

# The anti-Newtonian roots of the American Revolution

by Philip Valenti

*We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are Life, Liberty, and the pursuit of Happiness.*  
—U.S. Declaration of Independence

One of the most persistent, destructive historical myths, is the one which claims that the American revolution against Britain was inspired by British liberal philosophy.

The original documents of U.S. history show, that, excepting those Presidents who were sympathetic to the New England opium-runners or the pro-slavery faction, the United States government recognized the British monarchy as the principal enemy of the United States, from our 1776 Declaration of Independence, until 1901. Even as late as the middle 1930s, the U.S. maintained a plan for war against British aggression, "War Plan Red." The leaders of both sides, the Americans and the British, recognized then, that the 1776-1783 U.S. war for independence was the consequence of an irreconcilable conflict over fundamental issues of political and moral principle, the same issues of the 1940-1945 wartime conflict between Franklin Roosevelt and Winston Churchill, the conflict which persists to this present day.

Later, during the incumbency of two Presidents, Teddy Roosevelt and Woodrow Wilson, who were each shamelessly overt admirers of the tradition of the Confederacy, a lying myth was fabricated. That myth proposes, that the American Revolution was merely the accidental result of excessively bad British government policy at the time, not the consequence of a fundamental conflict in political and moral philosophies. That myth was employed to justify a "special relationship," with our ancient enemy, Britain. This "special relationship," launched under those two rabidly Anglophile Presidents, paved the way to two world wars, economic depression, and the continuing genocides of the Twentieth Century.

The hub of falsehood around which that Anglophile's myth revolves, is the baseless supposition, that the strongest influences on the American founders include the political philosophy of John Locke (1632-1704), and his predecessor Thomas Hobbes (1588-1679), as well as the allegedly rational-scientific system of Isaac Newton (1642-1727). In this report, we examine some of the documentary proof that ex-

actly the opposite was true. The characteristic belief of the leading Americans, as typified by the case of Benjamin Franklin, was their commitment to eradicate any influence of Locke or Hobbes upon the law and political institutions of these United States.

## What the Americans opposed

The leading common features of the philosophy of Locke, Hobbes, and Newton, are centered around a handful of assumptions. All of these presume that the world is composed of "hard atoms," or isolated individuals, each pursuing its separate, sensuous passions and pleasures, while avoiding pain, and, as in the words of Hobbes, all in "a condition of War of every one against every one."

These English philosophers argued, that to form society, the individuals must agree to certain rules of interaction, called a "social compact," much as "hard atoms" in the Newtonian system are made to interact, pair-wise, according to a "law of universal gravitation."

They insisted, that the purpose of such a society, or government, is not "to promote the General Welfare," nor "to secure the Blessings of Liberty to ourselves and our Posterity," nor to secure the inalienable rights of "Life, Liberty, and the Pursuit of Happiness." Locke insisted, that the individual "seeks out and is willing to join in society with others who are already united, or have a mind to unite for the mutual preservation of their lives, liberties and estates, which I call by the general name—Property."

Locke argues: "The great and chief end, therefore, of men uniting into commonwealths, and putting themselves under government, is the preservation of their Property"<sup>1</sup> (emphasis added). Thus, both Hobbes and Locke banished morality from the world, and replaced it with arbitrary rules—a "contract," enforced by those wielding the most power, or owning the most property—a Godless system of permanent war and exploitation, later named The British Empire.

Meanwhile, Newton's imaginary, purposeless Universe of hard atoms interacting in the void of "empty space," nicely complemented this immoral political theory, since, due to

1. John Locke, *Essay Concerning Civil Government* (Chicago: Encyclopedia Britannica, Inc., 1952).

friction among atoms and worsening irregularities in planetary orbits caused by gravitational interaction, his Universe was continually “winding down” towards ultimate “heat death,” no matter what “good” might be done by human beings. Consistently, Newton spent the last 30 years of his life as a well-paid, ruthless, political hatchet man for the Bank of England, in the posts of Warden and Master of the British Mint.

The great antagonist of Hobbes, Locke, and Newton and of the budding British Empire of the late Seventeenth and early Eighteenth Century, was Gottfried Wilhelm Leibniz (1646-1716). Leibniz became so bitterly hated and feared by the British establishment, that the name and works of this leading scientist of the past three centuries are banned from the *Encyclopedia Britannica*'s so-called “Great Books of the Western World” to the present day. Leibniz also remained the special object of scorn of Lord Bertrand Russell to the end of Russell's corrupt life. It was Leibniz who attempted to engage “the sharp-witted Englishman, Thomas Hobbes” in a public debate, denouncing his “truly wicked principles.”

It was Leibniz who wrote a 700-page, point-by-point refutation of Locke, Leibniz's *New Essays on Human Understanding* (1704), after Locke, like Hobbes, refused to answer Leibniz's correspondence. In those *New Essays*, Leibniz prophetically condemned the followers of Locke who “will be capable, for their pleasure or advancement, of setting on fire the four corners of the earth. . . . Boldly they scoff at the love of country, they ridicule those who care for the public, and when any well-meaning man speaks of what will become of posterity, they reply: ‘We shall see when the time comes.’”

“But these persons will possibly experience themselves the evils they think reserved for others. If, however, this disease of an epidemic mind, whose bad effects begin to be visible, is corrected, these evils will perhaps be prevented; but if it goes on increasing, *Providence will correct men by the revolution itself which must spring therefrom*” (emphasis added).

It was Leibniz who devastated the imaginary Newtonian Universe, and whose relentless polemics provoked a momentous public debate (1715-1716) with Newton's controllers, the Venetian Abbot Antonio Conti (1677-1749), and Conti's agent, Dr. Samuel Clarke (1675-1729).

Leibniz wrote: “Natural religion itself seems to decay [in England] very much. Many will have human souls to be material; others make God himself a corporeal being.

“Mr. Locke, and his followers, are uncertain at least, whether the soul is not material, and naturally perishable. . . .”

“Sir Isaac Newton and his followers also have a very odd opinion concerning the work of God. According to them, God Almighty needs to wind up his watch from time to time, otherwise it would cease to move. He had not, it seems, sufficient foresight to make it a perpetual motion. No, the

machine of God's making is so imperfect, according to these gentlemen, that he is obliged to clean it now and then by an extraordinary concourse, and even to mend it, as a clockmaker mends his work, who must consequently be so much the more unskillful a workman as he is more often obliged to mend his work and set it right.”

Leibniz's threat to the infant British Empire was not limited to the realm of ideas alone. Until her death in June of 1714, Leibniz's protector and loyal student, the Electress Sophia of Hanover, was next in the line of succession to the British throne, a succession established 13 years earlier as a result of Leibniz's tireless historical researches, combined with the actions of his political allies within England.

In order to discredit and defame Leibniz in England, and forestall the real possibility that he might soon become the next Queen's Prime Minister, the “Newton-Leibniz controversy,” over priority in the discovery of the calculus, was concocted by the British Royal Society as a *desperate political ploy*. On April 12, 1712, Leibniz was officially condemned as a thief and plagiarist of the English hero Newton, in a Royal Society report drafted by Newton himself! From then on, the Leibniz-Newton conflict defined the moral dividing line in science and politics throughout Europe.

With the untimely deaths of both Sophia and the reigning Queen Anne in 1714, the succession fell to Sophia's anti-Leibniz son, the brutish George Louis, who became the British King George I. With Leibniz so clearly identified as the leading adversary of British philosophy, what greater refutation of the myth of British influence on America can be demanded, than to demonstrate that the intellectual leadership of colonial America *openly took the side of Leibniz, against Newton and the British establishment?*

James Logan (1674-1751), scientist, classical scholar, secretary to William Penn, and owner of the greatest library of classical works in the colonies, not only expressed his support for Leibniz against Newton on the issue of the calculus, but questioned Newton's mathematical and mental competence.

In a 1727 letter to England, Logan exposed the political nature of the controversy, expressing the wish that Newton had been “gathered to his ancestors,” and the succession accomplished, “by the year 1710, before that fierce unnatural dispute broke out between him and Leibniz, which I always believed was blown up by the forces of the [Royal] Society in opposition to the House that had so long employed Leibniz. . . .”

When Benjamin Franklin, Cotton Mather's Boston protégé, and Franklin's talented young friends formed their Philadelphia “Junto” in 1727, and began to frequent his home and library, Logan resolved to write his own refutation of Hobbes, Locke, and Newton for their benefit. This work, “The Duties of Man as they may be Deduced from Nature,” begun in 1735, was “lost” until 1971, when it was rediscovered under a pile of account books in a carton of documents

bequeathed to the Historical Society of Pennsylvania, where the 400-page manuscript lies unpublished today.

In the light of Logan's direct polemic against the evil of British philosophical liberalism, we may achieve not only the further refutation of the infamous myth, but also establish the fact that Benjamin Franklin's most celebrated scientific discovery, his "kite and key" experiment proving the identity of lightning with electricity, was itself intended to refute the Newtonian system.

### Locke and Newton as enemies of America

The American Revolution was directed not only against the corrupt ideology of Locke and Newton, but also against the very institutions and policies which both of them had personally labored to establish. Locke especially was a dedicated and declared enemy of American liberties, and of every principle of justice and morality upon which a republican form of government may be founded.

Locke was a prototype of the well-paid populist "neo-conservative" demagogue. He managed to amplify simple-minded populist nostrums—such as "balanced budget," "free market," and "free trade"—into shameless justifications for each and every crime of the British Empire. During his career as an imperialist functionary and propagandist, Locke advocated, among other wickedness: usury, feudalism, black chattel slavery, white slavery (serfdom), forced child labor, and the unbridled taxation, exploitation, and political repression of the American colonies.

A crucial step towards the creation of Locke's and Newton's Empire was accomplished in 1694, with the foundation of a private corporation called the "Governor and Company of the Bank of England." The Bank was intended by its chief controllers, the financier Charles Montague (made Chancellor of the Exchequer in 1694) and his Dutch backers, to be the sole creditor of the English monarchy in its continuous wars against France, and to thereby achieve a financial stranglehold over state policy. As government debt zoomed upward, secured by future revenues, so would looting of the colonies, via the land tax, malt tax, stamp tax, and other oppressive measures, later excoriated in the Declaration of Independence.

However, until its 1714 defeat, with the death of Queen Anne, a powerful "national party" opposed to imperialism still existed in England, rallied around the political figures of Jonathan Swift and English patriot Robert Harley. Harley's parliamentary faction launched a series of bold economic and political initiatives directly counter to the imperialist design. These included:

1. proposed 1691 legislation to limit interest rates to 4%;
2. the establishment of a Public Accounts Commission of the House of Commons, to investigate corrupt practices of the City of London financial district and its agents in government;
3. causing the publication in 1696 of Daniel DeFoe's

"Essays Upon Several Projects," which attacked the Bank of England and proposed that it be placed under "public authority":

"[A] bank might be very beneficial to this kingdom; and this might be so if either their own ingenuity or public authority would oblige them to take the public good into equal concern with their private interest.

"To explain what I mean:—

"Banks being established by public authority, ought also, as all public things are, to be *under limitations and restrictions from that authority*, and those limitations and restrictions being regulated with a proper regard to the ease of trade in general and the improvement of the stock in particular, would make a bank a useful, profitable thing indeed." (emphasis added)

DeFoe also insisted that interest rates be limited to 4%.<sup>2</sup>

4. the authorization of a National Land Bank by parliament in February 1696, designed as a direct competitor and alternative to the Bank of England. The commissioners of the Land Bank were mandated to raise a sum of £2,564,000 to be loaned to the government at 7% interest, secured by a tax on salt. In exchange for the loan, the subscribers would be granted a corporate charter.

