

Religious Pedagogy From Tender to Twilight Years:

Parenting, Mentoring, and Pioneering Discoveries by Religious Masters as Viewed from within Polanyi's Sociology and Epistemology of Science

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ABSTRACT Key Words: Michael Polanyi, science, epistemology, apprenticeship, mentoring, religious development, self-transforming discovery, tradition.

Polanyi broke through the notion that science has a distinct methodology and epistemology which sets it apart from the other cultural disciplines (law, medicine, music). When it came time to address the issues of how Christianity functions, however, Polanyi unfortunately lapsed into romantic notions based upon his own ill-informed and marginal participation in the religious enterprise. By way of addressing this deficiency, my study puts forward seven theses designed to demonstrate that everything which Polanyi put forward regarding the transmission of a scientific heritage through a successive series of apprenticeships can be seen as functioning within the religious enterprise as well. Then, when it comes to the role of masters in pursuing lines of inquiry which sometimes lead to self-transforming acts of discovery, such feats can be understood as defining the function of creative theologians and pastors who both exhibit and transform the tradition in which they dwell. In conclusion, my inquiry will attempt to show that, when Polanyi's own inadequate assessment of religion is set aside, one comes to a proper understanding as to how religious pedagogy actually functions within the Christian enterprise.

Michael Polanyi broke through the notion that science has a distinct methodology and epistemology which sets it apart from the other cultural disciplines (law, medicine, music). When it came time to address the issues of how Christianity functions, however, Polanyi unfortunately had to entirely rely upon the fragmented notions which he gained from his close colleagues since he himself had only an ill-informed and marginal participation in both Judaism (the nominal faith of his parents) and Christianity (which intrigued him after his arrival in England)[See Appendix.]

Given the inadequate nature of Polanyi's own religious self-understanding, this paper will attempt to spell out what Polanyi **might have said** had he been a theologian. My goal is not to enter into the debate as to how to interpret Polanyi's analysis of religion; rather, it is to start over and to offer seven theses which sketch the broad lines of how the religious and scientific enterprise rely upon roughly parallel processes from the tender to the twilight years.

Polanyi attempted to maintain that science and religion have some "common ground" (Polanyi:1961, 1963a; PK:279-286). This topic has intrigued numerous scientists and theologians (e.g., Coulson: 1968, Rahner: 1967). Among these, T.F. Torrance has done more than any other individual by way of bringing Polanyi's epistemology of scientific knowing to bear upon the theological enterprise (esp. Torrance, 1969: 281-382; 1984: 303-332). In the preface of his 1984 volume, he writes in his preface as follows:

[I]n the process of my explorations, . . . I became increasingly convinced that theological and physical knowledge, scientifically and rigorously pursued, have a great deal in common in spite of their very different objectives (Torrance, 1984: xii).

Torrance critiques Catholic theologians “as trapped in obsolete dualist structures of thought,” (Torrance, 1984: xiii), while he himself appears to be overly confident that Barth’s distinction between grace and nature, between divine revelation and human discovery, is foundationally correct. All in all, I find Torrance’s reliance upon Barth to have the effect of eroding much of Polanyi’s foundational conviction that religion and science rely upon the same human processes of knowing.

My own starting point has been to emphasize the Thomistic medieval notion that **grace builds upon nature**, i.e., grace elevates nature but, at every point, grace relies upon nature. As such, therefore, religious knowing and even the act of receiving revelation itself, might be understood as a human activity which takes place within the epistemological constraints and the sociological conditions which govern all knowing. Revelation, it must be emphasized, is always revelation for us and to us—hence, medieval Thomists as well as contemporary theologians are not far apart when it comes to allowing that everything that we can know or say about God necessarily has an anthropomorphic foundation.

Taking this as my point of departure, I can now proceed to rely upon my dual training in both physics and theology to sketch out a tentative set of theses which Polanyi might have put forward had he been more solidly initiated into a religious tradition.

Thesis 1: In the first instance, religion is an acquired skill. A child progressively acquires the particular tacit powers of recognition which are habitually and spontaneously exhibited by parents and guardians. In this way, children assimilate their parents’ religious experiences with the same reliability that they assimilate their responses within the various secular domains of life.

My starting point will not be an esoteric epistemology of how “God” is present in the world in a way that differs from, let us say, the presence of “neutrons.” Rather, my starting point will be the evident experience that Christians, once they are adequately trained, acquire tacit skills which enable them to “taste and see” the “hand of God” operating in their individual and collective lives. Without an adequate apprenticeship, “God” generally remains “an idea,” “a projection,” or even “a superstition” which **others have** but which never shows up “for me in my life” (as in the case of the oracle-poison of the Azande, *PK:287-292*). As Polanyi correctly notes: “You cannot speak without self-contradiction of knowledge you do not believe, or of a reality which [in your mind] does not exist” (*PK:303*). After an adequate apprenticeship, however, the tacit powers of knowing and of judging are so transformed such that the “God” inevitably and stubbornly shows up in expected and unexpected ways during the whole course of one’s life. This is what persuades average Christians that “God is alive and well.”

A parallel can be drawn with a young science student who, in due course, might become a nuclear physicist. At some point, “neutrons” is only “a new word” which appears to have significance for others, but which has had absolutely no place within the life experience of the one hearing it for the first time. Thus, even for students in science, they begin by “believing” in neutrons and, only in due course, having been guided by their trusted mentors, do they arrive at a point when they “see” and “experience” the effects of neutrons **for themselves**.

Some science students will walk away from this experience and only give “neutrons” passing attention for the remainder of their life. At this point there is a distinct analogy with the young person who grows up in a lukewarm Christian environment and who only gains some limited, spontaneous experiences of “God.” Such persons generally feel no lure to pursue “God” or to give those limited experiences any significant attention or weight in their lives.

On the other hand, some science students will be absolutely riveted by the activity of subatomic particles (for example, as “seen” within a Wilson Cloud Chamber) and feel the compelling lure to extend their knowledge and their experience of such things. Only a kind of spontaneous admiration (not only for the masters, as Polanyi would have it, but also for the “realities” themselves) sustained and pursued over many years during arduous apprenticeships can produce a **productive** nuclear physicist. With Polanyi, I emphasize “productive” because, without spontaneous and sustained admiration, a prolonged apprenticeship can result in a pedantic and bored physicist who, for practical purposes, is reduced to merely applying but never extending and transforming what he/she has learnt. In parallel fashion, one finds many Christians who superficially practice and study their religion (sometimes having even gained graduate degrees) yet who, in the end, pass their entire lives devoid of any fresh lure or engaging experiences of the living God.

Everything that Polanyi developed respecting the practice of skills within a convivial society bent upon transmitting its lore from one generation to the next can be applied equally to the production of a committed Christian or the creation of a productive nuclear physicist (*PK*:49-56, 204-211). I will assume that my readers can fill in the details here. Let only a summary statement from Polanyi suffice:

Every mental process by which man [or woman] surpasses the animals is rooted in the early apprenticeship by which the child acquires the idiom of its native community and eventually absorbs the whole cultural heritage to which it succeeds. Great pioneers may modify this idiom by their own efforts, but even their outlook will remain predominantly determined by the time and place of their origin. Our believing is conditioned at its source by our belonging (*PK*:322).

Thesis 2: Traditional Christian theology has taken the course of describing the reception of faith through baptism within a Cinderella mentality. Behind every Cinderella transformation, however, one can detect an Eliza Dolittle story working quietly and unobtrusively in the background. Consequently, the one-sided supernatural claims made by the traditional theology of baptism only hold up because these claims are supplemented and corrected by efficacious practice.

