

What Happened to Truth?

Part 1: Rise of the Enlightenment

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CMU Osher Course, April 2026

Truth Decay

Lies, misinformation, and irrationality in general have become **normalized**.

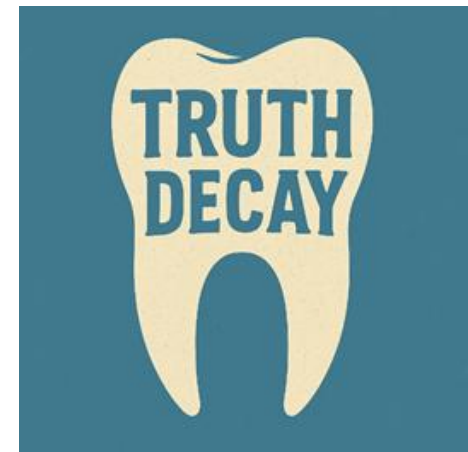
- Steady stream of **outrageously false claims** in public discourse
- ...and **nobody seems to care**.
- **Fact checkers** no longer even try to keep up.
- Flood of **AI fakes**.
- **Science denialism**, even in medicine, where lives are at stake.



Truth Decay

This follows a **general decline of Enlightenment values** since the founding of our republic 250 years ago, leading to such claims as

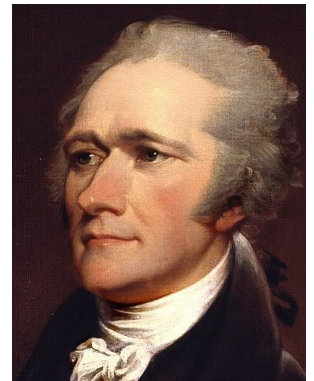
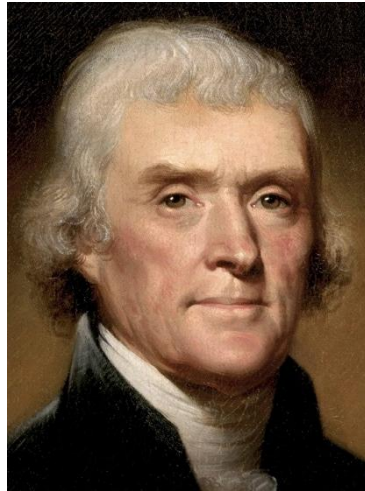
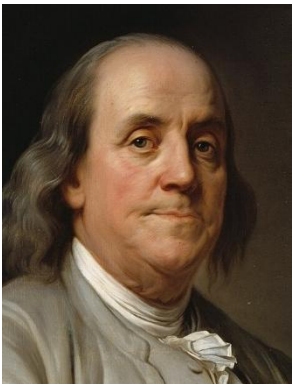
- There is **no objective truth**.
- Knowledge does not represent truth but is a **tool for exercising power**.
- Talk of values and ethics is **literally meaningless**.



The Enlightenment

The **Enlightenment** was an 18th century intellectual movement that held that society can and should be based on **reason, empirical science, and individual freedom.**

The **founders of our political system** were steeped in Enlightenment values.



Objective of the Course

Trace the **rise and decline of Enlightenment values**

...in an attempt to understand **how we got here** and **what we can do about it.**

Question

Can the American
experiment in democracy,
predicated on
Enlightenment values,
survive their decline?

Course Outline

Part 1 – Rise of the Enlightenment

- Bacon, Hobbes, Locke, Jefferson, Franklin, Montesquieu, Rousseau, Hume, Kant, Burke, Wollstonecraft
- The American experiment

Part 2 – Decline of Enlightenment Values

- French Revolution
- Positivism, the Vienna Circle, and modern science
- Religious fundamentalism
- Adorno, Horkheimer, Arendt, and the Holocaust

Part 3 – Postmodernism and Abandonment of Truth

- Wittgenstein, Foucault, Derrida, Lyotard, Rorty
- Identity politics, Habermas and critical race theory
- Science denialism and normalization of lies

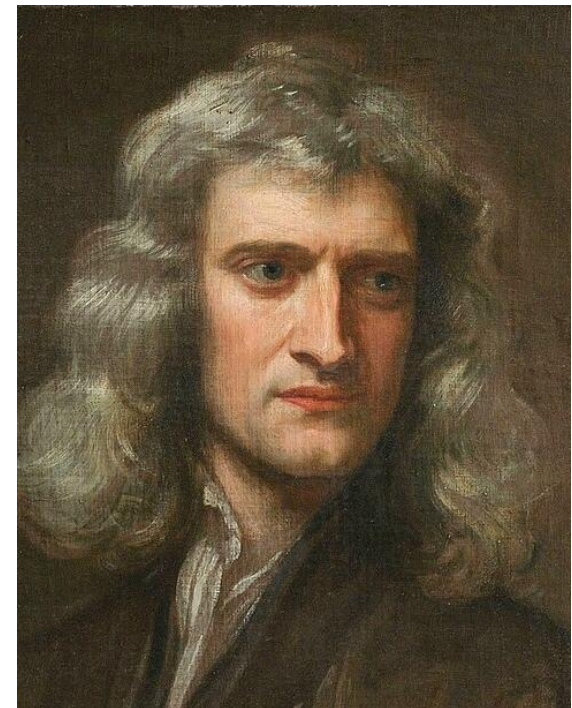
Epilogue – A Return to Enlightenment?

Beginnings of the Enlightenment

The period, inspired by the **scientific revolution** of the 16-17th centuries, began ca. 1687 with Newton's *Philosophiæ Naturalis Principia Mathematica*, and ended with the French Revolution and its aftermath.

