

The Unknown Newton

Church, Heresy, and Pure Religion

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Although Isaac Newton was known as a highly devout man during his lifetime, doubts about his religious orthodoxy began to circulate immediately after his death. Chiefly responsible for these rumors was William Whiston, Newton's successor as Lucasian Professor of Mathematics at Cambridge University and a champion of his scientific work. Soon after Newton's death, Whiston published a short account of his private religious convictions in *A Collection of Authentick Records* (1728), proclaiming that Newton had held what most of his contemporaries thought of as scandalous and even heretical views about the doctrine of the Trinity. According to Whiston, Newton believed that the doctrine was a terrible fabrication devised in the fourth century and that Athanasius, the great Alexandrian bishop, was "the grand and the very wicked Instrument of that Change" and the architect of the corruption of original Christianity.

For years, Whiston had publicly hinted at Newton's heresy, hoping thereby to support his own anti-Trinitarian positions, which, unlike Newton, he widely professed. For those views Whiston had been expelled from both his college fellowship and his professorship at Cambridge. His claims about Newton went largely unheeded, partly because most refused to believe something so hideous about Britain's greatest natural philosopher (the contemporary term for a scientist), and partly because Whiston, having rejected the authority of tradition himself, was thought to be an untrustworthy source. However, Whiston had in fact accurately captured Newton's radically unorthodox views. For almost all his adult life Newton harbored a guilty secret that he revealed only to a trusted few, and he skillfully put off those who probed too deeply. Publishing these ideas would have made him widely reviled and would have earned him, like it did Whiston, expulsion from his university. Had this happened early in his career, Newton would never have composed his great scientific works,

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and his seminal mathematical contributions (including the discovery of the differential and integral calculus) might never have been recorded for posterity.

Newton's strenuous efforts to prevent his private views from becoming more broadly known had the long-term consequence that his religious writings remained largely hidden for over two centuries. Indeed, they are only now being published in full as a result of the online Newton Project. Some of the monumental research into chronology and prophecy that he carried out in his later years did seep into the public domain after his death, most notably in the two works *The Chronology of Ancient Kingdoms Amended* (1728) and *Observations upon the Prophecies of Daniel, and the Apocalypse of St. John* (1733). However, there was little evidence within this material of the passionate denunciation of orthodox doctrine that, as we shall see, permeated his early writings on the Church. Since interpreters only saw these rather arid productions on history and prophecy, most considered them to be nothing but the hobbyist interests of an old man, whose creative genius had long since departed. Yet, as Whiston had accurately noted in his account of Newton's religious views, Newton had attained a mastery of the primary historical materials relating to the first few centuries of Christianity very early in his career, and he was no theological dilettante.

Newton had gained a reputation for being knowledgeable about abstruse religious matters by the time of the Popish Plot of 1678–1681, when he was asked by his friend the Cambridge Platonist Henry More about the meaning of various apocalyptic images in the Bible. Although it was entirely fictitious, the Plot was believed by the vast majority of Englishmen to be a real attempt, launched by Catholics, to assassinate King Charles II. As such, it would complete the unfinished business of the Gunpowder Plot of 1605, in which a group of Catholics (including Guy Fawkes) had tried and failed to blow up King James I and his parliament. The Popish Plot and the anti-Catholic paranoia it stoked were eminently useful to those political factions who wanted to prevent the Catholic Duke of York—the king's younger brother—from inheriting the throne and becoming the chief defender of the Protestant Church of England (which nevertheless happened in 1685). Newton and others were keenly sensitive to the fate of their religion during this period, and Newton's views on the meaning of apocalyptic images were discussed early in 1680 by More and some London clergymen. They evidently wanted to know whether Newton's mathematical prowess gave him some insight into how these images could be understood, presumably with reference to contemporary events. Nevertheless, More's testimony makes it clear that Newton (who

was hiding the radical anti-Trinitarian views that underlay his views on prophecy) did not give him the answers he wanted.

A few years after Newton's *Principia* was published in 1687, the classical scholar and theologian Richard Bentley posed a series of penetrating questions to Newton about its religious implications. Newton responded by reassuring Bentley that one of the reasons for composing the *Principia* had been to invite intelligent people to consider the nature of God more closely. Through these exchanges, Bentley forced Newton himself to think much more carefully about God's role in maintaining the cosmos. Newton provided novel arguments for believing that the complex order of the heavens had been specially designed to support life on earth, and that the structure of the solar system could not have arisen by chance. Newton argued that while universal gravitation explained the current motions of the planets, an intelligent being who was an expert in geometry and physics had to have been responsible for creating the initial conditions that gave rise to their orbits.

