A Distinctive Quaker Theory of Knowledge:
An Expanded Experiential Empiricism

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Abstract
While few Quakers have been academic philosophers, Quaker thought provides a distinctive way of understanding knowledge that does not fit easily within the standard historical narrative of Western epistemology. The standard historical narrative tells the story of the rationalism–empiricism debates in early modern philosophy, emphasising the triumph of empiricism, the rise of modern science and the establishment of the scientific method as the highest form of Western knowledge by the early twentieth century. From a scientific point of view, religion could no longer be properly regarded as a kind of knowledge, but ‘merely’ a matter of faith whose claims are seen as often coming into conflict with scientific understandings. The Quakers, however, have generally not regarded science and religion as being in conflict, and the reason is that they have generally grounded both their scientific and religious understandings in experience. The distinctive epistemology that emerges from Quaker thought can thus be described as an expanded experiential empiricism.

Keywords
empiricism, epistemology, Inward Light, rationalism, religious knowledge, science.

Introduction
The rise of modern science in the seventeenth century was a significant turning point in the development of Western thought. Prior to this time, philosophy, theology and science were not separate disciplines but were still deeply interconnected. Reasoning, sense perception and revelation were all regarded as legitimate sources of knowledge, with sense perception ranking at the low end of this scale.
because the senses can be deceived, and sensory information, being particular rather than universal, was therefore regarded as partial and incomplete.

Religious knowledge was provided by 'revelation', a term referring to traditional religious teachings, the Bible or divine inspiration. By the seventeenth century, however, all three of these versions of revelation had become questionable. The Protestant Reformation called into question the status of traditional church teachings. The invention of the printing press and the translation of the Bible into vernacular languages made the Bible more widely available and raised its status as a primary source of religious knowledge, but biblical authority sometimes came into conflict with reason. In the radical branch of the Second Reformation, some groups emphasised direct, personal divine inspiration as the primary source of religious knowledge, but this view was controversial since many religious thinkers thought the gift of direct divine inspiration had been lost when the Church was corrupted by its alliance with secular power after Christianity was adopted as the official religion of the Roman Empire.¹ Thus, even most groups involved in the Radical Reformation instead emphasised biblical authority.

Philosophers during this time were clarifying the kinds of knowledge provided by reason and sense perception. Prior to this time, science focussed on observation, classification and reasoning about universals. The development of the experimental method and the application of mathematical measurement to observational data brought forth modern science. The ‘dialogue with nature’ offered by the experimental method, coupled with the increased precision of observations provided by mathematical measurement, now allied reasoning and sense perception in a way that offered sense perception a more prominent role in the discovery of universal knowledge.

The parallel developments of the increased status of biblical knowledge and of ‘rationalism’ (in the broad sense that included sense perception as employed in the new scientific method) created a new tension: first a debate between spiritualism and rationalism (a debate that spiritualism is regarded to have lost),² and then a subsequent new debate between a narrowed version of rationalism and empiricism (a debate that rationalism is regarded to have lost). The eventual outcome was to favour a secularised modern science, resulting in a corresponding crisis for religious knowledge.

¹ For example, Galenus Abrahamsz, a Mennonite pastor and leader of the Dutch Collegiant movement, thought that the only kind of divine inspiration still available was not a prophetic power that could convert others or purify the Church, but only a lesser version that could inspire individuals themselves to try to live a life worthy of salvation (Fix, A. C., Prophecy and Reason: the Dutch Collegiants in the Early Enlightenment, Princeton, NJ: Princeton University Press, 1991, pp. 101–03).

² Spiritualism here (not to be confused with the nineteenth-century spiritualist movement) is the view that there is a source of religious knowledge that is independent of reason and sense experience.
Yet, there is a less well known parallel story of another historical trajectory: the development during this time of a different theory of knowledge that remained intact in Western thought through to the present day. The threads that frayed in mainstream Western thought were braided together in a unique way in Quaker thought. This article tells this neglected story, implicitly well known to Quakers, but invisible in mainstream Western philosophy despite its great promise and potential.

Background: The Problem of Religious Knowledge

Western philosophers today often think that very little or nothing can count as ‘religious knowledge’ on a proper understanding of what counts as ‘knowledge’.3 This point of view is an artefact of historical contingencies. We currently privilege scientific empiricism as our favoured epistemology, and in its current formulation it simply does not allow for the possibility of religious knowledge. What counted as ‘knowledge’ in the modern period, however, was hotly contested.

Spiritualism vs. Rationalism

During the modern period, spiritualism went on the defensive, challenged by the growing prominence of reason. The prior period of philosophy, the medieval period, is often classified epistemologically as a time when philosophers tried to reconcile faith (the Judeo–Christian tradition) and reason (the ancient Greek philosophical tradition). This project culminated in the great synthesis achieved by Thomas Aquinas. Thus, most thinkers during the dawn of the modern period saw no conflict between faith and reason, holding faith primary, and assuming \( a \text{ priori } \) that reason cannot conflict with faith since reason is itself a gift from God.

With the rise of modern science as well as the proliferation of religious disputes during the political and religious turmoil of the early modern period, conflicts between faith and reason became apparent. Now that the Bible was in the hands of all literate people (not just theologians), the troublesome passages that did not line up well with reason or with new scientific discoveries were exposed without interpretation to readers who were not always well educated in methods of biblical interpretation.

Some thinkers responded by challenging the status of reason. They claimed that reason was merely ‘natural’ and thus was a flawed and inferior source of knowledge, and so maintained the authority of the Bible as supreme. Others favoured reason but still accepted the Bible, claiming that biblical teachings needed to be reinterpreted if they clashed with what reason has revealed.4

3 ‘Knowledge’ is defined as ‘justified true belief’ in Western philosophy, where ‘justification’ is generally limited to logical and mathematical reasoning and empirical verification.

4 The latter was the position ultimately favoured by the Dutch Collegiants after a time of disputes among influential Collegiant leaders. The subsequent history of Collegiant
The Quakers held an uncommon position: by grounding their spiritualism in experience rather than biblical authority, they were able to maintain a cautious respect towards reason, since reason generally did not conflict with their experiential spiritualism.

**Rationalism vs. Empiricism**

So far, the ‘rationalism’ under consideration has been the broad sense: a sense that includes reasoning, innate ideas, mathematics, sense perception and the experimental method. Within this nexus of differentiating elements of ‘reason’, further refinement coalesced through another debate: the rationalism–empiricism debate. This debate concerned the exact contribution to knowledge from the mind as distinguished here from the senses. Is the mind itself a source of the substantive content of knowledge (‘rationalism’ in the more specific sense), or is all of the content of knowledge provided by our senses (empiricism)?

Many philosophers who wanted to keep a place for religious knowledge (such as Descartes, Spinoza, Leibniz and the Cambridge Platonists) upheld rationalism, either claiming that the ultimate source of religious knowledge was innate ideas supplied by God or defending the view that reason offers proofs for the existence of God. But those favouring empiricism (such as Locke, Berkeley and Hume) argued that we have no innate ideas: reason provides no ideas of its own, but simply operates on the ideas supplied by sense experience. The earliest empiricists still allowed for the possibility of religious knowledge, either by accepting the traditional deductive proofs for the existence of God or by adding a new approach inspired by the development of inductive reasoning in science: the application of inductive reasoning to religion, resulting in ‘natural theology’ and the argument from design.

