

# The Polanyi-Tillich Dialogue Of 1963: Polanyi's Search For A Post-Critical Logic In Science And In Theology

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*Michael Polanyi found in the thought of Paul Tillich an ally for Polanyi's program of showing the fiduciary component in all knowing including science. Polanyi saw, however, a danger in Tillich's distinguishing science as preliminary concern and religion as ultimate concern. In a significant dialogue in 1963, Polanyi and Tillich met and addressed issues, agreeing that science and religion share a common epistemological structure.*

In 1962 - 63, Michael Polanyi was making major steps in his work towards a post-critical theory of knowledge. In the Fall, he joined Tillich in the list of those having given the Terry Lectures at Yale. Polanyi's Terry Lectures eventually appeared in Polanyi's book, *The Tacit Dimension*.<sup>1</sup> The phrase, "the tacit dimension," became a summarizing terminology for Polanyi's restructuring of our theory of knowledge. It moved away from the Cartesian emphasis upon the explicit and focal part of knowledge that could be described with clear, distinct, and indubitable ideas to an emphasis upon the implicit and subsidiary part of knowledge that is embodied in the person of the knower.

Throughout his quest for a new theory of knowledge, Polanyi was in dialogue with theologians, encouraged particularly by J. H. Oldham, a leader in the ecumenical movement and the organizer of The Moot--a multidisciplinary group of theologians, philosophers, writers, and social thinkers discussing the crisis of modern culture. Polanyi participated in the discussions of The Moot in Great Britain during the forties; he once told me that The Moot was one of his most important intellectual influences. Polanyi also told me that he had heard Tillich lecture in England, but he had never talked with Tillich personally until their meeting in Berkeley in 1963.

In his *magnum opus*, *Personal Knowledge: Towards A Post-Critical Philosophy*, Polanyi compares the role of faith within his epistemology to Tillich's understanding of faith and knowledge in a "progressive Protestant theology."<sup>2</sup> In the same discussion, Polanyi also refers to Tillich in support of Polanyi's assertion that doubt is an essential part of faith.<sup>3</sup> Polanyi was particularly attracted to Tillich's concern for restating the meaning of religious belief in conjunction with the achievements of scientific thought.

At the heart of Polanyi's total enterprise was the aim of restoring to the contemporary world the kind of understanding that Polanyi saw in Augustine's teaching, *nisi credideritis, non intelligitis*.<sup>4</sup> Polanyi saw modern science as having destroyed the foundations of belief that sustain not only science but also the foundations of religious and of civil life. One form of this destruction noted by Polanyi was the flattening of reality to a level of materialism explained by the laws of physics and of chemistry. The picture of the universe and the human place within it is reduced to the conceptions of inanimate nature, and higher levels of existence are denied even while they are lived in by scientists

and all other humans. One of the philosophies attacked by Polanyi was the positivist empiricism of science that completely denied the role that faith plays in scientific knowing. It was not surprising then that a theologian like Paul Tillich would come to his attention as a major ally in Polanyi's quest for a reformation of our general theory of knowledge.

As I stated, the academic year 1962-63 was an important one in Polanyi's work. During that year, Paul Tillich was scheduled in February of 1963 to give the Earl Lectures at the Pacific School of Religion in Berkeley. I was beginning the first doctoral dissertation on Polanyi's thought under Charles McCoy as first reader and Durwood Foster as second reader. I was also favored by Polanyi to work with him as his assistant at the Center For Advanced Studies at Stanford. Knowing of Polanyi's interest in Tillich's work, it was natural to arrange through Professor McCoy for Polanyi to come to Berkeley to meet with Tillich.