However, the sole financial operation of the Bank, required by law as DeFoe had demanded, would be to lend at least £500,000 annually on the security of land, at a maximum rate of interest of 4%. The Land Bank was intended as a government-regulated source of low-cost credit for improvement of farming and the construction of homes and factories, to undercut and destroy the money monopoly of the Bank of England.

By the end of 1696, each of these economic initiatives had been crushed by the imperialist forces, and the Bank of England's monopoly secured by an Act of Parliament. One last hope remained to yet strangle the new Empire in the cradle—the "Leibniz card."

Basing itself upon Leibniz's exhaustive historical and legal researches since his 1676 appointment as court librarian in Hanover, the Harley faction passed the Act of Settlement in March 1701, providing that the House of Hanover should succeed to the English throne upon the death of the childless Queen Anne. With his brilliant student, the Electress Sophia, thus next in line to become Queen of England, Leibniz became the rallying-point of republican forces all over the English-speaking world, including the American colonies.

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2. DeFoe's Essays went on to discuss means of improving the highways, and of establishing insurance companies, "friendly societies" for seamen and widows, a pension office, an academy for women, an academy for military exercises, etc. In his autobiography, Benjamin Franklin, discussing his childhood studies and the content of his father's library, noted, "There was also a book of DeFoe's, called an Essay on Projects, and another of Dr. [Cotton] Mather's, called an Essay to do Good, which perhaps gave me a turn of thinking that had an influence on some of the principal future events of my life."

Throughout all this, the evil, grasping Locke, himself a founding investor in the Bank of England, together with the pathetic misanthrope Newton, each revealed himself as eager lackeys of the Empire, and enemies of American liberties.

To counter proposals to limit interest rates, Locke was commissioned to produce a propaganda tract in defense of usury. His 1691 booklet, "Some considerations of the Consequences of lowering the Interest and raising the Value of money," argues that any law capping interest rates must fail, since it will always be evaded and violated by the rich. Shedding crocodile tears, Locke argues that such a law "will be a prejudice to none, but those who most need assistance and help; I mean widows and orphans, and others uninstructed in the arts and management of more skillful men. . . ."

That Locke was speaking from personal knowledge on this score, is indicated by one biographer, who references a large sum of money lent by Locke to a David Thomas, who subsequently died. "There were complaints by Mrs. Thomas," the account continues, "that Locke had demanded *too much interest*" (emphasis added). The widow, however, paid up.<sup>3</sup>

Invoking the "free market," Locke insists that the rich man has the right to charge the "natural interest" for his idle money, without interference by government or moral considerations, and goes on to ridicule the idea that low interest rates would encourage economic growth through investment in agriculture and manufacture. He rejects production as a source of wealth, in favor of mere buying and selling, using populist "balanced budget" jargon:

"It is with a kingdom as with a family. Spending less than our commodities will pay for, is the sure and only way for the nation to grow rich."

Accordingly, Locke argues that England can only accumulate wealth at the expense of the rest of the world, through control of world trade. Commerce, he says, will do for England what conquest did for Rome:

"In a country not furnished with mines, there are but two ways of growing rich, either conquest or commerce. By the first the Romans made themselves masters of the riches of the world; but I think that, *in our present circumstances*, nobody is vain enough to entertain a thought of our reaping the profits of the world with our swords. . . ."

"Commerce, therefore, is the only way left to us. . . ." (emphasis added).

Four years later, Chancellor of the Exchequer Montague again called upon Locke, to develop a scheme designed to financially bankrupt the anti-imperialists and sabotage the National Land Bank. This became the "Great Recoinage."

When a financial crisis hit England in 1695, within a year of the founding of the Bank of England, Montague blamed the "clipping" of English coins for the country's economic

problems. "Clipping" was a long-standing form of counterfeiting, which simply involved cutting off the edges of silver coins, and melting the collected clippings into bullion.

Harley's national party, represented by Secretary of the Treasury William Lowndes, proposed to solve the problem with the minimum disruption of the economy. Arguing correctly that the value of the currency should be regulated in the best interest of the nation, Lowndes proposed that the Mint produce new milled coins 25% lighter in silver content than the existing standard, so that a new shilling would have about the same silver content as a clipped shilling in circulation. Holders of clipped coins could then simply surrender them into the Mint for an equal face value of new money, and go about their business.

Locke responded with his "Further Considerations Concerning Raising the Value of Money," denouncing Lowndes for "defrauding" landlords and creditors, and demanding that the Mint produce new coins containing the full silver content of the existing standard. He insisted, therefore, that someone holding 100 clipped coins, should turn them in to the Mint and receive only 75 new ones in return! Locke was demanding that the savings of the average Englishman be cut by 25% or more in one stroke.

Montague introduced legislation based on Locke's plan, which passed into law on Jan. 21, 1696. The scheme provided that clipped money would no longer be recognized as legal tender as of May 4, 1696, to be replaced by new money *at an undetermined future date*.

To manage his recoinage, Montague required an unscrupulous individual, who would not shrink from impoverishing his poor countrymen, and ruthless enough to enforce the penalty of death against alleged counterfeiters. He also required someone of sufficient reputation, to thwart the vigilant investigators of Harley's Public Accounts Commission. Accordingly, Isaac Newton was appointed Warden of the Mint on April 13, 1696. For the next three years, Newton managed the recoinage, personally handling the prosecution of even the pettiest counterfeiter, advocating the death penalty wherever possible, opposing all pardons or remissions, and eventually being rewarded with the lucrative post of Master of the Mint in 1699, which he held until the end of his life.

The National Land Bank legislation passed into law on April 27, one week before much of the money in the kingdom was scheduled to be removed from circulation by Newton's Mint. The Land Bank predictably failed to fulfill its subscription, and passed out of existence.

## Locke's war against America

As the imperialist faction seized control of English finances, it turned its attention towards the colonies. American leaders such as the Winthrops and Mathers in Massachusetts (see article, p. 42), and William Penn and James Logan in Pennsylvania, had taken full advantage of the political turbulence within England, to promote colonial self-govern-

3. Maurice Cranston, *John Locke—A Biography* (New York: MacMillan, 1957).

ment and independent economic development. This included the creation of a government-issued paper currency in Massachusetts for the promotion of farming and manufactures, an “American System” of economics later developed by Benjamin Franklin and Alexander Hamilton, and enshrined by them in Article One, Section Eight of the U.S. Constitution.

For these American leaders, the colonies were “as a city upon a hill” (John Winthrop), and “the seeds of nations” (William Penn). Locke’s faction was determined to assault that hill, and destroy that city.

A royal patent was issued May 15, 1696 to establish a commission of trade and plantations, also known as the Board of Trade. This Board was to control British policy towards America, as well as all other British possessions throughout the world, enforcing the very policy of looting, exploitation, and inhumanity which led to the American Revolution. The Board was officially abolished in 1782, but the policy continued in other forms up to the present day.

Ironically for those deluded souls who accept the myth of Locke’s influence upon the ideas of American independence, the same John Locke was appointed a founding member of the Board of Trade, and proved himself the greatest imperialist and most implacable enemy of America.

Locke had revealed his intense hostility to American liberties almost 30 years before, as a paid functionary of the aristocrat Lord Ashley, later the First Earl of Shaftesbury. When King Charles II revoked all earlier patents and granted the territory of Carolina to eight “lords proprietors,” including Ashley, Locke became the company’s chief secretary. In that capacity, he wrote the “Fundamental Constitutions for the Government of Carolina” in 1669, an abominable plan to transplant European-style feudalism to America.

Locke’s preamble stated: “that we may avoid erecting a numerous democracy,” Locke’s “constitution” established the eight lords proprietors as a hereditary nobility, with absolute control over their serfs, called “leet-men”:

“XIX Any lord of a manor may alienate, sell, or dispose to any other person and his heirs forever, his manor, all entirely together, with all the privileges and leet-men there unto belonging. . . .

“XXII In every signory, barony and manor, all the leet-men shall be under the jurisdiction of the respective lords of the said signory, barony, or manor, without appeal from him. Nor shall any leet-man, or leet-woman, have liberty to go off from the land of their particular lord, and live anywhere else, without license from their said lord, under hand and seal.

“XXIII All the children of leet-men shall be leet-men, and so to all generations.”

Black chattel slavery received particular sanction and protection under Locke’s law:

“CX Every freeman of Carolina shall have absolute power and authority over his negro slaves, of what opinion or religion soever.”

From 1672-74, Locke served as secretary of King Charles

II’s Council of Trade and Foreign Plantations (at the same time profiting from personal investments in trade with the Bahamas). Locke’s Council passed the infamous Navigation Acts, enforced by the punitive Plantation Duties Act of 1673, imposing onerous taxes on colonial trade, restricting it to English vessels, and prohibiting trade with foreign countries by requiring that all colonial goods be shipped “to England, or Wales, or the town of Berwick upon Tweed, and to no other place, and there to unload and put the same on shore.”<sup>4</sup>

Throughout this period, Massachusetts remained in the forefront of American resistance to Lockean oppression, under the inspired leadership of Increase and Cotton Mather. When the Crown’s agent Edward Randolph demanded submission to the Navigation Acts and the effective revocation of the Massachusetts charter, Increase Mather warned his countrymen, “We shall sin against God if we vote an affirmative to it.” He attacked the Crown’s demands as a “Plot then managing to produce a General Shipwreck of Liberties,” and as “inconsistent with the main end of their fathers’ coming to New England. . . . Let them put their trust in the God of their fathers, which is better than to put confidence in princes.”<sup>5</sup>

Massachusetts was finally forced to submit to royal domination in 1691, a disaster which later led Cotton Mather to deploy his young protégé Benjamin Franklin out of Boston, to James Logan’s Philadelphia.

With Locke’s appointment as a Commissioner of Trade in 1696, proposals for a more vigorous subjugation of America were generated at a furious pace, including suppression of colonial paper currencies, and the appointment of a royal prosecutor in each American colony under the personal direction of Locke’s crony Edward Randolph, the same tyrant earlier deployed against Massachusetts.<sup>6</sup>

A new Navigation Act was promptly passed in 1696, adding strict enforcement provisions targeting the alleged “artifice and cunning of ill-disposed persons.” Locke’s scheme included:

- requiring all colonial governors and commanders in chief to “take a solemn oath” to enforce the letter of the law, upon the penalty of a massive fine and removal from office;
- granting customs officials broad powers of search and seizure;
- declaring that all colonial “laws, by-laws, usages or customs” contrary to the Act “are illegal, null and void, to all intents and purposes whatsoever. . . .”
- authorizing customs officials to “constitute and appoint such and so many officers of the customs in any city, town, river, port, harbour, or creek, . . . when and as often as to them shall seem needful. . . .”

4. Jack P. Greene, ed., *Settlements to Society, 1584-1763* (New York: McGraw-Hill, 1966), p. 139.

5. Quoted in H. Graham Lowry, *How the Nation Was Won* (Washington, D.C.: Executive Intelligence Review, 1987), pp. 28-29.

6. *John Locke—A Biography*, p. 420.

- permitting juryless vice-admiralty courts to try cases arising under the Act;
- explicitly prohibiting colonial trade with Scotland and Ireland, along with all foreign countries, “unless the same have been first landed in the kingdom of England, dominion of Wales, or town of Berwick upon Tweed, and paid the rates and duties wherewith they are chargeable by law, under the penalty of the forfeiture of the ship and goods. . . .”<sup>7</sup>

Locke’s Navigation Act was quickly followed by the Woolen Act of 1699, prohibiting the export of all woolen products from America, along with other measures designed to suppress colonial manufacturing, and force the colonies to remain a source of cheap raw materials for the mother country.