Three additional developments in the eighteenth century weakened the possibility of religious knowledge. First, David Hume showed how the argument from design can be countered by the problem of evil (which can be constructed as a parallel inductive argument), making the question of God’s existence undecidable through inductive reasoning. Second, Pierre Simon Laplace is quoted as having said: ‘I no longer have need of the God hypothesis’, clearly acknowledging that the concept of God no longer had compelling organisational power within the emerging mechanistic world view. And, third, Immanuel Kant’s critique of proofs for the existence of God resulted in a final and nearly fatal setback for the possibility of religious knowledge, even though this result was not actually thought blends with the mainstream history: ‘reason’ became increasingly secularised until spiritualism lost credibility and relevance, after which the Collegiant movement ended, no longer representing a system of thought that distinguished it from mainstream Western thought (see Fix, *Prophecy*).

Kant’s intention. In fact, Kant was trying to solve the formidable epistemological problems raised by Hume for both science and religion. Kant thought he had established a more secure foundation for science and had legitimised just enough metaphysics to support theology and morality, but the ultimate victor was not Kant but Hume. Through an unfortunate twist of fate, the twentieth-century logical positivists chose Hume’s empiricism as the epistemological foundation for science, the dominant epistemology for Western thought today, despite its conveniently overlooked but ultimately fatal weakness, even for supporting science itself.

The seeds of a much more promising epistemology can be found in Quaker thought.

Connections between Quakers and Philosophers

The early Quakers were not detached from the upheaval of thought during the early Modern period. While not themselves academics who wrote formal academic treatises, in their theological disputes with their detractors they were in fact developing and presenting an alternative epistemology. It was a time rich with a variety of newly emerging systems of thought, but few of those systems of


8 The full implications for religious knowledge of how Kant solved Hume’s problems have not been adequately appreciated. Rediehs describes how Kantian epistemology provides support for believing in an external world and in causality, thus providing a better foundation for scientific knowledge than Hume’s epistemology. See Rediehs, L., ‘Relational Realism’, PhD thesis, University of Minnesota, 1998. This problem is so difficult to solve, philosophically, that the distance, so to speak, between Hume’s scepticism and the Kantian solution is much greater than the distance between the Kantian solution for science and an extension of Kant’s argument that would additionally provide support for belief in God. Kant himself would probably agree—while he greatly curbed metaphysical speculation, he did argue for the necessity of certain general metaphysical claims: the ‘Psychological Idea’ to counter materialism, the ‘Cosmological Idea’ to counter naturalism and the ‘Theological Idea’ to counter fatalism. This much metaphysics is necessary to allow knowledge of morality (Kant, I., *Prolegomena to Any Future Metaphysics*, trans. Ellington, J. W., Indianapolis, IN: Hackett Publishing Company, 2nd edn, 2001, margin numbers 354, 362–63).

9 Many of those involved in logical positivism, logical empiricism and related movements were either scientists not trained in philosophy or philosophers who did not understand Kantian thought thoroughly enough to see how it might provide a significantly better foundation for modern science than Hume’s epistemology.

10 Hume’s epistemology is not strong enough to support actual belief in causality, and thus science based on Hume’s empiricism is limited merely to the identification of correlations.
thought survived the turmoil of this period. One survivor of course was Hume's empiricism. Another survivor, albeit largely unrecognised and underappreciated, was the Quaker way of synthesising science and religion.

As the early Quakers formulated their thinking, they were in some contact with philosophers and scientists of the time. One prominent site of connection was through Anne Conway, who studied philosophy under the guidance of Cambridge Platonist Henry More and then maintained a continuing intellectual friendship with him throughout her life. Through her brother and her husband, Conway was also connected to some prominent scientists such as Robert Boyle. She became a Quaker, and in trying to help More and her disapproving family become more understanding and accepting of Quakerism, she brought some of the more philosophically inclined Quakers into conversation with More, and encouraged them to clarify their views in writing.

Holland was another site of connections. The Dutch Collegiants, the philosopher Spinoza and Quaker missionaries, most notably William Ames and Samuel Fisher, were in close communication. Also, the English empiricist philosopher John Locke spent time with Quaker Benjamin Furly in Rotterdam when Locke was in political exile. Locke worked on his famous *Essays Concerning Human Understanding* during this time, while he had access to Furly's impressive library.

Finally, Francis Mercury van Helmont, a close friend of Anne Conway who regarded himself a Quaker for some time, connected all of these circles together and additionally knew the philosopher Gottfried Leibniz, introducing him to Quaker thought and showing him Anne Conway's writings; Leibniz additionally read works of Robert Barclay and William Penn.

While the details of these stories are fascinating, there is not room in the present article to tell the full story. A close examination of the history reveals that we cannot generalise a clear and coherent Quaker epistemology, nor ascertain the exact reciprocal influences between the Quakers and other thinkers. The circles of connection noted above, however, provide evidence to indicate that prominent thinkers among the early Quakers were aware of the philosophical

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disputes of the time, and themselves similarly felt the need to carve out their own distinctive epistemology to support their religious views; furthermore, we can trace the continuation of this epistemology to the present day. The point of the present article is not to make a historical argument to claim that early Quakers philosophically developed and defended a clear Quaker epistemology that all Quakers subsequently accepted. The article instead employs historically informed philosophy to claim that a certain distinctive epistemology can be identified that is consistent with the thought of early Quaker thinkers as well as later ones; this epistemology is labelled ‘Quaker Epistemology’ because of its distinctiveness (it is unlike other prominent Western epistemologies) and because of how it arises from Quaker thought. The main point of this article is a philosophical one: this distinctive epistemology has value for all of us today, as it provides better support for both scientific and religious knowledge and furthermore harmonises the two.

Quaker Epistemology: An Expanded, Experiential Empiricism

The Quasi-Empirical Function of the Light: Initial Objections and Replies
Quaker epistemology can first of all be classified as ‘spiritualist’ in its giving priority to religious knowledge. But instead of grounding religious thought in the Bible, the way that most Protestants did, the Quakers grounded their spiritualism in the Inward Light. The Dutch Collegiants also sometimes spoke of the Light, and for a time the views of some Collegiants were close to the Quaker view, but the spiritualism of the Collegiants came to emphasise the Bible over the Light, while their conception of the Light ultimately became rationalised. The Quakers were unique in maintaining the priority of the Light above the Bible and in keeping the Light distinct from reason. If the Quakers were to choose sides in the rationalism–empiricism debate, the language they used suggests that they tended to side more with empiricism. Their empiricist epistemology is not only suggested by their interest in science throughout their history, but also more strikingly through their use of sensory metaphors to describe the epistemic workings of the Inward Light.