It was a specific contention of Polanyi's epistemology that the structure of knowing was constant in science and in theology and that faith was a part of that constant structure. One of the consequences of Polanyi's model of knowing is to show how natural science and theology share in the structure of tacit knowing. Tacit knowing is Polanyi's essential formulation for showing the fiduciary component in all knowing. Polanyi had indicated this fiduciary component in his book *Personal Knowledge*, furthered it in his next book, *The Study of Man*, where he showed the error of those such as Dilthey who had separated science and the humanities into separate compartments.<sup>5</sup> At the end of his life, he tried to spell out in his book, *Meaning*, the way science and religion differ in the way we organize their data yet work from a common structure of tacit knowing.<sup>6</sup>

In Polanyi's thought, there is a core insight that is developed into the structure of tacit knowing. This insight is the way a person integrates and shapes external clues into knowledge and meaning. He elaborated this structure as being like faith in that a person interiorizes, dwells in, and relies upon clues in order to attend to a coherent entity. This reliance is like the trusting-in character of faith. He also described his theory in the language of commitment. Knowing necessarily involves the risk of giving our credence to these clues upon which we rely. At the time of his conversation with Tillich, Polanyi was emphasizing the term "indwelling" as the way we rely on clues in order to know. Indwelling is one way of talking about the fiduciary nature of tacit knowledge. To indwell involves a giving, a surrendering, and a trusting of the self to the clues that we integrate into our focal knowledge.

One also needs to know in Polanyi's exchange with Tillich that Polanyi saw in his structure of tacit knowing a structure of hierarchy in being. Tacit knowing reflects the structure of a stratified universe rising from inanimate, to the vegetative, to the animate, to the human, and to the infinite. To Polanyi, both the indwelling or fiduciary nature of knowing and the hierarchical stratification of reality pointed toward the similar vision of the universe seen in the Christian faith and an emergent understanding of evolution.

It was about this structure of tacit knowing that Polanyi wanted to talk to Tillich. Polanyi had read in Tillich's *Dynamics of Faith* Tillich's discussion of how science deals with preliminary concerns and religion with ultimate concerns.<sup>7</sup> Tillich had also said that there is no conflict between faith and the cognitive function of reason indicating his own compatibility with Polanyi's concern. Further there was the obvious but very important agreement between both Tillich and Polanyi on the positive importance of science and of religion for each field of human expression. Neither Tillich nor Polanyi wanted to retreat from the achievements of science. Each wanted to facilitate the creative relation of science and of religion. Each wanted to encourage the continuing advancement of scientific knowledge.

For Polanyi, rejecting the role of faith in the epistemology of science is the crucial point underlying the rise of modern nihilism and the destruction of civil life. Polanyi contended that the mechanistic outlook, alive since the Greek atomists, had been vitalized by the modern scientific revolution. This outlook had made all dubitable beliefs non-authoritative, especially moral and transcendent beliefs. Tillich's including of doubt within the life of faith pointed to Polanyi's own formulation of the essential fiduciary components of all knowing. Polanyi's formulation of the fiduciary nature of knowing also included the element of doubt that had to be overcome by the risk of believing or indwelling. Or Tillich's talking about participation in the object of cognition pointed toward Polanyi's usage of indwelling to describe our involvement in our knowing. For Polanyi more than Tillich, the issue is not just the relation of science and of religion but the very nature of faith and of indwelling within knowing generally. Polanyi was attempting to produce a new theory of knowledge which, of course, was not Tillich's aim. But Tillich was close to Polanyi's view of science and of faith. Therefore, Tillich's work as a major theologian of culture was especially important to Polanyi's search for a post-critical philosophy.