This fascinating correspondence was only published posthumously in the 1750s, but even during his lifetime Newton gave indications of his theological interests in later editions of his two great scientific works, the *Principia* and the *Opticks*. The first time his theological views appeared in print was in the 1706 Latin edition of the *Opticks*, which contained a series of "Queries" appended to the main text (with a modified version of the series added to the 1718 English edition). In one of these queries, Newton suggested that the universe was the divine analogue of the part of the brain (the "Sensorium") that allowed humans to think and to be aware of the outside world, with the difference that God perceived things "by their immediate presence to himself," without the mediation of sense organs, nerves, and brain. In a second analogy between the infinite power of God and the nature of mortals, he stated that God's creative powers "to form and reform the Parts of the Universe" were massively greater than the capacity of humans to move their own bodies.

In both cases Newton was articulating the orthodox belief that humans were created in the image of God, a doctrine that motivated him to do serious research into the nature of the soul and the physiological grounds of intentional self-motion in order to gain a better understanding of the nature and attributes of God. For example, in the 1675 manuscript "Hypothesis explaining the properties of light," he outlined an argument concerning the invisible ether to help explain how the soul could cause muscular motion by making minute changes to the pressure differential of the ether between the inside and outside of the muscle.

In the General Scholium, a short but important essay first added to the second edition of the *Principia* (1713), Newton provided a standard argument for the existence of God based on the intricacy and beauty of nature. “All that diversity of natural things which we find, suited to different times and places, could arise from nothing but the ideas and will of a Being necessarily existing.” God, Newton explained, was intimately present to his creation always and everywhere and was worthy of worship because he exercised benign and intelligent rule over his Creation. We admired God for his perfections, but we adored him because of his dominion. And although most aspects of God could not be comprehended by a finite mind, we could know him best by his works; in fact, “We know him only by his most wise and excellent contrivances of things, and final causes.” Here was a clear statement of the religious function of science, as Newton saw it.

A Roving Spirit

The sheer scale of Newton’s investigations into Church history, prophecy, and natural theology demonstrates that religion was central to his life. He grew up in a religious environment, and his uncle, stepfather, and early patron were all Church of England clergymen. As a teenager, he was exposed to both Anglican and Presbyterian influences, both of which gave a religious structure to his strong puritan moral sentiments. Nevertheless, he disagreed fundamentally with many tenets and religious practices conventionally associated with Puritanism. He avoided and heartily condemned those aspects of religion that were redolent of what at the time was called “enthusiasm”—religious emotion presumed to be divinely inspired. Attaining the “paradise within,” as Milton put it—a sort of inner spiritual regeneration—was not on Newton’s priority list. Relentless study and the disciplined use of his understanding were always to be preferred to speculative theology or the quest for an emotional brand of inspiration.

Newton’s views concerning the doctrine of the Trinity, which he described in his unpublished writings as a wicked form of polytheism, seem to have been driven at least in part by his extreme dislike of Roman Catholicism, and more broadly, by his hatred of idolatry. In this, he did not differ from the views held by many of his countrymen. But unlike most, he seems to have been motivated from an early age to pursue innovative and courageous avenues of research to develop and defend his views. He was a highly original thinker in whatever intellectual field he chose to study, believing that the truly godly Christian had a duty to use his own

intelligence to discover scientific and religious truths. For example, as early as his student days, he began expressing views on such topics as the soul and the end of the world that veered off from the path of orthodoxy, displaying a skepticism that he would retain for the rest of his life. Newton's views concerning doctrine, exegesis, and worship were closely aligned with the basic sentiments held by contemporary anti-Trinitarians, who were known as Arians or Socinians, but his powerful ethic of independence meant that he was never beholden to any sect.