Initially, associating the Light with empiricism may strike some readers as implausible. Geoffrey Morries, for example, notes that ‘little or no evidence has come to light to suggest that contemporary Quakers perceived any epistemological connection between their belief in the inward light or the personal experience of spiritual transformation, and early support amongst Quakers for empiricism’. When empiricism is connected to religion, we tend to think of

13 Fix, Prophecy.
14 Cantor, Quakers.
natural theology: reasoning from empirical science, through an argument from design, to a proof for the existence of God. In fact, the early Quakers were not very involved in natural theology, and later the interest was limited;\textsuperscript{16} on the whole, the Quakers were suspicious that knowledge of nature could tell us much about God. The claim that the Quaker view of the Light was more empirical than rationalistic, however, does not require that Quakers also advocate natural theology. Quakers regarded the Light as a 'sense of the divine', a view that is consistent even with an outright rejection of natural theology.\textsuperscript{17}

Another reason that associating the Light with empiricism may seem implausible is that we currently take empiricism to refer to the basic external senses (sight, hearing, smell, taste, touch) plus the current scientific extensions of these through instruments that detect other measurable properties that our own senses cannot detect. Morries notes, 'like true spiritual knowledge, empirical knowledge was based on first-hand experience, but on the experience of the human senses, not the divine light in the human conscience'.\textsuperscript{18} This version of empiricism clearly cannot support religious knowledge, since divine reality is defined as non-material, and non-material reality cannot be detected by senses or scientific measuring devices. Furthermore, the Quakers themselves seemed to disavow such an association: even though they may have used sensory metaphors, they also were careful, throughout their history, to caution against a literal interpretation of this language, claiming that they were not talking about actual auditory or visual experiences of the divine.\textsuperscript{19}

It should be noted, however, that the term 'empiricism' has changed over time. Both of the most famous early empiricists, Locke and Hume, associated the term 'empiricism' with 'knowledge from experience', and classified within 'empiricism' both internal and external senses. Philosophers today often forget about or gloss over this early inclusion of internal senses. Despite this early inclusion of internal senses, however, this slightly broadened version of empiricism is still not broad enough to include the Quaker notion of the Light. But it is helpful to remember that during the time of the early Quakers these concepts were still elastic and in flux. It is not unreasonable to interpret the early Quakers as adopting a primarily empirical epistemology on a broadened notion of what counts as 'experience', including not only both the external and internal senses of early empiricism but also the additional sense of the divine.

\textsuperscript{17} If we do have a distinctive spiritual sense, then a rejection of natural theology can be supported by the analogy that the existence of colours cannot be proved by an argument concerning sound, smell, taste or touch.
\textsuperscript{18} Morries, 'From Revelation', p. 329.
Light. George Fox famously said of his first major spiritual insights, ‘this I knew experimentally’, and Quakers even today ‘translate’ this phrasing as ‘this I knew experientially’. And George Fox was not alone in using the term ‘experimentally’: it can also be found in the writings of Barclay, Keith, Conway, Penn and van Helmont.

Making the Case: Why Quaker Epistemology is Empiricist Rather than Rationalist
The Quakers were building support for religious knowledge along very different lines from the rationalist philosophers, effectively expanding empiricism beyond what even Locke allowed. There was probably some cross-fertilisation of ideas between Locke and some of the early Quakers.

Prelude: Locke’s Empiricism and Connections to Quaker Thought
Locke first established his empiricism in the following famous passage: ‘Let us then suppose the mind to be, as we say, white paper, void of all characters, without any ideas; how comes it to be furnished?… To this I answer, in one word, From experience: in that all our knowledge is founded.’ Then he distinguished between external sense and internal sense:

Our observation employed either about external sensible objects; or about the internal operations of our minds, perceived and reflected on by ourselves, is that, which supplies our understandings with all the materials of thinking. These two are the fountains of knowledge, from whence all the ideas we have, or can naturally have, do spring.

When our senses convey perceptions of external objects, he calls that ‘sensation’. But he also discusses the ‘perception of the operations of our own minds within us’, and notes:

20 Fox, G., Journal of George Fox, Nickalls, J. L., (ed.), London: Religious Society of Friends, 1952, p. 11. The first version of Fox’s Journal was originally published in 1694. The passage in question was probably written in 1675 or 1676.
23 Locke, Essay, p. 109; emphasis in original.
24 Locke, Essay, p. 110.
And though it be not sense, as having nothing to do with external objects; yet it is very like it, and might properly enough be called internal sense. But as I call the other sensation, so I call this reflection, the ideas it affords being such only, as the mind gets by reflecting on its own operations within itself.\(^{25}\) He includes within internal sense the reflecting on and consideration of ‘perception, thinking, doubting, believing, reasoning, knowing, willing, and all the different actings of our own minds’, not only including ‘the actions of the mind about its ideas, but some sort of passions arising sometimes from them’.\(^{26}\) We see that, although including these kinds of internal perception makes his empiricism broader than the version we have now, this expression of it is still not broad enough to include religious experience.

It is interesting to note, however, that in the fourth edition of his Essay, Locke added a chapter on ‘religious enthusiasm’.\(^{27}\) While he argued against religious enthusiasm, he nevertheless still defended the possibility of revelation. He defined ‘enthusiasm’ as that ‘which laying by reason would set up revelation without it’\(^{28}\) noting that this omission of reason ‘takes away’ true revelation ‘and substitutes in the room of it, the ungrounded fancies of a man’s own brain, and assumes them for a foundation both of opinion and conduct’.\(^{29}\) In contrast, ‘revelation is natural reason enlarged by a new set of discoveries communicated by God immediately, which reason vouches the truth of’.\(^{30}\) There follows a careful discussion distinguishing enthusiasm from true revelation, and in his description of both, he uses sensory metaphors: ‘These men have, they say, clear light, and they see; they have an awakened sense, and they feel: this cannot, they are sure, be disputed them’.\(^{31}\) Locke goes on to admit that a perception is a perception, but the relevant question here is whether it is truly of God. These perceptions could instead be brought about by other spirits or by one’s own fancy.\(^{32}\) True discernment requires making use of the ‘light within’,\(^{33}\) an expression that sounds very much like the language of the Quakers. But Locke’s own use of the term suggests he is referring to the light of reason. Yet, intriguingly, he says this:

God when he makes the prophet does not unmake the man. He leaves all his faculties in their natural state, to enable him to judge of his inspirations, whether

\(^{25}\) Locke, Essay, p. 110; emphasis in original.
\(^{26}\) Locke, Essay, p. 110.
\(^{27}\) ‘Enthusiasm’ etymologically means ‘God-infused’. During this time period, however, it was a term whose use was almost always pejorative. Those who used this term were usually discrediting its claims of immediate (that is, unmediated) divine inspiration.
\(^{28}\) Locke, Essay, p. 615.
\(^{29}\) Locke, Essay, p. 616.
\(^{30}\) Locke, Essay, p. 616.
\(^{31}\) Locke, Essay, p. 618.
\(^{32}\) Locke, Essay, pp. 618–19.
\(^{33}\) Locke, Essay, p. 621.
they be of divine original or no. *When he illuminates the mind with supernatural light,* he does not extinguish that which is natural.\(^{34}\)

Here we find Locke admitting the possibility of a supernatural light even though his own emphasis is on the (natural) light of reason. He also allows for the possibility that some knowledge may come directly from a divine source, and that this kind of knowledge is perceived (seen and felt), even though verifying its divine source requires the use of reason.

Finding Locke using the language of ‘supernatural light’ vs. ‘natural light’ raises the question of how familiar he was with Quaker writings, such as perhaps the writings of Robert Barclay. While we will examine Barclay’s writings more fully below, here is one place where Barclay not only writes about the supernatural vs. natural distinction, but even seems to anticipate Locke’s distinction between outward and inward senses:\(^{35}\)

The senses are either outward or inward; and the inward senses are either natural or supernatural: we have an example of the inward, natural sense in being angered or pacified, in love and hatred; or when we perceive and discern any natural truth, (such as the natural maxims, to wit, that the whole is greater than the part) or when we deduce any conclusion by the strength of natural reason, that perception also in a larger sense may be called an inward sense. But an example of an inward, supernatural sense is, when the heart or soul of a pious man feels in itself divine motions, influences and operations, which sometimes are as the voice or speech of God, sometimes as a most pleasant and glorious illustration or visible object to the inward eye, sometimes as a most sweet savour or taste, sometimes as an heavenly and divine warmness, or (so to speak) melting of the soul in the love of God.\(^{36}\)

We do know that by the time Locke was adding the ‘Enthusiasm’ chapter to his *Essay*, he had been in contact with Quakers. When he was in exile in Holland (1683–89), he had stayed with the Quaker Benjamin Furly, having access to Furly’s extensive library and participating in the discussions of the Lantern club, a philosophical discussion group that had evolved from an earlier Quaker discussion group called ‘Innerlijke Licht’.\(^{37}\) Furthermore, Francis Mercury van Helmont

\(^{34}\) Locke, *Essay*, p. 621; emphasis added.