In February of 1963, Polanyi came to Berkeley and attended one of Tillich's lectures. Following the lecture, Charles McCoy had arranged for Polanyi and Tillich to talk together at the Claremont Hotel. The importance of this meeting for Polanyi is clear. He made a summary of his view of the conversation which is in the Polanyi archives in Chicago and also is on my published microfilm of Polanyi's social and philosophical papers.<sup>8</sup> Polanyi sent a copy to Tillich, and Tillich accepted it with general agreement. In addition, Tillich and Polanyi followed up with correspondence concerning earlier writing of Tillich that Tillich felt showed his agreement with Polanyi's view of the nature of knowing in science and in religion. Tillich, according to Polanyi's account, claimed to have tried to articulate a view similar to Polanyi's in Tillich's earlier years in Germany but had not found it to be well received. Tillich sent Polanyi a reference to a paper published in 1955 in the Horkheimer Festschrift entitled "Participation and Knowledge: Problems of an Ontology of Cognition."<sup>9</sup> In this paper, Tillich thinks that he shows a view of epistemology in science and in religion similar to Polanyi's view. Further, Polanyi was stimulated to take this topic, with clear references to Tillich's *Dynamics of Faith* and lectures in Berkeley, and give, in April, 1963, an address at Pacific School of Religion "Science and Religion: Separate Dimensions or Common Ground?"<sup>10</sup> In this address Polanyi set forth his reasons for upholding a common structure in knowing that includes a fiduciary or indwelling component in all knowing, especially science and religion. Finally, there is a statement of Tillich's view of the relation of science and religion in *Ultimate Concern: Tillich in Dialogue* published in 1965 that appears to confirm Polanyi's and Tillich's agreement and possibly the fruit of their discussion in 1963.<sup>11</sup> Tillich says

Take the scientist. If he has matured in the scientific tradition, he is willing to give up every particular of his scientific findings (they are preliminary, never final), but he will never give up the scientific attitude, even if a tyrant should demand it of him. Or if he were weak enough to give it up, he would do it with a bad conscience.

Here it is clear that ultimate concern participates in all knowing through the scientific attitude of the scientist which would correspond to Polanyi's claim that there is a fiduciary or indwelling component in all knowing. Tillich's formulation of ultimate concern fits with Polanyi's seeing the drive and intellectual passion inherently involved in the work of the scientist.

Having introduced this exchange between Polanyi and Tillich, and having explained Polanyi's interest and purpose in regard to Tillich, let us look at the content of the exchange in the record that we have.

First, there is the four and a half page typescript of Polanyi's account of his meeting with Tillich:<sup>12</sup>

Points from a conversation with Paul Tillich on February 21, 1963

I was asked to discuss with him his University Lecture on "Religion, Science, and Philosophy" and his second Earl Lecture on "The Irrelevance and Relevance of Christianity", both delivered on that day.

M.P. The method of absolute detachment you ascribe to science in contrasting it with philosophy and religion is a method which scientists falsely ascribe to themselves. Its actual practice is impossible, for no knowledge whatever can be discovered, or held to be true, in accordance with the ideal of strict detachment.

Tillich: I have said myself in the lecture on R.S. Ph. that scientists must also have a concern for the totality of the cosmos on which their enquiry is bearing.

M.P. You acknowledge this as a dual function: in actual fact it is a situation in which scientists are torn between their professed absurd ideal of detachment and an attempt to counteract its destructive effects on their outlook. The ideal of strict detachment can not be practiced in any part of science, but the misrepresentation of scientific pursuits in terms of this ideal is harmless in physics, because they feel confident that this ideal means only that science ought to be pursued in the way the exact sciences operate, of which physics is the great example. It is only in the less exact sciences, ranging from the descriptive natural sciences, like botany and zoology, to the sciences of the mind, like psychology, sociology, and extending further to include the humanities, that the degenerative effect of ideal detachment manifests itself. Hence, I say, we find these sciences and the whole of our culture beyond them, affected by a false striving for strict scientific detachment, which tends to denature their subject matter.

Tillich: I have once, still in Germany, expressed the view that there is a measure of participation in every branch of knowledge. You will find this in an essay I contributed to the Horkheimer Festschrift. Philosophers like Nagel would accept none of this. I did not dare to pursue it further.

