

Delivered May 2, 2010 to the  
Unitarian Universalist Fellowship of the Rappahannock  
By Tom Kinney

## **Joseph Priestley—Did he turn Thomas Jefferson Christian?**

### **Subtitle: Five People Whose Curiosity Changed the World**

Bulletin quotes: “Let all the friends of liberty and human nature join to free the minds of men from the shackles of narrow and impolitic laws. Let us be free ourselves, and leave the blessings of freedom to our posterity.” --Joseph Priestley, *Essay on the First*

*Principles of Government*, 1768

“My ancestors didn’t drown witches or hang Quakers!” --Congressman and libertarian Matthew Lyon, jailed for sedition in the battles against state religion, upon his spitting upon and then defending himself with fire tongs against a caning by Congressman Roger Griswold of CT.

MAIN TALK—

As some of you know, I was Dutch Reformed in my youth, Presbyterian in my teens and twenties, and became Unitarian Universalist at about 30. So I have spent more than half my life as a UU. Thus I feel my own personal theology and spirituality is well settled to my satisfaction. A piece of that is thanks to the lives and writings of others that include Joseph Priestley. I thought a talk on Priestley’s life as a scientist, theologian, and theorist on government’s part in society might be appreciated so I began this presentation.

My usual approach is to do the research and write up the key aspects of the subject. Then trim down the phraseology of those key aspects until the presentation fits within the

allotted time. Following that approach, I contacted the UU Joseph Priestley District Executive in hopes of borrowing one of the best new works on Priestley, a two volume tome—unsuccessful as they did not have this very expensive set. It was good they did not as gleaning writings from books I already had resulted in over 40 pages of text on the key aspects of Joseph Priestley's life. Obviously, I had overreached. I worked on cutting those 40 pages down to a quarter of that for more than three solid days and was still less than half way to the target. There are just too many high points in Priestley's life to be able to share with you without shortchanging your understanding and appreciation of this exceptional individual. So I had to throw out my objective and start over. What I am able to offer you this morning is a peek into certain aspects of Priestley's life in hopes that you will be inspired to look further.

If Unitarianism has icons, Joseph Priestley would be up front. It's the Unitarian Universalist Association's district just north of our own Thomas Jefferson district that is named after Priestley as Priestley, exiled from England, spent the last years of his life along the Susquehanna in the village of Northumberland, PA.

We UU's share Priestley as an icon of rational theology with science and with the revolutionary movements against intrusive governments, a movement that blossomed in the late 1700's and continues to promote freedom today. His influence on his friend, Benjamin Franklin, and other founders of our country is hard to overstate. As a measure of that influence upon Thomas Jefferson and John Adams, the famous correspondence between these two ex-presidents consisted of 165 letters in which Benjamin Franklin is

mentioned by name five times; George Washington, three times; their mutual nemesis, Alexander Hamilton, warrants only two references. By contrast, Priestley is mentioned fifty-two times. The Jefferson—Priestley adjacent UU districts are especially symbolic of the close relationship and mutual gratitude each felt to and for the other. That symbolism is as meaningful today as it was back then—two giant intellects exchanging ideas, both men of philosophy, the classical definition of which in their time included the concepts and the study of science, theology, and theories of governance.

A word of warning—the sexist quotations this morning are the language of those 1700's. I have been inconsistent on a quote by quote basis, sometimes choosing sacrilege A of changing the original sexist words and sometimes choosing sacrilege B of including those sexist words, in order that you may be both appreciative and offended based upon the sacrilege of your choice.

This morning I can only scratch the surface of Priestley's character and very productive work in science, theology, and in the pursuit of freedom. One can not just hit the high points because there are too many high points. But let me try to hit a few.

His first scientific interest was electricity before electricity had any practical application. By the end of 1766, building on a puzzling experiment that Franklin had devised, Priestley surmised that the relationship between electrical charges followed the same inverse square law that Newton had observed in gravitational attraction. Two decades later Coulomb proved Priestley's conjectures resulting in Coulomb's Law, a bedrock

principle of physics that explains why atoms attach to each other in forming molecules, why the world is made up of stuff instead of just gases, and played a central role in the invention of semiconductors and integrated circuits, the core technology that created the electronic and digital revolutions of the late 20<sup>th</sup> century.