\(^{35}\) While Locke had completed a draft of his *Essay* by 1671, which pre-dates this essay by Barclay (1686) as well as Barclay’s *Apology*, Locke’s *Essay* was not complete until 1686 and the preliminary and abridged version of his essay did not circulate until 1688. The first edition of the *Essay* was published in 1689, and the ‘Enthusiasm’ chapter did not appear until the 4th edition, published in 1700.


\(^{37}\) The Lantern club, which ‘developed from a Quaker meeting group by the name of “Innerlijke Licht” into a philosophic-literary circle, came to play a major role in the history of toleration’ (Soulard, D., Review of Hutton, S., (ed.), *Benjamin Furly 1646–1714: A Quaker Merchant and His Milieu*, in *British Journal for the History of Philosophy* 17 (2009), p. 644).
quaker studies

78

stayed with Locke for a time (1693–4), perhaps sharing with him the views of Quakers George Keith and Robert Barclay, if Locke had not already been familiar with their writings.

Christian Knorr von Rosenroth also knew of Locke's work through van Helmont, and wrote one of the earliest responses to it in 1688. He interpreted Locke's 'reflection' as 'supporting the existence of some innate “sixth sense”, “internal vision”, or “light” of the soul'. What is especially interesting about this interpretation of Locke is that it shows that at least one other thinker of the time was interpreting Locke's ‘reflection’ in clearly empirical terms. While Allison Coudert labels Locke’s ‘reflection’ as ‘a sophisticated form of innatism’, Locke's own discussion of revelation as well as Knorr von Rosenroth’s interpretation of Locke describe his views in empirical rather than rationalistic terms. It is possible that Locke's contact with Quakers helped shape his views in this way.

Evidence Supporting Quaker Expanded Empiricism

Turning now to Quaker writers, let us first consider George Keith. Keith makes a distinction between what he calls ‘intuitive knowledge’ and ‘abstractive knowledge’, claiming that while the current view is that religious knowledge is abstractive, the Quaker view is that religious knowledge is intuitive. The term ‘intuition’ at that time referred to knowledge that was highly certain because you could immediately ‘see’ its truth: thus ‘intuition’ included sense perception as well as certain kinds of internal perception (such as ‘seeing’ the truth of certain geometrical proofs). Keith's own definition is close to this:

The Intuitive knowledge is that whereby a man knoweth things in their own proper forms, qualities, properties and ideas; as when I know a man by seeing himself, hearing his own voice; when I know a land, by seeing it self, and all the fine Cities, fields and gardens in it, smel of the sweet smelling flowers, eat of the fruit, and drink of the Vines which grow in it.

Keith’s definition of abstractive knowledge, in contrast, is:

The abstractive knowledge is only that which is but received from the borrowed, improper, and like (which are ever far unlike) forms, properties, qualities, and idea’s [sic] of things; as when I only hear a report of these things, by words of

38 Coudert, Impact of Kabbalah, p. 302.
39 It is interesting to note that Fox, Penn and Barclay had visited Holland and Germany in 1677 and very probably left some of their writings. Barclay’s Apology in Latin was published in 1676. Furthermore, Fox made a second visit to Holland in 1684. I do not know whether or not Locke met him during this visit.
40 Coudert, Impact of Kabbalah, p. 302.
41 Coudert, Impact of Kabbalah, p. 303.
42 Coudert, Impact of Kabbalah, p. 303.
Then Keith notes that the current thinking is that the only religious knowledge available to people now is abstractive knowledge, but Quakers disagree:

We on the other hand, from both our own blessed experience, and the Scriptures testimony affirm, that the Saints have an intuitive knowledge of God, and his power, and vertue, spirit, light and life, and the wondrous sweet and preitious workings and influences thereof, so as to hear himself: taste and see that he is good, to feel him, to smell and savour of his good ointments, according to these Scriptures following, wherein the spiritual discerning is held forth under the names of all the five sences.45

Barclay wrote in similar terms, distinguishing first between ‘the spiritual knowledge, and the literal; the saving heart-knowledge, and the soaring airy head-knowledge’, and then going on to add: ‘The last, we confess, may be divers ways obtained; but the first, by no other way than the inward immediate manifestation and revelation of God’s Spirit, shining in and upon the heart, enlightening and opening the understanding’.46 Barclay and Keith, like other writers of this time, used the term ‘immediate’ to refer to knowledge obtained directly, in an unmediated way.

The Quakers defended themselves against charges of enthusiasm. Barclay thus considered ‘external voices, appearances, and dreams’.47 That way of knowing God he said was ‘subject to doubt and delusion’, and so he expressed a preference for another (experiential) way of knowing God ‘which is not subject to any doubt, but is received simply for and because of itself, as being prima veritas, the very first and original Truth’.48 He noted that the real reason we trust any religious experience is not because it is an experience of actual voices, visions, or dreams, but because, whatever the experience is, it is accompanied by ‘the secret testimony of God’s Spirit in their hearts, assuring them that the voices, dreams, and visions were of, and from God’.49 He distinguished the spiritual ear or inward voice from the bodily ear.50

44 Keith, Immediate Revelation, pp. 13–14.
46 Barclay, Apology, p. 23.
47 Barclay, Apology, p. 36.
48 Barclay, Apology, p. 36.
49 Barclay, Apology, p. 36.
50 Barclay, Apology, p. 37. Earlier, the Quaker William Ames had made a similar distinction in his ‘Mysteries of the Kingdom of God’, 1661 (an English translation can be found in Van Cauter, J., and Rediehs, L., ‘Spiritualism and Rationalism in Dutch Collegiant Thought: new evidence from William Ames’s “Mysteries of the Kingdom of God” (1661), with a translation’, Lias 40 (2013), pp. 105–75). The fact that Barclay also uses the ‘mysteries of God’s kingdom’ expression and dedicated another essay to a Dutch Collegiant, Adriaen Paets, who knew Furly, Locke and Spinoza, raises the question of whether Barclay knew Ames or knew of his work.
Barclay also argues that revelation is objective, not merely subjective: ‘The arguments already adduced do prove, that the Spirit does not only subjectively help us to discern truths elsewhere delivered, but also objectively present those truths to our mind.’ 51 Like George Fox had said,52 and Aquinas even earlier, Barclay notes that God’s law is written in the heart, ‘from whence they become God’s people, and are brought truly to know him’.53 ‘Where the law of God is put into the mind, and written in the heart, there the object of faith, and revelation of the knowledge of God, is inward, immediate, and objective’.54

Not only does the language of this knowledge being ‘immediate’ and ‘objective’ suggest that Barclay thinks of this kind of knowledge in quasi-perceptual terms (knowledge of a kind of ‘object’, that is, of something outside of one’s own imaginings, that is ‘perceived’ in some way), he also at times refers to something like a sense organ: ‘For this Spirit never deceived us… but is clear and manifest in its revelations, which are evidently discerned of us, as we wait in that pure and undefiled Light of God (that proper and fit organ), in which they are received’.55 He, like Keith, additionally at times uses sensory metaphors: ‘How comes David to invite us to “taste and see that God is good”, if this cannot be felt and tasted?’ 56