Soon after his retirement from the Board of Trade for reasons of health, Locke’s anti-American policy was totally endorsed in the Board’s infamous Report of March 26, 1701, which demanded revocation of all American colonial charters and imposition of direct imperial rule.

So, far from inspiring the ideas of American independence, John Locke and his faction, including Newton, were responsible for initiating that “long train of abuses and usurpations,” leading to the revolution against the very empire which they had worked to create.

In fact, the Declaration of Independence specifically condemned several of the despotic measures originally imposed by Locke himself, as later enforced by King George III and the British Parliament, “all having in direct object the establishment of an absolute Tyranny over these States”:

“He has combined with others to subject us to a jurisdiction foreign to our constitution and unacknowledged by our laws; giving his Assent to their Acts of pretended legislation; . . . For cutting off our Trade with all parts of the world; for imposing Taxes on us without our Consent; For depriving us in many cases of the benefits of Trial by Jury; . . . For taking away our Charters, abolishing our most valuable Laws and altering fundamentally the Forms of our Governments; For suspending our own Legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.”

John Locke’s theoretical writings also reveal him as the consummate philosopher of Oligarchy, on the model of Venice, as Hobbes was the philosopher of Tyranny, both being virulent opponents of republican ideas.

The classic definition of oligarchy was provided by Plato in his dialogue *The Republic*, as, “The regime founded on a property assessment, in which the rich rule and the poor man has no part in ruling office.”<sup>8</sup>

Locke could not be more explicit. His major political treatise, the 1690 “Essay Concerning The True Original Ex-

tent And End Of Civil Government” (written to justify the overthrow of the hereditary monarch James II in the 1688 “Glorious Revolution”), purports to prove that “government has no other end but the preservation of property.”

Locke argues that Man once existed in a dog-eat-dog “state of Nature,” like Hobbes’s “war of each against all.” Instead of subjecting himself to the will of one man—the tyrannical monarch of Hobbes’s *Leviathan*—“he seeks out and is willing to join in society with others who are already united, or have a mind to unite for the mutual preservation of their lives, liberties, and estates, which I call by the general name—*property*.”

“The great and chief end, therefore, of men uniting into commonwealths, and putting themselves under government, is the preservation of their property, to which in the state of Nature there are many things wanting.”

And further: “The great end of men’s entering into society being the enjoyment of their properties in peace and safety. . . . to preserve their lives, liberties, and fortunes, and by stated rules of right and property to secure their peace and quiet. . . . For the preservation of property being the end of government, and that for which men enter into society . . . to preserve the members of that society in their lives, liberties, and possessions. . . . The reason why men enter into society is the preservation of their property. . . .”

And so forth *ad nauseam*.

On this basis, Locke creates a cold-blooded justification of human slavery, by insisting that a person without property has no rights at all:

“These men having, as I say, forfeited their lives and, with it, their liberties, and lost their estates, and being in the state of slavery not capable of any property, cannot in that state be considered as any part of civil society, the chief end whereof is the preservation of property.”

That Locke was an inveterate enemy of the concept of inalienable human rights, and an unabashed oligarchist, is also seen in his wicked project for enslaving the poor of England.

As the economic policies of Locke’s imperial faction impoverished the country at an accelerating rate, the streets had become filled with whole families of destitute beggars. Accordingly, the original royal commission for the Board of Trade required it “to consider of some proper methods for setting on worke and employing the Poore of Our said Kingdome, and making them useful to the Publick, and thereby easing Our Subjects of that Burthen. . . .” (original spelling preserved).

Locke drafted a comprehensive plan, including a monstrous scheme of forced child labor called the “working school,” and presented it to the Board in 1697:

“The multiplying of the poor, and the increase of the tax for their maintenance, is so general an observation and complaint that it cannot be doubted of. . . . If the causes of this evil be well looked into, . . . it can be nothing else but

7. Greene, *op. cit.*, pp. 210-215.

8. *The Republic of Plato*, Allan Bloom trans. (New York: Basic Books, Inc.), section 550d.

the relaxation of discipline and corruption of manners; . . .

“The first step, therefore, towards the setting of the poor on work, we humbly conceive, ought to be a restraint of their debauchery. . . .

“But for the more effectual restraining of idle vagabonds, we further humbly propose that a new law may be obtained, by which it be enacted,

“That all men sound of limb and mind, above fourteen and under fifty years of age, begging in maritime counties out of their own parish without a pass . . . be sent to the next seaport town, there to be kept at hard labour, till some of his majesty’s ships, coming in or near there, give an opportunity of putting them on board, where they shall serve three years, under strict discipline, at soldier’s pay (subsistence money being deducted for their victuals on board). . . .

“That all men begging in maritime counties without passes, that are maimed or above fifty years of age, and all of any age so begging without passes in inland counties nowhere bordering on the sea, shall be sent to the next house of correction, there to be kept at hard labour for three years. . . .

“That, if any boy or girl, under fourteen years of age, shall be found begging out of the parish where they dwell (if within five miles’ distance of the said parish), they shall be sent to the next working school, there to be soundly whipped and kept at work till evening. . . . Or, if they live further than five miles off from the place where they are taken begging, that they be sent to the next house of correction, there to remain at work six weeks. . . .”

Locke’s ruthlessly malevolent design extended to “the children of labouring people,” complaining that they “are usually maintained in idleness, so that their labour also is generally lost to the public till they are twelve or fourteen years old.”

Locke’s inhuman plan speaks for itself:

“The most effectual remedy for this that we are able to conceive, and which we therefore humbly propose, is, that, in the fore-mentioned new law to be enacted, it be further provided that working schools be set up in every parish, to which the children of all such as demand relief of the parish, above three and under fourteen years of age, whilst they live at home with their parents, and are not otherwise employed for their livelihood by the allowance of the overseers of the poor, shall be obliged to come.

“By this means the mother will be eased of a great part of her trouble in looking after and providing for them at home, and so be at the more liberty to work; the children will be kept in much better order, be better provided for, and from infancy be inured to work. . . .

“If therefore care be taken that they have each of them their belly-full of bread daily at school, they will be in no danger of famishing. . . . And to this may also be added, without any trouble, in cold weather, if it be thought needful,

a little warm water-gruel; for the same fire that warms the room may be made use of to boil a pot of it. . . .”<sup>9</sup>

## Leibniz exposes Locke’s hoax

Locke’s 1690 *Essay Concerning Human Understanding* is a similarly cynical apology for Oligarchy, full of contemptuous disdain of “innate ideas,” such as universal moral principles and the very concepts of human virtue and love. The same Locke who cold-bloodedly plotted to break up poor families, and herd their three-year-old babies into forced labor, will not even allow the love of parents for their children to be considered “innate.” He shamelessly argues that virtue is “generally approved, not because innate, but because profitable.”

Locke plagiarizes Aristotle’s *tabula rasa*, comparing the human mind to “white paper, devoid of all characters, without any ideas,” and asks, “How comes it to be furnished? . . . To this I answer, in one word, from *experience*.” Human beings, like animals, are creatures of the senses, Locke argues, and are motivated by the pursuit of pleasure and the avoidance of pain:

“Things then are good or evil, only in reference to pleasure or pain. . . . *Happiness*, then, in its full extent, is the utmost pleasure we are capable of, and *misery* the utmost pain.”

Accordingly, Locke reduces morality to arbitrary rules enforced by the powerful, so that basic moral duties, such as “the duty of parents to preserve their children,” cannot, he says, “be known or supposed without a lawmaker, or without reward and punishment. . . .

“Moral good and evil, then, is only the conformity or disagreement of our voluntary actions to some law, whereby good or evil is drawn on us, from the will and power of the law-maker; which good and evil, pleasure or pain, attending our observance or breach of the law by the decree of the law-maker, is that we call reward and punishment.”<sup>10</sup>

As the English “national party” reeled under the political and ideological onslaughts of the imperialists, Leibniz intervened to directly challenge their champion Locke, and rally the opposition.

Leibniz circulated a paper attacking Locke’s *Essay* among his English allies in March 1696, telling his English correspondent:

“You may communicate it to whomever you please, and if it falls into his hands [of Locke], or those of his friends, all the better.”<sup>11</sup>

Leibniz’s friends made sure that Locke personally re-

9. Quoted in H.R. Fox Bourne, *The Life of John Locke* (Bristol, U.K.: Thoemmes, 1991).

10. John Locke, *Essay Concerning Human Understanding*, Book II, Ch. 28, sec. 5. (Chicago: Encyclopedia Britannica, Inc., 1952).

11. G.W. Leibniz, *Sämtliche Schriften und Briefe, 1695-1708* (Berlin: Akademie-Verlag, 1962).

ceived this paper, but, except for cowardly snide remarks communicated privately to his cronies, he refused to respond. While this first critique continued to circulate throughout Europe, Leibniz authored a second attack on the Essay, which was delivered in England by August 1698. Once again, Locke dodged any direct response, but by then an open and vigorous opposition to the Essay had broken out in England, with a friend and correspondent of Leibniz, Thomas Burnet, in the lead.

Burnet's 1697 "Remarks Upon an Essay . . ." questioned Locke's "general Principle of picking up all our Knowledge from our five Senses. . . ."

"As to Morality, we think the great Foundation of it is, the Distinction of Good and Evil, Virtue and Vice, Turpis & Honesti, as they are usually call'd: And I do not find that my Eyes, Ears, Nostrils, or any other outward Sense, make any Distinction of these Things, as they do of Sounds, Colours, Scents, or other outward Objects; . . . or that it consists only in Pleasure and Pain, Conveniency and Inconveniency."

Locke responded publicly to Burnet in the most bitter terms, accusing him of being part of a conspiracy to launch a "Storm" of criticism in order to discredit the Essay!

Burnet replied with biting sarcasm in his "Second Remarks":

"But I know no good Reason you can have for writing in such a snappish and peevish way. . . . There is nothing, I'm sure, in my Words or Expressions that could offend you: It must be in the Sense, by touching, as it may be, upon some tender Parts of your Essay, that would not bear pressing without giving Pain. . . ."

"As to the *Storm* you speak of, preparing against you, I know nothing of it, as I told you before, yet I can blame none that desire such Principles of Humane Understanding as may give them Proofs and Security against such a System as this, Cogitant Matter, a Mortal Soul, a Manichean God (or a God without Moral Attributes,) and an Arbitrary Law of Good and Evil. . . . The ready way to prevent any such *Storm*, is to give such a plain Explication of your Principles, without Art or Chicane, as may cure and remove any Fears of this Nature."

The storm against Locke grew in intensity, however, as the polemics of Leibniz's friends and others exposed the insidious nature of the Essay, and established Locke's affinity to the detestable Hobbes. As one anti-Locke diatribe, approved by several Anglican officials, declared:

"When that Writer [Locke] was framing a New Christianity, he took Hobbes's *Leviathan* for the New Testament, and the Philosopher of Malmesbury for our Saviour and the Apostles. . . ."<sup>12</sup>

(The same author went on, mercilessly ridiculing Locke's pretensions as a physician, as well as a writer: "He hath spent

some time, he saith, in the study of physic, and especially of the guts, which he very feelingly and concernedly discourses of as if they were that part of the body which he most minds. . . . We see the physic has worked, as all the filth and excrements of his papers show. Dirt and ordure and dunghills are the frequent embellishments of his style."<sup>13</sup>)

From 1697-1699, Locke was forced into three public exchanges of open letters with the Anglican Bishop of Worcester, who attacked his degraded notion of the human soul as a material thing, i.e., "thinking matter," and therefore *perishable*, barring the miraculous intervention of God. Leibniz intervened directly into this debate as well, with his "Reflections on the second reply of Locke," circulated by his friends in England, and also delivered personally to the harried Locke.