My own religious upbringing was dominated by what might be called the Cinderella mentality. By this I mean that the processes of spiritual regeneration advocated by my church fell into line with the mood and the thought patterns surrounding Cinderella’s transformation. As such, those narratives in which Jesus empowered his disciples were made to appear as effortless and instantaneous acts on Jesus’ part. It was made to appear that the disciples contributed nothing to their self-transformation save for their willingness to be passive recipients. They could no more contribute to their supernatural transformation than could the fabled Cinderella who was entirely dependent upon the “magic” of her fairy godmother.

The Cinderella mentality dominated what traditional theology had to say about faith and baptism. As far as adults were concerned, it appeared that **God alone** gave the grace of faith to some and not to others. No amount of human effort, it was emphasized, could bring a person to faith. A Christian might exhibit or witness their faith to a neighbor, a missionary might preach the Word of God; yet, in the end, it was entirely the Gift of the Holy Spirit that brought one person to accept Jesus Christ while another went away, like the rich young man, with a heavy heart.

While there is surely an element of unspecificity (see *PK*:62f) in why one person feels a spontaneous admiration for a person, for an ideal, for a tradition which leaves another cold, none the less, the role of tacit powers acquired

due to one's belonging cannot be neglected. Imagine, for example, what happens to Christian infants or young children who, in times of war, have been separated from their parents and raised by parents devoted to another God—Allah or Krishna or Vishnu. Such children end up spontaneously and habitually experiencing the “God” of their adoptive parents even though they might have been formerly baptized as Christians. The same thing can be said of children who happened to be raised by committed atheists who shape their children to believe that “God” has no more reality than the “fairies” and “dragons” which populate the imaginative stories written for children.

The presence of tacit powers of knowing shaped by one's acritical childhood upbringing and by one's freely embraced adolescent and adult apprenticeships shows up not only in the early formative years but also in the liminal experiences in the twilight years of one's life. Elizabeth Kübler-Ross and others have documented how, in the case of near-death experiences, Christians frequently meet someone “on the other side” whom they, often enough, identify as a lost loved one or even as “Jesus.” When medical doctors chronicle such near-death experiences in India, however, they discover that their patients now speak of meeting “Vishnu” or “Krishna”—with never a single instance of Jesus showing up. All this goes to demonstrate that, even in the extremities of life when the brain is beginning to shut down due to lack of blood/oxygen, those tacit powers of recognition which one cultivated during life still are in control.

When one examines the church's traditional theology of baptism, one quickly discovers that the Cinderella mentality dominates and that little or no regard is given to “nature.” For instance, even in the case of infants, the *Universal Catechism of the Catholic Church* (1989) affirms a mighty list of the wondrous effects of baptism:

By Baptism, **all sins** are forgiven, original sin and all personal sins, as well as all punishment for sin. . . . Baptism not only purifies from all sins, but also makes the neophyte “a new creature,” an adapted son of God. . . . The Most Holy Trinity gives the baptized sanctifying grace, the grace of **justification**: enabling them to believe in God, to hope in him, and to love him through the theological virtues . . . (sec. 1263, 1265f).

My own parents were committed to the church and its theology of baptism. On the first Saturday following my birth, my parents dutifully took me to Holy Cross Parish and presented me to Fr. McMonigle for baptism. They firmly believed that the Sacrament would work some great and mysterious transformation that they themselves were entirely incapable of effecting. They stood helplessly and nervously as the priest conducted his sacred rites on behalf of their firstborn son. After my baptism, they felt a sign of relief: my soul had been purified of sin. Now I was a child of God and had the supernatural gift of faith. It never occurred to them, as I was beginning to speak, that I said nothing about “God.” It never occurred to them, when I turned five and began to attend church each Sunday with them, that I didn't have the least sense of “God” being in the church. What I did notice, however, is that my Dad and Mom were mysteriously quiet. The tradition at Holy Cross was that no one spoke except in hushed whispers as soon as they entered the church. Something like the following exchange took place:

Aaron: “Hey, Papa, why is everyone so quiet?”

Dad: “Shhhhhh! People come here not to talk but to listen to God!”

Aaron: “But I don't hear anything.”

Dad: “Look at that gold box [tabernacle] on the table [altar] at the front of the church.”

Aaron: “Oh, it's shiney! I see it.”

Dad: “God lives in that little box. The people come here to silently talk to God who lives there. And God silently

talks to them.”

This was my first remembered introduction to “God.” My parents never spoke of God in any setting that made any impression upon me prior to that moment. Now, for the first time, I felt that my parents sensed the presence of something or someone which I had overlooked. This was not a first-order sensory impression like the kind offered by the cans of food that I rolled on the kitchen floor or by the cockroaches that sometimes came out from under the icebox. None the less, the clues were present. Sensory effects pointed to some unseen and unheard “presence.” As in the case of “germs” which from time to time made me sick or as in the case of the “tooth fairy” which left nickels under my pillow, “God” was now taken into account by me as the “one hidden in the gold box who silently talks to my parents.” I was impressed.

Meanwhile, my parents were undoubtedly thinking that they were witnessing the effects of baptism. According to the Thomistic theology which they were taught, my uncanny instinct for recognizing the God of my parents and for devoting myself in faith to his service was to be accounted as the “awakening” of the marvelous effects of baptism which were in a “sleeping” phase up until that point.

Had I been left to my own devices and those of my parents, I would have grown up thinking that “God” only appears in churches where people keep silent in order to somehow “hear” him. My father, however, wisely enrolled me in Holy Cross Grade School when I was five. Here, under the gentle care of the Ursuline Sisters, I quickly came to understand and to experience that “God” has many more effects in the world than those of which my own parents were aware. Increasingly I enjoyed both the study and the practice of religion—although it was so painful for me to kneel up straight during the Mass. In due course, I increasingly took God into account. I even began to depend upon “God.” Finally, after many years, I too developed the practice of silently speaking to “God” in the gold box on the altar and I “heard” him wordlessly speak back to me in my heart. The tacit skills exemplified by my parents and by my teachers, therefore, gradually became my very own. What was promoted officially as a Cinderella transformation had all the characteristics of the Eliza Dolittle story.

Eliza Dolittle, it will be remembered, was the flower girl in *My Fair Lady*. Professor Higgins, a professional linguist, took her under his wing and gradually trained her to speak “correctly” and to act like a cultivated lady. During her training, the sheer effort and repetition demanded by a sometimes impatient Professor Higgins often led Eliza to the point of despair. In the end, however, the two of them gradually succeeded. Eliza was taken by Higgins to a ball where a Rumanian count proudly declared that he had discovered the truth despite the professor’s complete silence on the subject, “She is a princess!” Higgins, gloating over **his** success, promptly ignores Eliza. A verbal fight ensues. Eliza rightly declares that it was her efforts that pulled the whole thing off. Furthermore, she claims that, now that she intimately understands the professor’s techniques by virtue of her own apprenticeship, she could go and find another flower girl and effect for her the same self-transformation which she herself has received. Unlike her counterpart Cinderella, Eliza realizes that she is not and cannot be passive in the face of her own self-transformation and that the stroke of midnight will not reverse the expanded powers which she now exhibits.