Finally, Barclay even uses the terminology of a ‘spiritual sense’. He claims that, while Quakers may at times show how their revelations are consistent with Scriptures and reason, they do this only to convince others who have not had such revelations:

Yet those that have their spiritual senses, and can savour the things of the Spirit, as it were in prima instantia, i.e., at the first blush, can discern them without, or before they apply them either to Scripture or reason; just as a good astronomer can calculate an eclipse infallibly, by which he can conclude, if the order of nature continue, and some strange and unnatural revolution intervene not, there will be an eclipse of the sun or moon such a day, and such an hour; yet can he not persuade an ignorant rustic of this, until he visibly see it.57

In order to explain why not everyone seems to have the spiritual sense, while at the same time defending that all people are capable of acquiring it, Barclay (along with other Quaker writers of this time) argued that the spiritual sense can initially be clouded or blocked, and a personal transformation brought about by ‘forsaking iniquity’ is required before the spiritual sense is activated. In order ‘to be acquainted with that heavenly voice in thy heart’ one must let God’s Light shine in and purify one’s soul:

51 Barclay, Apology, p. 47.
53 Barclay, Apology, p. 48.
54 Barclay, Apology, p. 49.
55 Barclay, Apology, pp. 51–52.
56 Barclay, Apology, p. 59.
57 Barclay, Apology, p. 59.
I say, thou shalt feel the new man, the spiritual birth and babe raised, which hath its spiritual senses, and can see, feel, taste, handle and smell the things of the Spirit; but till then the knowledge of things spiritual is but as an historical faith. But as the description of the light of the sun, or of curious colors to a blind man, who, though of the largest capacity, cannot so well understand it by the most acute and lively description, as a child can by seeing them; so neither can the natural man, of the largest capacity, by the best words, even Scripture words, so well understand the mysteries of God’s kingdom, as the least and weakest child who tasteth them, by having them revealed inwardly and objectively by the Spirit.58

Once a person has opened this spiritual sense, the person, ‘by a living experience’ can now answer those who ask, ‘how doest thou know that thou art acted by the spirit of God?’ Barclay answered that such a challenge now ‘will appear to thee a question no less ridiculous, than to ask one whose eyes are open, how he knows the sun shines at noon-day?’59

Evidence Against a Rationalist Interpretation of Quaker Epistemology
The other side of the argument for Quaker epistemology being empiricist is to argue against its being rationalist (in the narrow sense of the term). While empiricists argued that all of the content of knowledge comes from experience (limiting the role of the mind or reason simply to operating analytically on that content), the rationalists argued that the mind itself supplies some of the content of our knowledge. Some versions of rationalism allow for the existence of innate ideas (ideas produced by the mind rather than given by experience), and other versions claim that the reasoning process can build new substantive knowledge claims, thus adding new knowledge beyond that provided by experience alone.

While some parts of the writings of some Quakers do potentially suggest a version of innatism, where the source of innate ideas is God (‘God’s law is written on the human heart’; see above), rationalism is usually understood to emphasise the knowledge-constructing power of the natural mind. A theological innatism (the view that God can supply ‘innate’ ideas) is better understood as a version of empiricism if it additionally denies that the human natural mind produces its own ideas.60 Quaker epistemology emphasised a perceptual and experiential activity of knowledge: the relevant ideas are not supplied or created by the (individual’s) mind itself, but are given by a source ‘outside’ the individual’s natural mind. Thus, some ideas are given by God, whereas others (of material objects) are given by the external world. The human activity of knowing, in both cases, is to perceive what is ‘objectively’ given. We perceive external objects through our external senses, and we perceive what is given by God through a special kind of internal sense. Thus, both through external senses and internal senses we are connected to

58 Barclay, Apology, p. 61.
59 Barclay, Apology, p. 62.
60 This view can help explain how Locke and Berkeley are classified as empiricists and yet still believed in God.
realities bigger than us: external sense connects us to physical reality, and internal sense connects us to divine reality.

Further supporting the view that Quaker epistemology is not rationalist is the point made above that rationalism gives a lot of power to the human mind and our reasoning abilities. The Quakers were seldom as negative towards human reason as some of their critics tended to think, but they did emphasise the limits of natural reason. Barclay himself is an excellent example of a Quaker who had great respect for human reason, and yet at the same time recognised its limits. He was certainly more suspicious of natural reason than Locke: ‘Since Christ hath provided for us so good an instructor… what need we set up our own carnal and corrupt reason for a guide to us in matters spiritual, as some will needs do?’

Barclay did not totally reject reason, however: ‘These divine and inward revelations, which we establish as absolutely necessary for the founding of the true faith, as they do not, so neither can they at any time contradict the Scriptures’ testimony, or sound reason.’ But, unlike some other thinkers during this time, he was not willing to let either Scripture or reason become the supreme test:

Yet... it will not from thence follow, that these divine revelations are to be subjected to the examination either of the outward testimony of Scripture, or of the human or natural reason of man, as to a more noble and certain rule or touchstone; for the divine revelation, and inward illumination, is that which is evident by itself, forcing the well-disposed understanding, and irresistibly moving it to assent by its own evidence and clearness, even as the common principles of natural truths do bow the mind to a natural assent.

Elevating natural knowledge is correspondingly to demean spiritual knowledge: ‘To say that the Spirit of God has less evidence upon the mind of man than natural principles have, is to have too mean and low thoughts of it.’

It may seem that some contemporary scholars regard Barclay as having some rationalist tendencies. Hugh Pyper, for example, compares Barclay’s epistemology with that of the rationalist philosopher René Descartes, but a close reading of Pyper’s argument shows that his main point is really to show that Barclay, in writing an ‘Apology’, tries to make connections with other philosophers. ‘The apologist attempts to show that elements of his group’s position do in fact relate to the philosophical and cultural life of the wider society.’ The apologist also connects back to the wisdom of the ancients, and uses others’

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61 Barclay, Apology, p. 45.
62 Barclay, Apology, p. 51; emphasis added.
63 Barclay, Apology, p. 58.
64 Barclay, Apology, pp. 58–59.
standards of logic and proof, answering their questions in ‘their preferred language and categories’.67

Pyper notes that Barclay, having lived in Paris, and being a distant relative of Princess Elisabeth of Bohemia, was probably well acquainted with Descartes.68 It would be natural then for Barclay, in trying to connect with the philosophical thought of the day, to use terms and expressions that may sometimes sound Cartesian. Taking such passages as evidence that Barclay was himself a rationalist cannot be assumed without more careful analysis of his use of that language. Pyper himself notes: ‘In order to establish that the Quaker claim to truth is better grounded than any appeal to tradition or scripture, Barclay takes the philosophical tradition of his day head on.’ He needs to emphasise universal truth over the particular historical facts offered by tradition and Scripture. ‘What is universally true, of course, is an inner perception, not a historical account.’69 Note that Pyper himself here uses the more empiricist language of an ‘inner perception’. Thus, Pyper’s making comparisons between Barclay and Descartes might be less to label Barclay a rationalist and more to note that Barclay was trying to connect Quaker thought to philosophical discussions of the day.

