1. Introduction

There has been some valuable work done toward teasing out the philosophical affinities between Michael Polanyi and Charles Peirce (e.g. Innis 1999; Mullins 2002). In connecting Polanyi’s theory of tacit knowing with Peirce’s theory of abduction, Mullins (2002:211) suggested that both Peirce and Polanyi held similar views about the philosophical value of doubt. The aim of this paper is to pursue this suggestion by clarifying two parallel criticisms of the method of doubt by Peirce and Polanyi. The first is that both claim that there never has been a thoroughgoing use of the method and that such a use is impossible for a positive philosophy. The second is that the method of doubt has little to no use for inquiry if separated from previous cognition. A secondary goal of this paper is also to respond to scholars who have argued against Peirce’s criticism that the method of doubt is impossible (Meyers 1967; Johanson 1972; Haack 1983).

2. Method of Doubt as an Impossible Starting Point

Both Polanyi and Peirce thought that the critical method (or method of doubt) has never been rigorously employed. Polanyi writes that during the critical period, it is not the case that “this method has been always, or indeed ever, rigorously practised—which I believe to be impossible—but merely that its practice has been avowed and emphatic” (PK:270). Instead, Polanyi argued that the method’s proponents were typically guilty of an unwillingness to pursue the method to its logical conclusion or guilty of an unwitting commitment to dogmatism in their functional (instrumental) employment of concepts. Likewise, Peirce argued that advocates of the method have never offered evidence that their questioning was anything more than ‘paper doubt’, i.e. the mere writing down on a piece of paper that one doubts (see EP2:336 [1905]). Both argued that if the method could be rigorously pursued, it would lead to a pure skepticism, but there is no evidence that any animal capable of awareness is capable of genuinely adopting this position.

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1 Abbreviations for Peirce’s work follow these conventions: CP#:# = (Peirce 1960); HPPS:# = (Peirce 1985); EP1:# = (Peirce 1992a); EP2:# = (Peirce 1998); SS:# = (Peirce 1977); RLT:## = (Peirce 1992b); W#.# = (Peirce 1982-2000); R#:# = (Peirce 1963-1966, 1966-1969, 1967, 1970). In addition, rejected manuscript pages will have an ‘x’ after the manuscript page number. Abbreviations for Descartes’s work follow these conventions: AT = (Descartes 1897-1913); CSM = (Descartes 1985); CSMK = (Descartes 1991). Abbreviations for Polanyi follow these conventions: KB: (Polanyi 1969); PK: (Polanyi 1962 [1958]); SFS: (Polanyi 1964 [1946]); TD: (Polanyi 1966). Many thanks is owed to Phil Mullins, Ryan Pollock, Toby Svoboda, and Daniel Brunson for comments on drafts of this essay.

2 For other references, see (Sanders 1999:5, 1988:16-18).
2.1 Peirce

Peirce argued that the method of doubt cannot be the correct *starting point* for philosophy. Peirce writes, “[w]e cannot begin with complete doubt. We must begin with all the prejudices which we actually have when we enter upon the study of philosophy. These prejudices are not to be dispelled by a maxim for they are things which it does not occur to us can be questioned.” (W2:212 [1868], emphasis added). Some Peirce scholars have been critical of Peirce’s objection that pure skepticism is impossible. Meyers (1967:19), Johanson (1972:227), and Haack (1983:244-249) all argue that Peirce misunderstands the necessary condition for Cartesian skepticism. Meyers (1967:19) claims that Peirce’s objection is misplaced because a belief is dubitable only if it is possible for S to doubt p, not only if I do doubt p. In other words, the necessary condition for Cartesian skepticism is whether a belief is theoretically (logically) rather than descriptively (psychologically) dubitable. In a similar fashion, Haack (1983:246) objects by claiming that Descartes’s use of methodological doubt is tied to a rational policy that aims at avoiding believing anything that is false, and so “does not require deliberate doubt.”