Leibniz's "Reflections" became the jumping-off point for his *New Essays on Human Understanding*, written between 1700 and 1704, and designed as a chapter-by-chapter refutation of Locke's entire system. Leibniz's arguments therein were rapidly diffused throughout the world via countless correspondences (despite the fact that the work itself evidently remained unpublished until a German edition in 1765, with the first complete English edition delayed until 1895).

"Our differences are on subjects of some importance," Leibniz emphasizes in his Preface. "The question is to know whether the soul in itself is entirely empty, like the tablet on which nothing has yet been written (*tabula rasa*) according to Aristotle and the author of the Essay, and whether all that is traced thereon comes solely from the senses and from experience; or whether the soul contains originally the principles of several notions and doctrines which external objects merely awaken on occasions, as I believe, with Plato, and even with the schoolmen, and with all those who take with this meaning the passage of St. Paul (Romans 2, 15) where he remarks that the law of God is written in the heart."<sup>14</sup>

Leibniz patiently explains that the "innate" creative power of the human mind sets mankind above and apart from the beasts, since "men become more skilled by finding a thousand new dexterities, whereas deer and hares of the present day do not become more cunning than those of past time." He adds ironically: "This is why it is so easy for men to entrap brutes and so easy for simple empirics to make mistakes."

Leibniz demonstrates how Locke is driven to the absurd conclusion that matter can think, as a consequence of his false comparison of the human soul to a "blank tablet," i.e., a material thing. Therefore, Locke can have no answer to the Bishop of Worcester, except to assert that God arbitrarily "adds to the essence of matter the qualities and perfections which he pleases," in this case, immortality!

Locke can provide no rational or moral explanation for

13. Ibid. pp. 430-431.

14. Philip P. Wiener, ed., *Leibniz Selections* (New York: Charles Scribner's Sons, 1951), p. 369.

12. Quoted in Cranston, op. cit., *John Locke—A Biography*, p. 430.





Isaac Newton (left) and his great antagonist, Gottfried Wilhelm Leibniz. Leibniz and his supporters in America thoroughly refuted Newton's immoral and unscientific system. The "Leibniz-Newton controversy" defined the scientific and political battle lines in pre-Revolutionary America.

this assertion, Leibniz shows, other than to cite the authority of . . . Isaac Newton, since Newton also had recourse to the miraculous and irrational to account for the mutual attraction of hard atoms through empty space, i.e., "action-at-a-distance." Leibniz insists, following Johannes Kepler, that the phenomenon of "gravitation" must be scientifically explained, by discovering the true "curvature," or geometry, of space, rather than by inventing an ad hoc mysterious "force" to explain it away.

Having exposed their common irrational premises, Leibniz attacks both Locke and Newton for reviving "occult, or, what is more, inexplicable, qualities . . . ; and in this we would renounce philosophy and reason, by opening asylums of ignorance and idleness. . . ." Leibniz prophetically warns that blind acceptance of the Newtonian dogma would revive a "barbaric" or "fanatical philosophy," like that of the Rosicrucian cultist Robert Fludd:

"They saved appearances by forging expressly occult qualities or faculties which they imagined to be like little demons or goblins capable of producing unceremoniously that which is demanded, just as if watches marked the hours by a certain horodeictic faculty without having need of wheels, or as if mills crushed grains by a fractive faculty without needing anything resembling millstones."

In a discussion significant for future scientific developments in America, Leibniz counters the Newtonian credo of "atoms and the vacuum" by insisting, "It is necessary rather to conceive space as full of an originally fluid matter. . . ." Leibniz rejected Newton's doctrine of "indivisible hard

atoms," arguing that "there always remain in the depths of things slumbering parts which must yet be awakened and become greater and better, and, in a word, attain a better culture. And hence progress never comes to an end."<sup>15</sup> On this basis, for example, Leibniz encouraged the researches of Denis Papin into the "force of fire," leading to the invention of the world's first direct-action steam engine in 1707.<sup>16</sup>

Leibniz also clashes with Locke on the question of the "pursuit of Happiness." Where Locke defines happiness as "the utmost pleasure we are capable of,"<sup>17</sup> Leibniz objects:

"I do not know whether the greatest pleasure is possible. I believe rather that it can grow ad infinitum. . . . I believe then that *happiness is a lasting pleasure*; which could not be so without there being a continual progress to new pleasures. . . . Happiness is then, so to speak, a road through pleasures; and pleasure is merely a step and an advancement towards happiness, the shortest which can be made according to the present impressions, but not always the best. The right road may be missed in the desire to follow the shortest, as the stone which goes straight may encounter obstacles too soon, which prevent it from advancing quite to the center of the

15. "On the ultimate origin of things" (1697), Wiener, op. cit., pp. 354-355.

16. Philip Valenti, "Leibniz, Papin and the Steam Engine: Case Study of British Sabotage," *Fusion*, December 1979. Copies available from the author.

17. *Essay Concerning Human Understanding*, Book II, chapter XXI, section 43.

earth. This shows that it is *the reason and the will which transport us toward happiness, but that feeling and desire merely lead us to pleasure.* . . .

“True happiness ought always to be the object of our desires, but there is ground for doubting whether it is. For often we hardly think of it, and I have remarked here more than once that *the less desire is guided by reason the more it tends to present pleasure and not to happiness that is to say, to lasting pleasure.* . . .”<sup>18</sup> (emphasis and punctuation added).

Here, Leibniz follows Plato in insisting that no society can be based on pursuit of pleasure, or love of mere property. In the dialogue *The Symposium*, Plato argues that “men are quite willing to have their feet or their hands amputated if they believe those parts of themselves to be diseased. The truth is, I think, that people are not attached to what particularly belongs to them, except in so far as they can identify what is good with what is their own. . . .”<sup>19</sup>

Plato shows that “happiness consists in the possession of the good,” but that this must be different from love of pleasure, since mere pleasure cannot last. This leads to the idea that “love is desire for the *perpetual* possession of the good.” Plato then develops the metaphor of “birth” and “procreation” as “the nearest thing to perpetuity and immortality that a mortal being can attain . . . ; but there are some whose creative desire is of the soul, and who long to beget spritually, not physically, the progeny which it is the nature of the soul to create and bring to birth. If you ask what that progeny is, it is wisdom and virtue in general; and thus all poets and such craftsmen as have found out some new thing may be said to be begetters; *but far the greatest and fairest branch of wisdom is that which is concerned with the due ordering of states and families, whose name is moderation and justice*” (emphasis added).

Thus, since perpetuation of the good requires a good government and good laws, the “pursuit of Happiness,” in the sense of Leibniz and Plato, as opposed to that of Locke, *must lead to the founding of well-ordered states, or republics.*

Perhaps Abraham Lincoln had this metaphor in mind at Gettysburg, where he spoke of Franklin and the other American founders as “*our fathers,*” who “*brought forth on this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal,*” and, “that this nation, under God, shall have a *new birth of freedom* . . .”<sup>20</sup> (emphasis added).

18. *New Essays Concerning Human Understanding*, Wiener, op. cit., pp. 437, 439.

19. Plato, *The Symposium*, Walter Hamilton, trans. (New York: Penguin Books, 1951).

20. Since the advocates of Locke’s alleged influence on the American Revolution fail to discover any mention of his sacred principle of “property” in the Declaration of Independence, the best they can do is seize upon certain phrases used by Locke in Chapter XIX (*Of the Dissolution of Government*), of his 1690 *Essay Concerning Civil Government*, which are similar to

## Isaac Newton’s hoax

Although Locke’s death in 1704 saved him from being forced into a direct debate, the impact of Leibniz’s relentless polemics and patient explanations grew continuously within England, including within the aristocracy itself.

One of Leibniz’s most important adherents became Anthony Ashley Cooper, the Third Earl of Shaftesbury, who was the grandson of Locke’s former patron. The Third Earl had been personally tutored by Locke, during his childhood, but became a key political ally of the Harley/Swift faction.

Shaftesbury rejected his former teacher in the harshest terms:

“ ’Twas Mr. Locke, that struck the home blow: for Mr. Hobbes’s character and base slavish principles in government took off the poison of his philosophy. ’Twas Mr. Locke that struck at all fundamentals, threw all *order* and *virtue* out of the world, and made the very *ideas* of these (which are the same as those of God) *unnatural*; and without foundation in our minds. . . .

“Then comes the credulous Mr. Locke, with his *Indian*, barbarian stories of wild nations, that have no such idea, (as travelers, learned authors! and men of truth! and great philosophers! have inform’d him). . . .

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expressions found in the first few paragraphs of the Declaration. Locke composed this *Essay* after the fact, as an attempt to justify the overthrow of the “legitimate” hereditary monarch James II in the 1688 “Glorious Revolution,” which brought Locke’s paymasters, the Anglo-Dutch oligarchy, to power in England. In order to make such a naked grab for power appear legitimate, Locke is forced to argue, that whenever any prince or legislature attempts to “reduce [the people] to slavery under arbitrary power, they put themselves into a state of war with the people, who are thereupon absolved from any farther obedience, and are left to the common refuge which God hath provided for all men against force and violence. . . . and it devolves to the people, who have a right to resume their original liberty, and by the establishment of a new legislative (such as they shall think fit), provide for their own safety and security. . . .” When he penned his hypocritical piece of propaganda, Locke could not foresee that he might be “hoist with his own petard.”

The hostility of the greatest of the American founders to Locke’s ideology of “property” and “free market,” is further revealed by a little-known clause of the Declaration of Independence, which was personally approved by Benjamin Franklin and John Adams, but later excluded from the document in a fateful compromise. This was the indictment of King George III for the promotion of black chattel slavery, which read:

“He has waged cruel war against human nature itself, violating its most sacred rights of life & liberty in the persons of a distant people who never offended him, captivating & carrying them into slavery in another hemisphere, or to incur miserable death in their transportation thither. This piratical warfare, the opprobrium of infidel powers, is the warfare of the *Christian* king of Great Britain. Determined to keep open a market where MEN should be bought & sold, he has prostituted his negative for suppressing every legislative attempt to prohibit or restrain this execrable commerce; and that this assemblage of horrors might want no fact of distinguished die, he is now exciting those very people to rise in arms among us, and to purchase that liberty of which *he* has deprived them, by murdering the people upon whom *he* also obtruded them; thus paying off former crimes committed against the liberties of one people, with crimes which he urges them to commit against the lives of another.”

“Thus virtue, according to Mr. Locke, has no other measure, law, or rule, than *fashion* and *custom*: morality, justice, equity, depend only on *Law* and *Will*: and God indeed is a perfect *free agent* in this sense; that is, *free to anything, that is however ill*: for if he wills it, it will be made good; virtue may be vice, and vice virtue in its turn, if he pleases. And thus neither *Right* nor *Wrong*, *Virtue* nor *Vice* are anything in themselves; nor is there any trace or idea of them *naturally implanted* on human minds. Experience and our catechism teaches us all!”<sup>21</sup>

In 1712, Leibniz wrote a “Judgement of the Works of the Earl of Shaftesbury,” full of fatherly criticism and encouragement. Shaftesbury expressed his delight with “the criticism of the worthy and learned Mr. Leibniz,” and declared it “a real honor done to [me] and (what is far more) as a just testimony rendered to truth and virtue.”