Melvin Keiser too argues that it is not correct to interpret Barclay as a Cartesian. He agrees with Pyper that Barclay’s use of Cartesian language was due to the apologetic nature of his writing. Keiser argues that experience is at the heart of Barclay’s epistemology,70 and yet, to some extent, also seems to support a rationalistic, although not quite Cartesian, interpretation of Quakerism. Keiser discusses how Barclay, like Descartes, insisted on certainty, but, unlike Descartes, located it ‘in inward immediate divine revelation, by God speaking directly within the soul’.71 Also like Descartes, Barclay did value reason: ‘The spiritual light, as well, works through, not separate from, reason.’72 Furthermore, Keiser notes, ‘With Descartes, Barclay also affirms innate ideas: “the ideas of all things are divinely planted in our souls”,’73 and goes on to discuss how Barclay, in this respect, rejected empiricism: ‘Rejecting empiricism’s belief that ideas are caused by things imprinting themselves through the physical senses on the mind, he says that external things “stir up” ideas but cannot form them’.74 But it is important to note that Keiser is really claiming that Barclay argues that spiritual ideas cannot be given by outward objects, and.

so what Barclay is rejecting here is that *external* empiricism alone can give rise to spiritual ideas. Keiser says:

A commonality exists between Descartes and Quakerism, even though they are fundamentally opposed... Barclay, like Descartes, starts with the individual in its interiority and what it can know within with certainty. Authority for both is in nothing external but is found within inwardness. The nature of that inwardness is, however, very different. For Descartes it is explicit reason searching out its own rational foundation which becomes the basis for all further philosophical reflection. For Barclay it is a dimension of spiritual sensing, not reasoning, of being touched in the heart and the life.\(^75\)

Thus, even if we allow Barclay’s respect for reason, his quest for certainty, his acceptance of innate ideas, and his rejection of external empiricism, we still find that it is not correct to conclude that Barclay is in any sense a rationalist. For Barclay, reason is still secondary to divine illumination, understood not rationalistically but as an internal spiritual sense.

Further supporting the argument that the Quakers were not rationalists, another Quaker thinker, Isaac Penington, also wrote cautious words about the limitations of natural reason even earlier than Barclay. He wrote to the recently established Royal Society, concerned that its emphasis on the newly emerging experimental science was beginning to change the standards for knowledge away from an emphasis on spiritual wisdom and towards an overglorification of knowledge of the natural world grounded in human reason.

Penington tried first to re-establish the proper basis for knowledge in general: ‘There is a witness of and from God in every conscience; which, in his light, power, and authority, witnesseth for him, and against that which is contrary to him... From this witness proceeds the true and well-grounded religion in the mind toward God.’\(^76\) Human reasoning is an inferior source of knowledge: earthly and unreliable. Anything constructed here is ‘but an opinion or judgment, which the breath of God’s spirit will shake and dissolve everywhere, sooner or later’.\(^77\) Thus we are advised: ‘Dwell not in reasonings; take not up thy religion in reasonings of the mind; but pass through them, pass beyond them, into a light of a higher nature.’\(^78\)

Penington was worried that the new way of studying the natural world was losing its grounding in a religious epistemological motivation, and furthermore was fostering a kind of arrogance about human powers of knowledge. In addition, human reason is limited. Like some of the other Quakers of this time,

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including George Fox, Penington believed that knowledge grounded solely in human reason provides only surface knowledge, a ‘belief of a literal relation or description’, whereas the divine revelation the Quakers believed was possible allows us to ‘know things, not from an outward relation, but from their inward nature, virtue, and power’. The new scientific experimental method was not enough to understand the deeper virtues and powers that animate the world:

Now, he that will rightly know these things must know them in the feeling and true experience; and therein he shall find all these are wrought in a mysterious way of pure life’s operation, out of the reach of man’s comprehension; and no man can understand them, but as the new and holy understanding is given him; nor retain the sense and knowledge of them, but as he abides in the new nature, and retains the new understanding.

It is important to note again that the meanings of key terms during this time were greatly in flux. For example, Marjorie Nicholson notes that Henry More was rationalist, but, in his understanding, ‘reason has become more exalted. Not less intellectual, it is more highly spiritual.’ More, as we saw above, was dubious about Quakerism, and Conway arranged for him to correspond with and meet some of the Quakers in hopes that they could help convince More to take Quakerism seriously. More did not like some of the Quakers he met, but he did like others, especially Keith (who claimed that it was More’s writings that in fact turned him Quaker). More also appreciated Penington, and Penn. We have seen above that Keith has a more experiential than rationalist understanding of the inner light, and that Penington expressed serious reservations towards taking human reason too seriously. The fact that More still appreciated their ideas suggests that he saw no serious incompatibilities between their views and his more spiritual view of reason.

More’s appreciation of William Penn is easier to understand, as Penn is often considered more rationalist than many of the Quakers. Melvin Endy notes that Voltaire and Emerson were influenced by Penn to associate Quakerism with rationalism, but Endy himself argues that Quakerism was closer to ‘spiritualist enthusiasm’ than rationalism, although the Quakers themselves differed in their

80 Penington, ‘Some Things’, p. 111.
views. Some, such as Barclay, Fox and Penington, were generally cautious towards reason. But what exactly they meant by reason was difficult to determine. Hugh Barbour summarises this part of Endy’s discussion as follows:

Penn’s understanding of the Light came closer than Fox’s to seeing reason as universal, though always practical and moral. Melvin Endy notes... that in Penn’s day reason could be seen by way of various models. It could represent the human mind, corrupt until cleansed by grace which is ‘that Lamp of God which lights our Candle’, as was insisted by Calvin, Augustine and Saint Paul. Or again, reason could be an intuition of innate ideas, as the Cambridge Platonists said, but Penn only rarely. Reason could be discursive logic, which Penn praised mainly as upholding the minds of individuals against authority. It could be the outward empiricism of Locke, which Penn... rejected in religion, where experience is inward. But reason as the ordering of the mind of God, ‘divine reason’, or ‘sound reason’ was a concept widespread in Penn’s day, which he eagerly accepted as another name for the Light.

Endy notes that there is also ambiguity about the meaning of the term ‘light’, since it could refer to the ‘light of reason’ or to a source of knowledge distinguishable from natural reason.

The Quakers distinguished their divine principle of revelation from liberal principles such as Platonic reason or the light of nature by describing the inner light in such a manner as to distinguish it from the kinds of conceptual experiences provided by the rational faculty. To describe the experience of the inner light in terms of a spiritual sense was to imply that the ideas received from the light came as part of an experience that resembled an existential confrontation.

Penn himself sometimes used the ‘sense’ analogy to describe the light, but overall was less concerned than other Quakers in distinguishing light from reason. The lines could blur in Quaker writings because Quakers were more concerned to distinguish themselves from ‘dangerous fanatics and enthusiasts than from rationalists’. It is Samuel Fisher and Penn who seem especially inclined to appeal to rationalistic-sounding arguments in this quest.

And yet, as Endy’s discussion continues, it becomes increasingly clear that the ‘rationalism’ he attributes to Penn is the broader sense of the term that includes

87 Endy, William Penn, p. 231.
90 Barbour, William Penn, pp. 252–53.
91 Endy, William Penn, p. 232.
92 Endy, William Penn, p. 239.
93 Endy, William Penn, p. 240.
94 Endy, William Penn, pp. 233–34, 255.
not only sympathy towards scientific empiricism but also an internal empiricist understanding of the inward light:

To describe the kind of religious adherence that brought a man ‘nearer to his own being’ or that constituted the religion of individual experience, Penn used a variety of pregnant terms with little concern for precision. True religion was a religion of ‘experience,’ ‘conviction’ or ‘convencement,’ ‘conscience,’ ‘free choice,’ ‘judgment,’ ‘evidence,’ ‘understanding,’ and ‘reason.’ True faith, according to Penn was a kind of ‘knowledge,’ not ‘opinion,’ and a man’s ‘knowledge’ had to be based on individual ‘experience’ of its truth. The necessity of an empirical stance held in affairs of religion as in those of the world. ‘Experience,’ however, was not necessarily limited to knowledge gained through the senses. A man had a religious ‘experience’ when he gained a personal or individual ‘conviction’ about something or a ‘due Conviction and Determination’ about it.95

Thus, even though Endy’s arguing for William Penn’s ‘rationalism’ would initially seem to present a counter example to the thesis of this present article, in fact a close examination of Endy’s interpretation of Penn reveals just the opposite: his interpretation supports this thesis. What Endy means by ‘rationalism’ is not the more specific meaning that is intended as a contrast to ‘empiricism’ but the more general sense which includes empiricism.