In each case, criticisms are directed at the view that the method of doubt is impossible. However, such criticisms do not apply to an interpretation of Peirce’s claim that benefits from greater contextualization. Between 1868 and 1869, Peirce published three essays in the *Journal of Speculative Philosophy*. In his essay “Questions Concerning Certain Faculties Claimed for

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3 Johanson (1972:227) claims that in response to Peirce’s criticism, “Descartes has open the possibility of saying that what he is doing is subjecting his indubitable (and dubitable) beliefs to criticism and imaginary experimentation, to see which of them can withstand the test of feigned hesitancy.” Descartes is somewhat ambiguous as to whether anyone can genuinely (psychologically) doubt every belief that is theoretically (logically) dubitable. At the beginning of the first Meditation, Descartes’ explicit proposal is simply to suspend judgment on any opinion which there is “at least some reason for doubt”, not on the condition that the belief can be genuinely doubted (AT VII, 18). In a 1643 letter to Buitendijck, Descartes claimed that the scope of intellectual doubt is greater than the scope of willful doubt. According to Descartes, a belief about an object’s existence is *intellectually dubitable* only if S cannot give a proof that the object exists (AT IV, 63). Thus, in the case of the existence of God, an individual may, through faith, not doubt that God exists (so S does not willfully doubt p) but nevertheless can intellectually doubt God’s existence because S cannot furnish a proof of God’s existence. Thus, according to Descartes, S’s belief that God exists is theoretically dubitable but not descriptively dubitable.

However, in support of the claim that dubitability requires willful doubt, Descartes notes throughout the *Meditations* that the strength of his habitual beliefs requires extraordinary resources to undermine. He writes that his habitual beliefs “capture my belief” and that without the use of the evil demon, there are some beliefs that he “shall never get out of the habit of confidently assenting to these opinions” (AT VII, 22). Another example is found in his unpublished *The Search for Truth* (c.1641), Descartes’s Eudoxus argues that just as a painter who—having made a number of mistakes in a portrait—ought to make a fresh start with a new canvas, philosophers ought to commit fully to the method of doubt. However, Epistemon and Polayander reply that this astonishing proposal would be possible only “by calling on the assistance of powerful reasons” (AT X, 508-9). To this challenge, Eudoxus responds with the unreliability of the senses, the lack of a distinction between a waking state and a sleeping state, and the possibility of an evil demon (AT X, 510-512). All three of these cases are claimed to produce the necessary resources to make a wide variety of beliefs descriptively dubitable. Finally, in response to Gassendi’s objection that the use of methodological doubt amounts to philosophical artifice because one cannot compel himself to believe that he is not awake or that his senses are untrustworthy, Descartes responds by claiming that is no reason why such beliefs should not—or could not—be called into doubt (AT VII, 258). After the publication of the *Meditations*, Gassendi published his *Metaphysical Enquiry: Doubts and Counter-Objections* (1644), which rearticulated his original objection that the method of doubt was descriptively impossible. Descartes responded by claiming that all of the beliefs in the *Meditations* are capable of being doubted because they were directed at “opinions which we have continued to accept as a result of previous judgments that we have made” and since our making of these judgments is an act of will, and since our will is in our power, it follows that it is possible that S can doubt p, even though S does not doubt p. (AT IXA, 204).
Man,” one of the principal claims was that there is no evidence for the existence of a faculty of intuition (direct cognition) over and above hypothetical inference (mediate cognition). In the following essay, “Some Consequences of Four Incapacities,” Peirce notes that a consequence of not having intuition as a faculty is that we cannot begin with complete doubt. This is the claim that suggests Peirce thinks the critical method is impossible. However, in the third and final essay of the series, “Grounds of Validity of the Laws of Logic,” Peirce seems to contradict himself when he writes, “[i]t has often been argued that absolute scepticism is self-contradictory; but this is a mistake: and even if it were not so, it would be no argument against the absolute sceptic, inasmuch as he does not admit that no contradictory propositions are true” (W2:242 [1869]). The prima facie contradiction can be removed if Peirce’s claim is simply that pure skepticism is possible but cannot be the starting point for any positive mode of human inquiry that has no recourse to the faculty of intuition. The reason for this is that, according to Peirce, if there is no intellectual intuition and the method of doubt is the starting point, then we are left with no residual beliefs, premises, or cognition upon which hypothetical inference can operate.