M.P. I shall look up the Horkheimer Festschrift. But the basic revision of your perspective arises not from realizing that participation is ubiquitous, but from **the recognition of its logical functions**. It can be shown that we can have no knowledge of any comprehensive entities, except by specific use of our powers of participation. It consists in the process of interiorising the particulars of the entity for the purpose of attending to the whole that is formed by them. Interiorisation is a logical operation which enables us to rely on our awareness of the particulars, to which we are not attending at the moment, for the purpose of attending to something else, namely to the comprehensive entity

which they jointly constitute. In this way our dwelling in the particulars makes us aware of their joint meaning. **This, I say, is the structure of meaning everywhere. We must teach this to scientists. Instead of accepting their false pretence to strict detachment**, we should recognize in them the most skillful operators of an indwelling which reveals a vast range of fascinating meaning in the comparatively unpromising subject of subhuman life and even in the realm of inanimate matter.

Tillich: Is this view based on Gestalt psychology?

M.P. I am deeply indebted to Gestalt psychology. Professor William T. Scott of the University of Nevada has written an excellent essay on my views under the title "Gestalt Philosophy." But Gestalt psychology lacks the element of active participation on the part of the knower. It claims that Gestalten are formed by the spontaneous equilibration of the elements forming a gestalt. **Gestalt psychology has run away from its own philosophic significance**, from the start, when Koehler explained gestalt in terms of dynamic equilibration in physics and, by his principle of isomorphism, postulated that the neural equivalent of gestalt perception consists in the equilibration of the neural traces to which it gives rise in the subject.

To relate my position to earlier ideas, we must include two other current movements, namely **the pragmatism of Dewey and modern existentialism** in its connection with phenomenology. Dewey recognized and vividly described the process by which we shape our own knowledge. But Dewey was strangely complacent about this situation. He found the spectacle of man actively deciding what is to be believed to be true, a refreshing sight. To him this meant the liberation of man's practical concern from the shackles of false metaphysical beliefs. He relied on the thrust of reason and progress to guide man's practical striving towards his own enlightened interests. He did not realize that it would be the most intense interest in progress, by a modern revolutionary government, which would practice a ruthless perversion of truth, and that rebellion against such governments would be conducted in the name of truth against alleged practical interests. **My task, imposed upon me by the revolutions of the 20th century, begins therefore at the point at which Dewey found his ultimate assurance.**

The relation of a theory of knowledge based on indwelling has connections also with existentialism. This movement also recognizes the powers of man to shape his own knowledge. Again, like pragmatism, it is unconcerned with the jeopardy of truth, through its subjection to man's choice; but unlike pragmatism, it faces man's situation as a shaper of his own knowledge, not with exhilaration, but with an anxiety bordering on despair.

I share the alarm expressed by existentialism at the spectacle abandoned by all the suppositions on which he could tacitly rely until their modern piercing critique deprived him of their support. But my theory of knowledge would change the situation in showing that **scientific knowledge must be aligned with the beliefs of man to which he no longer entrusts himself without realizing that this commitment is the outcome of his own decision.** Once this is seriously accepted, science will cease to act as an aid in the destruction of other human beliefs. Scientific truth will henceforth share the insecurity of moral truth, and an adequate theory of scientific knowledge may

hope to restore the common ground which, in this view, science shares, with moral convictions, and beyond that, with religious beliefs.

This is why I feel that the unification of human convictions must start from a somewhat different approach than yours, which admits, to begin with, that the pursuit of science is guided by the ideal of a strictly detached knowledge and that hence the great achievements of science should be credited to this false, logically untenable, ideal.

Tillich: Has Christianity any relevance to this project?

M.P. You have said that the irrelevance of Christianity can be overcome only by passing through the darkness of existentialist despair. You have said that the faith which rises from this depth will embrace its own doubt. It will live as a perennial, unresolvable tension in us. My theory of knowledge takes this as its paradigm. It is shaped in the image of what I understand to be the Pauline scheme of redemption. Having to face the fact that no knowledge can be set free of conceivable doubt, and that the most distinctive form of scientific knowledge, the vision of great scientific originality, is a solitary knowledge ready to face universal doubt, I conclude that it is of the essence of knowledge to be held to be true by a man's mental effort. Such is the nature of that active indwelling by which we make sense of the world.