With Leibniz’s political allies having reassumed key positions within the government of Queen Anne, and with his intellectual influence growing, the imperialist faction became desperate to destroy his authority and reputation. Isaac Newton, still protecting the interests of the Bank of England as Master of the Mint, was deployed for this job in his capacity as “president-for-life” of the Royal Society.

The “Newton-Leibniz controversy” which followed, wherein Leibniz was reviled and condemned as a plagiarist, and falsely accused and “convicted” of stealing the calculus from Newton, was no more than a blatant and cynical political ploy, calculated to inflame English chauvinism and xenophobia. To provoke the confrontation, the Royal Society published the following crude ravings of John Keill in May 1711:

“Surely the merits of Leibniz in the world of learning are very great; this I freely acknowledge, nor can anyone who has read his contributions to the Acta of Leipzig deny that he is most learned in the more obscure parts of mathematics. Since he possesses so many unchallengeable riches of his own, certainly I fail to see why he wishes to load himself with the spoils stolen from others. Accordingly, when I perceived that his associates were so partial towards him that they heaped undeserved praise upon him, I supposed it no misplaced zeal on behalf of our nation to endeavor to make safe and preserve for Newton what is really his own. For if it was proper for those of Leipzig to pin on Leibniz another’s garland, it is proper for Britons to restore to Newton that which was snatched from him, without accusations of slander.”<sup>22</sup>

Leibniz alerted his English correspondents to “the plot

that I learned of to attack me in your country,”<sup>23</sup> and publicly demanded justice from the Royal Society. The Society responded by forming a committee of Leibniz’s enemies, which issued an official report on April 12, 1712, drafted by Newton himself, later published under the title *Commercium Epistolicum*. This kangaroo court declared “Mr. Newton the first inventor; and are of opinion that Mr. Keill in asserting the same has been no way injurious to Mr. Leibniz.”

So began the campaign of hatred and slander against Leibniz within England, designed both to discredit and suppress his philosophy, as well as to avert the immediate political threat that, should Queen Anne die too soon, Leibniz might arrive in England as the Prime Minister of the next English monarch.

With the death of Sophia on June 8, 1714, the position of Leibniz and his allies rapidly collapsed. When Anne died on Aug. 1, the succession passed to Sophia’s misanthropic son George Louis, a long-time paid asset of the imperialist faction. The new King George I refused Leibniz permission to come to England. Harley was arrested and charged with treason, while Swift fled to Ireland.

As Leibniz wrote to Sophia’s granddaughter-in-law Princess Caroline, speaking of her untimely passing: “It is not she, it is Hanover, it is England, it is the world, it is I who lost thereby.”<sup>24</sup>

However, it was Leibniz’s influence on this same Princess Caroline, wife of the future King George II, which finally forced Newton’s controllers Samuel Clarke and the Venetian Antonio Conti, to engage in the momentous public debate, immortalized as the *Leibniz-Clarke Correspondences*.

As Clarke writes, addressing Caroline in his Dedication to the 1717 edition of the *Correspondences*, “The late Learned Mr. Leibnitz well understood, how great an Honour and Reputation it would be to him, to have his Arguments approved by a Person of Your Royal Highnesses Character.” In fact, Clarke barely dissuaded her from having Leibniz’s *Theodicy* translated into English.

The ideology of Locke and Newton was utterly demolished in the course of this debate, where Leibniz heaped particular scorn on the Newtonian “atoms and the vacuum” dogma, and established at the outset the threat to civilization posed by the new orthodox British philosophy, stating bluntly: “Natural religion itself seems to be declining [in England] very much.”

Where Clarke defends “action-at-a-distance,” and characterizes Newtonian gravitation as “invisible, intangible, not mechanical,” Leibniz comments: “He might as well have added, inexplicable, unintelligible, precarious, groundless,

21. Benjamin Rand, ed., *Life, Unpublished Letters, and Philosophical Regimen of Anthony Ashley Cooper, the Third Earl of Shaftesbury* (London: S. Sonnenschein and Co., 1900), Letter VIII, June 3, 1709.

22. Hall and Tilling, eds., *The Correspondence of Isaac Newton*, Vol. V (Cambridge, U.K.: Cambridge University Press, 1975).

23. Onno Klopp, ed., *Correspondance de Leibniz avec Sophia* (Hanover, Germany: Klindworth, 1874), Letter to Hutton, Oct. 4, 1712.

24. *Correspondenz von Leibniz mit der Prinzessin Sophie* (Hildesheim: Georg Olms Verlag, 1973), Vol. III, p. 462.

and unexampled.”

When Clarke cites the “vacuum discovered by Mr. Guericke of Magdeburg, which is made by pumping the air out of a receiver,” Leibniz objects, “that there is no vacuum at all in the tube or receiver: since glass has small pores, which the beams of light, the effluvia of the loadstone, and other very thin fluids may go through.”

Leibniz hammers away against the Newtonian “occult” force of attraction, championed, he says, by “minds a little too much carried away by the misfortune of the times,” and insists that the true cause of gravitation remains to be discovered: “What has happened in poetry, happens also in the philosophical world. People are grown weary of rational romances . . . ; and they are become fond again of the tales of fairies.”

Gottfried Wilhelm Leibniz died in Hanover on Nov. 14, 1716—only then could the imperialist faction feel secure in their triumph within England, founded upon a Newtonian/Lockean intellectual tyranny throughout the Empire.

The Scotsman John Ker attempted one final meeting with Leibniz, in a last-ditch effort to save the situation. Ker reports:

“I arrived in Hanover in the Month of November 1716, on the very Day the late famous Monsieur de Leibnitz died, which plunged me into so much Sorrow and Grief, that I cannot express it. I shall not pretend to give the Character of this incomparable Senator, for more able Pens have already made Encomiums upon this truly great Man, whose very meritorious Fame must continue while Learning or the World endures; . . .

“I must confess it afforded me Matter of strange Reflection, when I perceived the little Regard that was paid to his Ashes by the Hanoverians; for he was buried in a few Days after his Decease more like a Robber than, what he was, the Ornament of his Country.”<sup>25</sup>

## Logan battles the Newtonians

As the Newtonian dark age settled over the Empire, resistance became more determined in the American colonies, leading directly to the American Revolution 60 years later. The true history of this process unfolds in the pages of H. Graham Lowry’s *How The Nation Was Won—America’s Untold Story, 1630-1754*.

The letters and unpublished manuscripts of James Logan provide further proof of the explicitly anti-Locke, anti-Newton commitments of the greatest American leaders, and of

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25. *Memoirs of John Ker of Kersland* (London: John Ker, 1727). Many more details concerning Leibniz and his political impact in England and America are discussed in the following unpublished research reports by Valenti, copies of which are available from him for reference purposes: “Report on Leibniz,” August 1977 (32 pages); “The Politics of the Leibniz-Newton Controversy,” November 1977 (74 pages); “James Logan versus Locke, Newton and the Royal Society,” January 1978 (51 pages); “The Political Economy of Leibniz’s English Allies,” March 1978 (29 pages).

the direct influence of the ideas and person of Leibniz on the movement towards American independence.

Logan was born in Ulster, the son of a Scots Quaker schoolmaster. By the time he was selected by William Penn to be his secretary and accompany him to Pennsylvania in 1699, Logan had taught himself Latin, Greek, Hebrew, French, Italian, and Spanish (he undertook to learn Arabic, Syriac, and Persian at age 70), and had begun his lifelong studies of mathematics, astronomy, and the physical sciences. Before meeting Penn, he had sold his first library of 800 volumes for capital to start a business.

Penn returned to England in 1701, to join Harley and Swift in defense of colonial rights against Locke and his Board of Trade. Logan visited England in the significant years of 1709-1711, and again in 1723-1724, where he attended a meeting of the Royal Society, presided over by the decrepit Newton. Penn died in England in 1718, but not before naming Harley in his will as a protector of his province, an arrangement nullified with the succession of George I.

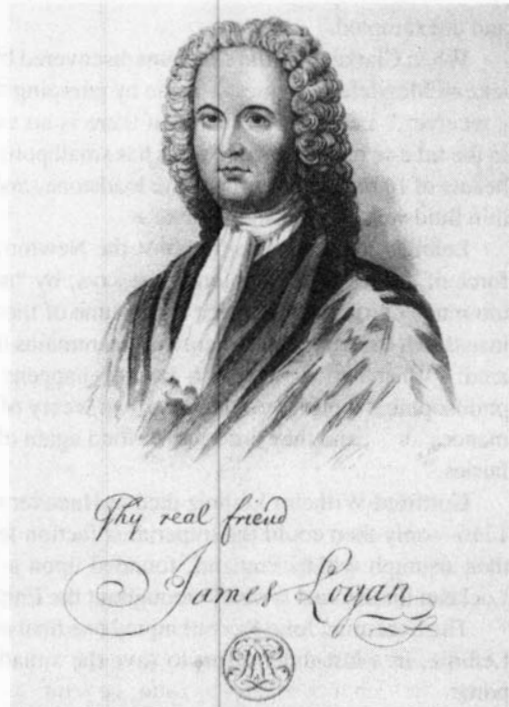
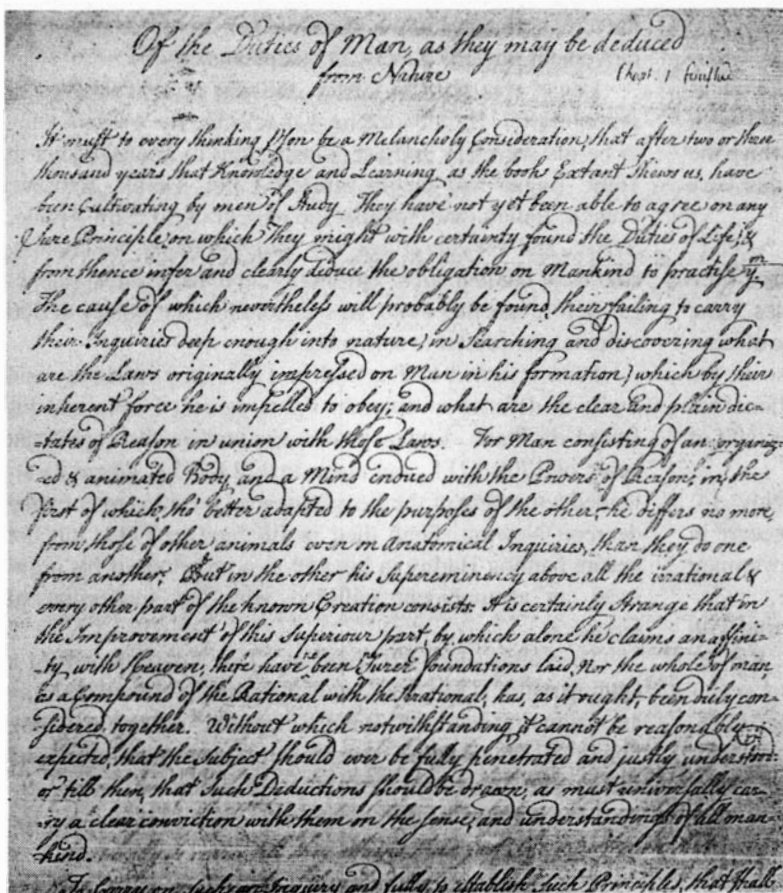
Thereafter, until his death in 1751, Logan remained a leading political and intellectual figure in the colony, holding at various times every important public office, including mayor of Philadelphia, president of the Assembly, Chief Justice and Lieutenant-Governor. He supported every measure for colonial unity and defense, even denouncing the hypocrisy of Quaker pacifism.

