During Emily Dickinson’s lifetime she was regarded more as a reclusive gardener than a poet.¹ Today, however, she is widely known as the late nineteenth-century (1830–86) New England poet who wrote with epigrams and dashes about nature, death, and immortality. While religious commentary on Dickinson has long been prolific, more recently there has been an increasing engagement with the scientific elements of her poetry. This has paved the way for a number of analyses of the interface between science and theology within Dickinson’s poetry. This article argues, however, that the pertinent intersection is epistemology. Beginning with an overview of analyses of her theology, specific attention will concentrate on the theme of experiential knowledge. This will then be followed by an overview of analyses of the scientific elements. Recent scholarly discussion surrounding science and theology within Dickinson’s poetry will be included. Finally, a paradigm for understanding the relation of science and theology in Dickinson’s poetry will be explored, using one of her own metaphors: circumference. What will emerge from this exploration is that this paradigm allows Dickinson to express her understanding of the limits of scientific and theological knowledge.

Dickinson’s poetry and theology

In her engagement with orthodox Christianity and the culturally-derived customs of New England Protestantism, Dickinson expressed both intellectual doubt and experiential faith. The Bible – along with associated hymns and sermons – appears to be Dickinson’s favourite source for inspiration.² While Dickinson often referred to doctrines held in common with other Christians, such as creation and Jesus as Saviour, as well as a Protestant emphasis on scriptural...
revelation and salvation by faith, she chose to distance herself from Calvinistic doctrines such as total depravity, limited atonement, and predestination.³ She was not alone in this departure from Puritan and Calvinistic roots. The tradition of Congregationalism within the Connecticut Valley had evolved into a more progressive religion, led by clergymen who ‘stressed the need for conversion and encouraged revivals, even as they gradually modified stern Calvinistic doctrine to accommodate nineteenth-century romantic sensibilities and emerging scientific perspectives.’⁴ Furthermore, the Connecticut Valley embodied a politically-attuned religious sentiment of ‘Whig republicanism and evangelical moralism.’⁵ Roger Lundin argues that ‘If Dickinson was reacting against anything in her adult struggles with the church, it was against this alloy of elements rather than against the undiluted Calvinism of an earlier age.’⁶ Similarly, Richard Brantley, in *Experience and Faith: The Late-Romantic Imagination of Emily Dickinson*, emphasizes the Arminian character of Dickinson’s evangelicalism, identifying emphases on free-will, as well as ‘action, responsibility, liberalism, generosity, sublimity, affection, mercy, practical charity, social gospel, universal salvation, and millennialism’.⁷ Brantley distills Dickinson’s free-will Arminianism and empirical philosophy into an experiential knowledge, which ‘operates along the natural and spiritual continuum joining rational empiricism and the scientific method to theism and immediate revelation.’⁸⁹ While it remains difficult to determine whether Dickinson would have agreed theologically with her local contemporaries, it is apparent that she avoided conversion; in her own words, ‘it is hard for me to give up the world’ (L23).⁹ By the time Dickinson was thirty, she had given up traditional church instead:

Some keep the Sabbath going to Church –
I keep it, staying at Home –
With a Bobolink for a Chorister –
And an Orchard, for a Dome –

Some keep the Sabbath in Surplice –
I just wear my Wings –
And instead of tolling the Bell, for Church,
Our little Sexton – sings.

God preaches, a noted Clergyman –
And the sermon is never long,
So instead of getting to Heaven, at last –
I’m going, all along. (324)\textsuperscript{10}

Such poems may be unorthodox; however, they express, eruditely, the experiences of a living faith.

According to Jane Eberwein, ‘Dickinson’s writing [...] brilliantly expresses tensions between doubt and faith in the nineteenth-century Western world’.\textsuperscript{11} Dickinson, then, was writing during a widespread religious crisis:

Those – dying then,
Knew where they went –
They went to God’s Right Hand –
That Hand is amputated now
And God cannot be found – (1551, lines 1–5)\textsuperscript{12}

Eberwein notes that the list of potential culprits for such an amputation often includes ‘romanticism in both its Transcendental and sentimental manifestations, a scientific revolution spurred by Charles Lyell and Charles Darwin, and theological rethinking unleashed by the European biblical scholarship known as the Higher Criticism’, as well as ‘the Civil War.’\textsuperscript{13} Dickinson, however, had been concerned about God from a young age:

When a few years old – I was taken to a Funeral which I now know was of peculiar distress, and the Clergyman asked “Is the Arm of the Lord shortened that it cannot save?” He italicized the “cannot.” I mistook the accent for a doubt of Immortality and not daring to ask, it besets me still.(L503).\textsuperscript{14}

Due to her perception of God as untrustworthy, Dickinson’s faith consisted in turning to Christ: ‘When Jesus tells us about his Father, we distrust him. When he shows us his Home, we turn away, but when
he confides to us that he is “acquainted with Grief,” we listen, for that also is an Acquaintance of our own’ (L932). It was in Christ that she found a companion through suffering and hope for immortality. Thus, while Dickinson’s poetry is often noted for its expression of theological doubt, studies of her verse prove that her doubts did not cause her to abandon theological inquiry; rather, it may have caused her to rely more heavily upon experiential acquisitions and expressions of theological knowledge wherever possible.

**Science and Dickinson’s poetry**

Robin Peel identifies elements of palaeontology, geology, geography, astronomy, optics and lenses, Darwinism, psychology and pseudoscience (spiritualism) within Dickinson’s verse; however, he claims the most powerful evidence of science may be hidden, for ‘Her metaphysics are in her metaphors’ and ‘Her science is in her poetic structure.’ According to Peel, ‘Dickinson was happy to play the role of scientist, observing in tentative, speculative poems whose prosody and dashes often have the mark of concentrated notes, moving systematically and methodically toward a statement of a law that is never finally reached.’ The following poem exhibits Dickinson’s appropriation of the scientific method:

The Birds begun at Four o’clock –  
Their period for Dawn –  
A Music numerous as space –  
But neighboring as Noon –  

I could not count their Force –  
Their voices did expend  
As Brook by Brook bestows itself  
To multiply the Pond.

Their Witnesses were not –  
Except occasional man –  
In homely industry arrayed –  
To overtake the Morn –  

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Nor was it for applause –
That I could ascertain –
But independent Extasy
Of Deity and Men –

By Six, the Flood had done –
No Tumult there had been
Of Dressing, or Departure –
And yet the Band was gone –

The Sun engrossed the East –
The Day controlled the World –
The Miracle that introduced
Forgotten, as fulfilled. (783)

The poem reads like the notations made during scientific experimentation. It includes time parameters (begin at ‘Four o’clock’, end ‘By Six’), observations (comments on a potential ‘listener’ and the absence of ‘applause’), measurements (‘numerous’, an attempt to ‘count their force’, ‘their numbers’) and calculations (‘multiply’). The poem provides evidence and moves toward a possible empirical conclusion, yet stops short of providing one. The terms ‘Extasy’, ‘Flood’, ‘Miracle’ and ‘fulfilled’ introduce religious connotations to the poem, suggesting that there are elements in this morning chorus of birds that defy scientific measurement and explanation. The speaker preserves the undefined ‘Miracle’ by objectively recording the events as she experiences them; and yet, whatever defines this event as miraculous is beyond the confines of objective scientific inquiry, and thus becomes ‘Forgotten, as fulfilled’ by the limits of this experimental/experiential acquisition of knowledge.

In Emily Dickinson’s Rich Conversation: Poetry, Philosophy, Science, Richard Brantley argues for an empirical (re-)reading of the poet such that she becomes an ‘agnostically-atheistic Christian’, whose ‘empirical voice sings of knowledge based on natural experience, as opposed to faith based on intuition, mysticism, traditional revelation, or spiritual experience (immediate revelation).’ In opposition to his previous interpretation in Experience and Faith Brantley re-casts the
poet as placing faith directly in experience and experiment rather than seeking out an experiential faith. Brantley also overemphasizes the influence of Charles Darwin upon Dickinson. Unlike Brantley, I would argue that Dickinson’s empiricism does not completely abolish her faith; rather, it places limitations on those theological tenets more vulnerable to historical or scientific explanation. Furthermore, despite convincing arguments for Dickinson’s incorporation of scientific modes of knowing and expressing in her work, it is also important to acknowledge that speakers in her poems sometimes reject the extreme utilitarianism of the scientific method. However, such challenges do not nullify her legitimate engagement with science. Just as Dickinson actively engages theology she also wrestles at the same time with scientific method and its objectives.