**How to Understand Experiential Empiricism**

What exactly is this expanded experiential empiricism, and how can it help us understand the epistemic functioning of the Light?

Human experience extends far beyond sense experience alone. Our experience also includes emotions, our sense of morality, sense of purpose, aesthetic sense, relational experience and religious experience. Within the currently dominant version of empiricism, these kinds of experience are generally regarded as epistemically insignificant. On this view, emotions have no knowledge content other than merely telling us of transitory subjective states of individuals. Morality (including sense of purpose) and aesthetics occupy a subfield of philosophy (value theory) that is regarded as distinct from epistemology proper; the implication is that these are not matters of knowledge, but of individual subjective determination. Relational experience is thought to be reducible to basic sense perceptions plus emotions. And religious experience is either thought to be a manifestation of mental illness, or, to the extent that it promotes mental health, as in William James’ ‘healthy-mindedness’,96 it may have emotional value but is often regarded as having no epistemic significance.

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96 James, W., *The Varieties of Religious Experience*, New York: Macmillan, 1961, pp. 78–113. This work was originally published in 1902.
It is interesting to note, however, that earlier philosophical traditions recognised the epistemic significance of these kinds of experience. Ancient philosophy held that beauty marks the presence of the divine, and so perception of beauty provides a glimpse of divine reality. Locke and Hume both included emotions within their classification of ‘internal senses’. Hume additionally recognised ‘moral sense’ in his moral theory that was based on moral sentiment, a theory shared by his contemporary, Adam Smith. For the early Quakers (as well as for philosophers from Plato through to the modern period) the question of how to live our lives was the most important kind of knowledge of all: knowledge that synthesises propositional or ‘factual’ knowledge with ethical understanding. The Quaker concept of ‘truth’ was not merely static and limited to a descriptive account of the world, but was dynamic and included humans’ relationship to the world and participation in it. And, most importantly of all, it was grounded in and informed by one’s relationship to God. Thus, all of the above kinds of experience were (implicitly) regarded as epistemically significant within this broader and more dynamic understanding of the concept of ‘truth’. This view carried through in Quaker thought all the way to the present day. Twentieth-century Quaker scientist Arthur Stanley Eddington noted that ‘consciousness is not wholly, nor even primarily, a device for receiving sense-impressions’. Eddington as well as other Quakers such as Gerald Hibbert and philosopher Rufus Jones discussed the moral sense as part of their understanding of religious experience. Eddington and Jones additionally discussed the aesthetic sense. Eddington noted:

> Our system of philosophy is itself on trial; it must stand or fall according as it is broad enough to find room for this experience [the poetry of existence] as an element of life. The sense of values within us recognises that this is a test to be passed; it is as essential that our philosophy should survive this test as that it should survive the experimental tests supplied by science.

Eddington further allowed for both natural mysticism and religious mysticism, noting that ‘the mystic recognises another faculty of consciousness’. Other twentieth-century Quaker thinkers also discussed religious experience and the possibility of religious knowledge in response to the growing marginalisation of religious thought that resulted from the logical positivist interpretation of science. Rufus Jones wrote about mystical experience, and Calvin Keene and Elton Trueblood defended the epistemic significance of religious experience,

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100 Eddington, Science, p. 46.
101 Eddington, Science, pp. 47, 75.
with Trueblood additionally defending its ‘objectivity’. Keene noted that religious experience is often reduced to emotional experience, but did not himself emphasise that dimension, discussing instead its cognitive and life-changing dimensions. When we integrate these experiences by letting them enlarge our world view and self-conception, they have transformative effects on our lives. If we fail to integrate them, we may forget them altogether or simply regard them as ‘unusual’ or even hallucinatory experiences.

Trueblood, like Barclay centuries before, carefully distinguished religious experience from visions, ecstasies, raptures or other abnormal phenomena. He connected religious experience specifically with empiricism. Pleased that William James had validated religious experience, Trueblood was nevertheless also disappointed that James did not go far enough in his conclusions, and so himself carried through with the rest of the argument. His tests for the objective reality of religious experience paralleled the scientific method by including consideration of the ‘number of reporters’, ‘quality of reporters’, ‘agreement of the reports’ and ‘the difference it makes’, regarding the ‘empirical evidence for the hypothesis of God’ as the strongest of all, and concluding that in religion ‘the evidence of objectivity is even better than it is in natural science because the corroboration comes from such a long time and from such widely separated areas’. Admittedly, Trueblood’s reasoning here is inductive, but scientific knowledge too is justified inductively.

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105 ‘The rationality of Quaker thinking has always been empirical’ and ‘[I am] convinced… that epistemology is the central discipline of philosophy, and that it can be applied to religious experience in the same way that it is applied to sensory experience. The objects of study are different, but the essential method is the same’ (Trueblood, D. E., *The Trustworthiness of Religious Experience*, Richmond, IN: Friends United Press, 1993, p. 5). In *Logic of Belief*, he wrote: ‘One of the most amazing failures of historic theology has been the failure to employ, in the substantiation of religious belief, the same kind of empirical evidence which has long been used in support of scientific belief. The failure to make use of empirical evidence in religion is the more amazing when we begin to realize how abundant the evidence is, and how truly it has been the real basis of belief in actual practice’ (Trueblood, *Logic*, p. 197).
109 Trueblood, *Logic*, p. 214. An earlier Quaker who was also a scientist, Silvanus Thompson, had also considered the intersubjective verifiability of religious experience: ‘But when we say personal experience we do not necessarily mean the experience of one individual. Collective religious experience is for us just as real as individual experience. We know it; we have found it to be a reality in our congregations and in our community’ (Thompson, S. P., *The Quest for Truth*, London, Woodbrooke Extension Committee/Headley, 1915, p. 114).
Finally, although contemporary epistemologists have never taken relational experience seriously until late twentieth-century feminist epistemology, early and mid twentieth-century Quaker philosophers and theologians did take it seriously in their noting that ‘religious experience is personal …It is the experience of relationship, of “being loved”’. Hibbert, Keene and Jones discussed this aspect of religious experience and religious knowledge as well. Jones even turned the tables on the standard epistemological narrative by noting that our knowledge of material reality is what we should regard as strange:

If God is Spirit and man is spirit it is not strange, absurd or improbable that there should be communion and correspondence between them. The odd thing is that we have correspondence with a world of matter, not that we have correspondence with a world of spiritual reality like our own inner nature. The thing that needs explanation is how we have commerce with rocks and hills and sky. It seems natural that we should have commerce with That which is most like ourselves.