When Logan’s library was catalogued in the early 1970s, researchers counted 2,185 titles in 2,651 volumes. Benjamin Franklin’s obituary of Logan was impassioned on this point:

“But the most noble Monument of his Wisdom, the Publick Spirit, Benevolence, and affectionate Regard to the People of Pennsylvania, is his LIBRARY; which he has been collecting these 50 Years past, with the greatest Care and Judgment, intending it a Benefaction to the Publick for the Increase of Knowledge, and for the common Use and Benefit of all Lovers of Learning. It contains the best Editions of the best Books in various Languages, Arts and Sciences, and is without Doubt the largest, and by far the most valuable Collection of the Kind in this part of the World, and will convey the Name of Logan thro’ Ages, with Honour, to the latest Posterity.”

Logan read most, if not all, of his books, and his extensive marginal annotations in a variety of languages are still quite legible. His handwriting is present, for example, in the margins of some pages of the 1717 edition of the *Leibniz-Clarke Correspondences*, a book which later appears in the 1741 catalogue of Franklin’s Library Company of Philadelphia, possibly donated by Logan.

Logan’s letterbooks also show him particularly anxious to assemble a complete set of the *Acta Eruditorum* of Leipzig, the learned journal which published the works of Leibniz and his allies, including Papin and the Bernoullis, and which was the center of continental European resistance to the Newtonian onslaught. Logan informed a correspondent in 1749,



James Logan (1674-1751), an associate of Benjamin Franklin and William Penn, and a fierce opponent of British philosophical liberalism. Shown here is the first page of Logan's manuscript "Of the Duties of Man, as they may be deduced from Nature" (c. 1735), a refutation of Hobbes, Locke, and Newton.

"I have all the Acta Eruditorum from 1688 to 1727 except for three intermediate years between 1700 & 1710 & some Supplementa."<sup>26</sup>

A frequent correspondent of Logan was Robert Hunter, then-Governor of New York and New Jersey, and an important political ally of Harley and Swift. Hunter collaborated with Virginia Gov. Alexander Spotswood's plans for westward development of the American colonies, and arranged that his own successor in 1720, William Burnet, would continue the project.<sup>27</sup> Burnet also maintained the correspondences with Logan.

Logan's letters to Hunter and Burnet prove that these American leaders were quite conscious of the political implications of the Newtonian tyranny, including especially the witchhunt against Leibniz.

An outraged Logan wrote to Hunter, Sept. 22 1715, protesting the politically-motivated editing of the second edition of Newton's *Principia*. The name of Royal Astronomer John Flamsteed had been censored, Logan declared, because "Poor Flamsteed has appeared a violent Whig . . . and the better (I Suppose) to express their abhorrence of his Princi-

ples, they have now almost everywhere left out his name. . . .

"This will be owned I Suppose to be Carrying the matter very far, and, indeed, upon the whole, they seem, on all sides, to be ripening for their own destruction. Our unhappy divisions in the last Years of the Queen appear'd terrible. And now, after so favorable a Conjunction thrown in by Providence that one might have expected would set all to rights, they are rendered more dreadful than ever. . . . The unhappines of having a Nation generally distempered seems to me to be inexpressible. . . ."<sup>28</sup>

Logan's shock and indignation against the Newtonians reached a breaking point in 1727, when he received the *Principia*'s infamous third edition, wherein even the cursory mention of Leibniz's name as an independent discoverer of the calculus had been totally erased.

In a letter dated Feb. 7, 1727, Logan told Burnet in no uncertain terms:

28. Wolf, op. cit., p. 347. Logan's observations concerning the persecution of Royal Astronomer Flamsteed were quite apt. Flamsteed was the first to propose that a comet curved around the Sun, in which he was at first bitterly opposed by Newton and Newton's protégé, Edmund Halley. Newton seized control of Flamsteed's work in 1710, and Halley was later appointed Royal Astronomer at Flamsteed's death in 1720.

26. Edwin Wolf 2nd, ed., *Catalogue of the Library of James Logan* (Philadelphia: The Library Company of Philadelphia, 1974), p. 4.

27. Lowry, op. cit., chapters 8, 9.

“ ’Tis certain the world was obliged only to Leibniz for the publication of that method, who was so fair as to communicate it in a great measure to Oldenburg in 1677, when Sir Isaac was so careful of concealing his, that he involved it in his Letter [of] 1676 in strange knots of Letters, that all the art & skill of the universe could never Decipher. . . . And yet foreigners have generally been so Just as to pay all possible deference to Sir Isaac as an Inventor, tho’ till his Publication of the Principia in 1687, they never had anything of it from him. I have often indeed wished that Sir Isaac himself had never entered into the Dispute, but would, if it must be disputed, have left it to others, for then the world would have been inclined to do him more Justice than now perhaps they will, when he is considered as a party, which he has so warmly made himself”<sup>29</sup> (emphasis added).

Logan goes on to express his disgust at the absurd deification of Newton in England, as seen in the ridiculous portrait of him featured in the same edition of the *Principia*:

“But there is not less Humour shewn in his Picture in the front, much more like W. Leybourn in his own hair at the age of 40 or 50 than Sir Isaac Newton at 83. And by all those who have seen him of late, as I did, bending so much under the Load of years that, with some difficulty, he mounted the stairs of the Society’s Room, that Youthful Representation will, I fear, be considered rather as an object of Ridicule than Respect, & much sooner raise Pity than Esteem.”<sup>30</sup>

Logan dashed off another letter on the same date directly to a member of the Royal Society, venting his outrage about both the ludicrous picture of Newton and the suppression of Leibniz. Logan added a thinly-veiled warning concerning the political implications of these developments for the future of colonial relations:

“Should the management of the more momentous Councils about a Mile further up the Thames [in Parliament] be like these, in the present unaccountable Comotions of Europe, that seem to point out fate to us pregnant with vast events, we might have reason to tremble, and *those should think themselves happiest who are farthest out of their reach*. But it may be hoped our State Politicks far exceed those in the way of Learning. How it may prove, time only must show”<sup>31</sup> (emphasis added).

In his next letter to Burnet, May 10, 1727, Logan questions Newton’s sanity, and further dissects the political motives for the frameup of Leibniz, expressing his wish that the succession had been accomplished by 1710 (which would have made Sophia Queen of England):

“He [Newton—PV] is, however great, but a man, & when I last saw him in 1724 walking up Crane Court & the stairs leading to the Society’s Room, he bent under his Load of years

exceeding unlike what they have Represented him two years after as in body. ’Tis but reasonable to expect a declension elsewhere, so that for his own honour as well as the Nation’s, to which he has been a very great one, had he & Queen Anne both been gathered to their Ancestors by the year 1710, before that fierce, unnatural Dispute broke out between him and Leibniz, which I always believed, *was blown up by the forces of the society in opposition to the house that had so long employ’d Leibniz*. . . .”<sup>32</sup> (emphasis added).

After Newton’s death in 1727, Logan could not resist a final irreverency, in a letter to Burnet (Jan. 10, 1728):

“I hope also G. Strahan has by this time furnish’d thee with the new Edit. of Newton, *for whose age & strength, death has not, it seems, consulted his new picture*”<sup>33</sup> (emphasis added).

The more that Logan investigated the facts and circumstances of the Leibniz-Newton controversy, the more he became convinced of the fraudulent nature of Newton’s claims. In fact, Logan and Hunter had already passed judgment on Leibniz’s accuser John Keill, who had visited New York in about 1710. As Logan later wrote to an English correspondent:

“I am sensible John Keyl was a great Mathematician, but when at N York with Genl. Hunter, he shewed himself an intolerable Debauchee, whimsical, irregular in all his Conduct. . . . This was the character I had of him from G. Hunter, an Excellent Judge of men. . . .”<sup>34</sup>

32. Wolf, op. cit., p. 350.

33. Wolf, op. cit., p. 350.

34. James Logan to Peter Collinson, Aug. 2, 1737, Wolf, op. cit., p. 263. Logan researched Leibniz’s works for himself, writing a four-page English explanation of “The first Account of fluxions delivered by Leibniz in the *Acta Eruditorum of Leipsic* Octob. 1684 pa. 467.” He examined the case presented against Leibniz in the *Commercium Epistolicum* in detail, particularly Newton’s 1676 letter to Royal Society Secretary Oldenburg, which was presented as proof that Newton had the calculus first, and that Leibniz had stolen it from him. He expressed his early judgement in the May 10, 1727 letter to Burnet:

“I verily believe Leibniz had the first hints from Newton’s Letter & others concerning his Inventions & that from thence, that Great Genius, which we find in no man else, did build his great Superstructures. But from all I can find in the *Commercium*, I no where perceive that Sir Isaac intended any mortal should discover his method of working, or what we call the algorithm of his fluxions; & his having afterwards given us nothing new beyond what Leibniz had published of that kind in the *Acta Eruditorum* in 1682 [1684], is not altogether so much to his advantage as might be wished in his favour.” (*Transactions of the American Philosophical Society*, Vol 62, part 6; *The Scientific Papers of James Logan*, Roy N. Lokken. ed.)

However, it was only some years later that Logan attempted to apply one of Newton’s equations, presented as an example of a converging series in his 1676 letter, to an actual mathematical problem. His shock at the results is expressed in a 1737 correspondence, where Newton’s “method of fluxions” is judged to be no calculus at all:

“. . . behold! I was just as far off my point as ever; the series after a very few steps actually diverged and ran still wider. I then threw away my whole work with indignation; and with no small amazement to find it possible for Sir Isaac Newton to commit such a blunder. . . . [H]e appears to have

29. Wolf, op. cit., p. 149.

30. Wolf, op. cit., p. 349.

31. Wolf, op. cit., pp. 349-350.

Although Newton's preoccupation with alchemy and witchcraft was not exposed until the Twentieth Century, Logan pitilessly attacked the irrational ravings of two of Newton's rarely-mentioned published works of that period: "The Chronology of Ancient Kingdoms Amended" (1728), and "Observations upon the Prophecies of Daniel" (1733). In letters to Burnet and others, Logan derided Newton's arguments in blunt terms, such as, "nothing can be more imaginary or groundless," "a piece of finesse only," and "a sally of fancy and Imagination." "I am exceedingly grieved at this Performance of his," Logan wrote Burnet, "which cannot but expose his memory to the Censure of all rational Judges."<sup>35</sup>

### Logan and Franklin

In 1727, the 21-year-old Benjamin Franklin, recently deployed to Philadelphia by his Boston mentor Cotton Mather, organized a "club of mutual improvement" called the Junto, composed of the city's most "ingenious" young men. Franklin's autobiographical outline for this period includes the note: "Logan fond of me. His library."

Along with opening his home and library to Franklin and his young associates, Logan is credited with arranging the first large job for Franklin's new printing business in 1731. Franklin also printed Logan's translations of Cato's "Moral Distichs" in 1735, and Cicero's "Cato Major" in 1744, Franklin's preface to the latter expressing the wish that "this first Translation of a Classic in this Western World may be followed with many others . . . and be a happy Omen that Philadelphia shall become the Seat of the American Muses."

Logan's enthusiastic support for these young American intellectuals, quickly brought him into direct conflict with the corruption and treachery of the Newtonian establishment. Franklin's roommate and Junto member Thomas Godfrey, a glazier by trade and a self-taught mathematician, began frequenting Logan's library about 1730. When Godfrey told Logan about his invention of an improved mariner's quadrant, Logan forwarded the details to the Royal Society in London, expecting to receive its backing.

