PRIESTLEY, JOSEPH 1733–1804

Philosopher and scientist

A list of Joseph Priestley’s achievements seems to defy any single professional categorization: in ethics and political philosophy he was the author of the utilitarian principle (the greatest good for the greatest number); his histories of religion include a masterpiece of syncretism in the history of ideas (Doctrines of Heathen Philosophy Compared with Those of Revelation, 1804); he was the first scientist to isolate oxygen (though he persisted in explaining the gas as ordinary air from which “phlogiston” had been removed), and he discovered and isolated ammonia, sulphur dioxide, nitrous oxide, and nitrogen dioxide. It was Priestley who performed the initial work on the discovery and analysis of photosynthesis. He discovered the function of the blood in respiration, and he was one of the keenest and most forceful proponents of philosophical materialism (in opposition to doctrines of a soul distinct from the physical body). In his study of electricity he produced a scale of conductivity as a common property of different substances, and he discovered the unified inverse square form of the law of force obtaining between electrical charges. In contrast to earlier doctrines of ether and particles, he articulated a unified theory of the relation of substance and light, matter and motion. He was the most prolific defender of English religious dissent in the eighteenth century; and so influential was his support of the democratic revolution in France that his house, laboratory, and library in Birmingham were destroyed by a church-and-king mob in an attack that was artificially incited by a hostile government, according to Samuel Taylor Coleridge. A bibliography of Priestley’s works is difficult to enumerate because he was prolific in the publication of expanded editions of his works, editions accompanied by published objections, then his replies to the objections, and then further objections and further replies, and so on, indefatigably; but at the least one can count many dozens of voluminous works by Priestley in science, political philosophy, history, metaphysics, rhetoric, theology, and ethics.

This array of subject matter on which he lavished his intellectual gifts and his inexhaustible energies (he died within an hour of completing corrections on a last book that he had been determined to finish), together with the lucidity and matter-of-factness of his style of writing in the Enlightenment mode of plain speaking, would seem to foreclose an effort to place his work coherently in a context of Romantic period thought and literature, or in any coherent theoretical context. However, thanks largely to the work of Jack Lindsay, the theoretical coherence of these disparate endeavors emerges in a precisely Romantic context. In his writings on science, political philosophy, metaphysics, and the history of religion, Priestley constructs a theory of apparently discrete and often binary terms in the form of a unified-field theory. The project of a higher-order conceptual unification makes Priestley’s science intelligible (including the overcoming of the ether-particle binary, or the principle of common conductivity). The same project of intellectual unification makes Priestley’s science intelligible (including the overcoming of surface oppositions in a structural unity, so too the apparently disparate forms of disciplinary endeavor in which Priestley was almost equally preeminent are taken into a higher unity within the corpus of his prolific and comprehensive range of intellectual work.

Priestley’s influence was even greater than his massive list of published works (a sample of which appears in the bibliography below) can indicate. Thomas Jefferson, who wrote to Priestley to encourage his writings on comparative religion, also advised James Madison to study Priestley’s political philosophy books. Priestley’s Letters to the Right Honourable Edmund Burke (published by Joseph Johnson in 1791) was already in a third edition in its first year. Priestley was widely recognized as “the most dangerous enemy of the established religion, in its connection with the state” while the intellectuals in the Johnson circle and the French revolutionaries themselves were celebrating his writings for their power to help in the “liberating of all the powers of man.” Earlier, Benjamin Franklin had consulted with Priestley when he was in London seeking to negotiate peace for the American colonies. Threatened with persecution in England, Priestley fled to America in 1794, and there civic associations and learned societies alike welcomed him as one of the world’s most effective fighters against tyranny and bigotry and as one of the leading proponents of liberty in political, philosophical, and religious life.

Controversy and persecution followed him in America, too, however, even amid simultaneous fame and admiration: President John Adams’s secretary of state, Timothy Pickering, attempted to deport Priestley under the Alien and Sedition Act, though ultimately Adams relented. However, Thomas Cooper, who helped Priestley with the revision of some of his last writings, was imprisoned. In 1804, happy at last and for the first time in a country whose leadership (under Jefferson) was friendly to him, and as he was dying, Priestley finished Doctrines of Heathen Philosophy Compared with Those of Revelation, in which he analyzes the ethical systems of Aristotle, Arrian, Epictetus, Epicurus, Jesus Christ, Marcus Aurelius, Plato, Pythagoras, Seneca, and Socrates. As with William Blake (in “All Religions Are One” [1788], for example), and Percy Bysshe Shelley, who wrote of “harmonizing the contending creeds” (Letters), Priestley formulated large conceptual unifications that are distinctive for their extensiveness, complexity, trenchancy, and historical effects.

