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Enlightenment

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Introduction

The 17th century (the age of Descartes and Francis Bacon) is generally referred to as the Age of Reason, while the term 'Enlightenment' is often restricted to the 18th century. There is in fact no clear demarcation between the two. Hence when we refer to the 'Enlightenment,' we shall refer to the events unfolding in Europe during the 17th and 18th centuries (that is, roughly from 1600-1800).

The period of the Enlightenment is characterized by the growing acceptance of reason (rather than cultural and religious tradition) as the primary authority used to settle philosophical, scientific and political problems. This emergence of a reason-based approach to life brought the age of the Renaissance to a close. This is because the Western mind entered a brand new phase in its history, during which there was no need to prove one's theories by citing Plato, Aristotle or any other authoritative thinkers of the past any more. Anyone was free to contribute to the stock of human knowledge through the means of observation, experimentation, and inference. A new age with a scientific mindset had begun.

Almost every aspect of the Enlightenment is linked with this basic shift in philosophy. Indeed, the shift had partially already begun during the Renaissance. But the Enlightenment was in a special way the awakening of

Europe, beginning with England. It was a time when philosophical ideas began to play a role in transforming the day-to-day lives of even the simplest people. Unlike previous cultural shifts such as the Renaissance, the Enlightenment was not restricted to a particular social class but directly affected the general public through the spread of science, education and democratic values. Wherever the new aspirations of the people were blocked, pent-up tensions resulted in dramatic events such as the American War of Independence and the French Revolution.

The most important countries influenced by the Enlightenment were England, France and Germany. To begin with, in England, the 17th and 18th centuries were characterised by the steady progress of science. The sciences were now completely separated from philosophy. The development of science in England finally led to the Industrial Revolution through which technology changed the face of England. Alongside this, there was a steady growth in the British colonial empire, especially in India. Australia was discovered by Captain Cook. Trade with such colonies helped to enrich England and fuelled the Industrial Revolution.

France, on the other hand, was driven by the prestige of the Bourbon royal family. Under the great King Louis XIV, France became the cultural centre of Europe and all other European nations tried to imitate French customs and manners. Every art and science was dominated by the needs of the King and the Royal Court. However, during the 18th century, the common people of France began to lose their respect for the King and were influenced instead by the writings of Voltaire and other radical thinkers. Finally, King Louis XVI was overthrown and a Republic was established.

Germany was divided into many small states as a result of the 30 years war. Austria and Prussia were dominant but neither of them was able to unify the whole of Germany during this period, and Germany was often vulnerable to the French. Nevertheless, German philosophy flourished, and the period of the Enlightenment produced some of the greatest of philosophers, including Immanuel Kant.

In general, Protestant States accepted the Enlightenment more readily than Catholic countries, though Portugal (Catholic) was the first to promulgate laws based on Enlightenment Philosophy. In France, the Enlightenment finally reached its climax in the French Revolution, while in Germany, philosophy reached its highest point in the 'transcendental idealism' of Kant and the 'absolute idealism' of Hegel.

At the close of the Enlightenment, the intellectual atmosphere of the modern age was already in place. Education was widespread in every country of Europe. The Industrial Revolution had begun in England but had been adopted by other countries as well. Finally, freedom and democracy, the hallmarks of the modern age, had established themselves as ideals in England, America, France and gradually other European countries.

Major Events During this Period (1600-1800)

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| 1600 | The East India Company is founded in England. |
| 1609 | Kepler publishes <i>The New Astronomy</i> based on his first two laws. |
| 1610 | Galileo publishes <i>The Starry Messenger</i> , containing reports of his telescopic discoveries including the moons of Jupiter and the phases of Venus. |