Thus, Peirce’s commentators are mistaken in their criticism concerning Peirce’s rejection of the impossibility of the method of doubt. The claim that “prejudices are not to be dispelled by a maxim for they are things which it does not occur to us can be questioned” is merely elliptical for “prejudices are not to be dispelled by a maxim for they are things which it does not occur to us can be questioned at the starting point of an inquiry.” The elliptical phrase “at the starting point of an inquiry” is to be added because (1) Peirce claimed that a pure skepticism was possible and (2) Peirce’s claim ought to be read in the context of his rejection of the faculty of intuition.4

Despite the fact that Peirce thought that that pure skepticism was theoretically possible, he claimed there are no intelligent beings as absolute skeptics (W2:242 [1869]). Such a being, Peirce claimed, would go about “considering every argument and never deciding upon its validity”, but would be incapable of forming any inference about any of them (W2:242 [1869]).

4 Haack (1983) addresses two objections leveled by Peirce against the method of doubt. The first is that Peirce thinks the method of doubt is impossible. The second, argues Haack (1983:252-3), is that Peirce’s objection to the method of doubt is not rooted in the view that Descartes is too skeptical. Instead, Haack (1983:252) claims that when the method of doubt is tied to Descartes’s rational policy of admitting only indubitable beliefs, Descartes is not skeptical enough for a wholesale employment of the method of doubt should “leave no residue of indubitable beliefs to form the basis of reconstruction” (Haack 1983:253). On Haack’s account, since Peirce regards theoretical skepticism as consistent, Peirce’s objection to Descartes’s use of methodological doubt is that its employment is a backhanded way of introducing dogmatic claims already accepted before the method of doubt was applied. My claim is that Haack’s first objection is a misreading of Peirce. Further, her account of the second objection lends support to my interpretation of the first.

5 However, Peirce argued that proponents of the method of doubt have never offered any evidence that their questioning has amounted to anything more than ‘paper doubt’, i.e. the mere writing down on a piece of paper that one doubts (see EP2:336 [1905]). Instead, according to Peirce what is required for any genuine doubt is some finite stimulus or reason that would incline someone to no longer act upon that proposition. However, according to Peirce, in order for the method of doubt to be rigorously practiced, it cannot simply be assumed that if a belief can be questioned (or if it logical possible for a belief to be false), then it follows that that belief can be doubted. For Peirce, this ignores the possibility that there may never be a compelling reason to doubt certain beliefs. In a 1906 review of Elizabeth Haldane’s Descartes: His Life and Times (1905), Peirce characterized his dissatisfaction with Descartes’s use of the method by arguing that at no time in the Meditations does Descartes give any evidence that his skeptical scenarios are genuinely capable of producing doubt in anyone’s (even Descartes’) mind. Peirce writes,

As long as this universal and absolute doubt lasted (for he apparently had no doubt at all that in a month or two, at the most, it would be over), he decided that it would certainly be best for him to continue in all
Peirce’s point thus seems to be that a pure skeptic would be caught in a perpetual hesitation about the validity of every argument because of a lack of certainty concerning the very use of hypothetical inference.

2.2 Polanyi

Polanyi noted the impossibility of using such a method when he wrote that during the critical period, it is not the case that “this method has been always, or indeed ever, rigorously practised—which I believe to be impossible—but merely that its practice has been avowed and emphatic” (PK:270, my emphasis). He claimed that the wholesale use of the method of doubt is a corollary of objectivism, and its employment assumes that “uprooting of all voluntary components of belief will leave behind unassailed a residue of knowledge that is completely determined by objective evidence” (PK:269). Polanyi voiced a number of reasons why a full-scale use of the method of doubt was impossible for a positive philosophy, and his criticisms extend Peirce’s line of thought in a more explicit fashion.

