Scientific Rationalism

Francis Bacon and René Descartes

Seventeenth-century philosophers Francis Bacon and René Descartes both thought that past beliefs should be rejected. However, they had different ways of gathering new knowledge. Descartes used reason, while Bacon used experimentation. Both approaches contributed to the development of what became known as the scientific method.

1. How were the beliefs of Francis Bacon and Rene Descartes the same? How were they different?

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2. Why were their approaches important?

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The Scientific Method

The scientific method, developed in the 17th century, is still used by scientists today. It has four major steps.
1. Make observations to determine the problem.
2. Form a hypothesis, an unproven idea of what the answer might be.
3. Test the hypothesis through experiments.
4. Use reason to analyze the results. Then draw a conclusion that either supports the hypothesis or proves it wrong.

3. Why do you think the four major steps of the scientific method are still being used today?

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Impact of Scientific Rationalism on the Church

During the Middle Ages, people relied on the Church to provide answers to many puzzling questions about their world. When people began to find some of these answers for themselves, they became less dependent on the Church. Some scientific investigations did not agree with the Church’s teachings. This began to weaken the Church’s authority.

4. Why did people rely on the church during the Middle Ages?

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5. What happened when people began to find answers for themselves?

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Other Effects of Scientific Rationalism

Some political thinkers applied scientific rationalism to find natural laws. These laws changed their views on government. For example, John Locke believed that people had the right to control their own lives. This idea supported democratic forms of government.

6. How did political thinkers apply scientific rationalism to government?

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