Nature and Nature's laws
lay hid in night:
God said, Let Newton be!
And all was light.
-- Alexander Pope

Foundations were laid by
Francis Bacon, Thomas
Hobbes, et al.



Isaac Newton
1643-1727

Francis Bacon and Empirical Science

Francis Bacon predated the Enlightenment but contributed a key idea: **empirical science** based on **experimentation**.

Rose from humble birth to legal career and Lord Chancellor of England. Reacted negatively to Aristotle while student at Cambridge. Died from illness caught while performing an experiment.



Francis Bacon, 1561-1626

Francis Bacon and Empirical Science

Knowledge of the natural world should be based on **observation** and **controlled experiment**
– not tradition, authority, or pre-conceived theory.

We call it the **scientific method**.

Still an issue today, as in **evidence-based medicine**.

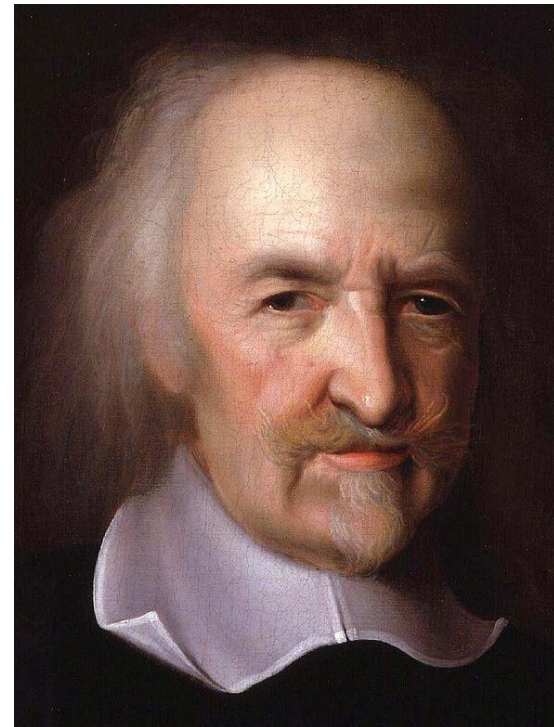
“Science” (Latin for knowledge, *scientia*) was then known as **natural philosophy**. Modern sense of “science” arose in 19th century



Thomas Hobbes and the Social Contract

Thomas Hobbes also predated the Enlightenment but contributed another key idea: a **rational foundation for government** based on a **social contract**.

English Civil War convinced him that authoritarian rule is necessary to prevent anarchy and a “war of all against all.”



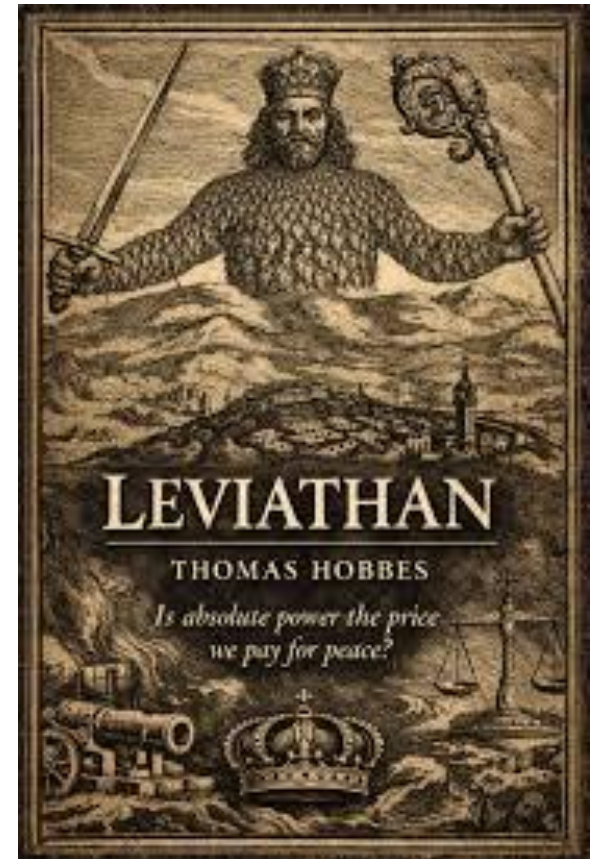
Thomas Hobbes, 1588-1679.

Thomas Hobbes and the Social Contract

To avoid a state of nature, people must **agree** to hand over authority to an **all-powerful sovereign** (Leviathan).

In a **state of nature**, “...every man is enemy to every man... In such condition there is no knowledge of the earth, no place for industry... no art; no letters; and which is worst of all, continual fear, and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short.”

--*Leviathan*



Thomas Hobbes and the Social Contract

The sovereign must have **sole authority** to adopt and enforce laws to ensure observance of “natural laws,” e.g.:

- Maintain peace.
- Make whatever sacrifice is necessary to maintain peace.
- Keep one’s agreements.

Social contract theory has played a central role in political philosophy up to the present day. For example, John Rawls’ *A Theory of Justice*.