I detect two lines of criticism from Polanyi. First, proponents of the method tend to restrict the application of critical assessment to explicit or focal beliefs and not to those that play a tacit, subsidiary, non-focal, or functional role. In the use of the critical method, the latter concepts are necessary not only for a skeptical assessment of a given belief but also play a role in the very formulation and bringing into focus of such beliefs. According to Polanyi, in order for a proponent of the method to claim that a given proposition $p$ is explicitly dubitable, we need to make a host of tacit presuppositions about the skeptic’s instrumental use of concepts needed for attending to $p$, e.g. the use of language, the capacity for sustained cognitive attention, and memory, etc. (see KB:193). One aspect of Polanyi’s critique then is that a rigorous, complete, and in-depth use of the critical method requires an application to the non-focal, subsidiary, or instrumental features that make explicit belief and doubt possible. That is, just as an account of knowing must acknowledge all the factors a person relies upon in order to bring the topic of interest into focus, so must various accounts of doubting.

respects to conduct himself as if he retained his old belief; as if it were possible for a man for days to keep up, without fail, a line of conduct about all things without the slightest belief in the advantage of such conduct—always, for example, using the tongs to stir his fire, instead of his fingers, though he had utterly dismissed all belief that fire would burn his fingers. (1906).

According to Peirce then, Descartes’ use of the method of doubt is deeply unsatisfactory because he fails to provide an independent argument for the claim that if a belief can be questioned, then it follows that that belief can be doubted. Some beliefs like ‘fire burns’ may simply be psychologically irresistible given the type of organism that we are and the sort of world we live in.

6 Concerning the claim that the critical method is a corollary of objectivism, the idea appears to be that since objectivism requires belief in a proposition only on the condition that the proposition is demonstrated, the critical method follows since it pursues knowledge by regarding any personal (or subjective) contribution as potentially dubitable (see PK:286; see also Saunders 1988:38-39).

7 In (SFS:85), Polanyi notes that any inquiry involves the functional use of concepts and that such concepts are manifested in the practice of inquiry (see Kane 1984:18-19).

8 In Polanyi’s 1967 “Sense-Giving and Sense-Reading”, Polanyi writes “[w]e must realize that to use language is a performance of the same kind as our integration of visual clues for perceiving an object, or as the viewing of a stereo picture, or our integration of muscular contractions in walking or driving a motor car, or as the conducting of a game of chess—all of which are performed by relying on our subsidiary awareness of some things for the purpose of attending focally to a matter on which they bear” (KB: 193).
Second, Polanyi seems to argue that the use of the critical method toward an explicitly held belief that \( p \) is tacitly committing toward a framework from which \( p \) can be evaluated. Consider, as Polanyi does, the distinctions between the different explicit forms of disbelief and doubt.\(^9\) There is *contradictory doubt* (or disbelief) where \( S \) believes the negation of a proposition. In addition, there is *agnostic doubt* where \( S \) believes that a proposition is not proven or that there are sufficient grounds for choosing between \( p \) and not-\( p \) (PK:272-3). Polanyi further characterizes an *agnostic doubt* as being one of two forms: (1) *final agnostic doubt* where \( S \) believes that \( p \) cannot be proven and (2) *temporary agnostic doubt* where the possibility as to whether \( p \) can be proven is left open (see PK:273). Polanyi claims that even though there are cases where “the agnostic suspension of belief in respect to a particular statement says nothing about its credibility, it still has a fiduciary content. It implies the acceptance of certain beliefs concerning the possibilities of proof” (PK:273). The fiduciary content of the agnostic attitude is found in a framework which is responsible not only for assessing beliefs but also for bringing such beliefs into focus. Concerning the former, Polanyi argues that when \( S \) doubts \( p \), there is a hidden indexical for (or tacit supposition about the future status of) \( p \). Thus, the inconclusive status of \( p \) is not equivalent to simply ‘\( S \) doubts \( p \)’ but something closer to ‘\( p \) may or may not be proven in the future’ or, more strongly, ‘\( p \) can never be demonstrated’ (see PK:273). This sort of hidden indexical is problematic for someone who advocates the method of doubt for in analyzing which beliefs are and are not dubitable, the user of the method of doubt appears to be making a number of unchecked assumptions about the current of future dubitability of \( p \). In other words, the mere expression of agnosticism is already expressive of a tacit commitment to a framework in which the belief about how \( p \) is to be assessed.\(^10\)