Using Polanyi analysis of parenting and of apprenticing, one can now glimpse how Christian theology has adopted for itself a Cinderella model of Christian baptism which obfuscates the Eliza Dolittle tradition which keeps the wondrous claims from lapsing into empty superstitions. It is no wonder that, given the growth of secularism in modern society, the Catholic Church has placed a healthy emphasis upon perceiving infant baptism as the beginning of a spiritual journey (technically a catechumentate) which culminates in Confirmation. During this period, parents have the obligation

to exhibit their Christian commitments and to initiate their children into them. In modern China, where societal norms work against a faith commitment, the Catholic Church has even decided to suspend the practice of infant baptism. When I asked “why” this should be the case when, in effect, the Church there was entirely locked into the pre-Vatican practice of Latin rites and of Thomistic theology, I was told, “We found that parents can no longer insure that their children will receive from them their religious commitments. In such circumstances, each one must profess the faith and be baptized for themselves.” When the general culture is directly antagonistic to the religious training which Christian parents give to their children, therefore, the claims made by traditional theology relative to the supernatural effects of baptism are exposed to rethinking.

At this juncture, the practice of the Church Fathers is revealing. Among them, the norm for training converts was the adult catechumenate which extended for two to three years prior to baptism. In effect, an adult transformation of life was presupposed by the instruction, the exorcisms, the examination of life entailed therein. In the pluralistic religious atmosphere of the Roman world, the Church Fathers had no illusions that a mere profession of faith sufficed to render a person fit for baptism or enabled a Christian to sustain a lifelong Christian commitment. Contrary to the medieval theologians who transposed into infant baptism the real effects of patristic baptisms, the Church Fathers had no polyanna confidence in the waters of baptism. Cyril of Jerusalem (d. 386), for example, emphasized that it was fatal to imagine that the efforts of the catechumens could be curtailed in view of some irresistible grace inherent in the baptismal waters. Cyril then proceeded to name persons who had been baptized but not transformed. Gregory of Nyssa (d. 394), his contemporary, even went so far as providing a pragmatic test:

If the washing [of baptism] has only effected the body, . . . and the life after the initiation is identical with that before, . . . I will say without shrinking that in such a case the water is only water, and the gift of the Holy Spirit is nowhere evident (*Oratio catechetica magna* 40).

Far from pressing forward the Scriptural promises accepted in faith (to which Protestants are prone) or exalting the supernatural agency of the rite itself (as was done in the medieval Catholic *ex opere operato*), one can glimpse from what has been said that the Church Fathers took a much more nuanced and existential approach to the efficacy of baptism.

Time and space does not allow an exhaustive treatment of the other rites and the other claims which traditional Christianity has made relative to God’s work in the hearts of believers. Suffice it to note that theology cannot be trusted to explain the human dynamics which, in every instance, are presupposed and undergird the efficacy of every Christian action. Behind every Cinderella transformation claimed by theology, one would do well, therefore, to sniff around for the Eliza Dolittle processes which go unnoticed. Interested persons might consult my analysis of Synoptic exorcisms, ordination rites, and of Pentecostal speaking in tongues (Milavec, 1982: 18-36).

Thesis 3: No cultural tradition (music, medicine, science) can hope to securely promote the cultivation of its heritage without (1) specifying its classical instances as normative and (2) accrediting teachers/mentors to authoritatively interpret/perform these classics. During the time of apprenticeship, the classics function in the hands of the masters of the tradition by way of evoking and imposing correct modes of feeling, judging, and acting upon those novices who wish to participate in and enjoy the specific satisfactions and performance skills associated with a given heritage.

David Tracy has emerged as a major spokesperson for specifying the function of the classics within Christianity as paralleling the role which classics play within the humanities. In his volume, *The Analogical Imagination* (1981), Tracy

argues that the “dangerous memory of Jesus” erupts afresh in new situations, having been evoked by those who honor the Christian classics (texts, rites, events, persons). These fresh eruptions Tracy endeavors to justify as the Christian counterpart of the solemn claim to meaning and truth which the classics in art, music, drama, literature exert upon their respective publics. Tracy himself acknowledges that “the heart of the argument of the entire book may be found in the argument on the phenomenon of the classic” (Tracy: xi).

David Tracy (b. 1939) came to the theological enterprise following upon a classical training in philosophy. Just as Polanyi was obsessed with misleading descriptions of science, Tracy, following in the footsteps of his own personal mentor, Bernard Lonergan, has dedicated himself to providing a description of theology which takes into account the issues raised by our modern historical consciousness. For Tracy, traditionalist appeals to divinely revealed truths and the positivist appeals to a scientific analysis of the past both fail. Traditionalist appeals fail because they lack an adequate sense of the historical and cultural distance which separates the classical expressions of past revelations from our own contemporary horizon of understanding (Tracy: 99f, 105). Lacking such a historical distance, the traditionalist can only authoritatively and mindlessly repeat the past, blind to its ideological conditioning and existential misfit with modernity. “Indeed,” Tracy concludes, “fundamentalist and authoritarian theologies, properly considered, are not theologies at all” (Tracy: 99).

David Tracy draws upon the artistic traditions in order to exemplify how classics exert a public impact which informs and “transforms our perceptions of the real” (Tracy: 115). Michael Polanyi, in his turn, speaks of science as a “fiduciary framework” which is sustained by a community which honors certain basic assumptions (beliefs) that are transmitted through prolonged apprenticeships under competent masters. Polanyi, in my judgment, fails to sufficiently develop the notion of how the classic experiments and theories which inform them serve to inform and impose certain “perceptions of the real” upon those who reproduce them. Thomas Kuhn, who shares enormous common ground with Polanyi including the notion of “tacit powers” (Kuhn, 1970:191, 196) has offered a more compelling function to the way that the classic experiments and problem solving function in the formation of the novice.

When Kuhn first published *The Structure of Scientific Revolutions* in 1962, he coined the term “paradigm” to refer to the habitual operative perceptions and operations which distinguish the scientific community at any given time. In his extensive postscript of 1969, he amplified his use of the term and explicitly acknowledged his indebtedness to Polanyi for the notion of “tacit knowledge” (Kuhn, 1970: 191). In this postscript, Kuhn emphasized that a paradigm is not so much a theory (as understood in the philosophy of science) but more of that “disciplinary matrix” (Kuhn, 1970: 182) imposed upon novices in science which enables them to routinely perceive and judge according to the shared patterns which define the existing scientific community (Kuhn, 1970:176). In their training, for instance, novices reproduce for themselves a classical set of laboratory and pencil and paper problems

After he [the student of science] has completed a certain number [of these problems] . . . , he views the situations that confront him as a scientist in the same gestalt as other members of his specialists’ group. For him they are no longer the same situations he had encountered when his training began. He has meanwhile assimilated a time-tested and group-licensed way of seeing (Kuhn, 1970: 189).

Every apprentice who would become a master within either an artistic or scientific tradition is required to contemplate reverentially and to reproduce painstakingly the classics for him/herself. Thus, future violinists are apprenticed to perform the concertos of Mozart such that they might progressively assimilate for themselves the standards

of performance and the aesthetic sensibilities which are shared by the living masters who take their stand within the charism offered by Mozart. In like fashion, future physicists painstakingly reproduce the Millikan oil drop experiment such that they might develop the stubborn perception that the electrical charge is not continuous but increases or decreases in discrete jumps. At the end of an apprenticeship, the novice knows that he/she has arrived by the fact that the classics evoke the same habits of judgment and the same standards of performance exemplified by the masters of the tradition. In Kuhn's words, "he views the situations that confront him as a scientist in the same gestalt as other members of his specialists' group" (Kuhn, 1970:189).