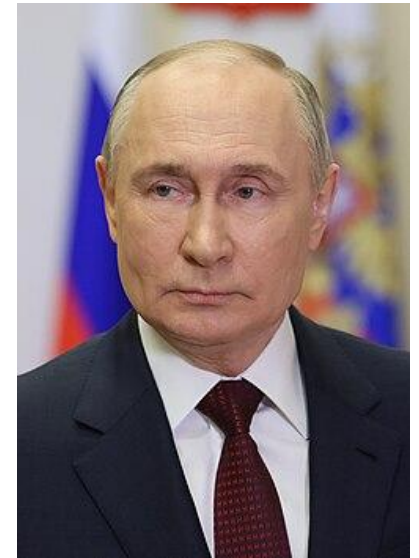
John Rawls,
1921-2002

Thomas Hobbes and the Social Contract

The Enlightenment (and Rawls) **rejected** Hobbes' preference for authoritarianism, but accepted the idea of **government constructed on rational grounds.**



U.S. Constitution is an example, but the lure of an authoritarian government that keeps the peace still exists.



John Locke and Limited Government

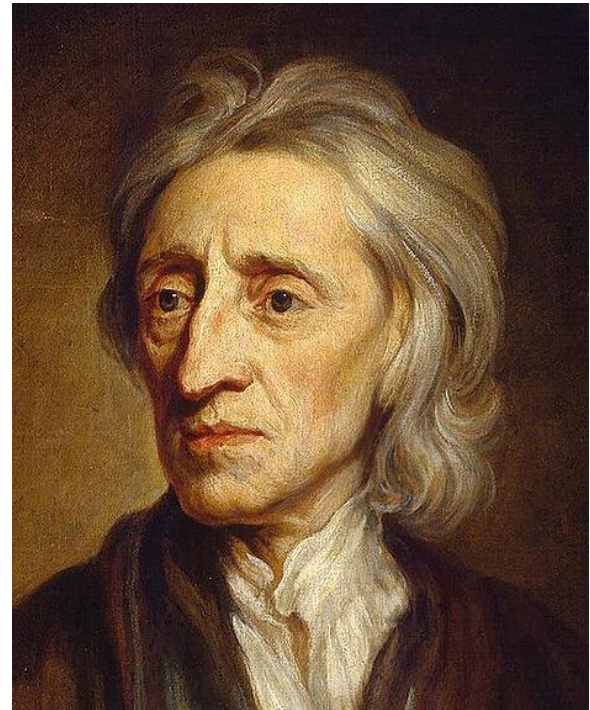
John Locke grounded government on a **social contract** very different from Hobbes’.

Led by father’s role in England’s Glorious Revolution, he rejected the divine right of kings.

Strongly influenced Thomas Jefferson.

Known today as the father of classical liberalism.

Classical liberalism ≠
U.S. liberalism.
Emphasizes individual
liberty and rule of law.



John Locke, 1632-1704

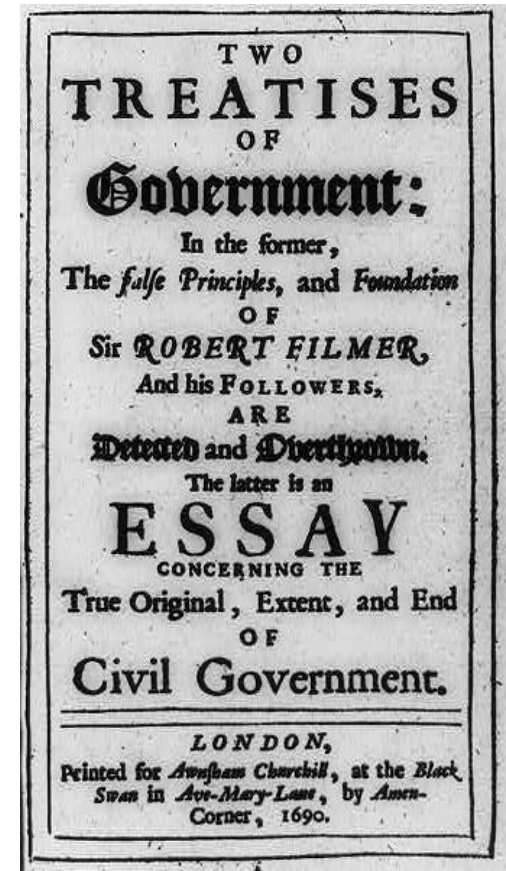
John Locke and Limited Government

Locke didn't use rights language but endorsed what were later called **natural rights**.

He stated that humans are naturally free and equal and therefore have God-given rights to **life, liberty, and property**.

Rational individuals will enter into a **social contract** that **protects their natural rights**.

“Being all equal and independent,
no one ought to harm another in his
life, health, liberty, or possessions.”
--*Second Treatise of Government*

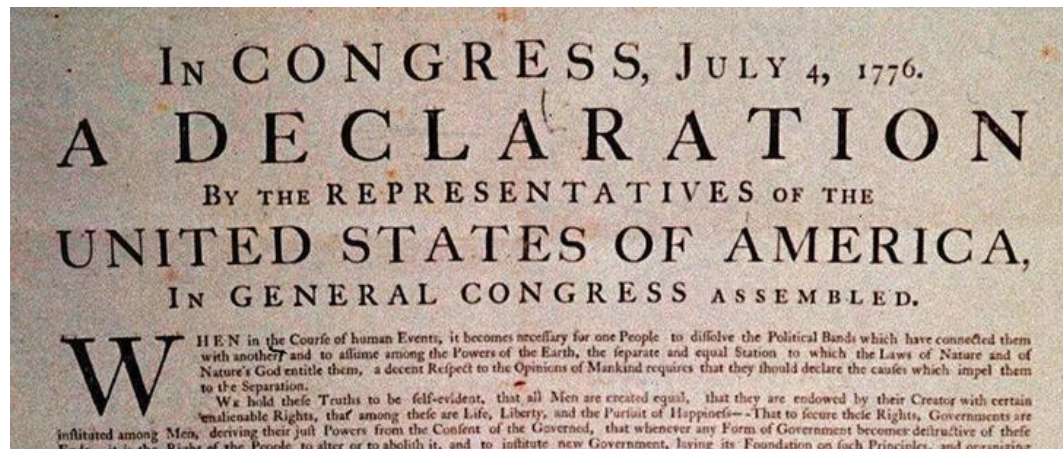


John Locke and Limited Government

The people have a right to **abolish** a government that breaches this contract. Compare with Jefferson...