Priestley, in his 30's was spurred on during his electrical period by a group of "electricians" who philosophized together in London that included Ben Franklin. They were all, to varying degrees, convinced of the need for "rational Christianity," a subject reflected in Priestley's notes as early as age 19. Their politics was Libertarian. One typical exchange attributed to James Boswell; "It seemed to be agreed that since all Members of Parliament became corrupted, it was better to choose men already bad, and so save good men." His electrician friends were so impressed by Priestley's work that they nominated him to the Royal Society. By the way, the Ben Franklin key and kite story that all kids know--comes exclusively from Priestley's writings on the history of electricity. It appears no where else.

Priestley's second scientific interest was in "Airs", or what Von Helmont called in his Flemish, "chaos," after its disorderliness compared to solids and liquids, later corrupted into the word "gas." Of Priestley's thousands of experiments in science and hundreds of discoveries, I'll mention just two.

Curious young boys and scientists knew creatures would soon die in sealed jars--and both a candle and another creature would immediately expire in the same jar if the air was not

changed. Priestley wondered if a plant would do the same? A mint plant from his wife's kitchen garden went into one of his inverted jars. Priestley waited, patiently, for it to expire. Ben Franklin interrupted with a visit in May of that year. When Priestley returned to his plant in June, the plant had flourished instead of died. Further, he discovered a candle would burn or a mouse would happily survive for 10 minutes in the jar with the plant. He had discovered plant respiration and photosynthesis, carbon dioxide being converted to oxygen--although those words were in the future, they are basic to understanding the history of our earth right through the current global warming debate. Franklin's letter of response to Priestley report is an example of their continuing intellectual duet: "I hope this will give some check to the rage of destroying trees that grow near houses...from an opinion of their being unwholesome."

The second but related discovery came when Priestley burned the red ash of mercury in one of his sealed jars. He wrote, "What surprised me more than I can well express was that a candle burned in this air with remarkably rigorous flame. I put a mouse into a glass vessel containing (this air). Had it been common air, a full-grown mouse would have lived in it about a quarter of an hour. In this air, however, my mouse lived a full half-hour; and though it was taken out seemingly dead, it appeared to have been only exceedingly chilled; for, upon being held by the fire, it presently revived, and appeared to not have received any harm from the experiment." With a fearlessness brought on by ignorance, Priestley and the other experimenters would breathe these various gases they generated; "an anything for the sake of knowledge" enthusiasm. With the new air, his chest felt "particularly light and easy for some time afterwards. Who can tell," he asked,

“but that, in time, this pure air may become a fashionable article of luxury. Hitherto only two mice and myself have had the privilege of breathing it.” Priestley called it, dephlogisticated air. Thank goodness, Lavoisier, Priestley’s friend, correspondent, competitor, and fellow scientist in Paris, prevailed with the simpler name, oxygen. We can sample this fashionable article of luxury at the oxygen bar in Lancaster’s Internet Cafe.

Let’s get a sense of Joseph Priestley in the context of his place and time. *The Lunar Men* were five friends around Birmingham whose curiosity changed the world. Meeting monthly near the time of the full moon, they discussed the natural world, governmental theory, and theology, all of which came under the heading of philosophy. Science’s robust derivatives, chemistry, physics, biology, geology, etc. would come later. Why the full moon? To ease the challenge of the homeward bound who may have imbibed a little too much port. Jenny Uglow contributed the subtitle, *Five Friends Whose Curiosity Changed the World* and some of the following words along with the writings of Forrest Church plus Steven Johnson’s *The Invention of Air*. Uglow unfolds the lives of these key individuals, men that changed the perception of society and society’s perception of itself. That critical change was that (1) study and science would replace mysteries with understanding of the workings of the world, (2) knowledgeable effort, rational thought, and dedication could lead to a greater good, and (3) individual freedom from governmental and other interference to pursue a path of betterment is a paramount right of all.

