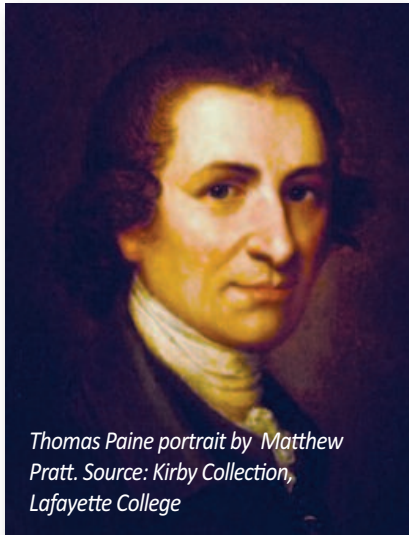


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Thomas Paine portrait by Matthew Pratt. Source: Kirby Collection, Lafayette College

Thomas Paine and Medieval Muslim Thought Experiments

Adrian Tawfik

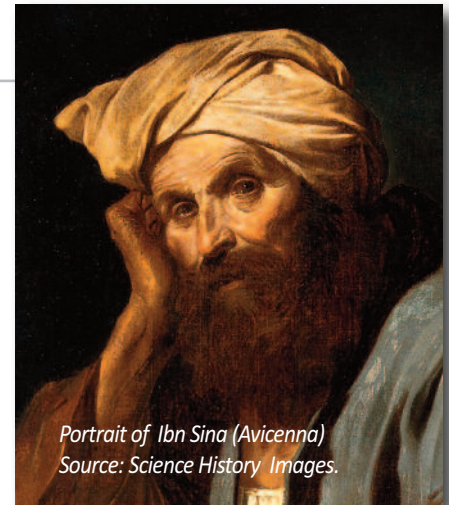
The most important core tenet of Enlightenment thinking may be the power of individual reasoning: refocusing human endeavors away from obedience to authority and towards trusting in the rational capabilities of individuals. This

article highlights the intellectual origins of this shift, connecting a series of seminal thought experiments stemming from ancient Greece, to medieval Islamic Central Asia, the Golden Age of Islamic Spain, through the European Enlightenment, and finally to Thomas Paine and his creation of modern democracy.

The thread of thought experiments starts with the Muslim philosopher, Ibn Sina, known in the West as Avicenna. Often referred to as the “father of early modern medicine,” he was born in 980 in the Samanid Empire, roughly in today’s Uzbekistan. A true polymath, Ibn Sina made major contributions in astronomy, chemistry, geography, geology, logic, mathematics, medicine, physics, psychology, Islamic theology, and poetry. Among Ibn Sina’s contributions to human knowledge was a thought experiment called “Floating Man.”

Inspired by the idea first proposed by the ancient Greek philosopher Aristotle called “tabula rasa”—that the human mind was a “blank slate” at birth—Ibn Sina’s thought experiment imagines a floating man spontaneously coming into existence while suspended in the air without the ability to touch, see, or even perceive his surroundings yet possessing the complete ability to think for himself. Ibn Sina was primarily concerned with how this thought experiment raised questions about the separation of the soul and the body. “Floating Man” foreshadowed Enlightenment philosophers John Locke and Jean Jacques Rousseau, and particularly René Descartes, expressing his famous phrase “Cogito ergo sum” or “I think, therefore I am.”¹

Ibn Sina’s thought experiment had a direct impact on the Arab Muslim polymath, Abu Bakr Muhammad ibn Tufayl, born in Andalusia in 1105 near Granada, Spain. He was an immensely influential vizier, philosopher, astronomer, physician, and early supporter of



Portrait of Ibn Sina (Avicenna)
Source: Science History Images.

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¹ Jack Maden, “I Think Therefore I Am: Descartes’ Cogito Ergo Sum Explained,” *Philosophy Break*, <https://tinyurl.com/2nykrzan>. A clearer translation might be “I am thinking, therefore I exist.”

dissection and autopsy. Ibn Tufayl wrote what is considered the first philosophical novel titled *Hayy ibn Yaqzān*, which was known in Europe as *The Self-Taught Philosopher or The Improvement of Human Reason: Exhibited in the Life of Hai Ebn Yokdhan*. In this work, Ibn Tufayl proposes his own thought experiment inspired by the work of Ibn Sina, with his protagonist named after a work by Ibn Sina.

THE BOY ON ANTELOPE ISLAND

The novel by Ibn Tufayl relates a story about a boy who grows up without connection to humans. Raised by an antelope on an isolated island, he learns only the languages of antelopes, birds, and other animals, surviving by imitating animals. As he gets older, he reaches higher, unprecedented levels of knowledge of astronomy, biology, philosophy, and (important to Ibn Tufayl) religion as he investigates the origin of the universe through meditation and intuition while isolated from other humans. Eventually introduced to human society, he becomes an influential teacher, although he is resisted by those indoctrinated by custom. The protagonist’s life story is meant to convey how an individual can find wisdom without external teaching, religion or revelation.