“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.... That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it...”

-- *U.S. Declaration of Independence*



John Locke and Limited Government

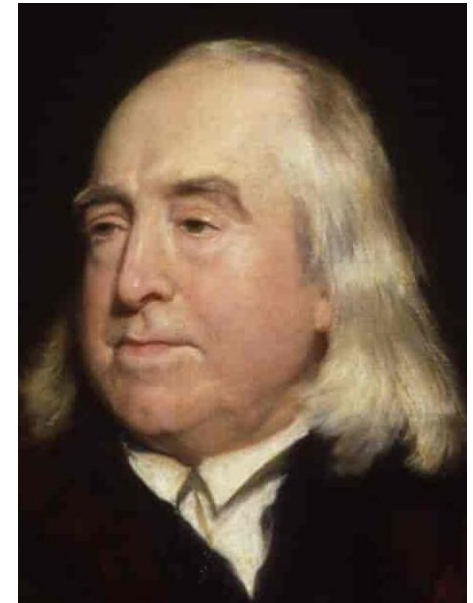
Why “**pursuit of happiness**” rather than “**property**”?

Locke: When one invests labor in a home or farm, it becomes part of himself. One therefore has a right to property as one has a right to one’s own existence.

Unclear how this right extends to property that is **bought** or **inherited**.

Jefferson: “Pursuit of happiness” reflects Enlightenment concept of happiness as a goal, as expressed in Jeremy Bentham’s utilitarianism.

Also: mention of “property” could seem to justify slavery.



Jeremy Bentham
1748-1832

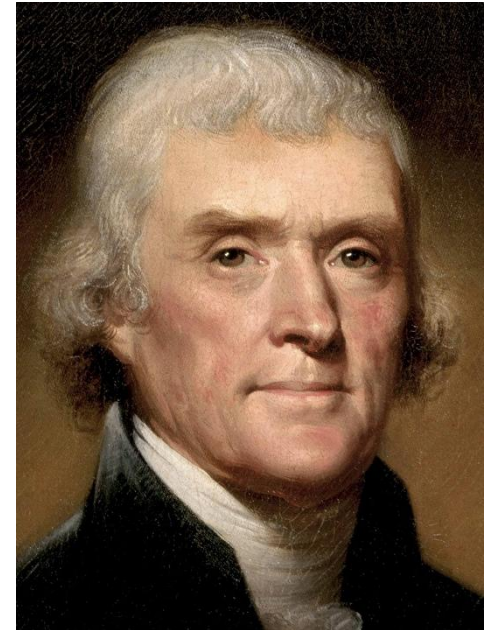
Thomas Jefferson & Enlightenment Values

Jefferson believed that every generation should **forget tradition** and **rethink** its social contract, on rational grounds.

“Every constitution then, & every law,
naturally expires at the end of 19 years.”
-- *Letter to James Madison*

Yet, Jefferson never rethought traditional denial of suffrage to women.

More on this later.



Thomas Jefferson
1743-1826

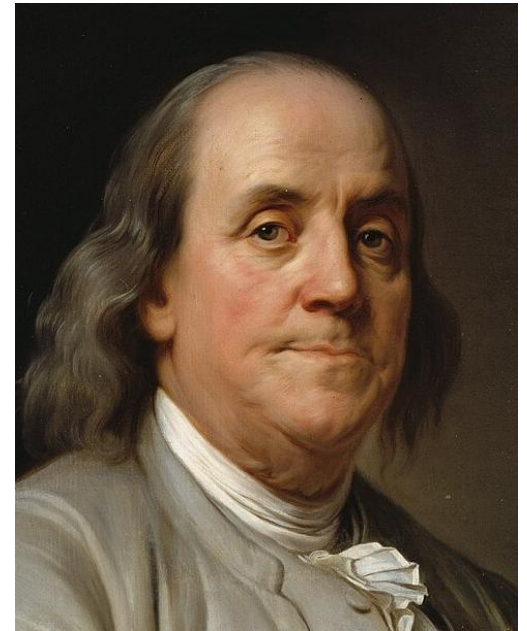
Benjamin Franklin and Racial Equality

The Enlightenment era tolerated slavery and denied suffrage to women, both relics of **tradition**, not products of reason.

Yet, on visiting a school for Black children, Benjamin Franklin **rejected traditional teaching** on race.

“What I then saw, have conceiv’d a higher Opinion of the natural Capacities of the black Race, than I had ever before entertained. Their Apprehension seems as quick, their Memory as strong, and their Docility in every Respect equal to that of white Children. You will wonder perhaps that I should ever doubt it, and I will not undertake to justify all my Prejudices, nor to account for them.”

-- *Letter to John Waring, 1763*



Benjamin Franklin
1706-1790 19

Benjamin Franklin and Racial Equality

Franklin became an **abolitionist** after this experience, but he and Jefferson held their slaves until death.

So, we have two interpretations of this story:

- Enlightenment is our **hope for the future**, because its respect for rationality dispels the ignorance that leads to oppression.
- The Enlightenment is a **failure**, because oppression has always persisted despite fancy talk about reason and equality.