Instead, Logan got the "Leibniz treatment." The Royal Society, now led by Edmund Halley, attempted to plagiarize Godfrey's device, claiming that Royal Fellow John Hadley had invented it first. Logan mobilized the entire province to gather affidavits swearing to Godfrey's priority, but the Society would only recognize Hadley and Godfrey as "co-inventors," granting both an equal financial reward. The Society further expressed its contempt for the upstart Americans, by accusing Godfrey of being a "heavy drinker," and

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expressly concealed, under pretense of avoiding tediousness, his method of applying fluxions to series. . . . But I must add, that though the knowledge of these methods is a pretty amusement, yet without a genius and extensive capacity, and particularly some knack at invention, they appear to me of but little use to be learned or studied." (Lokken, op. cit., p. 66).

35. Wolf, op. cit., p. 340.

awarding him a clock instead of cash.

Decades later, Franklin pointedly introduced Godfrey in his autobiography as "a self-taught mathematician, great in his way, and afterwards *inventor of what is now called Hadley's quadrant*" (emphasis added).

### Logan refutes the British ideologues

About this time, Logan resolved to write his own philosophical tract, designed as a polemic against British ideology, starting with what he called the "detestable notion" and "pernicious thesis" of Hobbes, "taking this for my foundation against Hobbes that Man was primarily in his Nature formed for Society."<sup>36</sup>

Logan titled his book "The Duties Of Man As They May Be Deduced From Nature," and circulated copies of each chapter among the circles of Franklin's Junto, and to his correspondents in England. The manuscript was supposedly "lost" in England, and little was known of its contents until it was rediscovered in 1971. A photocopy of the 400-page work, in Logan's longhand, is in the possession of this author; otherwise, it still sits unpublished on the shelves of the Historical Society of Pennsylvania.

A thorough reading of the work reveals it to be a direct attack on the authority of Locke and Newton, as well as Hobbes, precisely in the line of argument of Leibniz and his English allies earlier. Where Locke denied the existence of "innate ideas," reducing morality to the arbitrary rules of the lawgiver, Logan's thesis is that all morality is naturally "implanted" in human beings. Logan's point echoes Leibniz's famous comment, "Natural religion itself seems to decay [in England] very much."

Logan's thoughts concerning the true nature of human happiness, so contrary to the bestial British principles of "pleasure/pain" and "property," are beautifully expressed in the conclusion to his Chapter 1:

"Why has Nature, whose general or fundamental Laws can never be eluded, left so much room in those things that are proper for the use of Man, for the improvement of her Productions, in Agriculture, Gard'ning &c. Are not all these with infinite more, plain lessons to Mankind, that in most significant language say to them: Naked you are born, it is true, and I have left you under many wants, but to supply them I have given you hands, and above all other creatures understanding to use them: Behold the utmost provision here made for your Industry. Join together in that Love and Benevolence that I have implanted in you, and by your mutual aid, and united endeavours, render them truly useful. But enjoy them under a due sense of gratitude to your bountiful Donor, your Creator, and Supream Lord of this Universe, the beautiful and exact Order of which, in all its outward parts you here behold, and how wisely and determinately each is made to

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36. Letter to Thomas Story, Nov. 15, 1737, Wolf, op. cit. p. 231.

answer its proper end. This order you are to imitate in what is left to your own Power, your Wills and your Affections. Thus therefore do and be compleatly happy.”

Logan is determined to refute Locke directly on the issue of Morality. He prepares for this with a discussion of Love, observing that love between a human brother and sister does not extend to conjugal love, as among animals, concluding that “the great End and Design of this most evidently is, that those kind affections which are the true and natural foundation of society should not be confined to the limits of one family . . . and from hence we may rationally conclude that it was the intention of Nature by these several instances of inclination and affections implanted in us, that Benevolence should be universally diffused, and take in our whole Species tho’ not all in equal degrees. . . .”

“A like passion with love is also seen in other creatures, yet seldom of any long duration, but in humane beasts it was designed to have the most exalted empire, and were it duly nurtured and not checked by other prevailing passions it would exert itself to a degree that would sweeten every other affection, render life truly a blessing, and raise Mankind to the perfection first intended for him in his formation.”

Logan directly collides with Locke in his Chapter 4, “Of the Affections or Passions.” Logan reiterates his Platonic concept of Love as “the inclination of the Heart to Good, with which it seeks to unite. . . . It is the principle which animates us to seek our perfection.” He argues that emotion naturally accompanies thought, “like the Bass in concerts of music, cooperating with it,” and attacks those who treat “these Passions as if they were all at our immediate command, and merely subservient to our pursuits of Pleasure and declining of Pain, *on which hand even the very ingenious J. Lock appears to have made a slip.*”

“For having in his Essay justly enough observed that ‘Pleasure and Pain, and that which causes them, Good and Evil, are the hinges on which our Passions turn,’ he unhappily proceeds to make them turn on the Reflections only that we make on the Good or Evil, Pleasure or Pain that objects will produce. For this he says in Ch. 5 ‘Hatred or Love to Beings capable of Happiness or Misery, is often the Uneasiness or Delight which we find in ourselves arising from a consideration of their very Being or Happiness. Thus the Being and Welfare of a man’s Children or Friend producing constant delight in him, he is said to constantly love them.’

“*In which words we see the nature of things inverted, and the effect offered for the cause, for would any man living, if he were in his senses, on being asked why he loves his children, give for an answer that it was because he delighted in seeing them do well? It is probable indeed that he might think the querent unworthy of any answer at all, but if he gave any, and a serious one, it might be to this effect, that he loved them because they were his children, it was natural for him and he could not avoid it*” (emphasis added throughout).

In his Chapter 5, “Of Moral Good or Virtue,” Logan

reviews the arguments of several preceding English writers who had opposed Hobbes, and expresses his support for the arguments of Leibniz’s friend Shaftesbury, in favor of a natural “moral sense.” Logan maintains that virtue itself provides the greatest pleasure, such as the “intellectual pleasure” arising from harmony in music or the study of natural science.

Among Logan’s manuscripts are three drafts of the concluding section of this chapter, which he titles “Answer to Locke after the moral sense and ground of virtue is stated,” along with a separate extensive list of references to Locke’s *Essay*.

Logan writes:

“But before we leave this subject it may be necessary to take notice of some things advanced by J. Lock in . . . his excellent *Essay on Human Understanding* which seem to contradict what is here laid down, and his reputation and authority is so firmly established in the minds of great numbers of the most rational thinkers, that whatever carries an appearance of inconsistency with his Doctrine will scarce fail of meeting with strong prejudices against its reception.”

Logan boldly asserts that Locke “has not applied his usual care and the same exact judgement on the subject of Morality.” He attacks Locke’s rejection of “innate practical principles,” such as “Parents preserve and protect your children,” and, like Shaftesbury, ridicules Locke’s dependence on “a heap of instances of the detestable, irregular practices of the peoples of diverse far countries, as taken from those Oracles of Truth, the Accounts of Travellers.”

Logan writes:

“His indefinite use of the word Principle renders his method of arguing in that Chapter confused and exceeding unlike his course of reasoning in most other parts of the Book: he allows the desire of Happiness an innate practical Principle from inclination, but he here denies that the love and care of Parents to and for their Children is such an innate Principle; . . . But if the Desire of Happiness be an innate Principle from appetite, are not the appetite for food, the horror of death, the conjunctionis appetitus equally so . . . , and is it any proof of the contrary that divers people have refused eating and starved themselves, that others have by several other ways made away with themselves, and that whole orders of Men and Women vow chastity or virginity? *He surely forgot in this place that man, with these principles, is also born to freewill . . .*” (emphasis added).

Logan attacks Locke’s assertion that moral duties are based on positive law and reward and punishment. “This indeed is a homestroke upon us,” Logan writes, “and if it can be applied to what has been advanced in this Chapter will fairly upset the whole of what has been principally labored in it.”

Logan cites the work of Homer to show that human morality existed before any written laws, and points out “that the most barbarous Nations, as the American Indians, and



African Negroes, who more closely pursue Nature, *rather exceed in parental affection, than come short of the more civilized matrons. . .*” (emphasis added). Logan concludes his Chapter 5 with the comment, “And this much I judged necessary to observe on this unhappy mistake in the subject of Morals in that great Man whose exactness in his proper subject has ever appeared to me to be beyond exception.”

However, Logan’s incomplete Chapter 6, “Of the Will,” is intended entirely as a further polemic against Locke. In the few paragraphs that are extant, Logan quotes Locke’s notion that “uneasiness,” and not the “greater Good,” determines the Will, and continues:

“But in this we have a most clear instance of how dangerous consequence it may prove for an author of great abilities and an established reputation to decide universally on any important point without being first well assured that his induction from whence he draws his conclusion has likewise been equally universal. . . .”

Logan goes on to warn against the uncritical worship of established opinion, showing “how pernicious this has proved to knowledge and how injurious to truth,” by citing the example of Aristotle. Logan’s argument against Locke in this section might be inferred from Logan’s earlier discussion, in his Chapter 4, of the *guilty conscience of the criminal mind*, which, he says, must always seek diversion from “self-examination”:

“Those are they, who from their own feeling experience (but preposterously) lay it down for a Principle, that Pain or Uneasiness is the Spring of all our Actions, of whom more is to be said a few pages forward.”

### Challenge to Newtonian orthodoxy

Logan’s challenge to Newtonian orthodoxy, expressed in a lengthy footnote to his Chapter 2, “Of the Exterior Senses,” is of particular significance for its discussion of electricity.

Franklin began his electrical experiments after attending a lecture in Boston in 1743, only a few years after Logan wrote and circulated these ideas. Franklin’s subsequent scientific work is usually mis-portrayed as mere tinkering based on “trial and error” (or even more ludicrously, as “Newtonianism!”), and as concerned with practical results, not “theory.” However, Logan’s “heretical” conjecture that electricity might somehow constitute a “subtle fluid” filling space, of the type discussed by Leibniz and other opponents of the Newtonian “vacuum,” suggests that Franklin was indeed inspired by “metaphysical” considerations.

Logan explains that, “Electricity was formerly regarded but as a trifling appearance in Nature, and therefor in the last curious age was very little considered; for that quality was supposed to be excited, only by putting into motion the finer parts of the body it was found in. . . .” He refers to certain “surprising phenomena arising from electricity” in recent experiments, in which “we may see a field open for Specula-

tions, that if duly persued, may probably lead us into more just and extensive notions of our bodies, and the world we live in, than have hitherto been generally thought of.

“*And if there be no heresy in mentioning it in the present age, why may we not venture to question the reasonableness of asserting a vacuum as indispensably necessary to the continuance of motion?: The argument may indeed hold in relation to all such bodies, the matter of light excepted, as our senses are formed to take cognicance of, but shall we from thence presume to judge of all the kinds of subtile matter that space may be filled with? Can we be sure that there is no electric or elastic medium that instead of obstructing or retarding motion may be the very means of continuing it?*”

“Can we say an exhausted receiver is a vacuum because the air is drawn out of it, while at the same time we see it filled with light, the matter of which in the true nature of things and on a just estimate of them, tho’ not according to our apprehensions, may possibly be a more essential substance than the earth or stones we tread on.

“But if a vacuum be not absolutely necessary, as that allotted by some to the aetherial spaces cannot be, then undoubtedly *to have all space in the universe possessed by some kind of matter is much more consistent with the dignity, beauty, and order of the whole than to imagine those vast voids which carry even a kind of horror in the thought!*” (emphasis added).

### Franklin’s crucial experiments in electricity

Franklin performed his famous kite experiment in Philadelphia in June of 1752, proving the identity of lightning and electricity. Franklin says his paper on that topic had been “laughed at by the connoisseurs” of the British Royal Society, but had achieved great notoriety in France, where his “capital experiment” was successfully duplicated before King Louis XV and his court, and therefore could no longer be suppressed.