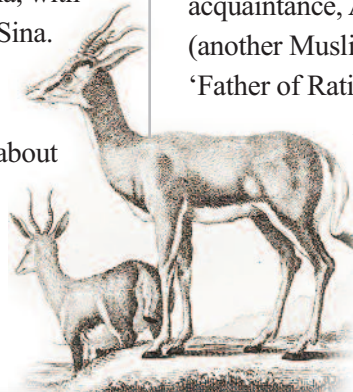
The impact of this novel cannot be overstated. It influenced Jewish, Christian, and Muslim scholarship, is considered a fundamental Muslim Sufi text, and is the most translated Arabic language text in history after the *Quran* and *One Thousand and One Nights*.² The novel was immensely important in spreading the idea of individual reasoning. Where Ibn Sina focused his thought

experiment on sensory deprivation, Ibn Tufayl took the concept to its next step: social isolation from other humans.

The novel was a best-seller in the Enlightenment after it was rediscovered through translations into European languages.³ Ibn Tufayl and his close acquaintance, Abul-Walid Muhammad Ibn Rushd (another Muslim polymath known in Europe as the ‘Father of Rationalism’), made translations of

Arabic, Greek and Roman texts that were widely shared among thinkers as diverse as Isaac Newton, Thomas Hobbes, John Locke, Christiaan Huygens, Gottfried Wilhelm Leibniz, Immanuel Kant, David Hume, John Milton, and John Stuart Mill.⁴

John Locke was well read in Islamic thought and owned a copy of the Koran. Locke was a close friend of Edward Pocke the Younger, who first translated Ibn Tafayl’s novel *Hayy ibn Yaqzān* into English. According to G. A. Russell:



A manuscript page of Ibn Tufayl's work. Source: Alamy

“On the basis of all of the evidence, the conclusion is inescapable that not only Locke must have known the work, but also that he must have been intimately acquainted with the progress of the whole project. Thus the period (1667–1671), during which Locke first began to consider the “problems” of the Essay, and put them in writing for the first time, coincide precisely with that of the translation, publication and dissemination of the *Philosophus autodidactus* by Edward and Dr. Pocke”⁵

² “Desert Island Scripts,” *The Guardian*, March 22, 2003.

³ G. A. Russell, *The ‘Arabick’ Interest of the Natural Philosophers in Seventeenth-Century England*, (New York: E.J. Brill, 1994).

⁴ Majid Fakhry, *Averroes (Ibn Rushd) His Life, Works and Influence*, (London: Oneworld Publications, 2001).

⁵ Russell, *The ‘Arabick’ Interest of the Natural Philosophers*.

Jean-Jacques Rousseau wrote the popular treatise *Émile, or Treatise on Education*, a monumental work that sought to reexamine the ideal of education from birth to adolescence focusing on a system of “natural education” that prioritized experiential learning and moral growth over rote memorization and societal conventions. It is “highly probable that Rousseau has seen and read ‘*Hayy Ibn Yaqzān*’” before his work on *Émile* and his other famous work, “*The Social Contract*.”⁶ Beginning with the immortal line, “man is born free, but everywhere he is in chains,” Rousseau’s work was a call to encourage individual reasoning when educating citizens, and was a major influence during the French Revolution.

INFLUENCING THE ENLIGHTENMENT

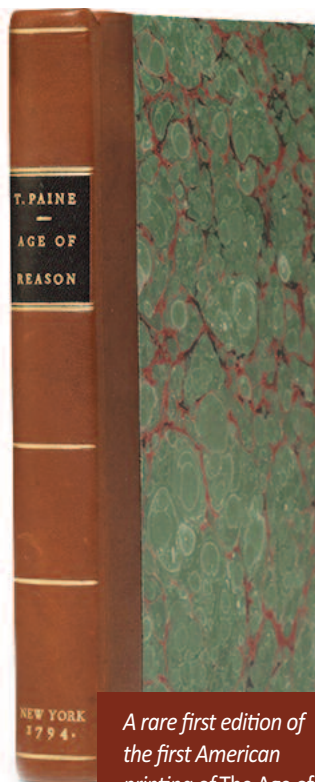
Ibn Sina and Ibn Tafayl indirectly influenced the Enlightenment’s greatest political scientist and the creator of the next in this line of thought experiments on individual reasoning, Thomas Paine. Paine was well-read in early Enlightenment thought and was influenced by Locke and Rousseau.