Science and theology

Some leading Dickinson scholars have begun to broach the topic of science and theology in Dickinson’s poetics. Patrick Keane and Richard Brantley engage this interface directly. Keane’s thesis, however, is theodicy-driven due to over-emphasizing Darwin’s influence upon Dickinson. Brantley, meanwhile, incorporates and expands this influence such that he ends up producing an atheistic (re)interpretation of the poet. Robin Peel and Jane Eberwein are more conservative in their estimation of the Darwin-Dickinson relation; both encourage historically situated understandings of the science/theology discourse. Peel argues convincingly that Dickinson’s poetry reveals the shortcomings and inadequacies of science, of theology, and in attempts to unify them. Eberwein highlights the resilience of the poet’s faith despite the challenges to biblically-informed Christianity raised by natural theology, scientific discovery and Higher Criticism. The work of Peel and Eberwein points toward the fact that the more genuine relations between science and theology in Dickinson’s poetry are epistemological.

The remainder of this essay is dedicated to outlining these relations. This is achieved by applying Dickinson’s metaphor of circumference to the major themes of life, death, and immortality in her poetry. While Dickinson’s empiricism may overshadow her faith in matters
of this life, Dickinson’s hope for immortality seeks knowledge that is beyond the reach of science; therefore, at the moment of death – at the circumference – the richest interplay between science and theology takes place.

Circumference: epistemic limits

In a letter to T. W. Higginson in 1862, Dickinson stated, enigmatically, ‘My Business is Circumference’ (L268). This statement has provoked frequent comment from Dickinson scholars. William Howard notes that the word is sparingly used as the perimeter or boundary of a circle and helpfully provides the secondary definition from the 1849 edition of *Webster’s Dictionary*, ‘the space included in a circle’. Howard warns, however, that ‘in most of her uses of the word its meaning ranges from the partially to the totally obscure.’ William Sherwood claims that ‘the word is always used to describe and define an area of comprehension’. Albert Gelpi reveals the complexity of the term:

Circumference represented the farthest boundary of human experience, where two modes of being touched, where that which was circle pressed that which was beyond. At the same time, Circumference also marked the “terminus” of human delimitation. The doubleness of the metaphor – extension and limit – makes an important point, for [...] eternity and infinity and God Himself can best be taken as the encircling infinity into which the individual may expand [...].

Linking the term to art and faith, Roger Lundin argues that ‘For Emily Dickinson as a poet, the circumference that God had placed around human life spurred the creative efforts that gave birth to art and culture. Jesus broke through that circumference to share in the human lot and the hardness of the world.’ Robin Peel emphasizes implied limitations:

The limitations of records, achievement, knowledge, experience, sense and perception, and the something beyond them all are features of Dickinson’s model [...] of the perceived
universe. [...] It is the edge that matters [...]. That is as far as we can go. We cannot be at the center, nor can we venture outside the circle. But we can occupy those interesting regions that are its limits and its borders.31

According to Thomas Johnson, the phrase comprises Dickinson’s definition of poetics: ‘the term “circumference” meant a projection of her imagination into all relationships of man, nature, and spirit.’32 Richard Brantley claims that ‘[it] means above all [...] that the industriousness of her habit of composition negotiates the philosophical and scientific spheres of her experience and influence.’33 Two re-occurring themes are identifiable in these scholarly attempts to define the term circumference in Dickinson’s work: experience and knowledge. This, in turn, suggests a link between circumference and epistemology.

In her use of the term circumference, Dickinson explores that which is within a circumference (life, humanity, nature), at a circumference (death, dying), and beyond a circumference (God, immortality, eternity). Circumference serves as a paradigm for her epistemological inquiries. While Dickinson’s central pursuit was knowledge and the poetic expression of all existence, she was, however, loath to claim certainty beyond that which could be verified by sense-based experience. As her recurring studies of death and her fascination with immortality reveal, she continued to inquire of, and hope for, that which lay beyond empirical verification. Utilising the paradigm of circumference, Dickinson’s poems probe existence with an awareness of the limits of scientific and theological knowledge. Her interests range from experiential life, through death, and toward immortality.

