

Lecture 4

THE ENLIGHTENMENT, Part 1

Now we come to the period which stands between the Renaissance and modern times which has a definite essence of its own. One of the classical works on this period, this Paul Hazard, called *The European Mind* states: In this period a "moral clash took place in Europe. The interval between the Renaissance, of which it is a lineal descendant, and the French Revolution for which it was forging the weapons, constitutes an epoch which yields to none in historical importance." This is the classical age of modern Europe.

The same author states: "The classical mind, with the consciousness of its strength, loves stability, nay, if it could, it would *be* stability. Now that the Renaissance and the Reformation -- big adventures these! -- were over, the time had come for a mental stocktaking, for an intellectual 'retreat.' Politics, religion, society, art -- all had been rescued from the clutches of the ravaging critics. Humanity's storm-tossed barque had made port at last. Long might it stay there! Long! Nay let it stay there forever! Life was now a regular, well-ordered affair. Why, then, go outside this happy pale to risk encounters that might unsettle everything? The Great Beyond was viewed with apprehension; it might contain some uncomfortable surprises. Nay, Time itself they would have made stand still, could they have stayed its flight. At Versailles, the visitor got the impression that the very waters had been arrested in their course, caught and controlled as they were and sent skywards again, and yet again, as though destined to do duty forever."

This period between the Renaissance and modern times is the first real attempt to make a harmonious synthesis of all the new forces which had been let loose by medieval and Renaissance and Reformation man. But the attempt was to do this without losing a spiritual base of some kind of Christianity. That is how it is quite different from what is being attempted today, to make a synthesis *without* Christianity, or rather with Christianity much more watered-down. We will look at several aspects of this harmony and find there also the reasons why it could not last.

The first aspect of this new classical age, this new harmony, is the dominance of the scientific world-view which took the form of the "world machine" of Isaac Newton. "The age of Newton," the early Enlightenment -- he died in the 1720's, I believe; his great book came out in 1690's -- "when science and rational religion seemed to agree that all was right with the world, and the arts flourished in a way they were never again to flourish in the West. Before this time the West had known several centuries of intellectual ferment and even chaos as the medieval Roman Catholic synthesis collapsed and new forces made themselves felt and led to heated disputes and bloody warfare." The religious wars for all practical purposes ended with the, 1648, the end of the Thirty Years' War which actually devastated Germany and it quite, practically destroyed her two centuries.

"Protestantism had rebelled against the complexity and corruption in Roman Catholicism; there was a renaissance of ancient pagan thought and art, a new humanism had discovered the natural man and pushed the idea of God ever more into the background and -- the most significant for the future -- science replaced theology as the standard of knowledge. And the study of nature and its laws came to seem the most important intellectual pursuit.

"By the seventeenth and early eighteenth centuries, however, a certain equilibrium and harmony was reached in Western thought. Christianity was not, after all, overthrown by the new ideas," -- in the next lecture we'll see what kind of Christianity this was -- "but rather adapted itself to the new spirit. And the difficulties and contradictions of modern naturalistic and rationalistic ideas had not yet made themselves felt. Particularly in the most enlightened part of Western Europe -- England,

France and Germany -- it almost seemed that a golden age had come, especially by contrast with the religious wars that had ravaged these countries up to the middle of the seventeenth century. The enlightened man believed in God Whose existence could be rationally demonstrated and in natural religion, was tolerant of the beliefs of others and was convinced that everything in the world could be explained by modern science, whose latest discoveries and advances he eagerly followed. The world was seen to be a vast machine in perpetual motion whose every movement could be described mathematically. It was one great harmonious universe ordered, not hierarchically as in the Middle Ages or in Orthodox thought, but as a uniform mathematical system. The classical work expressing these ideas, Newton's *Principia Mathematica*, was greeted with universal acclaim when it appeared in 1687, showing that the educated world at that time was thoroughly ripe for this new gospel."