- 1618-1648 The Thirty Years War between Catholics and Protestants in Germany.
- 1620 Francis Bacon's *Novum Organum* introduces a new system of logic based on the method of induction.
- 1628 William Harvey publishes a description of the circulation of blood.
- 1632 Galileo Galilei presents his arguments in favour of Copernicus' theory in the form of a book titled *Dialogue on the Two Chief Systems of the World*. The book brings him into conflict with the Church.
- 1641 Publication of Rene Descartes' *Meditations*.
- 1642-1714 Reign of Louis XIV, the 'Sun King' of France. France becomes the centre of European culture.
- 1645 The first calculating machine is invented by Blaise Pascal.
- 1649 King Charles I of England is beheaded after a seven-year civil war. Parliament takes over the government of the country.
- 1651 Thomas Hobbes publishes *Leviathan*, a work of political philosophy.
- 1687 Sir Isaac Newton publishes *Principia Mathematica*.
- 1688-89 The Stuart dynasty is overthrown in England and William of Orange (from the Netherlands) is invited to be the King. Establishment of a Constitutional Government brought about via the Declaration of Rights.

- 1690 John Locke's *Two Treatises on Civil Government*.
- 1705 The steam pump is invented by Thomas Newcomen.
- 1721 Robert Walpole becomes the first Prime Minister of England.
- 1740-87 Reign of Frederick II the Great, 'enlightened' ruler of Prussia and friend of Voltaire.
- 1744 onwards: Anglo-French struggle for supremacy in India.
- 1751 Diderot's *Encyclopedie* began to be published (a multi-volume exposition by prominent thinkers to promote the ideals of the Enlightenment).
- 1756-63 The Seven Years' War; France loses its influence in India and Canada.
- 1757 The Battle of Plassey: The British become the *de facto* rulers of Bengal.
- 1758 Voltaire completes *Candide*.
- 1762 Rousseau publishes *The Social Contract*.
- 1764 Battle of Buxar: The Mughal Emperor is defeated and becomes a pensioner of the British. The Marathas become a leading power in India.
- 1768 Captain Cook begins his voyages on the *Endeavour*.
- 1769 James Watt patents the improved steam engine.
- 1775-83 American War of Independence.

- 1781 Immanuel Kant publishes *A Critique of Pure Reason*.
Emperor Joseph I of Austria liberates the serfs.
- 1789 onwards: The French Revolution.
- 1799 Napoleon becomes First Consul of France (later Emperor in 1804).

Aspects of Enlightenment Culture and Philosophy

The Scientific Culture: Science in ancient and medieval times was largely dominated by the 'deductive method,' which began with generally accepted conclusions (which were culturally and theologically accepted as true) and then only applied to particular observable cases. After the Renaissance, and especially during the Enlightenment, this deductive method gave way to the 'inductive method,' which was based on observations leading to newer and newer conclusions. This gave rise to new discoveries, and paved the way for the 'Industrial Revolution.' This new form of scientific demonstration and knowledge began to have greater prestige among the general population, and scientists such as Isaac Newton and Edmund Halley were as prominent in their day as Michelangelo and Leonardo had been during the Renaissance. Scientific inventions such as the steam engine began to have an increasing application in controlling the forces of nature. The advances in travel made the world grow smaller and allowed the development of the vast British and Russian Empires. The new knowledge was compiled by the Encyclopaedists in France.

Although the epoch can be said to have begun with Galileo, the person who stands out with the greatest

clarity is Sir Isaac Newton, the British scientist who discovered the Universal Law of Gravitation and thereby showed how every object in the Universe is related to every other object. Chemists increasingly discarded the ancient concept of the four elements, while biologists, rather disturbingly, were beginning to show that man – contrary to what the people of the Middle Ages had believed – was in fact similar in many ways to the lower animals. This ‘humbling’ of man, however, was not taken negatively but seen as a challenge, namely, how human society could achieve the greatest welfare of the greatest number of people, through the mastery of nature by means of science and technology.

A New Philosophical Beginning: The Philosophy of the Enlightenment began with Descartes’ tremendous decision to reject all previous philosophy as uncertain and make a fresh beginning with the facts that he could be absolutely certain of: namely the fact that he was thinking, and therefore that he himself existed (*‘cogito, ergo sum’*). His methodology was highly successful and he was the father of a whole new movement that sought to establish a valid epistemology through French and German Rationalism, English Empiricism and finally German Idealism.