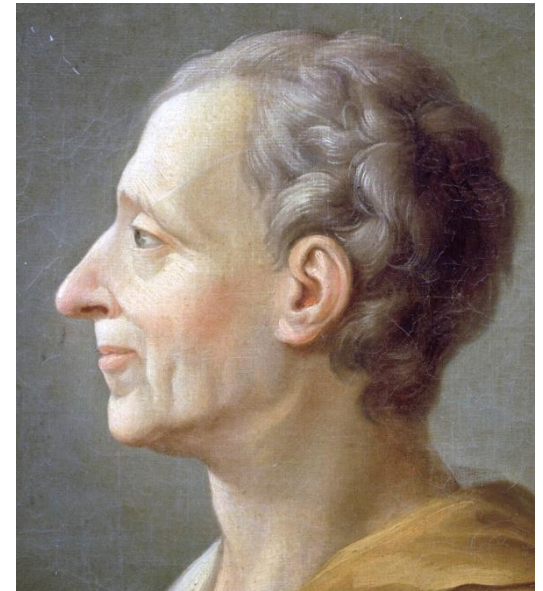
This dual interpretation will
return with a vengeance
in the 20th century.

Montesquieu & the Structure of Government

Montesquieu agreed that government should be rationally designed, and he strongly influenced the basic architecture of the future U.S. government.

Montesquieu's stay in England convinced him that its "Constitution" offered a good example of a republican government that can work in practice.

Republican government:
A government of laws that is responsible to the people through elected representatives and guaranteed rights for the minority.



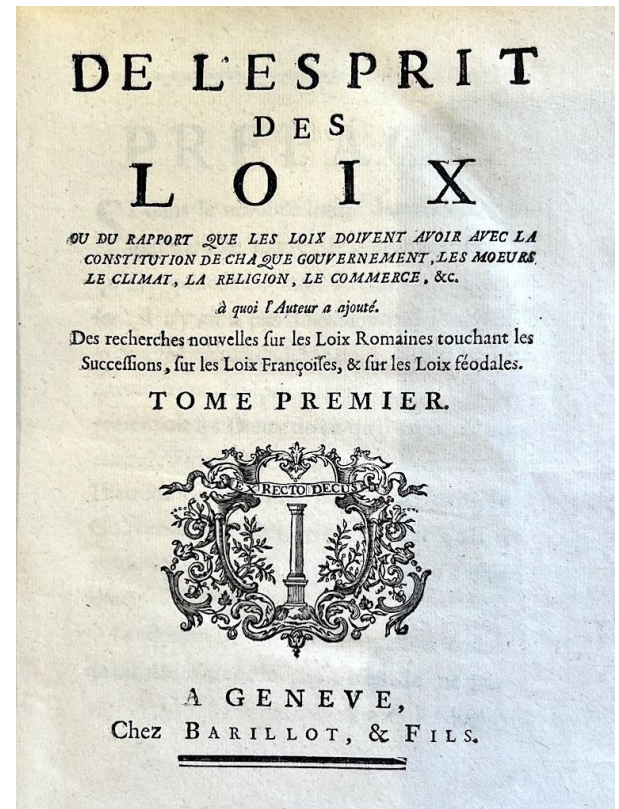
Charles Louis de Secondat,
Baron de la Brède
et de Montesquieu
1689-1755

Montesquieu & the Structure of Government

Montesquieu's prescription for a republican government:

- **Separation of powers** to prevent concentration of power and tyranny.
 - Legislative
 - Executive
 - Judicial
- **Bicameral legislature** to represent the people while ensuring deliberate lawmaking.
- **Federal system** so that government is closer to the people.

The U.S. Constitution's Great Compromise replaced Montesquieu's aristocratic upper house with a Senate that gives each State equal representation.

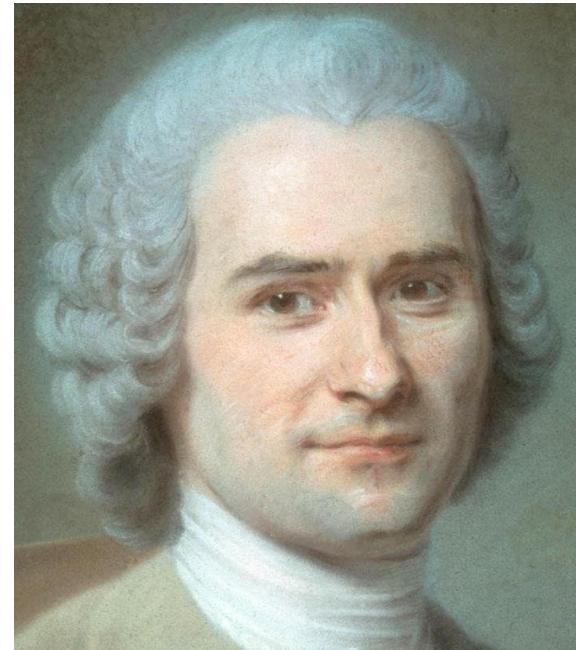


Rousseau and Radical Democracy

Jean-Jacques Rousseau outlined a social contract that can allow human beings to form a democratic society while retaining their natural freedom.

A brilliant and eccentric philosopher* and intellectual foil to Voltaire, Rousseau brought a romantic perspective to political theory and strongly influenced the encyclopedist Denis Diderot. He championed a “natural” approach to childhood education in his book *Émile*.

The 140 contributors to Diderot's *Encyclopédie* wrote 17,266 articles contained in 28 volumes.