Paine may have been exposed to Ibn Tafayl’s work through his family. His father was a Quaker, a Protestant sect influenced by Ibn Tafayl’s humanist theology, which held that all people were equally important to protect regardless of faith, gender, or race. One of the leading proponents of Quaker theology was Robert Barclay, born in 1648 in Scotland, who argued that all people can be illuminated by what he called the “Inward Light of Christ:”

“Hayy ibn Yaqzān is referenced in Robert Barclay’s Theses Theologicae, indicating that the 12th century philosophical novel was known by early Quaker theologians and leaders. Barclay’s Apology, in its early editions, makes a reference to “an account of one Hai Ebn Yokdan; who, without converse of man, living in an island alone, attained to such a profound Knowledge, as to have immediate converse with [God].”⁷

⁶Mustafa Önder, “J. J. Rousseau, Emile and Religious Education.” *Universal Journal of Educational Research* (Print) 6, no. 7 (2018): 1539–45. doi:10.13189/ujer.2018.060714.

⁷David E Russell and Christy Randazzo, “Andalusian Mysticism and Liberal Quakerism?: Bringing Hayy ibn Yaqzān and Rufus Jones into Dialogue” American Academy of Religion Annual Meeting, (2014)



A rare first edition of the first American printing of *The Age of Reason* in 1794. Source: Bauman Rare Books.

Paine was a deeply spiritual man as well, but of a different nature. Paine was in many ways the true-life embodiment of the ideal of individual reasoning that Ibn Tufayl wrote about in his philosophical novel. As Paine wrote in the first page of his book on religion, *The Age of Reason*: “I believe in one God, and no more; and I hope for happiness beyond this life. I believe in the equality of man; and I believe that religious duties consist in doing justice, loving mercy, and endeavoring to make our fellow-creatures happy.”⁸

Like the fictional character of Hayy ibn Yaqzān come to life, Paine embodied the idea that no authority on Earth could direct someone towards knowledge of the divine. He wrote in *The Age of Reason*, “My own mind is my own church.”⁹ Like the two aforementioned Muslim polymaths who preceded him, Paine was a student of science. “The natural bent of my mind was to science,” he wrote. Science, for Paine, was a pathway into exploring the God of nature.

But Paine, unlike Ibn Sina, Ibn Tafayl, and all the Enlightenment figures of Europe, used his belief in a god of nature, accessible through individual investigation through science and reason, to advocate direct action beyond mere philosophy and to fire directly at the most powerful institutions responsible for human suffering. One of Paine’s most important contributions to human thought was in taking the ideals of the power of individual reasoning reflected in Ibn Sina and Ibn Tafayl’s thought experiments from non-threatening philosophical dissent into the arena where philosophy meets reality.

⁸Thomas Paine, *The Age of Reason, in Two Parts* (New York: G.N. Devries, 1827), 5.

⁹Paine, *The Age of Reason*, 6.

Ibn Sina was born and educated in Bukhara, an ancient city in what is modern-day Uzbekistan. Bukhara was a cultural capital of the Muslim world with many libraries including the famous Siwān al-Hikma ("Storehouse of Wisdom"). The Islamic Golden Age flowered here with great strides made in mathematics, medicine, astronomy, and geography. Source: Shutterstock. Source: Shutterstock



Paine was blunt:

“All national institutions of churches, whether Jewish, Christian or Turkish, appear to me no other than human inventions, set up to terrify and enslave mankind, and monopolize power and profit.”¹⁰

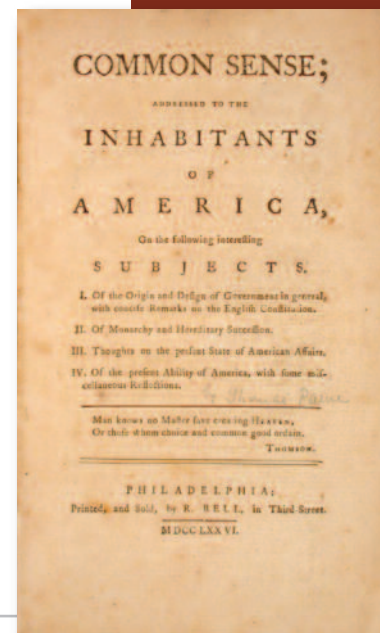
Paine continued:

“It has been the scheme of the Christian church, and of all the other invented systems of religion, to hold man in ignorance of the Creator, as it is of Government to hold man in ignorance of his rights. The systems of the one are as false as those of the other, and are calculated for mutual support.”¹¹

For Paine, both organized religion AND government mutually enforced despotism. Paine would not sit idle while others suffered. Paine characteristically spoke truth directly to the powerful and often extremely violent political and religious institutions that he rejected, at great risk to his life. The ideals of individual reasoning would no longer sit on dusty bookshelves.