Terence Hoagwood

Biography

Born 1733 in Birstal Fieldhead (near Leeds). In schools and at home, learned many ancient and modern languages, mathematics, religious history, biological and chemical experimentation. To dissenting academy at Daventry in 1752. Dissenting minister, 1755. Tutor at Warrington Academy, 1761. Doctor of laws, University of Edinburgh, 1764. To London for scientific work for Royal Society, 1765. Received patronage of William Perry, Earl of Shelburne, in 1773. To Birmingham as minister of the New Meeting-House in 1780, associating with Erasmus Darwin

**Selected Works**

*Theory of Language*. 1762.
*The History and Present State of Electricity*. 1767.
*Institutes of Natural and Revealed Religion*. 1772.
*Experiments and Observations on Different Kinds of Air*. 1774–77.
*Philosophical Empiricism*. 1775.
*Disquisitions Relating to Matter and Spirit*. 1777.
*Letters to a Philosophical Unbeliever*. 1780.
*An History of the Corruptions of Christianity*. 1782.
*An History of the Early Opinions Concerning Jesus Christ... Proving that the Christian Religion Was at First Unitarian*. 1786.
*Lectures on History and General Policy*. 1788.
*An Appeal to the Public, on the Subject of the Riots in Birmingham*. 1791.
*Letters to the Right Honourable Edmund Burke*. 1791.
*A Comparison of the Institutions of Moses with Those of the Hindoos and Other Ancient Nations*. 1797?
*Notes on All the Books of Scripture*. 1803.
*Doctrines of Heathen Philosophy, Compared with Those of Revelation*. 1804.
*Memoirs of Joseph Priestley, to the Year 1795, Written by Himself; with a Continuation, to the Time of His Decease, by His Son, Joseph Priestley, and Observations on His Writings, by Thomas Cooper... and the Rev. William Christie*. 1806.

**Bibliography**


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**Program Music and Tone Painting**

The question of whether instrumental music can or should depict nonmusical images and ideas was central to Romantic discussions of the art. The classic ideal of pure music, as reflected in the eighteenth-century propensity for generic titles (such as sonata, symphony), contrasts with the Romantic ideal of program music, as reflected in a much higher percentage of nineteenth-century works with descriptive titles. Both E. T. A. Hoffmann and Wilhelm Heinrich Wackenroder argued that abstract instrumental music, because of its lack of external associations, was purer than vocal music or music with descriptive titles, while Romantic composers from Hector Berlioz onward preferred to give their listeners tangible evidence of their intentions. Ludwig van Beethoven stood on the cusp of these two practices, giving most of his works generic titles but occasionally adding extramusical connotations through descriptive subtitles for individual movements (as in the Pastoral Symphony or the Lebewohl [Farewell] Sonata) or texts (as in Symphony No. 9). As the nineteenth century progressed, the practice became so popular that publishers and critics added programmatic titles to works that had not been so designated by their composers (for example, Beethoven’s “Moonlight Sonata” and Frédéric Chopin’s “Revolutionary Etude”).

For those composers who chose to attach extra-musical meanings to their works, the range of possibilities was extensive. Beethoven’s isolated uses of descriptive attributions tended to be general rather than specific, as did several of the symphonic poems of Franz Liszt based on metaphysical ideas or feelings. Berlioz’s *Symphonie fantastique* (1830) and Bedřich Smetana’s *Vltava* (1874–79), by contrast, are works with very specific imagery contained in a detailed verbal description and reflected closely in the musical score. The short character pieces for piano that were so ubiquitous during the nineteenth century show a similar range of specificity, as illustrated by Robert Schumann’s *Papillons* (*Butterflies*), op. 2, with no descriptive titles for individual pieces, and *Carnaval*, op. 9, with descriptive titles for each piece.

Program music sometimes—though by no means always—made use of tone painting as well. This technique involves the practice of making audible reference to familiar sounds, such as thunder or bird song, in a musical context. The synesthetic experience of depicting visual or verbal stimuli through instrumental music was particularly appealing to nineteenth-century composers and their audiences, though it predates the Romantic era by several centuries. From Beethoven’s Pastoral Symphony No. 6 (1808), with its evocation of bird songs, peasant folk music, a brook, and a thunderstorm, through Berlioz’s *Symphonie fantastique*, with its evocation of the guillotine and a witches’ sabbath, and culminating in Richard Strauss’s graphic orchestral depictions of a myriad of sounds, from the bleating of sheep to a domestic squabble, the ever-increasing resources of the orchestra allowed composers to expand the realm of possibility for tone painting.