Jean-Jacques Rousseau
1712-1778

*Schooled by his brilliant & freethinking mistress Françoise-Louise de Warens

Rousseau and Radical Democracy

Rousseau's social contract envisions a **direct democracy** (rather than a republic) that is governed by the **general will** (*volonté générale*), **not majority rule**.

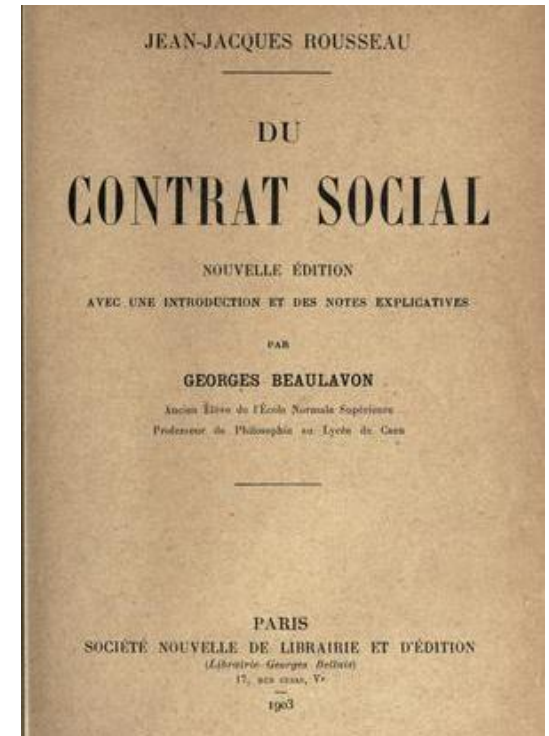
He favored small states in which laws are arrived at by **rational consensus** on what is in the best interest of the people.

Can this avoid tyranny of the majority?

“Whoever refuses to obey the general will will be forced to do so... this means merely that he will be *forced to be free*.”

-- *The Social Contract*

The idea is vague but inspiration for Kant's revolutionary ethical theory.



David Hume and Radical Skepticism

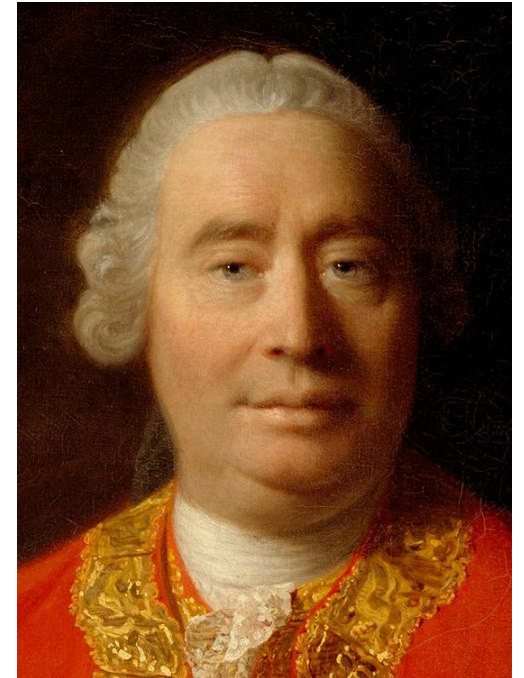
David Hume's compelling arguments cast rational doubt on the foundations of natural science and ethics.

A leading figure in the Scottish Enlightenment, Hume used skepticism as a rational **methodology** (as did Descartes).

What **can** we know, and how?

20th century postmodernism will use skepticism as a **deconstructive** rather than constructive tool.

David Hume
1711-1776



David Hume and Radical Skepticism

Science rests on a big assumption: the **regularity of nature**.

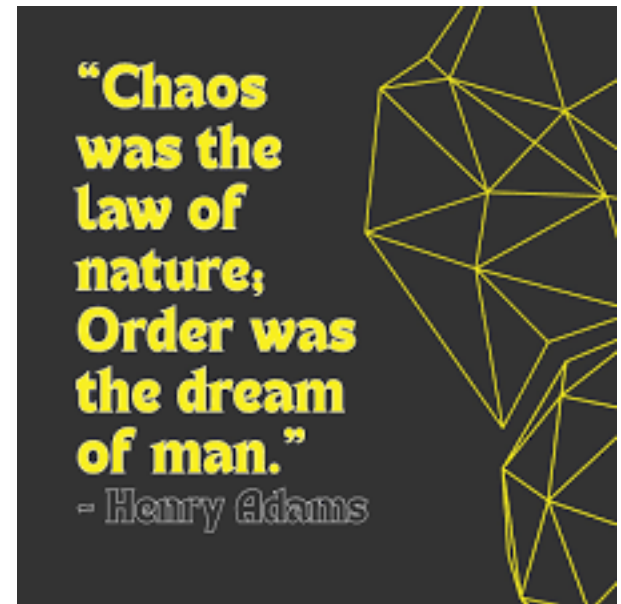
That is, what we have observed to be true in the past will continue to be true in the future (inductive reasoning).

Our only evidence for this assumption is that has been **true so far**.

This is circular reasoning, and so **there is no rational basis for science**.

Ethics is in even worse shape.

It is left to **Kant** to rescue the Enlightenment from skepticism...