Five of the members in addition to our Joseph Priestley were Erasmus Darwin, physician, naturalist and grandfather of Charles Darwin; Josiah Wedgwood, mineralogist, ceramicist, a name still tied to dinnerware and the maternal grandfather of Charles Darwin; Mathew Boulton, mineralist and developer of key metal manufacturing techniques critical to another Lunar Man, James Watt, steam engines; and Priestley's father-in-law, John Wilkinson, steel and casting manufactures, a name still tied to knives and blades, and the guy who built the world's first Ironbridge (it's over the Severn River in Shropshire--really impressive for the 1770's, now a British national monument—if you're ever in the area, don't miss it. It's inspiring even if you're not an engineer.)

As an aside on Erasmus Darwin, it could be said that he alone inspired interest in botany by making it sexy. He moved plant identification and categorization based upon its reproductive designs from the obscure to the playful and titillating to the delight of his readers thus wisely laying the groundwork for popular knowledge of how the natural world really works. He applied the Adam Smith style philosophy of self-regulating economy to the natural world shocking many by suggesting a pagan version of Creation imbued with sex not found in Genesis.

To Joseph Priestley, science meant uncovering the workings of nature allowing people to question authority and cast off the chains of the past. Knowledge and rational thought was a light and a guide, a right and a weapon. The lack of knowledge or lack of curiosity represented chains, depression, and oppression. Priestley's attractiveness came from his openness to questioning and his deep-held visions of a better future. He was forever the

optimist, opposed to concepts of predestination and final judgment, seeking a more rational religion. He saw the idea that we live a play in which we act out a script as silly at best and evil at worst. It risks justifying anything anyone does no matter how terrible. This view says, “Blame the writer, not the actor” without even venturing into who the writer might be. Priestley was attracted to the writings of Locke, Hume, and Adam Smith who wrote that “Happiness...seems to have been the original purpose intended by the Author of nature...” Priestley believed there was a God, whose plan could be only mistily discerned in the workings of the universe, but no “Holy Spirit” or divine Christ.

Dissenters, (Unitarians, Quakers, Methodists, Baptists, etc.) unwilling to conform to the Church of England, were prevented from entering English universities thus Priestley received an excellent private education at Daventry, where he became a “furious free-thinker” in religion. He progressed toward a rational Unitarianism that rejected the Trinity, adopted the heresy that Christ was not divine, and asserted the “perfectability of man.” He, with liberal Anglicans, founded the first journal of free religious enquiry petitioning unsuccessful to ease the state church’s demand upon the citizenry. His cohort, Richard Price, became minister of the first formal Unitarian Chapel in England.

On the secular front, Priestley had already ruffled the Establishment with the call to arms in his *Essay on the First Principles of Government*, in 1768.

“Let all the friends of liberty and human nature join to free the minds of...**people**... from the shackles of narrow and impolitic laws. Let us be free ourselves, and leave the blessings of freedom to our posterity.”

Priestley’s *First Principles* took an important step of distinguishing between political and civil liberty. True political liberty would mean everyone having an equal opportunity of reaching high office—and viewed as **servants** of the people. Civil liberty was a sphere in which government had no place: in matters of religion men (and I will add) **and women** should follow their own conscience, and in education they should be free to experiment. His writings were helped by his Dissenting friends including Benjamin Franklin to whom he wished “laudable endeavors in the cause of science, truth, justice, peace, and, which comprehends them all, and everything valuable in human life, LIBERTY.”

Most of the Lunar men were seen as enlightened community improvers abounding in “charity’s deeds” like Priestley’s establishment of a public library and Darwin’s generous treatment of the poor without charge. All were building the local economy and raising the standard of living at a time when almost all lived in abject poverty with survival an ever presence risk. What these men did not realize is that they were building the foundation for the Industrial Revolution that would reduce the human existence then around 95% or more of the population living short lives on the edge of starvation and pestilence to today’s only 15% worldwide.

Why Priestley (or Darwin or Franklin) among 800 million human beings on the planet in 1770 and why then? One reason is tools, evolving tools with which to experiment and measure. Another is he was intelligent, self-motivated, and focused person who allowed thoughts to lurk in the background for thirty years, growing and evolving and connecting with each new milestone in his career. Think of Charles Darwin's glacial pace of "discovery" of natural selection. The pattern of long cultivation in Priestley's life also applies in his draft on the centuries of distortions of Christianity, writings that he filed away in his drawer in the 1750's to emerge twenty years later as a cohesive and brilliant dismantling of contemporary Christian beliefs, a Jeffersonian theme as well. Yet another example is his youthful hunches about restructuring the education system which played a parallel role in the Priestley-Jefferson friendship as Jefferson was developing the curricula for the University of Virginia. A third was his outlook. The thinkers in countless other cultures had imagined themselves living at the apex of history and human understanding, but Priestley added the crucial caveat that changed human perceptions: This is only the beginning!