To know is a personal striving. It is a striving that responds to an obligation, imposed on us by intimations of a hidden reality that demands of us to grasp it. **Knowledge is alive so long as it knows itself to be incomplete, by pointing beyond its manifest content.**

Very striking in this account is Polanyi's discursive review of his own ideas and Polanyi's succinct summation of Tillich's views. Knowing Tillich's power in dialogue, we can be sure that Polanyi's account is one sided in terms of the actual balance of the discussion.

Second, I want to include also the two letters from Tillich to Polanyi that followed from this dialogue in Berkeley. The first is written on May 21, 1963, and Tillich expresses his agreement with Polanyi.<sup>13</sup> Particularly noticeable is Tillich's statement of his sympathy for Teilhard de Chardin's work which would correspond to Polanyi's discussion of the stratified universe also seen in the way we indwell in order to know. Tillich also refers to Polanyi's statement in his address on "Science and Religion: Separate Dimensions or Common Ground" that compares Polanyi as purifying truth from scientific dogmatism and Tillich purifying faith from religious fundamentalism.

May 21, 1963

Mr. Michael Polanyi  
Center for Advanced Study  
in the Behavioral Sciences  
202 Junipero Serra Blvd.  
Stanford, California

Dear Mr. Polanyi:

Only today I am able to express my thanks for the two manuscripts and the reprints. The weeks since the arrival of your letter were so overcrowded with out of town-obligations, that I could not get at it at all. Now I am very happy to find how much I am in agreement with you. I am especially happy about your sentence on page 14: "In a way, this enterprise would serve as a counterpart to Tillich's undertaking. He has fought for the purification of faith from religious fundamentalism; I supplement this by purifying truth from scientific dogmatism."

The fundamental vision of a hierarchy of detachment and involvement came to me when I wrote in beginning of the 20's my "System der Wissenschaften". Lately I have carried it through rather fully, in the not yet published manuscript of the third volume of my Systematic Theology. One year ago, when I first read Teilhard de Chardin, I was happily surprised by the discovery how near my own philosophy of life is to his. You are right that I had to solve first of all the problem of mutual interferences of theology and science. Only after this has been done the next stop is possible, namely to show the continuity between the different types of knowledge, and this you have done for epistemology in an excellent way. If I only were in possession of my books and reprints, I would have sent you the article on detachment and involvement in the cognitive process.

I still have to read your reprint on "Faith and Reason" and shall go at it in the next few days.

It was good to meet you and very kind of you to write me.

Cordially Yours,

Paul Tillich  
PT/es

This letter seems to indicate a friendly and substantial feeling of agreement with the fundamental epistemological concerns of Polanyi. It is further indicated by a second letter from Tillich on June 4th of the same year where Tillich tells Polanyi where to find his paper in the Horkheimer festschrift.<sup>14</sup>

June 4, 1963

Dr. Michael Polanyi  
Center for Advanced Study  
in the Behavioral Sciences  
202 Junipero Serra Blvd.  
Stanford, California

Dear Dr. Polanyi:

Thank you for your letter of May 30. I have found the place where my most adequate statement of my position with respect to knowledge and participation is given. It is: "Participation and Knowledge: Problems of an Ontology of Cognition." In: *Sociologica. Max Horkheimer zum 60. Geburtstag*, Hrsg. v. W. Adorno und W. Dirks, Frankfurt a.M. Europaeische Verlagsanstalt 1955. S. 201-209. (*Frankfurter Beitrage zur Soziologie*. Bd.1.). I suppose that you have the *Beitraege* in your library. If not, I probably could have send you a reprint of my own library in Harvard Divinity School.

You can always write to me through the University of Chicago, Divinity School, and also directly to my secretary there, Mrs. Eva Shane.

Cordially Yours,

Paul Tillich.