Even though Newton believed that he had the right, duty, and ability to solve various theological conundrums, he was apparently uninterested in many of the topics that preoccupied his contemporaries, such as free will, election, and the remission of sins, for which his theological notebook has blank entries. He objected to deducing doctrines from or finding them in the Bible if they were not plainly stated, and because Scripture gave no definitive answers to many of the questions about these topics, they could not be ascertained. "All the old Heresies lay in deductions, the true faith was in the text," he wrote in one draft on the history of the Church. Without a clear text, discussions could only lead to disagreements between Christians and even to schisms.

Newton's religion was always that of the Bible, but what he took to be the true text of Scripture was not the same as that revered by his orthodox colleagues at Trinity College, Cambridge, where he arrived as a student in the summer of 1661. It is unclear when precisely Newton began rethinking the traditional doctrine of the Trinity. He was not raised in any radical sect, nor is he known to have had direct contact with any anti-Trinitarians before becoming a Member of Parliament in 1689. In the middle of the 1670s he went to great lengths to avoid taking holy orders, the path taken by the vast majority of his colleagues who wished to become ordained Anglican clergymen. It may be that this was influenced by an initial encounter with anti-Trinitarian views, though there is no conclusive evidence for this. For obvious reasons, Newton gave different reasons for his decision, stating that he wanted to have more time to work on his studies. He was ultimately granted dispensation from having to take orders, which left him in the position of being a layman with greater freedom to express his views. In considering the motivation behind his action, it is worth bearing in mind that over the course of his six-decades-long professional life he had to publicly worship in the Anglican Church and even had to state his commitment to its doctrines and ceremonies whenever he took up a government position. Meanwhile, his real beliefs and his radical writings on sensitive religious issues had to remain private.

Nevertheless, some people, who doubtless showed that they were capable of keeping a secret, did become privy to his religious opinions. Anti-Trinitarian views had sprouted sporadically in England since the Protestant Reformation, but it was not until the end of the seventeenth century that they provoked serious controversy within the Church of England. At the end of 1690, Newton wrote a lengthy and revealing text to the philosopher John Locke on the inauthenticity of two Trinitarian proof-texts, 1 John 5:7 and 1 Timothy 3:16. In these letters he clearly revealed his sympathy with an anti-Trinitarian theology, and asserted that he had the right as a lay interpreter to use his own understanding to interpret difficult passages in Scripture. Two decades later, Newton was once more linked to the Trinitarian controversy with the publication of William Whiston's "historical preface" to his *Primitive Christianity Reviv'd* (1711) and Samuel Clarke's *The Scripture-Doctrine of the Trinity* (1712), both of which elicited heavy censure from the Church. Clarke had been an influential clergyman, and, like Whiston, was a famous Newtonian; by this time they were part of a select band of disciples who were aware of Newton's religious beliefs.

When Newton took up senior government positions first as Warden and then Master of the Mint in London around the turn of the century, the intensity of his religious studies did not diminish, though he became less strident in his assault on the corrupters of the Church. The over 2.5 million words he wrote on religious topics during this period are a testament to the fact that he continued to view his scholarship to be a central plank of his faith. At the same time, Newton's public life of faith continued to give no reason for doubting his orthodoxy, although he was obviously troubled by the discrepancy between the tenets of the Church of England and his own views. In a late analysis of the Anglican Church, he argued that a practicing member of the Church had no obligation to believe in doctrines, articles of faith, or forms of service that were not based wholly on unambiguous Scriptural terms. More generally, he felt that a state church should, as much as possible, not suppress differences of opinion on doctrine, and that it should instead encourage godly people (such as himself) to engage in truly independent study.

Heretics and Sinners

Whatever the details surrounding Newton's entry into heterodoxy, once he had conceived a general dislike of Roman Catholicism and the doctrine of the Trinity, he was primed to look for historical evidence of

how Christianity had been perverted by Athanasius and his henchmen. From the relentless scrutiny of the voluminous writings of pagans, the Church Fathers, and later historians, Newton gained a clear and detailed picture of what he took to be the terrible fate that had befallen the true Church in the fourth century. As he saw it, all the major accoutrements of Roman Catholicism were put in place at that point—each of them an instance of idolatry and superstition. These included the doctrine of Transubstantiation, the worship of relics, of images, of saints, especially of the Virgin Mary, and, of course, the doctrine of the Trinity. Monks, whom Newton lambasted for cultivating increasingly bizarre mental and corporeal regimens, disseminated this false religion far and wide, and it became the official religion of the Roman Empire under the rule of Theodosius the Great. Some of these events Newton began to chronicle in his “Fragment on the history of apostasy,” where he argued that the conversion of immoral and hypocritical heathens in the newly Christianized empire made the Christians “as corrupt at least as the heathens which remained unconverted.”