Within the Christian tradition, the Sacred Scriptures function much in the same way as do the classics in art, music, science, i.e., they serve to evoke and to impose correct modes of feeling and of perception upon a widely dispersed (in place and in time) body of adherents. The Gospel narratives, therefore, in either their oral or written form, were created by way of specifying the particular charism and strategy for living that characterized Jesus of Nazareth. Novices within Christianity are led by their masters to contemplate reverentially and to reproduce imaginatively these narratives until they evoke the same habits of judgment and the same powers of performance which are exemplified by their living masters.

It is sometimes suggested that a Christian only superficially trained can employ the classical texts without the necessity of being directed by a master. Sometimes it is even claimed that the Holy Spirit alone serves as the efficacious teacher of the solitary explorer of the texts. For the uninitiated, this is patently false. Augustine remarks that "every kind of scholastic discipline . . . demands a teacher or a master if it is to be acquired" (*De util. cred.* 17.35). With all the more force, therefore, do the "divine oracles" within the Scriptures demand a master if they are securely "to refresh and to restore souls" (Ibid. 6.13). In our own time, even Protestants such as Peter Stuhlmacher and C.H. Dodd have noted that the Protestant refusal to shackle the intent of Scripture within Papal or dogmatic confines did not mean that the text could properly function outside of the history of its effects within a congregational tradition. Left to oneself, the uninitiated is as incapable of discovering the true worth and function of the Sacred Scriptures as would an inexperienced violinist left entirely alone with the scores of Mozart. The classics are normatively performed and understood only in the hands of the living masters of the tradition.

Thesis 4: The masters of a tradition are not simply skilled repeaters. Every worthy master dedicates his/her energies so as to make fresh contacts with those realities which he/she has been trained to serve in revealing.

Once the initiation process is completed, Kuhn emphasizes that operative patterns have been established which insure certain habitual recognitions. These recognitions, Kuhn claims "must be as fully systematic as the beating of our hearts" and "may also be involuntary, a process over which we have no control" (Kuhn, 1970: 194). Thus, Kuhn emphasizes that the trained scientist perceives the world **differently** than does the layperson:

Consider the scientist inspecting an ammeter to determine the number against which the needle has settled. His sensation probably is the same as the layman's. . . . But he has seen the meter (again often literally) in the context of the entire circuit. . . . For the layman, on the other hand, the needle's position is not a criterion [i.e. a clue] of anything except itself (Kuhn, 1970:197f).

In sum, Kuhn notes that the tacit knowing powers of the trained scientist, informed as they are by his paradigm, operate instinctively and stubbornly. And, since this knowing is locked away within the knowing organism, Kuhn acknowledges that, in the end, "we have no direct access to what it is we know, no rules or generalizations with which

to express this [tacit] knowledge” (Kuhn, 1970:196). Kuhn’s self-expression here is sometimes awkward and unrefined; yet, the common ground shared with Polanyi is quite evident.

Once one allows that tacit powers of knowing operate habitually and stubbornly, one is inevitably faced with the recognition that there is no neutrality in perceiving and analyzing the world. All observation in science is guided and informed by theories and patterns of practice to which the scientist is committed. As a result, from within the community committed to the same paradigm, there exists a functional heuristic circularity. Rational appeals serve to draw attention to what passes for “reasonable” within given circles of commitment. Pragmatic appeals, meanwhile, fail to note that every belief has some degree of workability in the eyes of the believer. Appeals to given authorities disguise the fact that one’s prior apprenticeship(s) serve to accredit certain authorities to the exclusion of others. Appeals to the austerity, the virtue, or the passionate sincerity of chosen mentors cannot disguise the fact that systematic errors are compatible with any and all these virtues. Even such phrases as “responsible conviction” and “warranted assertability” (Emmet:5) cannot disguise the fact that our particular tacit commitments shape what we habitually perceive as “responsible” and “warranted.” “In the end, to assert something as “true,” as “reliable,” as “necessary to take into account” is to be caught red-handed affirming what one has been trained to acknowledge in a commitment situation.

Polanyi’s solution to the heuristic circularity of scientific knowing is found principally within his phenomenology of discovery set within a sociological matrix. Kuhn’s solution to the same difficulty is found principally within the sociology of discovery set within a historical matrix. In both cases, the ability of a like-minded society of scientists to revise and reform their own stubborn convictions stands as the source of assurance that science is more than a collective and slavish indoctrination which blocks any fresh or pioneering access to the realities which it purportedly serves. Teilhard de Chardin aptly coined this dynamism which purifies and perfects scientific knowing as “the mysticism of discovery.”

Christianity, meanwhile, has traditionally framed its perspective on “God” based upon Jesus as the final and absolute norm for belief and practice. If there is a “moment of discovery” within Christianity, it appears as though it is the once-for-all public revelation delivered through Jesus Christ. As such, the conservative slant on “development of doctrine” allows that some development in understanding does take place relative to the deeper intent of Jesus; yet, this “development” leaves no room for anything essential being lost or anything novel taking its place during the entire course of history. Wilken’s study, *The Myth of Christian Beginnings*, demonstrates that this has been the perspective upheld by every epoch of Christianity prior to the modern era. As such, one can have no quarrel with the long-standing serviceability of this notion.

Within the nineteenth century, an alternative notion of development emerged. Lyell’s *Principles of Geology* and Darwin’s *Origin of Species* embraced the paradigm that geological and biological development embraced evident **discontinuity** as well as patterned continuity. John Henry Newman was the first to apply this notion to historical theology in his *Essay on the Development of Christian Doctrine*. Newman differed from contemporary theologians on two decisive points:

(1) He did not expect that Jesus and his apostles stipulated every essential belief and church practice for all successive generations. Thus, Newman did not support either Anglican efforts to establish their rule of faith by appealing to a consensus among the Church Fathers, and he did not support the then-current Catholic practice of insisting that all church doctrines which were later defined were implicitly held from the beginning but not necessarily communicated as such in public texts.

(2) Newman also contended that Christianity ought to be identified in what it has become rather than in its indeterminate beginnings:

It is indeed sometimes said that the stream is clearer near the spring. Whatever use may be made of this image, it does not apply to the history of a philosophy or sect, which, on the contrary, is more equable, and purer, and stronger, when its bed has become deep, and broad, and full. It necessarily arises out of an existing state of things, and, for a time, savours of the soil. . . . At first, no one knows what it is, or what it is worth. . . . From time to time, it makes essays which fail, and are in consequence abandoned. It seems in suspense which way to go; it wavers, and at length strikes out in one definite direction. In time it enters upon strange territory; points of controversy alter their bearing . . . and old principles appear under new forms. . . . In a higher world it is otherwise; but here below to live is to change, and to be perfect is to have changed often (Newman: 100).

Against detractors who would characterize this sort of process as a human degradation for such a divine institution as Christianity, Newman appealed to the Creator's patient attendance upon the "slow successive steps" of biological development for his appointed ends (Newman: 165). He also appealed to the acknowledged suitability of the eternal Word appearing "under an earthly form" (Newman: 149).

Today nearly every historical theologian (save those devoted to a Scriptural or dogmatic fundamentalism) admits to the correctness of Newman's sense of development. One has only to read Pelikan's five volume work, *The Christian Tradition* (1971+), in order to become acutely aware of how the dynamics of history have shaped and responded to the development of doctrine. Any text, Ricoeur reminds us, has a "surplus of meaning" whereby future generations find resonances and points of inquiry which have no relation to what the initial author intended within the original horizon of understanding.