Another classical work on the modern thought, Randall's *Making of the Modern Mind*, discusses some of these elements that entered into this view of the universe. "The thirty years that had passed since Galileo published his *Dialogue on the Two Systems*," that is, the heliocentric and the geocentric system, "had seen an enormous intellectual change. Where Galileo was still arguing with the past" -- and we see that he almost got burned at the stake until he recanted his error and then said under his breath, "Nonetheless the earth still moves." -- "Where Galileo was still arguing with the past, Newton ignores old discussions and looking wholly to the future calmly enunciates definitions, principles and proofs that have ever since formed the basis of natural science. Galileo represents the assault; after a single generation comes the victory. Newton himself made two outstanding discoveries: he found a mathematical method which would describe mechanical motion and he applied it universally. At last what Descartes had dreamed was true: men had arrived at a complete mechanical interpretation of the world in exact mathematical deductive terms. In thus placing the keystone in the arch of seventeenth-century science, Newton properly stamped his name upon the picture of the universe that was to last unchanged in its outlines until Darwin; he had completed the sketch of the Newtonian world that was to remain through the eighteenth century as the fundamental scientific verity."

The is the age, actually the end of this period is the age of the Encyclopedia in France, a great undertaking particularly by Diderot, to bring the whole of knowledge into one great book of many volumes. It should be understood first of all that this very idea of the encyclopedia is something quite new, that is, the idea of bringing the whole of knowledge into one place and arranging it, as in later encyclopedias, even alphabetically. So everything is sort of flattened out and placed just within the compass of a certain number of pages, so that if you want to find out about anything, you simply look up in the index or look up alphabetically and you find article on that subject.

It should be said that in other nations which had somewhat of an idea of universal knowledge such as China, there were also encyclopedias. But those encyclopedias were rather different because there, there was still the hierarchical idea and, for example, the great encyclopedias of China which date back quite, a thousand years back or more, all these great encyclopedias were arranged so that the first volume was always "Heaven," then the "Emperor," then the higher sciences, and gradually progressed until it came down at the very end to those things which deal with earth. Whereas [in] the new idea of encyclopedia, everything is flattened out. And you can know one page of the encyclopedia and know nothing about the rest of it but be an expert in that. Therefore this is a very fragmentary kind of knowledge. And perhaps only the person who puts it together -- in fact, not one person puts it together, many people do, so actually nobody -- knows the whole thing.

Diderot himself, although he underestimated mathematics, nonetheless his idea of knowledge, the ideal of knowing everything is the same as that of all the rest of the people of his

age. He says: "We are on the point of a great revolution in the sciences. Judging by the inclination that the best minds seem to have for morals, for *belles-lettres*, for natural history, and for experimental physics, I almost dare to predict that before a hundred years are over there will not be three great mathematicians in Europe.... [Science] will have erected the pillars of Hercules; men will go no further; their works will last through the centuries to come like the pyramids of Egypt, whose bulks, inscribed with hieroglyphics, awaken in us the awful idea of the power and the resources of the men who built them." We see that they had an idea that they are now going to have the final definition of nature, of science, and collect all the knowledge there is. And soon the task will be finished.

In this new synthesis, the idea of nature actually replaces God as the central idea, even though we will see that the idea of God was not thrown out until the very end of this period. One of the French thinkers of the late eighteenth century, Holbach, thus describes his worship of nature:

"Man always deceives himself when he abandons experience to follow imaginary systems. He is the work of Nature. He exists in nature. He is submitted to her laws. He cannot deliver himself from them. It is in vain his mind would spring forward beyond the visible world: an imperious necessity ever compels his return -- for being formed by Nature, who is circumscribed by her laws, there exists nothing beyond a great whole of which he forms a part, of which he experiences the influence. The beings his imagination pictures as above Nature, or distinguished from her, are always chimeras formed after that which he has already seen, but of which it is utterly impossible he should ever form any correct idea, either as to the place they occupy, or their manner of acting -- for him there is not, there can be nothing, out of that nature which includes all beings..." -- that is, *outside* of that nature which includes all beings. "The universe, that vast assemblage of everything that exists, presents only matter and motion: the whole offers to our contemplation nothing but an immense, an uninterrupted succession of causes and effects.... Nature, therefore, in its most extended signification, is the great whole which results from the assemblage of matter under its various combinations, with that contrariety of motions which the universe offers to our view."

Voltaire also says, when he describes a dialogue between nature and the scientist. And nature says to the scientist: "My poor son, shall I tell you the truth? I have been given a name that does not suit me at all. I am called Nature, but I am really Art -- the art of God," the deistic God at that period.