Hence a new age dawned – the age of ‘Modern Philosophy’. Modern philosophy no longer made appeal to authorities such as Plato and Aristotle except as examples. Rather, the main source of knowledge was the ‘great book of the world’ itself, and this book was ‘read’ through experience. Since the experiences of different peoples are different, toleration and pluralism increased and there were calls for freedom of thought and freedom of religion. There were also sceptics who tried to show that nothing was knowable. Finally, there were political philosophers who were convinced that the old order was the source of

nothing but misery and slavery and were determined that it should be replaced by a new order.

The Emergence of the Public Sphere: Strangely, one of the most important cultural changes that took place during this period was the emergence of a space in which private people were able to come together as a public. This public sphere included coffeehouses, reading societies, etc. Through the growth of the international book trade and the emergence of mass-produced pamphlets and news bulletins, people in different parts of the world were increasingly reading and discussing the same events, persons and ideas. For example, in 1776, Adam Smith estimated that 33,000 newspapers were sold in Britain everyday. Voltaire's books sold 1,500,000 copies within seven years. The phenomenal growth of the press led to the establishment of what Immanuel Kant called a 'tribunal of reason,' i.e., an informal forum in which persons and their opinions were either accepted or condemned. This proved important for the politics of the day but it also had an impact on philosophy and religion.

The kind of books that were read also changed. Whereas books were earlier chiefly used as a means to spiritual development, now they were increasingly read for intellectual stimulation (as in the case of scientific literature) as well as for information that could result in action (as in the case of political literature).

The Spread of Democratic Values: The 17th century saw various attempts made by monarchs to establish the principle of the Divine Right of Kings. In the 18th century, this was no longer possible. The bankrupt monarchs had to turn to assemblies and parliaments to raise money to finance their projects. The result was that different groups of people increasingly saw it as their right to place limits on the power of the kings.

In England, this was achieved during the 17th century itself, with the Civil War (1640s) and the Glorious Revolution (1688). Power began to pass from the King to the Prime Minister. However, the French Kings refused to part with power in spite of their loss of prestige in the 18th century. As a result, the writings of philosophers such as Voltaire and Rousseau gained popularity and were instrumental in spreading the idea that all people had a right to freedom and equality. Finally, after the Americans (with French support) had given themselves a republican form of government, the common people of France, who had been oppressed for centuries, rose up in Revolution against their King and rebuilt their country and laws on the principles of liberty, equality and fraternity.

Major Figures During the Enlightenment

Galileo Galilei (1564-1642) was an Italian astronomer and mathematician. He is famous for having discovered the moons of Jupiter. He publicly defended the view that the Earth travelled round the Sun. When he published these views in the form of a book titled *Dialogue on the Two Chief Systems of the World*, he had to face intense opposition and persecution, particularly from the religious authorities. He was put on trial in 1633, suspected of contradicting the Bible. Hence, his life brought out the tragedy of the contradiction between fundamentalist religious beliefs and scientific progress.

Rene Descartes (1596-1650), a French philosopher, widely regarded as the 'Father of Modern Philosophy.' He began his career as a soldier but devoted his leisure hours to philosophizing. In an age of uncertainty, he made a new beginning by discarding the traditional scholastic methodology and beginning with the one fact that he could be certain of – the fact that he was thinking.

From this, he concluded that his own existence was also a certainty. His well known saying is 'cogito, ergo sum' ('I think, therefore I am'). Proceeding in this manner, he built his entire philosophy using a mathematical style of reasoning (he was also an excellent mathematician and is known for his contributions to Coordinate Geometry). He published his philosophical reflections in several works such as *Discourse on Method* and *Meditations on First Philosophy*.