This shift in meaning(s), however, is largely obscured by the practice of upholding the selfsame classical texts in each generation. Each master is so situated such that (a) the master who trained him/her has already made extensive pastoral adaptations so as to fit the unique spiritual needs and horizon of understanding which characterizes the novice and (b) during his/her entire life, a master periodically makes fresh discoveries within the text which, during the process of training his/her successor(s), he/she includes as part and parcel of the meaning which has been passed on by his master(s) who is now long dead. Meanwhile focal meanings which can be powerfully evocative within the life and times of a given mentor can become overshadowed and outmoded and, within a few generations, nearly lost within the process of living transmission.

The plays of Shakespeare live on as classics only because each new generation of actors and directors experience the efforts of the last generation, but, feeling both moved and discontented with the past, make a fresh effort to express the depth of meaning that Shakespeare continues to evoke. Studies have been done which trace the dynamic continuities and discontinuities which mark the presentation of particular characters within Shakespeare's plays. Mozart's concertos, meanwhile, are no longer performed on baroque instruments in rococo music halls but are transposed into modern notation which makes allowances for the extended range and quality of modern instrumentation. Meanwhile, living artists perform baroque music with the keen sense that both they and their audiences have been shaped by the Romantic and Modern periods of music. Here again, the classics live on by virtue of an inevitable and irreversible tradition of interpretation.

In parallel fashion, the charism of Jesus as evoked within the classical Christian Scriptures and as celebrated within the classic rites (Sacraments and church ordinances) has undergone a tradition of continuous reinterpretation within the lives of his adherents. Jaroslav Pelikan, a living master of the historical method, writes as follows in the preface of his recent book, *Jesus Through the Centuries: His Place in the History of Culture*:

This book presents a history of such images of Jesus, as have appeared from the first century to the twentieth. Precisely because, in [Albert] Schweitzer's words, it has been characteristic of each age of history to depict Jesus in accordance with its own character, it will be an important part of our task to set these images into their historical contexts. We will want to see what each age brought to its portrayal of him. For each age, the life and teachings of Jesus represented and answer (or, more often **the** answer) to the most fundamental questions of human existence and of human destiny . . . (Pelikan, 1985: 2).

Pelikan, in this context, gives too much emphasis to how each age of Christianity transformed Jesus. The first truth, however, is that each age has been shaped by the standards of excellence which Jesus portrayed through a series of masters and saints which trace all the way back to the Galilean Master. Accordingly, Pelikan's one-sided emphasis must be corrected by an appeal to David Tracy equally one-sided emphasis upon the claim which the Christian classics have in forming each new generation:

The interpreter [of Jesus], as a finite historical subject, approaches the classic . . . [and] another force comes into play. That force is the claim to attention, a vexing, a provocation exerted on the subject by the classical text. The subject may not know why or how that claim exercises its power . . . [yet] my finite status as this historical subject is now confronted with the classic and this claim upon me: a claim that transcends any context from my preunderstanding that I try to impose upon it . . . , a claim that will interpret me as I struggle to interpret it. I cannot control the experience, however practiced I am in the techniques of manipulation. It happens, it demands, it provokes (Tracy: 119).

At this point, Tracy brings into focus the claim of Jesus upon the religious adherent. Accordingly, along with such classic studies as Rudolph Otto, *The Idea of the Holy*, and William James, *The Varieties of Religious Experience*, Tracy again asserts the evocative power of the Christian classic to serve as a medium for fresh encounters with the living God—an encounter which presupposes developed tacit skills and which, at the same time, transforms and enlarges the powers of knowing of the believer. It is to this phenomenon that our attention must now turn.

Thesis 5: The process of a pioneering discovery cannot be fully specified nor fully defended. The process of discovery provides, nonetheless, the reliable route whereby the masters of a tradition go on to make fresh and pioneering contacts with the realities which they have been trained to serve.

No one can, properly speaking, be called a master of a tradition unless he/she is capable of creatively extending the tradition by virtue of having conducted research which effects some fresh contact with the realities that he/she has been trained to serve. Thus the graduate student in physics and the Christian being trained in holiness are similarly situated. The realities which each have been trained to perceive and to serve, Polanyi insists, are expected to show up within an extended series of novel disclosures (*TD*:23f, 32f). Nuclear physicists dedicate their energies to pursuing lines of inquiry they intuit will lead to detecting and analyzing novel interactions between subatomic particles. Mature Christians, in somewhat parallel terms, so direct their energies so as to experience and apply prophetic encounters with the living God

to their lives: “If only you would listen to him [YHWH] today; do not harden your hearts” (Heb 3:7, 15; 4:7; Ps 95:7).

For the mature Christian, fresh discoveries of God can emerge in various ways. A time-honored methodology is centered upon the prayerful meditation of the Scriptures. Augustine, for instance, spoke of the divine wisdom hidden within the Scriptures as having a depth dimension which defies even a life-time of discoveries:

Such is the profundity of the Christian Scriptures, that if I were to attempt to study them and nothing else from early childhood to decrepit old age, with the utmost leisure, the more unwearied zeal, and greater talents that I have, I should still daily find something new in them (*Epistolae* 137.3).

The meditative use of Scripture might go as follows. The reader brings him/herself into a contemplative frame of mind and reads over a self-chosen text or texts. Meanwhile, the reader is subliminally guided by the whole array of successes and failures, joys and anxieties, hopes and fears which fabricate the texture of his/her subconscious existence. Simultaneously, the reader subliminally feels the lure of God which has some marginal influence on each of us at every moment. The divine lure is never coercive or clearly separable from the nexus of subconscious drives; yet, it is quietly active. And it is the quiet meditation of the reader which tries to intuitively discern the sympathies of God. The reader passes over much of the text without being noticeably affected. A familiar text might trigger a group of associated meanings coming from past encounters. The reader may sense again the he/she is being warned, judged, comforted, guided, blessed. Events of the past filter into the mind of the reader. Some of them fade quickly. Others are mulled over and their relationship to the text is again enforced and further digested. The mind wanders. Occasionally it reaches an impasse. A once-familiar text might become suddenly puzzling. Or, an unfamiliar text might become the source of a deep anxiety or fascination. The wise and experienced meditator will stay with these moods and even endeavor to intensify them. In the more dramatic cases, the reader/meditator will feel him/herself unsettled or captivated by impulses which are not yet clearly defined. He/she will be impelled to come back to them again and again -- even in those brief moments throughout the day when the mind wanders and daydreaming sets in. After weeks or months, the inquirer senses that he/she is being led by trusted intuitions into a truer perception of God's cause or into a closer sympathy with God's way. Then, in a moment of sudden and overpowering emotion or, gradually, over a prolonged period, the truth overwhelms the seeker. The inquirer knows that he/she has arrived in so far as the contemplation of the discovery has an inherent satisfaction which relieves the former straining of the quest.

Such discoveries entail some measure of a graced transformation. A discovery may entail changing the focus of one's career or getting a new job entirely in order to seek the accomplishment of a task which is urgent for God. At other times, the discovery may entail a calming reconciliation with someone who marred one's past life and who has been quietly hated for countless years. At still other times, one may be led to reassess the priorities which make one's life so strenuous and achievement-oriented. Whatever the nature of the discovery, however, the expansion of life which it entails will be greeted as a sign that one has been touched and blessed by God.

Thesis 6: The masters within a tradition are bound together by a shared commitment and exert a marginal control over the productions of their colleagues. Within such a convivial society, each master is both stimulated and restrained by his/her colleagues. In such a society wherein the pursuit of truth is the final criteria, issues cannot be decided by a centralized authority or by democratic voting.