However, much like Peirce, Polanyi seems to be of the position that if the critical method were applied to both instrumental concepts that bring belief into focus and to the framework, the result would be a pure skepticism rather than a solvent for error or a positive philosophy. He writes that we can “imagine an indefinite extension of the [critical] process of abandoning hitherto accepted systems of articulation, together with the theories formulated in these terms or implied in our use of them” (PK:295). Such an extension of the critical process consists of a wiping out “all such preconceived beliefs” (PK:295), and such a theoretical position demands “[w]e must accept the virgin mind, bearing the imprint of no authority, as the model of intellectual integrity” (PK:295). However, much like Peirce, despite acknowledging pure skepticism as a logical alternative, Polanyi claimed that no such creature instantiates this position. Such a being, Polanyi, notes would be “frantic and inchoate”, could only be pursued by “blotting out my eyesight” and “reducing ourselves to a state of stupor” (PK:296-297; see also PK:314).\(^11\)

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\(^9\) As Phil Mullins has pointed out to me, Polanyi draws a distinction between the explicit and wide (or tacit) forms of doubt and there is a perhaps a connection between the tacit form of doubt—which Polanyi characterizes as a “moment of hesitancy”, “present in all articulate forms of intelligence”, and in the behavior of animals—and Peirce’s notion of “genuine doubt” (PK:272).

\(^10\) Polanyi seemed to even claim at times that proponents of the method were already tacitly committed to (i.e., disposed for or against) any proposition put forward in their discipline. Polanyi writes, “[i]f he ignores the claim he does in fact imply that he believes it to be unfounded. If he takes notice of it, the time and attention which he diverts to its examination and the extent to which he takes account of it in guiding his own investigations are a measure of the likelihood he ascribes to its validity” (PK:276).

\(^11\) Polanyi immediately follows this remark by writing that “the programme of comprehensive doubt collapses and reveals by its failure the fiduciary rootedness of all rationality” (PK:297, my emphasis). Polanyi’s critique then is that a rigorous use of the method of doubt is impossible for rational purposes since the application of the method to the subsidiary or non-focal concepts that allow for the rational use of doubt requires an abandonment of rationality.
3. Method of Doubt is Useless

While the method of doubt might not be the primary method for establishing the starting point of philosophy, Polanyi and Peirce also directed arguments against its utility for philosophical, scientific, and social purposes. In particular, both argued that if the method is divorced from previous cognition and personal commitment, it was useless (see PK:269).12

3.1 Peirce

Peirce rejected the view that the method of doubt could be useful without the requisite prejudices and previously formed beliefs upon which to interact. In the case of Descartes, Peirce writes,

no one who follows the Cartesian method will ever be satisfied until he has formally recovered all those beliefs which in form he has given up. It is, therefore, as useless a preliminary as going to the North Pole would be in order to get to Constantinople by coming down regularly upon a meridian. (W2:212).13

Peirce’s general point is that if Descartes’s reconstructive project is to be admitted, it will only be accepted if it validates the bulk of prejudices already accepted. The whole project then amounts to a “whitewashing” since the outcome of using the method of doubt is already determined at the outset.14 As evidence, Peirce cites a variety of claims that Descartes claims to altogether. In particular, Polanyi writes, “to acknowledge tacit thought as an indispensible element of all knowing and as the ultimate mental power by which all explicit knowledge is endowed with meaning, is to deny the possibility that each succeeding generation, let alone each member of it, should critically test all the teachings in which it is brought up.” (TD:60-1). Thus, while pure skepticism is theoretically possible, it cannot be adopted by a rational agent. Perhaps compounding the problem for the skeptic is whether subsidiary features are even capable of undergoing critical scrutiny (see KB:139, 147; TD:15; Saunders 1988:8-9).

