suggested starting point though is not to accept the view that theology can't make claims about the things of God as science does about the natural world. Nor is the way forward to dress up theology in the scientific emperor's clothes in order to make it look more credible by conforming to an incoherent view of ideal knowledge.

To put it in simple terms, it's not that theology has to be like science to be credible. It's that we need to trumpet to the sceptic that science in practice is already like theology. That is, they are both hermeneutic exercises where the outcome is personal knowledge held to be true with universal intent. Personal because it is the result of a fiduciary act of commitment and universal because its claimed object is not just 'true for me' but is grounded in reality independent of the knower.


Let me turn to Polanyi’s epistemology. Polanyi would say that in order to demonstrate the incoherence of the 'detached objectivity' view of knowledge it is sufficient to show that all knowledge must necessarily involve a personal, non-objective, element that in the last analysis is unspecifiable. This tacit component of knowledge involves a personal commitment on the part of the knower that is based ultimately and inevitably on faith. To know anything, such commitments are always involved; a step of faith, for which no certain or further justification can be offered. Hence all knowledge is personal knowledge; something believed without ultimate proof by a knowing subject to be true.

One of Polanyi’s key insights is summed up in his phrase, 'we know more than we can tell'. Polanyi showed that in all scientific knowledge and especially in the process of discovery there is always and inevitably a tacit coefficient, a hidden element, which is an essential aspect of our knowledge but which we do not focus upon. And in fact it is often impossible to focus upon this aspect explicitly. We know more than we can tell.

Is it possible, for example, to explain exactly how to ride a bike? Those who know how to ride a bicycle also know that we know, although as we ponder it we recognise that we cannot tell precisely what it is to know how to ride. That is, we know something that we cannot tell. And if someone happens to tell us the mathematical formula governing bike riding we are still likely to maintain that we knew how to ride a bike without being able to formalise it explicitly. And for those who would like to learn to ride, the essence is this: when you are off balance you need to perform the counter intuitive action of turning into the direction of fall so that the radius of curvature is proportional to the square of your linear velocity and inversely proportional to the tangent of the angle of lean. Simple really!

Or take another example: how would someone define precisely how to go about recognising the face of one’s mother or child in a crowd? What are the explicit characteristics of that familiar face that one could describe to others so that they too would infallibly recognise them if they met them? If a person has trouble with an exact definition does this mean that she really doesn’t know what her mother looks like? Such a suggestion would bring the rebuttal that in fact the person does know that face even if she can’t specify explicitly how she knows.

To give similar examples from science, think of how much time is spent by the budding geologist in learning the art of recognising rock

5. Polanyi, Personal Knowledge, x; Tacit Dimension, 8.

It is this circular, or perhaps hermeneutic, logic that is crucial to what I am suggesting and we need to recognise that ill human beliefs, including scientific claims to knowledge, also beg the question in the same way. The biologist does not define life but rather tries to identify in an organised manner that which is already known and recognised. The doctor who recognises a new disease cannot do so by rules that unfailingly identify that disease, for as yet it doesn’t even have a name let alone a reference in a medical textbook. Nevertheless, this lack of explicit rules and identifying symptoms does not prevent us believing that new diseases do exist in reality and are identified.

What Polanyi convincingly shows us is the fact that this sort of highly personal, tacit knowledge, which is neither formal nor explicit, is necessary for science and indeed any human activity to proceed. In the words of one commentator on Polanyi’s work:

There is no purely objective knowledge, because nothing can be called knowledge that is not personally accredited as knowledge. Facts do not force themselves upon us. What we call 'facts' always involve our judgment (with some degree of risk) that something is a fact. What is acknowledged as a fact is, of course, something in which we must believe. But it is so acknowledged because we first do, in fact, believe it ... In a different way subjective knowledge would also be a contradiction in terms. The purely subjective has reference only to the person involved.

Let me close by stating my contention provocatively. I am proposing that there is no fundamental distinction between what we call scientific knowledge and what we call religious belief. While the objects of investigation are ontologically distinct, the epistemological process is remarkably similar, and if this were recognised then theological discussion would rightly regain its authority; if not as the queen of the sciences, then at least as an equal partner in the public and academic debate about what is real. For there simply is no chasm between knowledge and belief.