Within circumference

I stepped from Plank to Plank
A slow and cautious way
The Stars about my Head I felt
About my Feet the Sea.
I knew not but the next
Would be my final inch –
This gave me that precarious Gait
Some call Experience. (875)\textsuperscript{34}

This poem expresses Dickinson’s approach to life. The outer limits of her being (‘Head’ and ‘Feet’) extend to the outer limits of the world/universe (‘Stars’ and ‘Sea’). Her ‘slow and cautious way’ from ‘Plank to Plank’ denotes the slow progression of knowledge that is gained experientially (‘that precarious Gait / Some call Experience’). Each plank is a new discovery upon which Dickinson can place her trust and move forward in her pursuit of knowledge. This slow progression can be contrasted with assumed axioms or dogmas, found in both science and theology. The ‘precarious[ness]’ of such an experiential life may be an allusion to her disavowal of conventional theological doctrines and her refusal to join the salvific safety of the church.

The poem appears to support Brantley’s reading of an agnostic-if-not-atheistic Dickinson, who subordinates her faith to her empiricism; however, Dickinson’s epistemology is more nuanced. The speaker’s approbation of her ‘precarious Gait / Some call Experience’ aligns with Victoria Morgan’s emphasis on experience as a more realistic portrayal of religious life.\textsuperscript{35} Peel also affirms the theological:

\begin{quote}
I do not think that the purpose is necessarily to challenge [...] belief, but to try to use the steps of science (empirical observation, axioms, laws) to see whether there are intellectual stepping-stones that bring you nearer the banks of the unvisited worlds of heaven, immortality, and death.\textsuperscript{36}
\end{quote}

Although knowledge may be best apprehended through empirical methods during human life experiences, they cannot attain all knowledge. Dickinson’s study of death exacerbates such limitation – in this prodigious subject scientific and theological ways of knowing intermingle.
At circumference

Thomas Johnson describes Dickinson’s comprehensive treatment of death: ‘She viewed death from every possible angle […] Death is a terror to be feared and shunned. It is a hideous, inequitable mistake; a trick played on trusting humanity by a sportive, insensate deity. It is a welcome relief from mortal ills. It is the blessed means to eternal happiness.’ Thomas also addresses scientific treatment: ‘It is clinical in the way a medical examiner hopes to test the validity of a theory and submits himself first to the test, or watches a patient with alert sensibilities to detect the true symptoms and eliminate the false.’

Not only did Dickinson observe the death of others, she also submitted herself to the test via poems:

I heard a Fly buzz – when I died –
The Stillness in the Room
Was like the Stillness in the Air –
Between the Heaves of Storm –

[…]

I willed my Keepsakes – Signed away
What portion of me be
Assignable – and then it was
There interposed a Fly –

With Blue – uncertain stumbling Buzz –
Between the light – and me –
And then the Windows failed – and then
I could not see to see – (465, lines 4, 9–16)

The speaker here observes her own death-process, as it is interrupted by a fly. The fly serves as the final focus of her sense of sight and hearing before her body fails and she ‘could not see to see’. This poem reads as a medical account of the odd peaking of senses and their rapid degeneration prior to death. However, the poem can also be read theologically through religious metaphors. The ‘Blue’ fly, with its
‘uncertain stumbling Buzz’, symbolizes the emotionally depressing doubts about what lies beyond death. The ‘light’ reminds the reader of the promised light of heaven; the fly buzzes ‘between the light – and me’, preventing the speaker from dying in peaceful assurance of immortality. The failing of ‘the Windows’ most likely refers to her eyes; although it is possible that this refers to the manner in which doubt blocks her from assurance of immortality – ‘the Windows’ to heaven are closed to her, leaving her in eternal, spiritual darkness. Thus, this poem can be read scientifically as an account of the physical process of dying and, simultaneously, as an account of theological doubt about the existence of, or one’s capability of attaining, immortality.

Dickinson poetically contemplates and critiques the co-mingling of scientific and theological knowledge at the edge of death:

The Province of the Saved
Should be the Art – To save –
Through Skill obtained in Themselves –
The Science of the Grave

No Man can understand
But He that hath endured
The Dissolution – in Himself –
That man – be qualified

To qualify Despair
To Those who failing new –
Mistake Defeat for Death – Each time –
Till acclimated – to – (539)