For example, in the synopsis to the Meditations, Descartes writes “the usefulness of such extensive doubt is not apparent at first sight, its greatest benefit lies in freeing us from all our preconceived opinions, and providing the easiest route by which the mind may be led away from the senses” (AT VII 12). In replying to Gassendi’s objections to the Meditations, Descartes claimed that it is often “useful to assume falsehoods instead of truths in this way in order to shed light on the truth, e.g. when astronomers imagine the equator, the zodiac, or other circles in the sky, or when geometers add new lines to given figures” (AT VII, 349, my emphasis). In terms of the method of doubt being a safeguard for tolerance, one example is Russell who emphasized its practical usefulness in arguing that it was the solvent for dogmatism infecting political and religious life. In Personal Knowledge, Polanyi references at least two pieces by Russell to this extent (PK:271, 297). In the first, Russell writes, “Arians and Catholics, Crusaders, and Moslems, Protestants and adherents of the Pope, Communists and Fascists, have filled large parts of the last 1,600 years with futile strife, when a little philosophy would have shown both sides in all these disputes had any good reason to believe itself in the right. Dogmatism is an enemy to peace, and an insuperable barrier to democracy. In the present age, at least as much as in former times, it is the greatest of the mental obstacles to human happiness.” (1950 [1946]:26).

Peirce writes “[n]othing can be gained by gratuitous and fictitious doubts” (W2:189 [c.1868]). Also, he writes, “Defense against sham doubt is but a blank-cartridge action. It is of no use. On the contrary, humbug is always harmful in philosophy.” (CP2.196).

Peirce writes, “in cases where no real doubt exists in our minds inquiry will be an idle farce, a mere whitewashing commission which were better let alone.” (CP5.376n3 [1893]).

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have positively established through the reconstructive stage after applying the method of doubt but which are actually products of Descartes’ formal education.\(^\text{15}\)

Despite this criticism, Peirce claimed that the method of doubt could have a useful role for inquiry if used in concert with previously established beliefs. It seems that for Peirce, doubt plays an effective role only if it operates within a system of prejudices and personal commitments, and its primary function is to spur the investigator to the resolution of a problem. As such, doubt formed an important part of his Critical Common-Sensism “provided only that it be the weighty and noble metal itself, and no counterfeit nor paper substitute” (EP2:353 [1905]). Further, he claimed that the inductive method “springs directly out of dissatisfaction with existing knowledge” and the concept is central to his account of the fixation of belief (EP2:48 [1898]; W3:242-257 [1877]).

3.2 Polanyi

Polanyi was also critical of whether the method of doubt could be recognized as the primary tool for scientific discovery. In his 1952 essay “The Stability of Beliefs” and later in *Personal Knowledge* (1962 [1958]), Polanyi writes that there is no existing heuristic maxim or defensible a priori rule that recommends doubt as the primary path to scientific discovery. Polanyi cites Columbus’s discovery of America, Newton’s work in the *Principia*, Max von Laue’s discovery of the diffraction of x-rays by crystals, and J.J. Thompson’s discovery of the electron as examples where knowledge was expanded not by a methodological use of doubt but by a creative power to expand scientific beliefs into more concrete or practical form and a conviction that existing beliefs were lacking in some capacity (1952:226-7; PK:277).\(^\text{16}\) The absence of a rule that we can apply when faced with the decision whether or not to believe \(p\) undermines the usefulness of the method of doubt because it suggests that (1) the method should not be applied in all circumstances (as the history of science shows), and (2) it cannot be determined in advance when the method of doubt should be applied in restricted form.

Not only did Polanyi criticize the utility of the method of doubt for scientific inquiry, but he was also critical of its utility as a safeguard to various forms of religious or cultural thinking. Instead, he regarded the method as a backhanded way of propagating personal beliefs. In criticism of Russell, Polanyi writes that Russell’s intention was “to spread certain doubts which he believes to be justified” but his claim that doubt is a safeguard for tolerance does not apply to his own beliefs (PK:297). Polanyi continues,