Priestley had a hand in the ideas behind the colonial struggle. Priestley's 1768, *Essay on the First Principles of Government*, expanded on Lockean ideas and the concept of separation of church and state. Priestley published in 1774, "*Protestant Dissenters of All Denominations*" at Franklin's suggestion that specifically focused on the "chains for America" advising voting against all members supporting England's repressive policies toward the colonies. Franklin friends, Priestley and Richard Price, had become the most well-known British supporters of the American cause. Samuel Johnson remarked, "Ah,

Priestley. An evil man, Sir. His work unsettles everything.” Upon the latter, he was right.

Priestley was a compulsive sharer. Openness in science works well as it adds pieces to the puzzle of understanding nature that others build upon toward the common objective of increased knowledge. Openness in theological exploration is said to work well also-- in an environment of religious tolerance and spiritual exploration but requires that one stay attuned to the dynamics in that ever-changing tolerance. Here Priestley routinely came up short. Openness in politics works well as long as one’s concepts and perspectives are carefully phrased so as to not be seen as overly threatening to those currently in power. In hindsight, the late 1780’s was a time for tact, a quality unknown to Priestley. Politics can align brutal and morally corrupt forces against the perceptions one is attempting to share. This time the **political** tool was instigating a theological backlash and firestorm by a drunken mob bent on killing Priestley that ended up with the burning of four dissenting meeting houses, Priestley’s home, laboratory, and the homes of a number of his friends including the loss of many lives. Priestley and his family were saved by alert neighbors. The family was forced into hiding and escaped to America.

Here’s what happened. The final crisis that sent Priestley into exile was prefaced by three main controversies during the 1780’s. The first was Priestley’s 1782 publication of the *History of the Corruptions of Christianity*, that historical deconstruction from the Latin and Greek to the modern Church, isolating every instance of magic and mysticism

ranging from the divinity of Jesus to the worship of and praying to the saints and identifying the historic path to those errors. (Some of Priestley's peers saw the conundrum of his ongoing belief in the concept of God itself—the ultimate in supernatural thinking.)

What we know for certain is that *Corruptions* made an indelible impression on Jefferson. Twenty years later, he would write to John Adams: “I have read *Corruptions of Christianity and Early Opinions of Jesus* over and over again; and I rest on them...as the basis of my own faith.” Shortly after assuming the presidency in 1801, Jefferson wrote a letter to Unitarian Physician Benjamin Rush, a co-signer of the Declaration of Independence, directly referencing Priestley: “I am a Christian, in the only sense in which he wished anyone to be: sincerely attached to his doctrines in preference to all others...To the corruptions of Christianity I am indeed opposed, but not to the genuine precepts of Jesus himself.” For most of his adult life, he had struggled to reconcile faith in reason with a faith in the Christian God. “I am a sect by myself, as far as I know,” he wrote. Priestley's *Corruptions* showed him the way out. Christianity was not the problem; it was the warped, counterfeit version that had evolved over the centuries that he could not subscribe to. Another reason *Corruptions* was such a hit with Jefferson is that it was the type of story he liked to hear. An original state of purity, grace, and moral cohesion subsequently contaminated. A long-lost time and place where people lived together in perfect harmony without coercive laws or predatory rulers subsequently viciously warped by generations of kings and priests. Of course, in England, *Corruptions* unsettled the church part of the existing English church-state meld.