Central to Newton’s account of Christianity’s perversion was the Council of Nicaea in A.D. 325. While there was some disagreement over the meaning of the term at the Council, the creed it finally adopted explained that the Son was *homoousion* with the Father—the Greek word that in modern English versions of the Nicene Creed (a later adaptation of the original) is commonly rendered “of one being” or “consubstantial” or “of one essence.” The creed was drawn up in large part to reject what came to be known as the Arian heresy, the belief that Jesus was created by the Father and unlike him in nature (which was the position Newton held). The precise interpretation of *homoousion* preoccupied Newton for much of his life, as it did many others at the time. Like other Christian thinkers he was aware that the term did not appear in the Bible, and along with many Protestants he believed that the Christian faith could not rest on non-Scriptural language. Both sides in the disputes at Nicaea had been guilty of this, he thought, and in one draft on the history of the Church he noted that “Arius & Athanasius had both of them perplexed the Church with metaphysical opinions & expressed their opinions in novel language not warranted by scripture.” Specifically, his worry was that the Nicene Creed not only made Jesus equal to God in a general sense, but of the same physical substance—a gross and obnoxious perversion of the biblical teaching. In reality, Newton argued, God was infinitely superior to the Son but graciously allowed him various powers by effecting a union of their wills.

Although he downgraded the status of Jesus Christ in comparison with the orthodox view, Newton did have a sophisticated understanding of Christ's nature and office. Since Christ was not God, God did not die on the cross; yet neither did a mere man. Writing in one lengthy set of notes, Newton explained that it was the Son of God sent into the world and "not a humane soul that suffered for us." For Newton, Christ was the incarnate *logos* who on account of his perfection and obedience was elevated by God to sit at his right hand. Only the Father was truly God, he claimed, and "When ever it is said in the scriptures that there is but one God, it is meant of the Father." Newton's assault on the doctrine of the Trinity did not only target the doctrinal foundations of Roman Catholicism, for he was also condemning the central religious mystery of his own Church of England.

Newton's earliest accounts of Christian history were equally audacious. First, by identifying the developments in fourth-century Catholic doctrine as "that great Antichristian Apostacy," as he did in a treatise on the book of Revelation, he clearly believed that Athanasius and his followers, who by Newton's account had introduced the absurd views of the orthodox by dint of force, deceit, and trickery, were the agents of Antichrist. Second, he explicitly stated in his treatise on Revelation that the terrible sufferings and tribulations of orthodox Trinitarian Christians were examples of divine justice. As he saw it, the persecutions of Christians by Goths, Vandals, and Huns were not of righteous saints and martyrs, as was commonly claimed by Catholic and Protestant historians. Rather, the victims were morally corrupt and idolatrous Christians who had become unprecedentedly vicious. Standard Christian histories proclaimed the great virtue of those tortured by the barbarians, but in fact the persecutors were acting as agents of God who were on a mission to rid the world of vice. In one manuscript titled "Paradoxical Questions concerning the morals & actions of Athanasius & his followers," Newton explained that "torturing imprisoning killing & burning for mere religion was not then in fashion" and that even though "they tell us they were persecuted for religion," the true reason for the suffering of the orthodox was their immorality. By contrast, when the anti-Trinitarians were brutally persecuted by the orthodox as heretics, the actions of the persecutors showed that they were wolves in sheep's clothing, and that the sufferers were not heretics but in fact the true Church described in prophecy. In some notes on early Church history, Newton wrote that "whatsoever wears sheeps cloathing if it be as ravenous as a wolf it betrays it self by it's ravenousness to be no sheep."

The Key to Prophecy

Newton's account of Church history was supported by his understanding of biblical prophecy—that is, he believed that certain historical events, as he knew them from contemporaneous writers, were the fulfillment of various passages and images in the prophetic texts. The most important of these texts for the history of the Church was of course the book of Revelation. Newton saw himself as part of a specific Protestant tradition of exegesis that interpreted the images of the Apocalypse as depicting the divine history of Christianity. The book's prophetic visions of religious oppression referred both to the persecution of Christians under pagan Roman emperors and to the trials of Protestants at the hands of Roman Catholicism. The endurance of the faithful in the battle between satanic forces and godliness provided hope to the blessed that they would reign with Christ in a millennial kingdom to come, as promised at the end of Revelation.