\(^{15}\) In a 22 March 1906 review of Haldane’s *Descartes*, Peirce writes, “Thus, he [Descartes] plainly regarded himself as the only philosopher worthy of that name that ever lived; and yet it seems impossible that, after eight years in perhaps the most admirable Jesuit college there ever was, he should not have been perfectly aware that his famous Je pense, donc je suis was taken entirely out of St. Augustine’s ‘De Civitate Dei,’ or ‘De Anima,’ or ‘De Quantitate Animae,’ for its substance, as the form of the ‘Discours de la Méthode’ and of the ‘Meditations’ is imitated from the ‘Confessiones’; nor that he should have been totally unconscious of how far he availed himself of the results of Galileo, of Thomas Harriot’s, and others whom he ignores.” See also CP6.498, where Peirce writes, “Descartes convinced himself that the safest way was to "begin" by doubting everything, and accordingly he tells us he straightway did so, except only his je pense, which he borrowed from St. Augustine.” See also (CP4.71 [1893]). That even the “cogito ergo sum” is dubitable, see R891 [c. 1880-82].

\(^{16}\) For a list of more examples, see (Sanders 1988:121-122). For von Laue’s account of the discovery of x-ray interferences, see (Laue 1998 [1915]:351-2).
Philosophic doubt is thus kept on the leash and prevented from calling in question anything that the septic [sic] believes in, or from approving of any doubt that he does not share. The Inquisition’s charge against Galileo was based on doubt: they accused him of ‘rashness’. The Pope’s Encyclical ‘Humani Generis’, issued in 1950, continues its opposition to science on the same lines, by warning Catholics that evolution is still an unproven hypothesis. Yet no philosophic sceptic would side with the Inquisition against the Copernican system or with Pope Pius XII against Darwinism, Lenin and his successors have elaborated a form of Marxism which doubts the reality of almost everything that Bertrand Russell and other rationalists teach us to respect, but these doubts, like those of the Inquisition, are not endorsed by Western rationalists, presumably because they are not ‘rational doubts’ (PK:297).

Polanyi thus criticizes practitioners of the method of doubt as applying a double standard by only using the method upon beliefs they find disreputable and rejecting its application on those they find rational.17

Despite these criticisms, Polanyi recognized that a certain place for the method of doubt. He characterized the heuristic (or non-descriptive form) as essential to Christian faith (PK:281, 285) and while not “the universal solvent of error”, Polanyi appears open to a contextualized and restrained use of doubt insofar as it stirs inquirers to creative solutions (PK:266; TD:57).

4. Conclusion

In sum, Peirce and Polanyi expressed criticisms from two different directions. On the one hand, they criticized practitioners of the method of doubt for failing to use it rigorously enough and argued that a thoroughgoing use of the method would amount to a pure skepticism, of which no creature instantiates.18 On the other hand, they criticized said practitioners for extolling its scientific and practical utility without considering that it only plays a limited role in scientific discovery and social arbitration.19

17 For a related discussion on the use of doubt, see Sanders’s (1988:118-124) discussion of Polanyi’s rejection of instrumentalism.
18 Polanyi even hints that the invitation to dogmatism is built upon our ability to take the critical method to its logical conclusion (see PK:268). For an alternative reading of this passage, see (Canon 1999:2). Polanyi is thus characterized as accepting a form of fallibilism. However, it should be noted that Polanyi gave fallibilism a very positive ring when he claimed that scientists must remember that a particular theory is not only capable of being false but a theory is also capable of being true, even in the face of adverse evidence. He illustrated this position by noting that features of argon, potassium, tellurium, and iodine in relation to the periodic system of elements and aspects of optical diffraction for Einstein’s quantum theory of light (see SFS:29-31). He summarizes this point in writing “We may conclude that just as there is no proof of a proposition in natural science which cannot conceivably turn out to be incomplete, so also there is no refutation which cannot conceivably turn out to have been unfounded” (SFS:31).
19 Quite obviously, the respective attitudes of Peirce and Polanyi is only one of many points of similarity between them for both were informed scientists, both adopted a form of fallibilism, both made hypothetical inference (abduction) an essential feature of scientific development, both accepted a form of common-sensism (methodological believing), and both appeared to explain the possibility of knowledge along evolutionary lines. For a comparison of Peirce and Polanyi on abduction and tacit-knowing, see Mullins (2002), and for a Peirce-Polanyi connection on perception, meaning, and semiosis, see (Innis 1999).
References


