



Science and Rationalism

BACON, DESCARTES, HOBBS, AND NEWTON

Francis Bacon (1561-1626)

- ▶ Loved Knowledge for its own sake. We should strive to learn whether we see an immediate need or not.
- ▶ Its important to be right, for everybody's sake.
- ▶ Criticized the scholastics for focusing too much on words rather than on scientific investigations.

Idolizing Error

- ▶ Bacon noticed that people tend to cling to mistaken ideas for a variety of reasons that he called “Idols of the Mind.”
 - ▶ Idols of the tribe: Mistakes caused by human nature. Our perceptions and emotions are inherently unreliable.
 - ▶ Idols of the cave: Different people see things differently. We all live in our own cave.
 - ▶ Idols of the marketplace: We tend to agree on things that have nothing to do with the truth. We “buy and sell” ideas because they seem socially valuable.
 - ▶ Idols of the theater: Philosophical authorities like to show off and “play the sage” even if they have no clue what they’re talking about.

Still More Bacon

- ▶ Went against the tendency of the times to accept everything written as truth.
- ▶ We should be content to say only the few things we know to be true and build from there.
 - ▶ “If a man begins with certainties he shall end with doubts, but if he will be content to begin with doubts, he shall end with certainties.”

Science and Spirit

- ▶ There were problems getting people to agree on any scientific fact.
- ▶ Scholastic Philosophers claimed that they had figured out everything that God wants us to know.
 - ▶ Science was just meddling in things that God intended to keep secret.

Some scientific philosophers were interested in how the mind works. It isn't like other things in nature, and there is a lot that science can't tell us.

Rene Descartes (1591-1650)

- ▶ The human mind can do things that other things in nature can't do.
 - ▶ Think
 - ▶ Imagine
 - ▶ Make conversation
- ▶ The mind isn't just made up of matter: It's made up of spirit.
- ▶ Descartes was a champion of Dualism, the idea that the mind is both physical and spiritual, and you must understand both to understand

Descartes Dualism

- ▶ The mind is always right, as long as it isn't being misled by the material body.
- ▶ Referred to all of the feelings that can influence our minds as "Passions."
- ▶ Argued that the mind can know things independently of physical reality.
- ▶ Get past your feelings and see "the truth," which is like math and geometry: its just how things are.

Descartes and Government

- ▶ In a time when both government and the church were losing influence and authority, Descartes encouraged people to think for themselves-and govern themselves-without acting selfishly.
- ▶ Popular because he helped reconcile religious and scientific ideas.
 - ▶ Science can explain the natural world, but Descartes left room for God and spirituality in the human mind.
 - ▶ Not everyone agreed. The strongest opponent of spirituality was Thomas Hobbes.

Thomas Hobbes (1588-1679)

- ▶ Most famous for political philosophy, but that was built on his epistemological beliefs.
- ▶ Leviathan
 - ▶ Without a strong king, we'll steal and murder each other.
 - ▶ Loyalty to ruler regardless of how harsh he is.
 - ▶ "The condition of man is a condition of war of everyone against everyone."

Hobbes and the Spirit

- ▶ His political philosophy came from his view of nature and the mind.
- ▶ Nature is completely made up of physical matter, nothing spiritual about it. (way more Bacon than Descartes)
- ▶ Thought spiritual people were causing chaos.
- ▶ The mind as a thinking machine: (dandelions)
 - ▶ These machines don't always tell us the truth. They can tell us what we want to believe.
 - ▶ People, particularly religious people, can be led astray by their minds.

Weak minds, strong ruler

- ▶ Since your mind isn't reliable, you can't be trusted.
- ▶ Without government to keep us in line, we live in a "state of nature:"
 - ▶ Solitary
 - ▶ Poor
 - ▶ Nasty
 - ▶ Brutish
 - ▶ Short

In the end...

- ▶ Hobbes supported traditional kingship, not because of “divine right” but because of social contract.
- ▶ Kind of Machiavellian.

The Least You Need to Know

- ▶ Sir Francis Bacon's idea that knowledge should be a group project paved the way for modern science.
- ▶ Some philosophers objected to science for religious reasons; others objected because it did not take the mind into account.
- ▶ Descartes believed the mind had a physical and a spiritual aspect (dualism)
- ▶ Hobbes saw the mind as completely physical; our thoughts and feelings are caused by material processes.