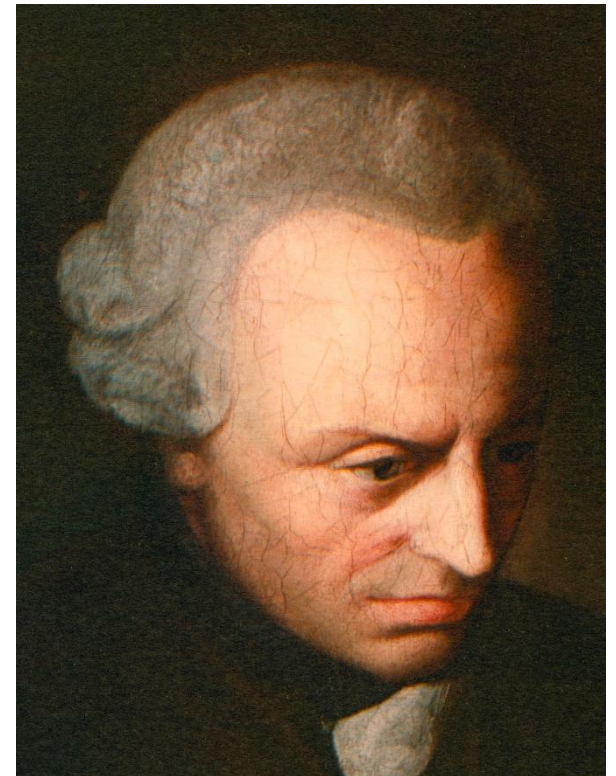
-- *The Education of Henry Adams, 1918* 26

Kant's "Copernican Revolution"

Immanuel Kant credits Hume with asking the right questions. His response is a revolution in thought, still not fully absorbed.

"Two things fill the mind with ever new and increasing admiration and awe... the starry heavens above and the moral law within."
-- *Critique of Practical Reason*

Kant suggested that a fuzzy patch in the sky is a whole galaxy of stars. Edwin Hubble proved him right a century later.



Immanuel Kant
1724-1824

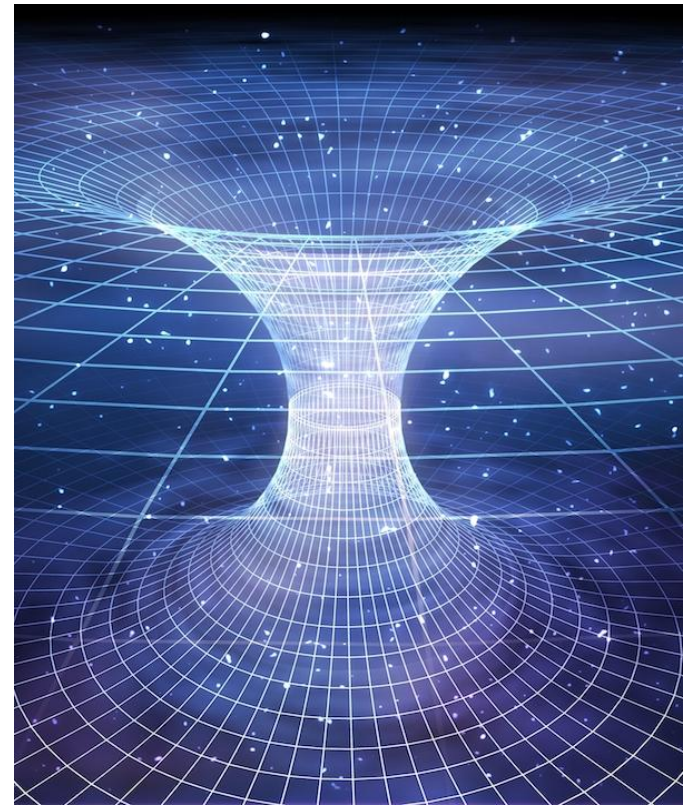
Kant's "Copernican Revolution"

We cannot infer the regularity of nature or the moral law from our experience. But...

The regularity of nature is a condition for the **very possibility of experience.**

The moral law is a condition for the very possibility of freely chosen action.
To be free is to be moral.

Kant argued that space and time, as we conceive them, are constructions of the mind and need not match reality. Now we know he was right.



Kant's "Copernican Revolution"

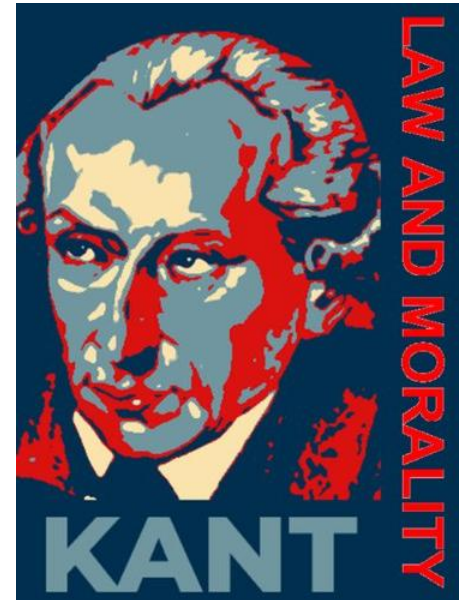
Kant on political philosophy: The state cannot legitimately deny freedom to autonomous individuals.

But individuals who act immorally are not autonomous.

So, a legitimate state is one whose law consists of the moral law.

But the moral law is the condition for the possibility of free action. Namely, one must act according to a policy that one can consistently will to be universal law (categorical imperative).