Blaise Pascal (1623-1662) was a French mathematician, physicist and philosopher. The scientific unit of pressure is named after him. At an early age, he invented the world's first calculating machine. In addition to his scientific achievements, he had a deep insight into human nature, which he explores in his work titled *Pensées* ('Thoughts'). He believed that philosophy leads to scepticism, and that man's true happiness lies in religion. His 'wager' argument shows that if we cannot be certain of God's existence, it is more reasonable to believe in God (to bet that God exists and to live a life accordingly) rather than to be an atheist.

Benedict (Baruch) Spinoza (1632-1677), a Dutch Jewish (later Christian) rationalist philosopher, used a geometric method similar to Descartes in his philosophy. He came to the conclusion that mind and matter were two aspects of the same substance. This led him to a kind of pantheistic view according to which all things were somehow included in God, and that nature was a manifestation of God. He also called for a government that would be broad-minded and liberal. However, he was a thinker ahead of his times, and his views were not easily accepted in 17th century Europe.

John Locke (1632-1704), in his *Essay Concerning Human Understanding*, began a new phase in philosophy

by turning from reason (Descartes' method) to sense experience as a means of attaining truth. This began the movement known as 'Empiricism.' He held that all our ideas come ultimately from sense experiences. The mind combines simple ideas to produce more complex ideas. For example, the sensations of 'white,' 'hard,' 'high' and 'flat' may be combined to form the idea of a white wall. Locke also wrote significant treatises on economics and politics, and argued in favour of religious toleration, which was rare in the 17th century. He is one of the first thinkers to propose that human beings have rights innate to human nature. This thinking has gradually led to the creation of our modern understanding of 'human rights.'

Sir Isaac Newton (1642-1727) will probably rank as one of the greatest scientists ever. In less than two years (1665-67) he invented a new branch of mathematics known as calculus, discovered that white light is a mixture of different colours, and hit upon his Universal Law of Gravitation. He is also known for his three laws of motion. However, he was more interested in research than fame, and neglected to publish his discoveries until his friend Edmund Halley (discoverer of Halley's comet) urged him to do so in 1687 (in the book titled *Principia Mathematica*). His scientific method, today known as 'Classical Physics,' went unchallenged until the arrival of the Quantum Theory and the Theory of Relativity in the 20th century.

Gottfried Leibniz (1646-1716), a German Rationalist, was highly skilled in a number of disciplines and has made remarkable contributions in the fields of engineering, library science, mathematics, logic, physics, linguistics, history, aesthetics and political science. The modern system of library cataloguing comes from him. As a philosopher, he was influenced by the teachings of Descartes and Spinoza but sought to build unity between

them and several other philosophies and religions. The result was his famous philosophical concept of the monads which are the smallest units of substance, similar to atoms but containing the past and the future of the substance as well. This will be discussed in greater detail in the Block on 'Rationalism'.

George Berkeley (1685-1753), an 18th century Irish (Anglican) Bishop and empiricist philosopher, was famous for his statement that 'to be is to be perceived' ('*esse est percipi*' in Latin). In other words, that which is not perceived has no real existence. This philosophy is known as Immaterialism. For Berkeley, even the physical objects in our world are nothing but ideas. Hence, he did not believe in the existence of matter.

Charles-Louis de Secondat (1689-1755), known as **Montesquieu**, was a pioneering French political thinker and supporter of human freedom. In his book, *The Spirit of the Laws*, he analysed different systems of government such as the Republic, the Monarchy and the Despotic State. He argued that the best government would be one in which the three powers of government, namely the legislative, executive and judicial, would be separate from each other. His views have influenced the constitutions of many countries, including India.

Francois-Marie Arouet (1694-1778), a famous French thinker, was better known by his pen name of **Voltaire**. He was a deist, who believed in God, but not in any particular religion. He strongly advocated the three principles of free trade, religious tolerance and freedom of expression. He felt that it was only a combination of these that could lead to progress and prosperity. Although he himself supported the idea of monarchy, his political thought strongly influenced the French Revolution.

David Hume (1711-1776) was a famous Scottish philosopher of the Enlightenment. Although he was born in a pious family, he gradually became a sceptic. He published *A Treatise of Human Nature* at the age of 29. His writings are famous for their direct attacks on religious belief. One of his claims is that human beings can never know for certain that one event is the cause of another. By this skeptical claim, he undermined the foundation of all human knowledge.