The most authoritative interpreter in this tradition—and the man most responsible for popularizing millennialism in England—was Joseph Mede, who had attempted to elevate the exegesis of Revelation to a scientific status in his 1627 *Clavis Apocalyptica*. Five years later Mede produced an expanded version of the work, accompanied by a commentary that showed how various visions in Revelation had already been “accomplished” in specific historical events. Mede argued that the apocalyptic vision of the opening of the seven seals described the history of the Church from apostolic times to the end of the world. The vision of the sounding of seven trumpets referred to the onset of a new and terrible falling away from the true religion (the Great Apostasy), which was to be located historically in the warping of true Christianity into the anti-Christian demon-worship of Roman Catholicism, as he described it in full detail in his posthumous *Apostasy of the Latter Times* (1642). The sufferings of early Protestants, followed by their eventual triumph over Rome, were prophesied in the vision of the pouring of seven vials of wrath on the agents of the beast. Ultimately, at some time in the future, Christ would return to usher in a millennial rule that would itself be followed by an eternity of bliss for the saints and torment for the wicked.

Newton agreed with most of Mede's findings and was full of praise for his general approach, writing in a manuscript that “Mr Mede layed the foundation & I have built upon it.” Newton appreciated Mede's “methodising of the Apocalyps” that was able to show how numerous visions, understood correctly, really described the same events from different perspectives. This “synchronizing” of prophetic images, as Mede called

it, was not original with him, but he performed the task with a clarity, simplicity, and generality that was absent in the work of his predecessors. Newton followed Mede closely, and sometimes slavishly, and agreed that the Great Apostasy occurred in the fourth century. He endorsed specific dates that Mede offered for the opening of the seals and the sounding of the trumpets, and he shared Mede's view that Christ's return was to be expected before his millennial reign at some time in the future.

But as was typical of Newton, while using Mede's work as a basis for his research, he adduced far more historical detail to support his case than Mede or anyone else had ever done. Newton's interpretation also differed in important ways from Mede's. Newton placed the invention of the doctrine of the Trinity at the core of the perversion of Christianity in the fourth century, and unlike other Protestant exegetes, he emphasized that the most significant events in sacred history had happened with the initial corruption of the true religion at that time, and not with the rise of Protestantism in the early modern period. Indeed, Newton seemed to think that the Reformation and its aftermath were of no prophetic significance—Protestants, too, were part of the apostasy of Trinitarianism—and so none of the seven vials of wrath depicted the heroic triumphs of Protestantism, as Mede and others had argued. Instead, each vial was synchronized with its corresponding trumpet earlier in the vision, and Newton sought to demonstrate this by copying the parallel texts and placing them next to each other.

In the later 1670s, he began to generalize the technique of synchronisms far beyond the extent of Mede's work, poring over vast amounts of historical source materials to find evidence to support his case. The general view of prophecy that he developed alongside his parallel account of Church history would change little over the remaining decades. He always argued that interpreters could comprehend with any certainty only those prophetic visions that had already been fulfilled in the past, so that future prophetic events could be understood properly only once they had taken place. Over the course of his life, he became even more cautious, deferring the expected date of the Second Coming further and further into the future.

Restoring Lost Knowledge

A theme that ties together Newton's Protestantism, his writings on church history and prophecy, his alchemy, and in some striking ways even his physics and mathematics is that he saw himself as a restorer of a lost or corrupted tradition of knowledge. He was not alone in casting his role in

this way. Various writers from the fifteenth century onward had done the same, such as the Neo-Platonists in Renaissance Florence who hoped to recover an ancient wisdom stretching back to a figure known as Hermes Trismegistus and to a number of biblical and other characters who were supposedly privy to a pristine religion and science. A similar attitude was of course inherent in Protestantism, which viewed the Reformation as a restoration of pure and original Christian doctrine and worship by cleansing them of the idolatrous and superstitious elements introduced by Roman Catholicism. As we have seen, Newton thought that the Reformation had not been sufficiently successful, and that a yet more original kind of Christianity ought to be restored.