So, a legitimate state (*Reich der Zwecke*) **never compels** free individuals to do anything -- a form of anarchism (a philosophy explicitly advocated by William Godwin)

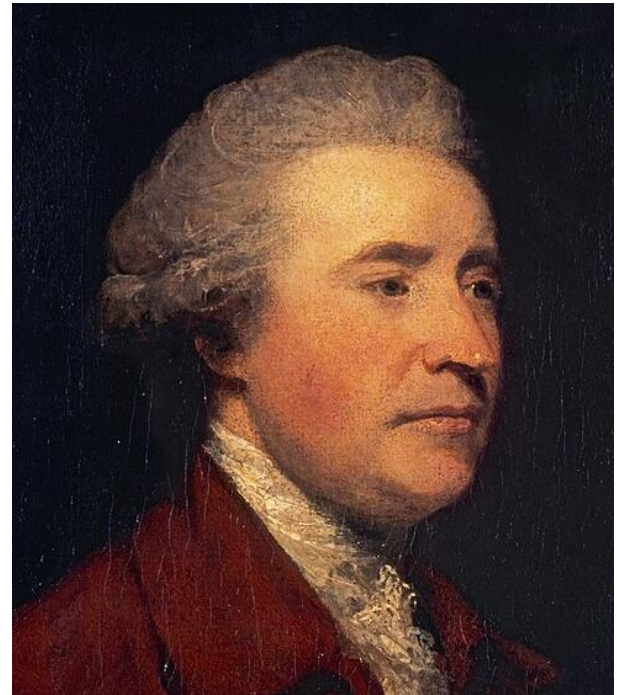


Edmund Burke vs. the Enlightenment

Edmund Burke, in some sense the original conservative, advanced an enduring critique of the Enlightenment. It will follow us through the rest of the course.

Burke was an Irish statesman who saw English freedoms as a product of tradition, not reason.

His love of royalty does not resonate today, but his fundamental reliance on tradition remains central to conservatism.



Edmund Burke
1729-1797

Edmund Burke vs. the Enlightenment

Burke **rejected** democratic government.

Civic institutions can only be the product of **long tradition**, **not a social contract**, the precise opposite of Jefferson's view.

A small group of **armchair intellectuals** cannot design a government that works. Society is too complicated.

The chaos of the **French Revolution** was inevitable as an attempt to “start over.”

Burke supported the American Revolution, but only as a means of restoring British tradition to the colonies.



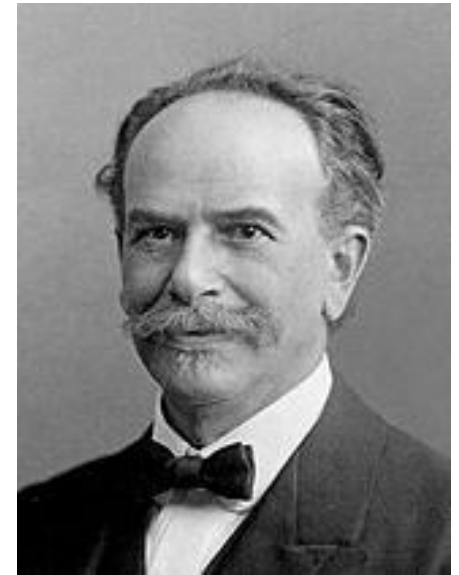
Edmund Burke vs. the Enlightenment

The core of Burke's position is the necessity of **culture**.

The modern concept of culture didn't exist in his day, but Burke recognized that no society can operate without **unquestioned assumptions** inherited from tradition.

These assumptions become evident when one encounters different world cultures, an experience that gave rise to cultural anthropology in the 19th century.

For example: **majority rule**
We accept it unthinkingly even though
it has no rational justification,
and our system cannot operate without it.



Franz Boas, 1858-1942
Pioneer of modern₃₂
cultural anthropology

Edmund Burke vs. the Enlightenment

Burke's position has two interpretations:

Empirical claim. One cannot design a society on rational grounds because people are guided by unquestioned cultural assumptions, not by reason.

Theoretical claim. One cannot design a society on rational grounds because there can be no rational justification for its guiding principles in the first place.

Burke seemed to hold both views.

This dual interpretation will
return with a vengeance
in the 20th century.

Mary Wollstonecraft's Response to Burke

Mary Wollstonecraft, a staunch defender of Enlightenment, formulated a sharp response to Burke's traditionalism and later critique of the French Revolution.

Her *Vindication of the Rights of Woman* (1792) receives more attention today, but her core philosophy is articulated in her response to Burkean conservatism, *Vindication of the Rights of Men* (1790).

Wollstonecraft tragically died young after giving birth* to Mary Shelley, future author of *Frankenstein*.



Mary Wollstonecraft
1759-1797

*The father was anarchist William Godwin.

Mary Wollstonecraft's Response to Burke

Wollstonecraft's arguments are not based on feminism or identity politics (which did not exist at the time).

They are based on a rigorous application of Enlightenment principles.

Re: Burke -- On his view (traditionalism), there can be no justification for resisting an oppressive tradition!

For example, on what grounds did British oppose the practice of suttee (*sati*) in India?

Mary Wollstonecraft's Response to Burke

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Re: Burke -- On his view (traditionalism), there can be no justification for resisting an oppressive tradition!

For example, on what grounds did British oppose the practice of suttee (*sati*) in India?

Re: Jefferson -- On his view (natural rights) it is imperative to rethink the **rights of women** as well as men!

Although Wollstonecraft did not clearly advocate women's suffrage.

The American Experiment

The American experiment tests whether a government designed according to Enlightenment principles can endure, despite Burke's warnings about the inevitability of culture and tradition. **The jury is still out.**

The Founders lacked the concepts to articulate the full implications of their experiment, but they hinted at it in the **separation of church and state.**

Church = Culture, State = Reason



Recent erosion of the “wall of separation” symbolizes decline of Enlightenment values

Next Session

The **decline** of Enlightenment values, beginning with the French Revolution and its aftermath.