PT/es

Despite these records of the exchange which seem positive there is another account by Polanyi later in an unpublished text preparatory to Polanyi's discussion of religion in his book Meaning.<sup>15</sup> Here Polanyi states another kinship with Tillichian seeing God beyond any cognitive reduction. However, Polanyi states that his meeting with Tillich was less satisfying on connecting their common concerns for understanding mythical experience. According to Polanyi, Tillich seems preoccupied with the theological task of guiding the church's proclamation while Polanyi is focused on a theory for overcoming the destruction of meaning by the scientific outlook. Here Polanyi says:

The hopes of Tillich to see divinity as beyond any coherent entity corresponds to my own perspective. It was in 1963 that I attended some lectures by Tillich at Berkeley and at one of the churches attached to the same area. I spent a few hours with Tillich in the evening following the second lecture, telling him a little about my work, to which he answered "you have done for science what I have done for religion". This was a matter of courtesy, but it did hold some substance. The **vision of an indeterminate meaning, which floats beyond all materially structured experiences,** exists on the lines of a **stratified sequence** ultimately **pointing at unsubstantial existence.**

I would follow this aspect of religion by a theory of mythical experience. It is in this way an extension of the transnatural existence possessed by the arts.

But when I moved in this direction when talking to Tillich, he exclaimed opposition by pointing at a young clergyman facing us across the table and telling me “but I have to tell this young man and thousands like him what to say from the pulpit next Sunday”. Obviously the link is unmade, but I believe its traces can be perceived in vision within a stratified universe.

I am not fully certain of what Polanyi’s difference with Tillich here is. I conjecture that Tillich is speaking to Polanyi about the importance of myth in presenting the truths of Christian faith, their role in preaching and in teaching. Polanyi is focused on relating his theory of knowledge in science to art, myth, and religion.

With this background in mind, I have tried to open up our inquiry into the significance of the Polanyi-Tillich dialogue. From this brief review, I think it is clear that Polanyi did seek and find in Tillich’s thought and in his dialogue with Tillich, a support for his program of post-critical philosophy and a confirmation that Tillich was at one with him in seeing a post-critical logic in science and in theology. In conclusion, it would be worth noting that in Polanyi’s thought, the liberation of the modern world from its domination by an objectivist epistemology was necessary before religion could thrive again. In this way, his work would be preparatory and complementary to Tillich’s attempt to revive the meaning of religion and Christian faith in a secular culture. As ethicists, philosophers, and theologians trying to interpret Christian faith and vital religious beliefs today, the joint contribution of Tillich and of Polanyi in combatting the problem of non-belief still looks productive.

## Endnotes

<sup>1</sup> Garden City: Doubleday, 1966.

<sup>2</sup> Chicago: University of Chicago Press, 1958, pp. 280, 283.

<sup>3</sup> *Ibid.*, p. 280.

<sup>4</sup> *Ibid.*, p. 266.

<sup>5</sup> Chicago: University of Chicago Press, 1960.

<sup>6</sup> Chicago: University of Chicago Press, 1975.

<sup>7</sup> New York: Harper and Brothers, 1957, p. 81.

<sup>8</sup> Michael Polanyi, “Points From A Conversation With Paul Tillich on February 21, 1963,” *Collected Articles and Papers of Michael Polanyi*, compiled by Richard L. Gelwick, Berkeley: Pacific School of Religion, 1963, microfilm. Now available through The Graduate Theological Union.

<sup>9</sup> *Sociologica. Max Horkheimer zum 60. Geburtstag*. Hrsg. V.W. Adorno und W. Dirks, Frankfurt a.m. Europaeische Verlagsanstalt 1955. S. 201-209 (*Frankfurter Beitrage zur Soziologie*. Bd. 1).

<sup>10</sup> *Philosophy Today*, VII(Spring, 1963), pp. 4-14.

<sup>11</sup> D. Mackenzie Brown (ed.), New York: Harper and Row, 1965, p. 8.

<sup>12</sup> Box 36, Folder 3. Polanyi Papers, University of Chicago. With permission of John Polanyi, literary executor.

<sup>13</sup> 1963 Correspondence. Polanyi Papers.

<sup>14</sup> *Ibid.*

<sup>15</sup> Polanyi Papers.