In his scientific work, Newton joined illustrious astronomers such as Copernicus and Kepler by invoking the great ancient Greek heliocentrists as authoritative predecessors of the new cosmology. But Newton went much further, arguing in a draft on the origin of religion and its corruption that the oldest religion “most generally received by the nations in the first ages” involved worship in temples that were taken to represent the system of the heavens and in the center of which burned a fire to represent the sun. This was not only the original religion that was cultivated by the descendants of Noah and in many ancient civilizations; it was also “the most rational of all others till the nations corrupted it.” Seeing the universe as the temple of God, Newton argued, the ancients had integrated knowledge of nature into the heart of religion. Their priests “were above other men well skilled in the knowledge of the true frame of Nature & accounted it a great part of their Theology.” Newton clearly implied that the modern scientist who was deciphering God’s work was engaged in an intrinsically religious pursuit.

This analysis of the ancient priesthood and its wisdom is important for helping to understand how Newton thought about his own greatest work. He believed that in the *Principia* he had recovered the knowledge the ancients had possessed, including the principle of universal gravitation. As he explained in an unpublished preface (contained in the 1999 translation of the *Principia* by I. Bernard Cohen and Anne Whitman):

The Chaldeans long ago believed that the planets revolve in nearly concentric orbits around the sun . . . , and the Pythagoreans introduced this philosophy into Greece. But it was also known to the ancients that the moon is heavy toward the earth, and that the stars are heavy toward one another, and that all bodies in a vacuum fall to the earth with equal velocity and thus are heavy in proportion to the quantity of matter in

each of them. Because of lack of demonstrations, this philosophy fell into disuse, and I did not invent it but have only tried to use the force of demonstrations to revive it.

The Egyptians, Newton explained in “The System of the World,” revealed their precious mysteries only obscurely, “under the veil of religious rites and hieroglyphic symbols.” Eventually, knowledge of these philosophical and religious truths was corrupted through various kinds of idolatry—worship first of the heavenly bodies as gods and then of the dead and of images, resulting in a religion that perceived the divinely animated planets to be influencing the earth. Likewise, in a set of notes known as the “Classical Scholia,” Newton argued that key doctrines of the *Principia*, such as the claim that gravitational force acts universally, were prefigured by ancient philosophical doctrines and that the ancients had used poetic allegories to hide their knowledge from the vulgar.

However, Newton ultimately suppressed these references to the ancients and to his supposed interpretation of their mysteries through his scientific work, leaving them unpublished. “The System of the World,” originally intended as part of the *Principia*, was only published posthumously (and replaced with a mathematical argument under that same title), while the plan to include the “Classical Scholia” in the book’s second edition was never realized. By excluding these very accessible texts from his technically forbidding scientific work, Newton—the restorer of ancient religious wisdom—preserved the equally ancient distance between the knowledge held by the priestly elite and the ignorance of the worshipper.

Buoyed by the success of the *Principia*, Newton began to reveal some of his religious views to others in the early 1690s. For example, he told the Swiss mathematician Nicolas Fatio de Duillier, who had hoped to aid Newton in revising the *Principia*, that the ancients were aware of universal gravitation. Newton also shared the “Classical Scholia” with the Scottish mathematician David Gregory, who, granting anonymity to their author, incorporated parts of them in a preface to his own later work on astronomy. In a 1694 note on his meetings with Newton, Gregory recalled Newton’s belief in the uniformity of pure religion:

Religion is the same at all times, but religion which they received pure from Noah and the first men, the nations debased by their own inventions. Moses began a reformation but retained the indifferent elements of the Egyptians (it was the Egyptians who most of all debased religion with superstition and from them it spread to the other peoples). Christ reformed the religion of Moses.

Newton also told Gregory that “the Satellites of Jupiter and Saturn can take the places of the Earth, Venus, Mars if they are destroyed, and be held in reserve for a new Creation.” Newton later explained to Gregory that the agent that would probably effect the destruction of the earth was the Great Comet that had appeared at the end of 1680 and that could strike the planet at some future orbit. At the end of his life, Newton repeated a similar idea to John Conduitt, his half-niece’s husband and close family friend, suggesting that the comet might fall into the sun, increasing its heat so as to burn up all life on earth. When asked by Conduitt “why he would not publish his conjectures,” having already indicated parts of them in the *Principia*, Newton responded with a rare chuckle that “he had said enough for people to know his meaning.”