And one of Newton's disciples says: "Natural science is subservient to purposes of a higher kind, and is chiefly to be valued as it lays a sure foundation for Natural Religion and Moral Philosophy; by leading us, in a satisfactory manner, to the knowledge of the Author and Governor of the universe.... To study Nature is to study into His workmanship; every new discovery opens up to us a part of his scheme.... Our views of Nature, however imperfect, serve to represent to us, in the most sensible manner, that mighty power which prevails throughout, acting with a force and efficacy that appears to suffer no diminution from the greatest distances of space or intervals of time; and that wisdom which we see equally displayed in the exquisite structure and just motions of the greatest and the subtlest parts. These, with perfect goodness, by which they are evidently directed, constitute the supreme object of the speculations of a philosopher; who, while he contemplates and admires so excellent a system, cannot but be himself excited and animated to correspond with the general harmony of Nature."

Again this Holbach says about nature: "'O thou,' cries this Nature to man, 'who, following the impulse I have given you, during your whole existence, incessantly tend towards happiness, do not strive to resist my sovereign law. Labor to your own felicity; partake without fear of the banquet which is spread before you, with the most hearty welcome; you will find the

means legibly written on your own heart.... Dare, then, to enfranchise yourself from the trammels of superstition, my self-conceited, pragmatic rival, who mistakes my rights; denounce those empty theories, which are usurpers of my privileges; return under the dominion of my laws, which, however severe, are mild in comparison with those of bigotry. It is in my empire alone that true liberty reigns. Tyranny is unknown to its soil, slavery is forever banished from its votaries; equity unceasingly watches over the rights of all my subjects, maintains them in the possession of their just claims; benevolence, grafted upon humanity, connects them by amicable bonds; truth enlightens them; never can imposture blind him with his obscuring mists. Return, then, my child, to thy fostering mother's arms! Deserter, retrace back thy wandering steps to Nature. She will console thee for thine evils; she will drive from thy heart those appalling fears which overwhelm thee.... Return to Nature, to humanity, to thyself!... Enjoy thyself, and cause others also to enjoy those comforts, which I have placed with a liberal hand for all the children of the earth, who all equally emanate from my bosom.... These pleasures are freely permitted thee, if thou indulgest them with moderation, with that discretion which I myself have fixed. Be happy, then, O man!"

And again he says: "O Nature, sovereign of all beings! and ye, her adorable daughters, Virtue, Reason and Truth! remain forever our revered protectors! It is to you that belong the praises of the human race, to you appertains the homage of the earth. Show us then, O Nature! that which man ought to do, in order to obtain the happiness which Thou makest him desire. Virtue! animate him with thy beneficent fire. Reason! conduct his uncertain steps through the paths of life. Truth! let thy torch illumine his intellect, dissipate the darkness of his road. Unite, O assisting deities! your powers, in order to submit the hearts of mankind to your dominion. Banish error from our mind, wickedness from our hearts; confusion from our footsteps; cause knowledge to extend its salubrious reign; goodness to occupy our souls; serenity to occupy our bosoms."

See what a harmonious ideal this was: of nature ruling over everything, the mysteries of nature being discovered, God still being in His heaven, although not doing much, and scientific knowledge progressing over the whole world. The naturalist Buffon even said that, in describing the early Babylonian astronomers, "That early people were very happy, because it was very scientific." The ideas of scientific knowledge and happiness were bound up; in our own day, it seems to be the opposite. And again he says, "What enthusiasm is nobler than believing man capable of knowing all the forces and discovering by his labors all the secrets of nature!"

And so, the great philosophers of this period had only to discover the whole system of nature, and so we have at this time the great metaphysical systems when the philosopher could sit down in his easy chair before his desk, read all the results of scientific research and the writings of previous philosophers and devise his own system of what nature is. And so we have Spinoza sitting back and devising the idea that there are two parallel systems, mind and matter; and both of these are God. And Leibnitz comes up with the idea of the monad -- it's a primary atom which is the basis of everything else -- which explains both mind and matter. And Descartes sitting back in his study and discovering that everything in nature proceeds from the knowledge, intuition of clear and distinct ideas.

All these systems, of course, were rivaling each other and eventually overthrew each other; other systems overthrew them. But the ideal of a real philosophy of nature was never realized. But in this period this is still not completely realized. And science was considered to be the kind of knowledge which would bring men to the truth.

This whole period is one of great optimism and is well summed up in the poet Alexander Pope who regarded Newton as the ideal. A few words summed up the spirit which people had,

the feeling people had about the time they were living in and the true philosophy which was now being devised from modern science:

"All are but parts of one stupendous whole,

"Whose body Nature is and God the soul;..