The contrast between ‘The Province of the Saved’ and ‘The Science of the Grave’ within this poem is possibly an explicit critique of the ‘Death Books’ that some orthodox ministers kept, in which they ‘often made an explicit comment on whether the deceased had died in the hope of the resurrection.’ If this is the case, Dickinson is either denying the Calvinistic doctrine of election, or she is denying the judgment of clergymen upon a soul’s destiny. The speaker states that only ‘He that hath endured / The Dissolution – in Himself’ is
‘qualified’ to explain the experience of dying, the purpose of death, whether resurrection occurs, and, if it does, what is immortality. Reading the poem scientifically, observers of death can only recount the physical happenings of a dying body; therefore, one must conclude that no-one is qualified to answer any questions about death or what follows. However, when the poem is read in the light of Christ’s death and resurrection, a qualified man appears: Jesus. While Dickinson may not have looked to Christ for personal redemption, she did look to him for companionship in suffering, and hope for immortality. Jesus then becomes the only one who is qualified to teach on death and resurrection, providing more trustworthy hope than the observations of scientists and ministers. As these two poems have demonstrated, the deadly-edge between life and immortality serves as a point where neither scientific nor theological ways of knowing dominate Dickinson’s epistemology.

**Beyond circumference**

Dickinson’s ‘Flood subject’ (L319) that is, immortality, further complicates any attempt to read her work as purely empiricist. The poet acknowledges that ‘Science will not trust us with another World’ (L395), and yet it is for such a death-abiding world that she hopes. Given science’s lack of ability to address the deepest concern of Dickinson’s life, it is, therefore, unsurprising that she continually returned to theological mentors, images, and doctrines in her moments of greatest emotional need. She knew her ‘question[s] lay beyond the reach of even the most brilliant scientist.’ Her belief in the trustworthiness of experience and empiricism may have kept her from the theological orthodoxies that she found unacceptable and even repugnant, but it could not transport her beyond the circumference of human experience.

While there is still a trace of Dickinson’s empirical voice in the following poem, it is a theological expectation that drives the speaker to contemplate ‘Paradise’:
Of Paradise’ existence
All we know
Is the uncertain certainty –
But it’s vicinity infer,
By it’s Bisecting Messenger – (1411)46

The phrase ‘uncertain certainty’ reveals the tension that Dickinson repeatedly expresses in phrases such as ‘that religion / That doubts as fervently as it believes’ (1144)47 and ‘Faith is Doubt’ (L912).48 It is an expression of continued hope for immortality while admitting that one cannot be certain of its existence. Dickinson sometimes suggests in her poetry that ‘Paradise’ is the present world, often linking it with nature. In this poem, however, ‘Paradise’ is likely linked with a world and a life beyond the present, given her ‘uncertain certainty’ concerning its ‘existence’ and making it necessary to ‘infer’ (without direct sense-based observation) ‘it’s vicinity.’ The term ‘vicinity’ could mean nearness of location, or an encompassing circumference. ‘Paradise’ includes, and perhaps exceeds, the circumference of the human experiential existence. The ‘Messenger’ could be a prophetic voice such as Jesus, the Bible, clergymen, or the Holy Spirit; or it could be the physical occurrence of death. The inclusion of the adjective ‘Bisecting’ aligns with the interpretation of death as the edge between natural life and immortality, and thereby suggests that the latter interpretation of ‘Messenger’ is more likely. The poem may be read thus: We can hope, but not absolutely know, that heaven and immortality exist; if they do, our mortality suggests that heaven and immortality are located on the other side of death.

Such hope comes, not from science, but from Dickinson’s persistent faith, which taught her to ask ‘Is immortality true?’ (L752a).49 When questioning immortality, Dickinson could not cling to experience and sense-based knowledge; rather, she sought and perhaps believed some of the theological claims available to her. Dickinson may have lived her life depending upon her sense-based experiences to discover truths, but for knowledge on immortality and death, she needed to trust Christianity’s non-empirical tenet – Jesus.
Notes

3. Ibid., 72.
4. Ibid., 82.
6. Ibid., 13f.
8. Ibid.
15. Ibid., 837.
17. Ibid., 87.
20. Ibid., 68.
Ibid., 16.
Ibid., 62. Dickinson mentions Darwin only twice in letters (L359, L750). See Dickinson, *Letters*, 485, 728. There is also no evidence that Dickinson read Darwin directly.
Peel, *Hill of Science*, 76, 86.
Lundin, *Art of Belief*, 178.
Victoria Morgan, *Emily Dickinson and Hymn Culture: Tradition and Experience* (Farnham: Ashgate, 2010), 51–79.
Johnson, *Interpretive Biography*, 203.
Ibid., 207.
Ibid., 414f.


Ibid., 511.

Johnson, *Interpretive Biography*, 238.


Ibid., 803.


Ibid., 731.