The Faith Distilled

Newton’s religious interests shifted slightly in the last decades of his life, but the intensity of his faith remained unabated. He retained a deep interest in prophecy and Church history. His account of the ancients’ heliocentric religion became submerged within a gargantuan research program on the subject of ancient chronology, and was ultimately consumed by it. In another project, which he had not pursued in the first half of his career, he dealt at length with the introduction of various heresies into the Church even before the fourth century. Many of these were brought in by the Gnostics, he argued, whose perverse metaphysical views corrupted the essence of early Christianity. Newton devoted a great deal of time to the fate of the early Church when it was beset by what the Apostle Paul called the “mystery of iniquity.” This corruption, Newton wrote in a draft on the history of the Church, “began to work in the Apostles days, worked more & more till it brake in upon the Church & caused that Christian religion was purest in the first age of Christianity.” Newton took the Gnostics and similar miscreants to be matched in their pernicious influence on the Christian religion only by the Catholics of subsequent centuries.

Late in his life, Newton made a concerted effort to summarize the basics of the true religion. The manuscript he called “Irenicum” began with Jesus’ teaching that the first great commandment was to love the true God exclusively and with all one’s being, while the second was to love one’s neighbor as oneself. In a fascinating extension of the second commandment to the animal kingdom, Newton added that men were “not to feed on the flesh or drink the blood of a living animal, but to be mercifull even to bruit beasts.” The first commandment had been routinely

broken by idolatrous Israelites (as it was later by Christians following the teachings about the Trinity, saints, and relics), while the second became the “moral Philosophy of the heathens.” For instance Pythagoras, “after he had travelled among the eastern nations for the sake of knowledge & conversed with their Priests & Iudges & seen their manners,” taught universal friendship and kindness to animals. Newton concluded that the original religion of Noah “was therefore the moral law of all nations.”

Newton proceeded to outline his key distinction between the basic tenets of the Christian religion knowable by all and “necessary to communion & salvation,” and those recondite elements that were accessible only to the learned “of riper years.” All Christians had to believe in one God, the Father and Creator; secondly in Jesus Christ the Son of God, born of a Virgin, who died for humans on the cross, rose on the third day, ascended to heaven, and who would return to judge the quick and the dead; and thirdly, they were to believe that he sent the Holy Ghost for comfort and to help the disciples with their preaching—in other words, the Apostles’ Creed. However, mature Christians like himself were obliged also to study the Scriptures (and especially the prophecies) and to discuss abstruse doctrine as long as they could disagree charitably. Evidently, he believed that freedom of thought about all but the very basics was a religious virtue.

Many of the examples he chose to illustrate the moral life were derived from the Old Testament, and his pronounced anti-Trinitarianism has led some to claim that he was more inclined to Judaism than to Christianity. John Maynard Keynes called Newton a “Judaic monotheist of the school of Maimonides,” whose *Mishneh Torah* Newton had read in detail. There is no doubt that Newton took the Mosaic moral law to be the word of God and thus still binding; at the same time, he believed himself to be a sincere Christian who was bound to follow the moral teachings of the New Testament and its most foundational doctrines. The law of Moses and the teachings of Christ were essentially the same as the religion of Noah and his sons; as he put it in “Irenicum,” the great commandment as summed up by Jesus “was the religion of the sons of Noah established by Moses & Christ & is still in force.” According to John Conduitt and other friends and relations, Newton lived by the Mosaic-Christian values he espoused in his writings, being especially moved by stories of cruelty to animals.

Abiding by these moral values formed a key part of Newton’s religious life, but of equal significance was the exercise of the virtues of independent thought carried out in accordance with the dictates of his own understanding, fueled by a superhuman work ethic. Although he took very different approaches to problems that arose in separate academic fields,

his theological writings were governed by the same general standards as those at work in his scientific and mathematical treatises. Reason, hard work, and disciplined empirical research were always to be preferred to figments of the imagination, such as idols and hypotheses. It is because he applied these principles to his writings on theology, and devoted so much time and effort to them, that they cannot be considered as half-baked musings. Whatever credence we give to his religious researches today, they were the products of the same brilliant, rational, and intellectually daring analyst who contributed so much to science and mathematics.