"All Nature is but Art unknown to thee;

"All chance, direction which thou canst not see;

"All discord, harmony not understood;

"All partial evil, universal good:

"And, spite of pride, in erring reason's spite,

"One truth is clear, whatever is, is right."

"Nature and Nature's laws lay hid in night:

"God said, *Let Newton be!* and all was Light."

The "Brave new world" – *Candide*.

"But in the Age of Reason 'empiricism' was employed by a Voltaire to destroy revealed religion and absolute monarchy and Christian asceticism, and by the same Voltaire 'reason' was used to erect a 'rational' theology and 'natural' rights and a 'natural' law." "Voltaire stated it definitely: 'I understand by natural religion the principles of morality common to the human race.' It contained nothing else. This creed was accepted, by orthodox and radicals together, as the essential content of the religious tradition of Christianity."

"With the problem of the moral governance of the world, the age-old problem of evil, they [the rational theologians] did no better than their predecessors; here, too, they could only have faith that a rational order must be a moral order. Some, like Leibnitz, took pages to prove that this is the best of all possible worlds.... Pope's ringing 'Whatever is, is right,' sounded even to the eighteenth century suspiciously like whistling to keep up one's courage. Others, like Voltaire, were too keenly aware of the injustices wreaked by nature and man upon man not to be revolted by such a faith; Voltaire's famous tale, *Candide*, is one long ridicule of Leibnitz' position."

Voltaire's "chief quarrel with patriotism is for the humanitarian reason that it seems to require hatred of the rest of the human race. To love one's country, in the common estimation, means to hate all foreign lands.... Hence against the follies of the patriot Voltaire waged an unceasing war of ridicule. Every one remembers the satire in the first chapters of *Candide*, where the hero is beguiled into the army of the King of the Bulgarians during his war with the Abarians. 'Nothing was so fine, so smart, so brilliant, so well-ordered as the two armies.... The canons began mowing down about six thousand men on each side;... Candide, trembling like a philosopher, hid as best he could during this heroic butchery.... Brains were scattered on the ground side by side with severed legs and arms. Candide fled as fast as he could to another village;... Candide, walking over palpitating limbs, or through ruins, finally got outside the theatre of war."

Dreams for unity of mankind, discovery, mysteries of nature, happiness in earth, progress, golden age of art.

Faith in Progress

"From the beginning of the century onward there rose one increasing paean to progress through education. Locke, Helvetius, and Bentham laid the foundations for this generous dream; all men, of whatever school, save only those who clung

like Malthus to the Christian doctrine of original sin, believed with all their ardent natures in the perfectibility of the human race. At last mankind held in its own hands the key to its destiny; it could make the future almost what it would. By destroying the foolish errors of the past and returning to a rational cultivation of nature, there were scarcely any limits to human wealth where it might not be transcended.

"It is difficult for us to realize how recent a thing is this faith in human progress. The ancient world seems to have had no conception of it; Greeks and Romans looked back rather to a golden age from which man had degenerated. The Middle Ages, of course, could brook no such thought. The Renaissance, which actually accomplished so much, could not imagine that man could ever rise again to the level of glorious antiquity; its thoughts were all in the past. Only with the growth of science in the seventeenth century could men dare to cherish such an over-weening ambition. To Fontanelle, whose long life stretched from the days of Descartes to those of the Encyclopedia, belongs the chief credit for instilling the eighteenth-century faith in progress. He was a popularizer of Cartesian science, and it was from science and reason that he hoped that Europe would not only equal, but far surpass antiquity. All men, he proclaimed, are of the same stuff: we are like Plato and Homer, and we have a vastly richer store of accumulated experience than they. Men reverence age for its wisdom and experience; it is we moderns who really represent the age of the world, and the ancients who lived in its youth. A scientist today knows ten times as much as a scientist living under Augustus. So long as men continue to accumulate knowledge, progress will be as inevitable as the growth of a tree, nor is there any reason to look for its cessation."

"This opinion may strike us as almost platitudinous, but to Fontanelle's contemporaries it seemed the rankest of heresies. He found himself involved in a furious battle, and all France took sides in the conflict between the Ancients and the Moderns.... But of the ultimate outcome there could be no question; all the scientists, from Descartes down, despised the ancients and carried the day for the faith in progress. By the middle of the next century it was clearly recognized that only in literature could the ancient world hope to hold its own; and with the rejection of the classic taste by the rising romantic school, the ancients even here fought a losing battle.