Jean-Jacques Rousseau (1712-1778) was born in Geneva but settled in France. He was one of the philosophers who prepared the ground for the French Revolution. In his most important work, *The Social Contract*, he taught that human beings are naturally in competition with one another and hence they join together to form groups so that they stand a better chance in the struggle. Rousseau believed that this Social Contract was at the basis of modern civilisation and society. He criticised the concept of private property because it created social inequality. He advocated freedom, equality and justice for all.

Immanuel Kant (1724-1804) was probably the most influential philosopher of the Enlightenment. He claimed that we can never know objects in themselves, but only as they appear to us. Thus he brought about a 'Copernican Revolution' in philosophy because his major insight was that knowledge is not determined by the nature of the external world of objects but rather by the nature of human rationality. This approach addressed many of the problems that philosophers had been discussing, and led to the emergence of idealism in German philosophy. Some of Kant's famous disciples include Fichte, Schelling and Hegel, all of them great philosophers in their own right.

Significance of the Enlightenment for Western Philosophy

- Ancient Philosophy was interested in wisdom which governed different aspects of theoretical and practical life. Medieval Philosophy was interested in wisdom which governed life in relationship with the divine reality. In contrast to these two approaches, Modern Philosophy was more modest in its methods and its goals. It largely restricted itself to epistemology, namely, the philosophical quest to know the nature, origins and scope of human knowledge. This quest was considered to be basic to all other theoretical and practical questions.
- This was because the Enlightenment was a period when neither theological authority (the primary texts, the prominent thinkers and leaders of the Church), nor philosophical authority (the texts and prominent thinkers of ancient and medieval philosophy) was given primary importance.
- Instead, there was a desire to think things through from scratch, so that one could arrive at the truth without the baggage and the blindfolds of theological and philosophical tradition.
- Descartes is considered to be the father of Modern Philosophy. This is because he was one of the first to decide that rather than accepting arguments from tradition and authority, he would rely on his own power of reasoning and thus arrive at facts that he could be certain of.
- After starting from scratch, the well known conclusion that he arrived at was 'cogito, ergo sum' ('I think, therefore I am'). From this, he was led to numerous other conclusions.

- Of course, this attitude of starting from scratch was not easy, and was not even possible. This is because many of the thinkers of this time were influenced by their cultural, philosophical and religious traditions, and so their methodological processes and conclusions were not as impartial as they thought them to be.
- Basically, the Rationalists (Descartes, Spinoza Leibniz) believed that the mind and its faculties were largely responsible for most of the authentic knowledge which human beings possess. On the other hand, the Empiricists (Locke, Berkeley, Hume) believed that the senses and their powers were primarily responsible for genuine human knowledge.
- It was the German philosopher Immanuel Kant who reconciled these two positions by claiming that while the mind produced necessary 'concepts' or categories with which to understand reality, the senses produced necessary 'percepts' or sensations which filled in these concepts. However, Kant influenced the whole of Contemporary Philosophy to a large extent, because he believed that while the concepts of the human mind are common to all of us, they do not allow us to know reality as such. We only know reality based on the limits of these concepts of the human mind.
- Many philosophers after Kant began to doubt whether we can truly know and understand metaphysical realities. Thus from the time of Kant, philosophy has refrained from turning its gaze towards metaphysical questions concerning the Heavens, and instead focused on questions primarily concerned with human and social problems.