In any given community, authoritarian appeals naturally have their place. The beginners in any profession, for instance, must intrust themselves to the direction of the authorized representatives of the community. Meanwhile, even among the masters within the tradition, certain persons are generally recognized as having more experience and more competence than others. Within both ecclesial and scientific communities, therefore, it is expected that certain hierarchies exist -- hierarchies which are ideally based upon perceived or real competence in pursuing the shared commitments of the enterprise. Even among scientists, therefore, Polanyi reminds us that every working scientist necessarily relies upon the judgment and work of colleagues in those areas wherein he/she has only minor competence. Meanwhile the judgment of editorial boards is relied upon to eliminate banal or incompetent contributions submitted for publication even though, from time to time, a work of genius will be turned down and condemned to obscurity. The selection of candidates for research or teaching positions, the awarding of prizes and grants--all of these functions effectively define the sociological operation of a hierarchy within the scientific field. Within all of this, the individual scientist trusts that petty and selfish interests will be of secondary importance as each gives him/herself to the transcendent ideal of seeking truth. The scientific hierarchy, meanwhile, is understood to safeguard the processes whereby truth can be fostered, i.e., by free inquiry, responsible reporting of one's findings, open discussion and sympathetic persuasion of one's colleagues.

Hierarchical authority, in some instances, can foster a favoritism based upon personal loyalties and act coercively against innovators. The history of every church provides ample examples of just such lamentable instances. Even the annals of science provide instances of abuse within the various scientific hierarchies. Such abuses deserve censure wherever and whenever they occur.

Issues of truth cannot be securely decided by a centralized authority nor by democratic voting. Even a benevolent centralized authority of the highest competence cannot be solely relied upon to safeguard a tradition for two reasons: (1) No individual can presume to have so mastered the entirety of a tradition (in all its past manifestations and interconnectedness) as to be universally competent; (2) no individual can presume to be the sole master of pioneering inquiry and the sole recipient of prophetic discovery so as to pass judgment upon the novel productions of ever other master within the tradition. In science as well as in religion, where competence and prophetic insight are functionally evident in various degrees among a large body of participants who are bonded together by mutual appreciation, mutual stimulation, and mutual restraint, a centralized coercive authority can not, in the long run, serve truth. Every such authority, no matter how benevolent and no matter how conceived, necessarily ends up imposing some partial and parochial version of the truth upon all. In the long run, the officially authorized version of the truth sometimes hardens into an empty ideology which invites the less-gifted to advance themselves by currying favor while the truly prophetic and dedicated members are marginalized. Meanwhile, lip service to the reigning ideology serves to parade as the substitute for dedicated inquiry. Carried to its limit, one has a totalitarian system.

At any moment, there are always those within a given church or given scientific society who are willing to sanction and even to implement measures directed toward the centralization and standardization of approved modes of thinking and doing. Such centralization is always welcome when it leads to improved collaboration and consultation in the arrival of a consensus. When it leads to closing off legitimate diversity and imposing rigid restrictions, however, then such so-called authorities are now directing service to themselves rather than to the realities which all, both high and low, are committed to serve. At this point one must ask, with Peter, "whether it is right in God's sight to listen to you rather than to God" (Acts 4:18). It is shocking, therefore, that someone of the stature of Peter Berger would intellectually condone a coercive system which imposes its own version of truth upon its adherents:

What is convincing to one man may not be to another. We cannot really blame such theoreticians if they resort to various sturdier supports for the frail power of mere argument—such as, say getting the authorities to employ armed might to enforce one argument against its competitors. In other words, definitions of reality may be enforced by the police. This, incidentally, need not mean that such definitions will remain less convincing than those accepted “voluntarily”—power in society includes the power to determine decisive socialization processes and, therefore, the power to **produce** reality (Berger: 110).

Just as issues of truth cannot be fairly settled by conformity to a central authority, so too, the democratic taking of a vote is equally unsatisfactory. When an issue within science or religion is decided entirely on the basis of voting (even presuming that those voting represent the divergent competencies within a given tradition and that free and open discussion has prevailed), this simply means that the judgment of the majority is to be artificially legitimated as true and imposed upon the minority (*SFS*: 64f). If the nature and activity of “neutrons” is to be settled by majority vote then, social indoctrination must supplant the romantic notion that “neutrons” do manifest themselves independently of what scientists claim for them. In parallel fashion, if God is just a projection of human ideals and standards of judgment upon “an imaginary being” in the skies, then religious truth can and must be decided by polling the community which is gifted at making such unconscious projections. But, in science as in theology, this is decidedly reductionistic and must be rejected.

It is true that the phenomenon that humans perceive is always partially conditioned by the particular indoctrinations which each has accepted as his/her own. This prevails in physics as well as in religion. Nonetheless, the phenomenon of discovery whereby a thoroughly conditioned master undertakes an appealing line of inquiry only to be intellectually transformed within the very solitary pursuit undertaken within the old system indicates that the realities served exert themselves independent of the investigator. They show themselves to be real precisely because of their ability to show up within surprising novel modes within our own tradition-bound lines of inquiry.

Thus, Copernicus started out to correct some of the minor flaws in the Ptolemaic system and ended up persuaded that the basic assumptions within the old system were flawed and impeded a truer description of things **as they are!** So, too, Peter in Acts 10 resisted the scandalous suggestion which came to him in his rooftop daydream three times, and yet, three days later, he ended up persuaded that the thousand-year-old divine prohibitions regarding unclean foods and unclean people were flawed and impeded a true description of what God really wanted him **to be and to do!** Peter could have dropped his prophetic revelation and reconvicted himself that it was much safer to abide by the normative practice of Jesus. Copernicus could have dismissed his “absurd departure from common sense” on the grounds that, experientially, the earth does not manifest even the slightest sign of moving in space at some 18,000 miles per hour. It is not enough to imagine that some special “divine illumination” either benevolently or coercively changed the mind of Peter and of Copernicus unless one remembers that they had both submitted to apprenticeships which were themselves characterized as filled with the highest illumination. In the end, both Peter and Copernicus could say that they had been imperceptibly led along paths which were not of their own making. Something “there,” independent of themselves, had made its presence felt and their efforts only served to reveal it. In fact, the overwhelming satisfaction that greeted the final conversion, the passionate intellectual enjoyment of their prophetic discoveries, could be understood as fulfilling the vague dissatisfaction which led and intensified their search from the beginning. In Polanyi’s own words:

There can be no explicit justification of a [novel] scientific truth. But as we can know a problem, and

feel sure that it is pointing to something hidden behind it, we can be aware also of the hidden implications of a scientific discovery, and feel confident that they will prove right. . . . The pursuit of discovery is conducted from the start in these terms; all the time we are guided by sensing the presence of a hidden reality toward which our clues are pointing; and the discovery which terminates and satisfies this pursuit is still sustained by the same vision. It claims to have made contact with reality: a reality which, being real, may yet reveal itself to future eyes in an indefinite range of unexpected manifestations (*TD*:23f).

Such words on the lips of a productive scientist could easily be shared by the Christian who has been transformed by a prophetic encounter with his/her God. The realities attained are manifestly different; yet, the human dynamics are very much the same:

Admittedly, religious conversion commits our whole person and changes our whole being in a way that an expansion of natural knowledge does not do. But once the dynamics of knowing are recognized as the dominant principle of knowledge, the difference appears only as one of degree (Polanyi, 1961: 244).