Conclusion

What emerges from Quaker thought is a distinctive view of the Inward Light, cast as an experiential faculty, where ‘experience’ is not limited to the external senses; instead, the Light operates over the wider range of human experience that includes emotions, moral sense, aesthetic sense, relational experience and religious experience. The early Quakers especially emphasised the moral sense and religious experience. Relational experience was taken for granted in this time before the materialist-mechanistic world view became dominant. The Quakers were not alone in seeing the universe as alive and infused with divine consciousness. Self-knowledge, aspirational experience and relational experience thus were already implicitly taken by many as sources of knowledge that inform our understanding of and relationship to God, a theme picked up much later by some Quakers and other religious thinkers after physicalism, logical empiricism and behavioural psychology began to render not only theology but the very concept of the ‘person’ as problematic and irrelevant. The Quakers were distinctive in taking certain kinds of religious experience seriously as direct encounters with God, yielding insights that had power not just for personal salvation but also for converting others and transforming human institutions. The Quakers were also distinctive in affirming that everyone (not just the elect) had this capacity, and also in recognising that personal discernment could be flawed, and so developed a practice of engaging in communal discernment of spiritual leadings.

111 Trueblood, Logic, pp. 202–03; emphasis in original.
113 Not only do the passages above quoting Thompson and Trueblood show the parallels
We can extrapolate certain key elements from Quaker thought, and synthesise them with elements from the ‘lost’ philosophies of certain other thinkers such as Berkeley\textsuperscript{114} and Kant, as well as aspects of contemporary feminist epistemology, in order to develop experiential empiricism more fully. The result is an epistemology that offers not only the stronger objectivity and synthesis of science and values that feminist philosophy of science offers\textsuperscript{115} but also allows for the synthesis of science and religion.\textsuperscript{116}

What synthesises science and religion is the shared empirical grounding. In science, of course, that grounding is (external) sense experience, that is, our participation in physical reality: our own physical interaction, through scientific experimentation, with physical reality’s ‘objects’ and processes. Causality, governed by natural law, is what connects entities/events to each other within a space–time physical world structured by the physical fields of electro-magnetism, gravity and the strong and weak nuclear forces. The experiential grounding for religious knowledge is our participation in a wider reality of a shared relational space–time, structured by the non–material ‘fields’ of emotions, teleology, ethical consequence and the various kinds of power and influence conscious beings have on each other. In the scientific world, we are biological objects. In the spiritual world, we are autonomous yet interdependent subjects.

It is important to note that the wording of ‘two worlds’ is an unfortunate effect of the splitting apart of science and religion. Quaker epistemology shows that this split was not necessary. Because both scientific and religious knowledge are grounded in experience, they are not fundamentally different. They are both honed through experimentation\textsuperscript{117} and best verified in community. We can see now that religious knowledge is not something abstract, hypothetical

with the social practice of science, Geoffrey Cantor has made similar comparisons between Quakerism and science.

\textsuperscript{114} Berkeley, G., *A Treatise Concerning the Principles of Human Knowledge*, Winkler, K., (ed.), Indianapolis, IN: Hackett Publishing Company, 1982. The first edition of this work was published in 1710; this text is based on the 2nd edition (1734), the last edition to be published in Berkeley’s lifetime.


\textsuperscript{117} Not only did the Quakers use the term ‘experimental’, as mentioned above, but also Mohandas Gandhi subtitled his autobiography ‘The Story of My Experiments with Truth’, showing the same dynamic empirical way of understanding truth (Gandhi, M. K., and
and detached from experience, as it is often characterised as being by those who argue against its possibility. It is tested and confirmed through the experience of living. Many religious questions are answered by life itself if we dare to ‘live experimentally’. In the wake of logical empiricism, many regard such questions as meaningless or as having no real answers, even though we all have implicit answers that crucially determine how we live our lives. Logical empiricism would itself allow for these questions to be answerable on an expanded empiricism. The logical empiricist dictum that the meaning of a statement is its method of verification applies here, but the method of verification is not mere sensory perception but lived experience.

The ‘two worlds’ are synthesised in an implicit metaphysics of relationality. It is not a Newtonian materiality that is the ground of all being; instead, the matter-energy of modern physics gives form and structure to a dynamic world of interaction and interconnection governed both by quantum mechanics’ non-deterministic laws of nature and Kantian ‘laws of freedom’.

On these understandings of knowledge and reality, science becomes continuous with the humanities and theology rather than separated from them. The continuity can be more clearly established by reintroducing teleology into relevant subfields of science. Conway, Leibniz, Berkeley and others objected to the banishment of teleology (‘final causes’) from science as they watched Aristotle’s four causes being reduced to a narrowed version of efficient causation (mechanical causes), but their objections became lost, especially after the completion of the process of naturalising science in the nineteenth century.  

Science does not, however, necessitate the rejection of teleology. The claim, sometimes attributed to scientific thinking, that the universe and its subsequent evolution of conscious life are mere accidents is, after all, not itself scientifically justified, since our current conception of science does not permit either the judgment of ‘purpose’ or ‘accident’ to count as scientific claims. Taking some notion of teleology seriously could be helpful within the sciences, or at least science could adopt a stance of being open to the possibility of teleological dimensions to reality. Science could then be practised (and to some extent already is being practised) in service to teleology: our goals and purposes and our quest for meaning. In this way, science is connected to


Teleology is most clearly relevant to the social sciences. It is possible that it could also be helpful better to understand thermodynamic irreversibility (entropy), life itself and consciousness. Even though scientists attempted to drain evolutionary theory of its teleology, the mechanisms of evolutionary change still leave unanswered the questions concerning the original emergence of life as well as the continued drive to survive and reproduce. A careful reintroduction of teleology (it would not have to be Aristotelian teleology, specifically) could be very helpful.
the other branches of knowledge—the humanities and theology—that more explicitly focus on the teleological dimensions of life.

Modern physics itself challenges the old Newtonian mechanistic view of the universe. The ‘machine’ is no longer an adequate metaphor for physical reality. Thus, defining scientific explanation as mechanistic explanation has become too limiting even for science. Quantum mechanics suggests that material reality is much stranger than scientists had previously thought. The mathematics of quantum mechanics is confirmed experimentally, but the interpretations of the theory are highly contested, especially since some interpretations suggest deep connections between quantum phenomena and consciousness itself, suggesting that the vitalism of Conway and Leibniz or Berkeley’s idealism might have provided more promising metaphysical theories for science than the mechanistic metaphysics that was in fact adopted.

Quakers throughout their history have been hesitant to engage in abstract speculation about theology or metaphysics, and so it might not be appropriate to try to supplement ‘Quaker epistemology’ with a corresponding metaphysics. Instead, Quakers are seekers, refusing to settle on either a religious or a philosophic creed. And yet a consequence of this stance is that it is not inappropriate to open new possibilities, or reopen old possibilities, for how to understand reality: possibilities transcending the current conception of reality which turns out to be too constraining even for the newest findings in science itself. Thus, the suggestion that we reconsider vitalism, idealism and teleology from a scientific perspective as part of the strategy for integrating science and religion can be taken as an expansion of the domain for Quakerly seeking. It would be inappropriate for Quakers to cling rigidly to the mechanistic model of the universe as if to a creed, especially in light of the scientific evidence against it. Similarly, it would be inappropriate for Quakers to cling rigidly to mechanistic explanation as the only permitted kind of explanation in science. ‘A distinctive Quaker theory of knowledge’ is offered in a similar spirit: not to suggest that Quakers ever had an epistemological creed, but, in contrast, to show how the Quakers refused to accept the ‘creed’ that a narrowed conception of experience is the only acceptable basis for knowledge. Keeping the understanding of ‘experience’ broad enough to include ethical, aesthetic, relational, and religious experience creates ideal conditions for seeking and allows the integration of scientific and religious perspectives into a unified understanding of reality.

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