The second controversy was Priestley's response in the form of a 1785 sermon and pamphlet called *The Importance of Free Enquiry*. It included a rallying cry for the Unitarian movement: "...we are gaining ground every day," he preached as he began to climb a ladder of metaphors: "sowing seeds toward a bountiful harvest," then upping the ante to "a volcano lying dormant which, in proper circumstances, acts with the greatest violence." And the final step of "laying gunpowder, grain by grain under the old building of error and superstition ...to produce an instantaneous explosion... overturning...such that the same foundation can never be built upon again." One of the Lunar Men, Joseph Wedgewood, exercising his better judgment honed in the business world, had advised Priestley to cut the "gunpowder" part. It didn't help matters that Priestley delivered the sermon on Guy Fawkes day, the anniversary of Fawkes' 1605 failed attempt to blow up Parliament to protest the anti-Catholic laws of two centuries earlier. The address became forever known as the "Gunpowder Sermon" and Priestley picked up the nickname "Gunpowder Joe."

The final of the three controversies was Priestley's congratulatory note to Price on Price's sermon connecting the American and French Revolutions in which Priestley wrote, "the liberty, both of that country and America, and of course all of those other countries that, it is to be hoped, will follow their example." Implied support by high-profile Gunpowder Joe of a direct revolution against the English King and government was not exemplary of a skilled communicator wishing to further influence the future of church and state.

Edmund Burke dismissed the Priestley, Price, et al as a pack of naïve idealists

“unacquainted with the world in which they are so fond of meddling, and inexperienced in its affairs, in which they pronounce in such confidence.” He playfully alluded to Priestley’s book, *Observations on Air*, and his soda water invention commenting upon the “wild gas...(that) has plainly broke loose...” Events would ultimately prove Burke right as even Priestley’s cohort, the air scientist Lavoisier in Paris, would eventually go to the guillotine. More than gas broke loose and Priestley in his naiveté never saw it coming.

So Gunpowder Joe ended up on the banks of the Susquehanna in the middle of Pennsylvania continuing his philosophizing in several insightful and valuable ways and shortly got crosswise with the Adams administration, including efforts to deport him via the freedom-suppressing Alien and Sedition Act. Only Adam’s intervention stopped that.

Jefferson, shortly after his inauguration replacing Adams, wrote a letter to his friend Priestley. Rather than distance himself from the eclectic minister, he would embrace him, in what would prove to be one of the most important letters in the immense archive of Jefferson correspondence. After an extraordinary tribute to Priestley in the salutation, Jefferson attacked the abuses of the previous administration that he stated were “the real grounds of all the attacks on you.” (By abuses, Jefferson meant the Alien and Sedition Act and the thrust toward bigger government more immune to having to listen to “We, the people...” which Priestley had opposed in his typical high-profile way.) Perhaps

inspired by the legendary optimism of Priestley himself, Jefferson then added some of the most stirring hopeful words that he ever put to paper:

*We can not longer say there is nothing new under the sun. For this whole chapter in the history of man is new. The great extent of our Republic is new. Its sparse habitation is new. The mighty wave of public opinion which has rolled over it is new... The order and good sense displayed in this recovery from delusion... bespeaks a strength of character in our nation which augurs well for the duration of our Republic...*

The inaugural letters made it clear how much each man owed the other: Priestley had shown Jefferson a way out of his religious impasse; he had composed at great peril to himself the most rousing defense of their common values during the Alien and Sedition controversy; and, in the coming years, Priestley would help Jefferson plan out the curriculum for the new university that would be a key part of Jefferson's intellectual legacy, returning Priestley to his original passion for educational reform. Jefferson, in turn, had been Priestley's great champion and protector inside the Adams administration, and had now offered him from his position as chief executive, "the protection of those laws which were made for the wise and good." How more appropriate than to have adjacent UU districts named for these two men?

Did Joseph Priestley turn the deist, Thomas Jefferson, into a Christian? The controversy among historians and theologians over Jefferson's words inspired by Priestley continues: "I am a Christian, in the only sense in which he wished anyone to be: sincerely attached to his doctrines in preference to all others..." By extracting the magic and miracles, the saints and spiritual elite, from the early writings and the products of the negotiations among the early clergy, some would argue there is not enough left to define a Christian.

Some demand a belief in the supernatural, or at least the spiritualistic portions, is the mandatory minimum to fit the bill. Others disagree. Or maybe Jefferson who wrote these words as he advanced to the Presidency was merely tired of his political opponents' accusations of atheism and needed to focus on the challenges ahead thus swept what he might have seen as a non-productive controversy out the back door.

That's certainly a tempting thought to sometimes say dismissively: "Yah, I'm a Christian, now lets work together to get something substantive done."

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