In particular, therefore, the heuristic processes of knowing “neutrons” and of knowing “God” are analogously related. In both cases, the realities are never contacted directly but only indirectly by indwelling and integrating the clues left behind as “the historic effects” of their presence. In both cases, the realities as they exist in-and-for-themselves are forever shrouded in mystery and transcendence. Both “God” and “neutrons,” therefore, are known “incarnationally”—that is, as they have historic effects in the visible world and disclose their meaning for and through the power of human knowing.

These parallels can be made without demeaning the fact that “God,” properly speaking, is not an Object among other objects. Nor can “God” merely be the supreme, all-powerful and all-knowing, personal Object. Rather, “God” is the ground of all objectivity and “appears” within the whole course of creation without being another “part” of that creation. Classical theology safeguards this transcendence and imminence of “God” by asserting that “God” is everywhere in the cosmos at all times.

Relative to this problem, Rahner noted that one must rigorously distinguish between the imminent and the transcendent Trinity. The transcendent Trinity is entirely unknown and unknowable. The humanly formulated and humanly defended doctrine of the Trinity knows nothing of God **in-and-for-himself**. The imminent Trinity, on the other hand, is very much knowable because it is imbedded within “the trinitarian nature” of our human encounters with “God” which show up within the concrete economy of salvation. Theological formulations, therefore, are always **in-and-for-us**, hence, culturally conditioned and humanly devised schema straining to capture how “God” has made his presence known and knowable within human history. While the Scriptures are referred to as the Word of God, in effect, at each point one finds culturally conditioned human words which intend to convey the memory, the actuality, and the future of God’s acts in history. As such, the Scriptures are opaque to those who read it within the horizon of “the search for religions of antiquity” while it is occasionally revelatory for those who read it as the memory, the actuality, and the promise of God-for-us. Thesis 7 will develop this further.

Based upon the Scriptures and upon graced experience in the world, each generation of Christians have formulated “dogmas” which serve to highlight, to summarize, and to guide the followers of Jesus. A committed Christian, by correctly understand and indwelling within the dogmas of his tradition, gains insights and guidance for how to act in the world so as to take notice of and harmonize himself with God’s saving grace. In a parallel fashion, theories in science also function to highlight, to summarize, and to guide the working scientist. As such, a committed nuclear physicist, by understanding and indwelling within the established theories of his own profession, gains the necessary insights and guidance for how to act in the world (but, more narrowly, in his research laboratory) so as to take notice of and harmonize his research by way of exploring and extending neutronic activity into realms hitherto unknown. Even for the physicist, therefore, there is no process for directly comparing his theories with the “neutrons” they seemingly purport to describe. Only by relying upon them and applying them to new situations does the physicist come to understand the true worth and the ever-present limitations of his theories. Thus, when Kuhn or Polanyi trace the history of the development of scientific theories, they are effectively doing what Newman and Pelikan have done for religious dogmas. One can always assert that the realities, in-and-for-themselves, **never** change; yet, in so far as humans are culturally and historically conditioned, our ability to formulate what we know **will always be subject to change**. John XXIII caught this correctly when he opened the Second Vatican Council by distinguishing between the substance of the faith and our formulations of it.

Thesis 7: The central concern of followers of Jesus is to truly imbue themselves with the Spirit of the Lord such that they can correctly discern and efficaciously follow their “calling” for the love of God and the love of neighbor. The discernment of one’s “calling” is the most momentous and, at the same time, the most ordinary form of graced discovery open to the religious seeker. By following ones “calling,” one finds one’s bliss, one’s peace, one’s self at the heart of a human history that is shot through with divine intimations of what is ripe for realization in the ongoing drama in behalf of “thy kingdom come, thy will be done, on earth as it is in heaven.” In the end, the lifelong pursuit of one’s calling (with all the twists and turns and periodic conversions that it implies) is the continuous prayer that a servant of God sings to his/her Maker.

Up to this point, apprenticeships have been held up as the sole means whereby one can make one’s own the performance skills and the habits of judgment proper to any profession, whether it be science or religion. Furthermore, the phenomenology of discovery whereby masters of a tradition are guided in their pursuit of fresh contact with the realities which they serve forms the privileged route whereby a tradition as it has been handed down is subject to pioneering discoveries which inevitably disrupt the **status quo** and call like-minded colleagues to a revision of what the tradition has been in favor of what it ought to be.

What opens up now is the reflection that the whole life of a nuclear physicist consists in a deep and mysterious “calling.” This “calling” is felt in the first flush of excitement as a science student upon “seeing” the vapor trail left by charged sub-atomic particles in a cloud chamber. This “calling” takes shape in the long nights reading and in the endless experiments conducted in the high school science lab or in the privacy of one’s own private lab in the abandoned coalbin of one’s parents’ home. Finally, this “calling” sustains one during the long years when routine problem solving and unimaginative professors tax one’s patience and force one to call into question the whole pursuit of this “calling.” Then, as a moment of grace, a chance conversation, a would-be routine lab experiment, or an unexpected inspiring lecture bring one’s “calling” into true focus. Even after graduation, the particulars of one’s employment and the calibre of one’s colleagues usher in a whole new set of challenges—some which feed and further define one’s “calling”; others which deter and postpone it. The sense of one’s “calling” gains definition when deep and mysterious guiding intuitions

constantly bring one before certain perplexing problems while a host of others are left behind. Polanyi rightly notes that, at this point, the informed and “passionate” (*SFS*: 38) energies of a pioneering inquirer are froth with “a compelling sense of responsibility” (*TD*: 25) which is bent upon revealing some yet-to-be-realized manifestation of a hidden reality which “demands his service for revealing it” (*TD*: 25, *SFS*: 54). In this process, the hunches, the straining, the false leads all lead to a self-transformation of the knowing powers of the seeker such that the new reality can be grasped. The act of discovery is thus a self-transforming act which is not, in the least, self-serving: “[F]reedom [of the pioneer] is continuous service” (*TD*:81).

Traditional theology defines “calling” by looking at the classical narratives which describe how Abraham, Moses, and Isaiah were called to step outside their ordinary course of life and to undertake a life-long mission dedicated to serving the living “God.” With some reservations, this might be extended to include Suzanna’s “calling” to resist the entrapments of the elders who tried to seduce her while she was bathing (Dan 13:1ff). This might also include the youth Daniel who, being seized by a holy spirit, successfully defended Suzanna’s innocence in the face of her strong and powerful accusers (Dan 13:44ff). This might also include the young and beautiful widow Judith who took courage and, even though she had no public office, challenged the resolve of approved town elders to surrender to the Assyrian army camped outside the city gates if God did not come to their aid within a set number of days (Judith 8:11ff). Judith, it will be remembered, stepped outside the boundaries of propriety, and, using seduction and deception, took the salvation of her people into her own hands. One would suppose that God did give her “the beguiling tongue to wound and kill those who have formed such cruel designs against your covenant” (Judith 9:13). In this fashion, Judith responded to her “calling.”

To this must be added the “calling” of John the Baptizer, the “calling” of the disciples of Jesus. From the twists and turns within Peter’s life, one can quickly grasp that his “calling” was not a one-time event but covered the whole of his life. The same can be said for Paul, Stephen, Philip. But, contrary to a false theology which would reserve this “calling” to only those celebrated in the Sacred Scriptures, one must suspect that each of the martyrs and saints of the early church discerned and fulfilled their “calling.”