In the most influential and revolutionary political thought experiment in history, which spread like wildfire around the world, Paine expertly used his own thought experiment to explain his ingenious solution to humanity’s millennia of being born free but everywhere in chains: modern representative democracy for the rich and the poor alike. It was the culminating chapter of the Enlightenment and the final spin of the wheel in turning the Scientific Revolution into modern political science. The practical proposal he offered, important beyond anything that came before, is in the opening pages of his 1776 pamphlet *Common Sense*:

Common Sense may be the most influential political thought experiment in history.



¹⁰ Paine, *The Age of Reason*, 6.

¹¹ Paine, *The Age of Reason*, 175.



From *Common Sense*:

“In order to gain a clear and just idea of the design and end of government, let us suppose a small number of persons settled in some sequestered part of the earth, unconnected with the rest, they will then represent the first peopling of any country, or of the world. In this state of natural liberty, society will be their first thought. A thousand motives will excite them thereto, the strength of one man is so unequal to his wants, and his mind so unfitted for perpetual solitude, that he is soon obliged to seek assistance and relief of another, who in his turn requires the same. Four or five united would be able to raise a tolerable dwelling in the midst of a wilderness, but one man might labour out of the common period of life without accomplishing any thing; when he had felled his timber he could not remove it, nor erect it after it was removed; hunger in the mean time would urge him from his work, and every different want call him a different way. Disease, nay even misfortune would be death, for though neither might be mortal, yet either would disable him from living, and reduce him to a state in which he might rather be said to perish than to die.

Thus necessity, like a gravitating power, would soon form our newly arrived emigrants into society, the reciprocal blessings of which, would supersede, and render the obligations of law and government unnecessary while they remained perfectly just to each other; but as nothing but heaven is impregnable to vice, it will unavoidably happen, that in proportion as they surmount the first difficulties of emigration, which bound them together in a common cause, they will begin to relax in their duty and attachment to each other; and this remissness, will point out the necessity, of establishing some form of government to supply the defect of moral virtue.

Some convenient tree will afford them a State-House, under the branches of which, the whole colony may assemble to deliberate on public matters. It is more than probable that their first laws will have the title only of Regulations, and be enforced by no other penalty than public disesteem. In this first parliament every man, by natural right, will have a seat.

But as the colony increases, the public concerns will increase likewise, and the distance at which the members may be separated, will render it too inconvenient for all of them to meet on every occasion as at first, when their number was small, their habitations near, and the public concerns few and trifling. This will point out the convenience of their consenting to leave the legislative part to be managed by a select number chosen from the whole body, who are supposed to have the same concerns at stake which those who appointed them, and who will act in the same manner as the whole body would act were they present. If the colony continue increasing, it will become necessary to augment the number of the representatives, and that the interest of every part of the colony may be attended to, it will be found best to divide the whole into convenient parts, each part sending its proper number; and that the elected might never form to themselves an interest separate from the electors, prudence will point out the propriety of having elections often; because as the elected might by that means return and mix again with the general body of the electors in a few months, their fidelity to the public will be secured by the prudent reflexion of not making a rod for themselves. And as this frequent interchange will establish a common interest with every part of the community, they will mutually and naturally support each other, and on this (not on the unmeaning name of king) depends the strength of government, and the happiness of the governed.

Here then is the origin and rise of government; namely, a mode rendered necessary by the inability of moral virtue to govern the world; here too is the design and end of government, viz. freedom and security.¹²

¹²Thomas Paine, *Common Sense*, (New York: Peter Eckler, 1922,) 2-4.

For Paine, a society could use common sense to move from a small, informal democratic society of free-thinking individuals into a large representative democracy where authority imposed by the powerful was a thing of the past. Over these five paragraphs, Paine outlined to his American audience that, beyond considering independence from England, America could literally “begin the world anew” by following the same thread of simple logic whose origins lay in Ibn Sina’s thought experiment of the “Floating Man” written nearly 700 years earlier.

While the boy in Ibn Tufayl’s novel used reason to attain a new and freer knowledge of the world, Paine pointed out how society itself could find such freedom not just within the mind but throughout all our lives. Paine showed the world that, because humanity held within itself a power beyond external customs, society could form a government without distinction of wealth, power, or authority—especially without monarchs or aristocrats. Paine was the culmination of a line of thinkers who, over millennia, discovered that the individual minds of ordinary people were the greatest power in the world. He took that idea and invented modern democracy. In Paine’s new world, society could finally progress to a better place where all individuals, of all classes, and in all places, could take the prerogative to run their own lives and to find their own happiness.

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A statue honoring Thomas Paine in Lewes, UK. It was here that many of Paine’s socio-political ideas took root.