- On account of this Kantian influence, Contemporary Western Philosophy largely focuses on issues concerned with human existence, scientific knowledge, language, communication, social structures and similar human problems. The larger and all-embracing vision of Ancient and Medieval Philosophy has been replaced by more narrow concerns in Modern and Contemporary Philosophy which address the problems which face people on the personal, inter-personal and social fronts.
- On the socio-political front, this attitude of starting from scratch with the use of reason alone resulted in the downgrading of the authority of the many European monarchs and of the upgrading of democratic processes in many nations.
- That is why while most parts of the world are still largely influenced by cultural tradition and by religious authority, contemporary European consciousness – largely influenced by the Enlightenment – is influenced by the powers of reason, scientific demonstration and democratic social consensus to help form the fabric of society. In this way, the Enlightenment has shaped current European culture and given it an identity which is quite distinct from that of the rest of the world.
- In conclusion, it may be stated that the period of the Enlightenment has largely defined the consciousness and social structure of modern Europe. This has happened through the intellectual revolution in philosophy (the birth of Modern Philosophy, and Kant's 'Copernican Revolution'), the scientific and technological revolution, the Industrial Revolution (in England) and lastly the political revolutions in England, France and America.

Conclusion

The period of 'Modern Western Philosophy' is closely related to the prevailing culture generally known as the 'Enlightenment.' In order to enter more fully into the study of Modern Philosophy, this Unit has helped us become more familiar with a basic overview of the Enlightenment, and the more significant events and personalities prevailing during this timeframe of 1600-1800. We have had a chance to reflect over some prominent problems and areas of concern which dominated European consciousness during this age. Finally, we were also able to see how all of these dimensions of the Enlightenment (significant events and developments, prominent problems and themes, outstanding personalities) have had an impact on the development of Western philosophy.

Try and remember the following key points related to the Enlightenment:

- The 'Enlightenment' (18th century) followed the Age of Reason (17th century). But more generally speaking, the Enlightenment may be considered to cover the 17th and 18th centuries (1600-1800), as it was the authority of reason which was increasingly used in philosophical and scientific arguments, rather than faith and cultural tradition.
- The period of the 'Enlightenment' largely coincides with the period in Western Philosophy known as 'Modern Philosophy.' Modern philosophy was concerned with the problem of the nature, source and scope of knowledge (that is, the branch of philosophy known as 'Epistemology').
- During the Renaissance, social progress was largely experienced by the rich, powerful and educated.

However, during the Enlightenment, social progress was enjoyed by a far wider segment of the population.

- This period saw the rapid growth of democracy, beginning with England, France and America. The spread of democracy helped to strengthen the values of liberty and equality in Europe and in the 'New World' (North America).
- This period also resulted in the Industrial Revolution, because of the many technological applications which sprang from scientific discoveries and inventions, and because of the opportunities for trade with many European colonies all over the world.

References

- Brinton, Crane. "Enlightenment." In: *The Encyclopaedia of Philosophy*. Vol.2. Ed. Paul Edwards. New York and London: Collier Macmillan Publishers, 1967.
- Copleston, Frederick. *A History of Philosophy*. Vols.4-6. London: Burns Oates and Washbourne Ltd., 1958-61.
- Durant, Will, and Ariel Durant. *The Story of Civilization*. Vols.7-10. NY: Simon and Schuster, 1961-67.
- Schmidt, J., ed. *What is Enlightenment? Eighteenth-Century Answers and Twentieth Century Questions*. Berkeley: University of California Press, 1996.
- Wokler, Robert. "Enlightenment, Continental." In: *Routledge Encyclopaedia of Philosophy*. Vol.3, ed. Edward Craig, London and New York: Routledge, 1998.
- Watson, Peter. *Ideas: A History from Fire to Freud*. London: Weidenfeld and Nicholson, 2005.
- Yolton, J.W., R.Porter, P.Rogers, and B.M.Stafford, eds. *The Blackwell Companion to the Enlightenment*. London: Blackwell, 1991.

Important reference websites:

1. Enlightenment Primary Sources: *www.historywiz.com/enlightenmentsources.htm*
2. *Internet Modern History Sourcebook: The Enlightenment*
www.fordham.edu/halsall/mod/modsbook10.html
3. *The Internet Encyclopedia of Philosophy:*
www.iep.utm.edu
4. *The Stanford Encyclopedia of Philosophy:*
plato.stanford.edu
5. *The Meta-Encyclopedia of Philosophy:*
www.ditext.com/encyc/frame.html