Even this is too remote. One must also speak of the “calling” heard by Martin Luther King in the uncanny courage of Miss Rosa Parks, the woman who had tired feet and refused to yield her seat to a White gentleman on the bus in Montgomery in the afternoon of December 1st, 1955. One must also speak of the “calling” heard by Archbishop Oscar Romero who turned from his policy of honoring the politicians and the rich land-owners in favor of speaking out courageously against the “death squads” and the tortured bodies of socially conscious students, pastors, and union organizers in El Salvador. One might also speak of the “calling” of Pope John Paul II to visit the Jewish synagogue of Rome on the afternoon of April 13th, 1986, and to acknowledge that the Jews gathered there were “beloved of God” and the veritable “elder brothers” of the Christian people.

Yet, this sense of “calling” must be brought down and allowed to apply to ordinary people doing ordinary kindnesses with uncanny courage and determination in daily life. It can also include those crowds of thousands who gather into the stadiums to hear the Word of God preached by the Rev. Billy Graham. At the end of each crusade, the Rev. Graham asks those who have felt the movement of grace to come forward. When they arrive, he prays over them and hands them over to trained counsellors who help them to give voice to their new-found “calling” and to renew their determination to shake off their lukewarmness or their backsliding in favor of returning afresh to “what God would have them be.”

Pushed even further, every person, even those who have never stepped inside a church, has a “calling”

(technically, a “vocation” from the Latin *vocatio*, which literally means the act of “calling” or “summoning” someone). Joseph Cambell, in exploring the meaning of religious myths with Bill Moyers on public television, came to the conclusion that the whole of human existence is directed toward “following ones bliss.” This, in existential terms, is the secular counterpart of what Christians understand themselves to be doing when they set about discovering and following their “calling.”

Rahner, more than others, has tried to give voice to the reality of grace within secular existence in such terms as to break down the notion that “God” has only “religious” interests and that his “grace” is exclusively reserved for “religious” folks doing “religious” things.

The world is constantly and ceaselessly possessed by [sanctifying] grace from its innermost roots, from the innermost personal center of the spiritual subject. It is constantly and ceaselessly sustained and moved by God’s self-bestowal. . . . Whether the world gives the impression, so far as our superficial everyday experience is concerned, of being imbued with grace in this way, or whether it constantly seems to give the lie to his state of being permeated by God’s grace which it has, this in no sense alters the fact that it is so. And without this belief and hope, . . . the appeal to the sacraments as almost intermittent moments when such “engracing” takes place would seem to modern man [Christian] unworthy of belief (Rahner 13:166f).

In the end, therefore, the barrier which traditional theology erects between the past and the present, between the life-long vocation and the transitional emergency action, between the secular and the religious disappears. More particularly, the very “calling” of a scientist and, in Polanyi’s terms, his commitment to pursue his “calling” (*PK*: 323) even when it leads him to revise or overturn the position which the authority of his own former masters have credited then becomes part of a graced enterprise wherein the religious seeker and the scientific inquirer are similarly situated as they employ human processes in the service of a self-transcending goal. Polanyi, at one moment, spoke of “the tradition of science” as being a “spiritual reality which stands over them [scientists] and compels their allegiance” (*SFS*: 54). In the end, therefore, the tradition of religion can be similarly situated. Ultimately, when novices come to share the common ground which has been paved by Jesus and his Saints, they enter into a passionate framework of cosmic self-understanding. Within this framework, the practical skills which enable one to discern and pursue one’s “calling” is an intimate and risk-filled adventure. In both cases, the one who pursues and the one pursued intermingle. In both cases, the mystery of divine grace and unspecifiable organismic intuitions join hands and revolve in an ecstatic dance. In both cases, the truth which emerges transforms and heals the knower and binds him/her to the continued service of proclaiming the “miracle” which has come to birth in their lives. If we were “angels” pursuing “God” it might be otherwise, but, in this divinely ordained order of creation, no higher calling and no higher access to truth is possible.

The People of God believes that it is led by the Spirit of the Lord, who fills the earth. Motivated by this faith, it labors to decipher authentic signs of God’s presence and purpose in the happenings, needs, and desires in which this People has a part along with the other men [women] of our age (*Gaudium et Spes* 11).

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Appendix: Polanyi's Understanding Of Religion Reconsidered

The 1979 Annual Meeting of the Polanyi Society set off a debate respecting Polanyi’s epistemology of religion. Drusilla Scott and R.T. Allen took up this debate in issues number 12 (March, 1981) and 17 (October, 1983) of *Convivium*. During the summer of 1984, I received an Occasional Fellowship which enabled me to examine the letters and unpublished manuscripts of Polanyi which form part of the Special Collections at The Joseph Regenstein Library (Chicago). My attention naturally turned to the unresolved issues surrounding Polanyi’s understanding of Christianity. When my search came to a close, I published my findings in the issue number 22 (1986) of *Convivium*. With unfair brevity, my findings were as follows:

1. Regarding his religious views, Polanyi was very private but also very sympathetic to those who had a religious orientation. Thus the divergent views of Gelwick and Prosch can both be paradoxically credited due to the fact that each, in his own way, elicited from Polanyi a sympathetic response to their own personal religious commitments.
2. Polanyi never had the occasion to undergo a systematic theological apprenticeship. A spontaneous essay written at the age of 81 harkens back to the enduring impact of his having discovered *The Brothers Karamozov* at the age of 22. In sum, his personal faith might be abbreviated in the words of Dostoevski which he cites: “Let us rather go mad than accept a mechanical conception of man.”
3. J.H. Oldham, life-long friend and founder of Moot, was responsible for guiding Polanyi toward Tillich’s critique of God-talk and of historical miracles. This prompted Polanyi to focus upon the centrality of worship for evoking and sustaining the heuristic vision of “God. “ Polanyi submitted drafts of *Personal Knowledge* to Oldham for suggestions in this realm since Polanyi knew quite well that his own tacit skills did not allow him to properly make a judgment in religious matters.
4. Polanyi never had an overarching grasp of Eliade’s methodology and conclusions. Led on by trusted advisors (esp. Prosch) he borrowed elements of Eliade which were congenial to his work (e.g. Eliade’s analysis of ritual as abolishing profane, chronological time so as to recover the sacred, mythic time) and completely ignored other elements (e.g. Eliade’s contention that Abraham pioneered a revolutionary religious orientation wherein the myth of cyclic regeneration was

supplanted by the myth of linear history as theophanic).

5. Polanyi's reoccurring reference to the Pauline doctrine of saving grace does not come from Polanyi's personal religious history but from his scientific experience of having undertaken investigations which led to fresh discoveries by virtue of powers over which he had no direct control. Polanyi repeated used this metaphor. At no point, however, does Polanyi demonstrate any significant grasp of Pauline theology. Most probably, a Christian theologian (possibly, J.H. Oldham) whom he trusted made this link and, fixed in his memory, he called it into service whenever he wanted to evoke a parallelism between the Christian seeking grace and the scientist pursuing a discovery.

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. Use MLA or APA style. Abbreviate frequently cited book titles, particularly books by Polanyi (e.g., *Personal Knowledge* becomes *PK*). Shorter articles (10-15 pages) are preferred, although longer manuscripts (20-24 pages) will be considered.

Manuscripts should include the author's name on a separate page since submissions normally will be sent out for blind review. In addition to the typescript of a manuscript to be reviewed, authors are expected to provide an electronic copy (on either a disk or via e-mail) of accepted articles; it is helpful if original submissions are accompanied by an electronic copy. For disks, ASCII text as well as most popular IBM and MAC word processors are acceptable. 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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