In fact, what Franklin had accomplished, as his own correspondences of that period prove, was a crucial experiment, designed by him to overthrow the Newtonian system—he had proven that electricity was no “trifling appearance in Nature,” but that it, in some fashion, permeated space.

Franklin’s exchange of letters with New Yorker Cadwalader Colden in the period leading up to his experiment, also demonstrates the extent to which the Leibniz-Newton conflict defined the intellectual battlelines in pre-revolutionary America.

Franklin met Colden in 1743, the same year in which he began his electrical studies. The two collaborated for awhile on scientific and philosophical matters, and Colden backed Franklin’s plan for colonial unity at the 1754 Albany Convention, but eventually broke with him on the issue of American independence.

Colden brought the wrath of the Newtonian tyranny directly down upon his head, writing a paper in 1745 which he



*"Benjamin Franklin Drawing Electricity from the Sky," by Benjamin West, c. 1816. Franklin's famous 1752 experiment, proving the identity of lightning with electricity, was intended to refute the Newtonian system.*

titled, "Explication of the First Causes of Motion in Matter, and of the Cause of Gravitation." Colden had rejected "action-at-a-distance," and presumed to suggest that the effect of gravity might have a rational explanation.

Franklin offered to print the work "at my own expense and risk," and circulated copies in Philadelphia, where it aroused a storm of intellectual ferment. Logan's opinion, according to Franklin, was "that the Doctrine of Gravity's being the effect of Elasticity was originally Bernoulli's, but he believed you had not seen Bernoulli."<sup>37</sup>

Colden wrote to Franklin on May 20, 1752, reporting on the progress of his ideas in Europe:

"I have received a copy of the Translation of my first piece into High Dutch with animadversions on it at the end of it printed at Hamburg and Leipsic in 1748, but I do not understand one word of them. *I find my name often in company with those great ones, Newton, Leibnitz, and Wolfius, and Leibnitz's Monades often mentioned: a new doctrine which, perhaps, you have seen, and is of great repute in Germany*" (emphasis and punctuation added).

Colden's work had been printed in Germany, because the opposition to him in England was too violent. As a sympathetic Royal Fellow later explained to him: "The state of the case seems to be this—that every one is so satisfied with Sir Isaac's [system] that they have no curiosity to examine yours. Was it in Latin—in Germany or France it would not want for perusal."<sup>38</sup>

Another colonial correspondent of Colden's, Alexander Garden of South Carolina, bluntly denounced the Royal Society as "either too lazy and too indolent or too conceited to receive any new thoughts from any one but an F.R.S. [Fellow of the Royal Society]. . . . They would stumble at them promulgated by one in America tho supported by the clearest reasoning and demonstration."<sup>39</sup>

We learn from other correspondences from Garden, that Colden wrote his own study of the Leibniz-Newton controversy, which was forwarded to the Royal Society of Edinburgh:

Nov. 22, 1755: ". . . What you lastly observe about Mr. Leibnitz gives me great pleasure, for tho I believe your principles are sufficiently supported by your consequent natural account for the Phenomena, yet so great an authority is very agreeable."

Jan. 10, 1757: "I have just now copied over your very ingenious reflexions in the Newtonian and Leibnizian Controversy to send to the Edinburgh Society. . . ."

April, 15, 1757: "He [Dr. Whytt of Edinburgh] received your former Letter to me with great joy and satisfaction, but says he is afraid that some of the Socii will (they are all rigid and literal Newtonians) have their objections. He was to read it before them at first meeting. I have sent him your observations on the Leibnitzian Controversy."

The attitude of colonial thinkers to Newton is also neatly expressed in a letter to Colden from his friend at Albany, Capt. John Rutherford, who evidently was concerned about Colden's tendency to propitiate the Newtonians:

"To humble you a little further about Sir Isaac, . . . remember he differs 500 years in his Cronology from the rest of Mankind, in which he has not yet been followed by one Author at home or abroad, *nor can I ever envy a man or call him truly great who never enjoyed any pleasure in society, died a virgin, and wrote upon the Revelations . . .*" (emphasis added).

Rutherford also acknowledged himself an adherent of Leibniz's most famous doctrine, "the best of all possible worlds":

"I am firmly persuaded The Great Author of Nature at the Creation, of all possible Worlds chused the best or most perfect & allways maintains it so. . . ."<sup>40</sup>

The threat of an American revolt against Newton was evidently considered such a serious matter, that the worst traitor to Leibniz to be found on the continent of Europe, Leonard Euler of the Berlin Academy, was deployed directly into the fray. Euler's remarks on Colden's work, dated Nov. 21, 1752, were forwarded to him via London.

Euler rudely dismissed Colden's idea as "destitute of all Foundation," and criticized his "attempts to attack the best Establish'd propositions of the late Sr. Isaac Newton. . . ." Colden reported this to Franklin, saying of Euler, "He writes much like a Pedant highly conceited of himself."<sup>41</sup>

Franklin was quite aware of the scientific and technological revolution he was about to unleash with his electrical discoveries, telling Colden, "There are no Bounds (but what Expencc and Labour give) to the Force Man may raise and use in the Electric Way."<sup>42</sup> Proving that the static electricity collected in his bottles, was of the same nature as an awesome bolt of lightning, would establish this fact in the most dramatic fashion.

The dialogue between Franklin and Colden, just prior to the 1752 kite experiment, also establishes, beyond any doubt, Franklin's equally revolutionary intentions against the Newtonians.

Colden wrote to Franklin on March 16:

"In my opinion no set of experiments which I have read

37. Ben Franklin to Colden, Oct. 16, 1746, Albert Henry Smyth, ed., *The Writings of Benjamin Franklin* (New York: MacMillan Co., 1907).

38. Peter Collinson to Colden, March 13, 1755, *The Letters and Papers of Cadwallader Colden* (New York: New York Historical Society, 1923), Vol. V.

39. Garden to Colden, March 14, 1758, op. cit., *The Letters and Papers of Cadwallader Colden*.

40. Rutherford to Colden, April 19, 1743, op. cit., *The Letters and Papers of Cadwallader Colden*.

41. Colden to Franklin, Nov. 19, 1753, Smyth, op. cit.

42. Ben Franklin to Colden, Oct. 31, 1751, Smyth, op. cit.

lead so directly towards discovering the cause of Electricity as yours do. However I find it difficult to form any conception of this cause which in any degree satisfies my mind. I conceive it to be a most subtle elastic fluid like our air, but incomparably more subtle and more elastic.”

Franklin replied on April 23, explicitly rejecting the Newtonian “particles and the void” dogma, and proposing that electricity may very well be that “subtle elastic fluid” which fills the “regions above our atmosphere”:

“Your conception of the Electric Fluid, that it is incomparably more subtil than Air, is undoubtedly just. It pervades dense matter with the greatest Ease: But it does not seem to mix or incorporate willingly with mere Air, as it does with other matter. . . . Who knows then, but there may be, as the Antients thought, a Region of this Fire, above our Atmosphere, prevented by our Air and its own too great Distance for Attraction, from joining our Earth? . . . yet some of it be low enough to attach itself to our highest Clouds, and thence they becoming electrified may be attracted by and descend towards the Earth, and discharge their Watry Contents together with that Etherial Fire. Perhaps the Aurorae Boreales are Currents of this Fluid in its own Region above our Atmosphere, becoming from their own Motion visible. . . .

“But I must own that I am much in the Dark about Light. *I am not satisfied with the doctrine that supposes particles of matter call’d light continually driven off from the Sun’s Surface, with a Swiftmess so prodigious! . . .*

“May not all the Phaenomena of Light be more conveniently solved, *by supposing universal space filled with a subtle elastic fluid, which when at rest is not visible, but whose Vibrations affect that fine Sense the Eye . . . ?*” (emphasis added).

Franklin was quite conscious that he was thus plotting the downfall of the Newtonian establishment, as he concludes his letter with the following:

“Tis well we are not, as poor Galileo was, subject to the Inquisition for *philosophical heresy*. *My whispers against the orthodox doctrine in private letters, would be dangerous; your writing and printing would be highly criminal*. As it is, you must expect some Censure, *but one heretic will surely excuse another*”<sup>43</sup> (emphasis added).

Franklin first announced the success of his experiment in a letter to his English scientific correspondent Peter Collinson, explaining how to construct a kite made of a silk handkerchief—“fitter to bear the Wet and Wind of a Thundergust without tearing”—with a sharp wire protruding above its wood frame, and a key tied to a silk ribbon on the twine near the experimenter’s hand.

In a thunderstorm, “when the Rain has wet the Kite and

Twine, so that it can conduct the Electric Fire freely, you will find it stream out plentifully from the Key on the Approach of your Knuckle. At this key the Phial may be charged; and from Electric Fire thus obtained, Spirits may be kindled, and all the other Electric Experiments be performed, which are usually done by the Help of a rubbed Glass Globe or Tube, and thereby *the sameness of the electric matter with that of lightning completely demonstrated*”<sup>44</sup> (emphasis added).

Franklin remained consistent to his anti-Newtonian principles until the end of his life, a philosophical commitment *morally identical* to his determination to overthrow the “absolute Tyranny” of the British Crown. In 1784, at Passy, France, with the first phase of the Revolution accomplished, Franklin wrote his “Loose Thoughts on a Universal Fluid,” still founded on the premise that, “Universal Space, as far as we know of it, seems to be filled with a subtle fluid, whose motion, or vibration, is called light.”

About the same time, in a letter addressed to the “Financier of the Revolution” Robert Morris, the anti-populist Franklin also militantly disposed of Locke’s sacred right of “Property”:

“The Remissness of our People in Paying Taxes is highly blameable; the Unwillingness to pay them is still more so. I see, in some Resolutions of Town Meetings, a Remonstrance against giving Congress a Power to take, as they call it, the People’s Money out of their Pockets. . . .

“All Property, indeed, except the Savage’s temporary Cabin, his Bow, his Matchcoat, and other little Acquisitions, absolutely necessary for his Subsistence, seem to me to be *the creature of public convention*. *Hence the public has the right of regulating descents, and all other conveyances of property, and even of limiting the quantity and uses of it*. All the Property that is necessary to a Man, for the Conservation of the Individual and the Propagation of the Species, is his natural Right, which none can justly deprive him of: *But all property superfluous to such purposes is the property of the public, who, by their laws, have created it, and who may therefore by other laws dispose of it, whenever the welfare of the public shall demand such disposition*. He that does not like civil Society on these Terms, let him retire and live among Savages. He can have no right to the benefits of Society, who will not pay his Club towards the Support of it.”<sup>45</sup>

Thus does the most famous aphorism concerning Franklin—“He stole lightning from the Heavens, and the sceptre from Tyrants”—assume its true significance, *since the one achievement was a lawful prelude to the other*. Thus also should we learn, as Lyndon LaRouche insists, that no lasting victory over the oligarchy is possible, without defeating the legacy of Locke and Newton in our intellectual life today.

43. Franklin to Colden, April 23, 1752, Smyth, op. cit. For a recent scientific discussion relevant to Franklin’s conjectures, see also “Red Sprites and Blue Jets: Unusual Lightning Flashes in the Upper Atmosphere,” Mark Wilsey, *21st Century Science and Technology*, Fall 1995.

44. Franklin to Peter Collinson, Smyth, op. cit.

45. Benjamin Franklin to Robert Morris, Dec. 25, 1783, J.A. Leo Lemay, ed., *Benjamin Franklin Writings* (New York: The Library of America, 1987) pp. 1081-82.