"It remained for Condorcet to sum up the hopes and the confidence of the age."

At the end of the eighteenth century there's one great philosopher of progress, Condorcet, who wrote a history of the progress of the human spirit in which he said: "The result of my work will be to show by reasoning and by facts, that there is no limit set to the perfecting of the powers of man; as human perfectibility is in reality indefinite; that the progress of this perfectibility, henceforth independent of any power that might wish to stop it, has no other limit than the duration of the globe upon which nature has placed us. Doubtless this progress can proceed at a pace more or less rapid, but it will never go backward; at least, so long as the earth occupies the same place in the system of the universe, and as the general laws of this system do not produce upon the globe a general destruction, or changes which will no longer permit the human race to preserve itself, to employ these same powers, and to find the same resources."

He believed that the principles of Enlightenment "will spread over the entire earth; liberty and equality, a real economic and social and intellectual equality, will be continually strengthened; peace will reign on earth. 'War will come to be considered the greatest of pestilences and the greatest of crimes.' Nay, more; a better organization of knowledge, and an intelligent improvement in the quality of the human organism itself, will lead to the disappearance of disease and an indefinite prolongation of human life, but to the actual attainment of the perfect conditions of human well-being."

And again he says, "What a picture of the human race, freed from its chains, removed from the empire of chance as from that of the enemies of its progress, and advancing with the firm and sure step on the pathway of truth, of virtue, and of happiness, is presented to the philosopher to console him for the errors, the crimes, and the injustices with which the earth is still soiled and of which he is often the victim! It is in contemplating this vision that he receives the reward of his efforts for the progress of reason, for the defense of liberty. He dares then to link them to the eternal chain of human destiny; it is there that he finds the true recompense of virtue, the pleasure of having created a lasting good, which fate cannot destroy by any dread compensation, bringing back prejudice and slavery. This contemplation is for him an asylum whither the memory of his persecutors cannot pursue him; where, living in thought with man established in his rights as in the dignity of his nature, he forgets him whom avarice, fear or envy torment and corrupt; it is there that he truly exists with his fellows, in a paradise which his reason has created, and which his love for humanity enriches with the purest of joys."

Another historian of this time wrote a history of philosophy, 1796, J. G. Buhle, who says, "We are now approaching the most recent period of the history of philosophy, which is the most remarkable and brilliant period of philosophy as well as of the sciences and of the arts and of the civilization of humanity in general. The seed which had been planted in the immediately preceding centuries began to bloom in the eighteenth. Of no century can it be said with so much truth as of the eighteenth that it utilized the achievements of its predecessors to bring humanity to a greater physical, intellectual and moral perfection. It has reached a height which, considering the limitations of human nature and the course of our past experience, we should be surprised to see the genius of future generations maintain."

And there's an interesting message which was placed in the steeple knob of the church in Gotha, in Germany, in 1784 which was supposed to be read by posterity. This is the message, from 1784: "Our age occupies the happiest period of the eighteenth century. Emperors, kings, princes humanely descend from their dreaded heights, despise pomp and splendor, become the fathers, friends and confidants of their people. Religion rends its priestly garb and appears in its divine essence. Enlightenment makes great strides. Thousands of our brothers and sisters, who formerly lived in sanctified inactivity," meaning monks, "are given back to the state. Sectarian hatred and persecution for conscience' sake are vanishing. Love of man and freedom of thought are gaining the supremacy. The arts and sciences are flourishing, and our gaze is penetrating deeply into the workshop of nature. Handicraftsmen as well as artists are reaching perfection, useful knowledge is growing among all classes. Here you have a faithful description of our times. Do not haughtily look down upon us if you are higher and see farther than we; recognize rather from the picture which we have drawn how bravely and energetically we labored to raise you to the position which you now hold and to support you in it. Do the same for your descendants and be happy."

When we look at these views of nature, art, virtue, the idea, we see, remember the idea that there is such a possibility of man being happy on this earth, of knowledge being perfect, of the arts flourishing and of there being a harmonious, in fact, it even says here, paradise on earth.

This is the foundation for what has been happening in the world for the last two centuries. All the ideas by which people are living today, most of them, come from this period. And if now this early optimism seems quite naive, we still have to understand *why* it is naive, why it does not correspond to the truth. So we will have to look at the inside of all this positive philosophy to see what were the germs which existed already at this time which led to the negative, to the overthrowing of this optimistic philosophy.

But before doing that, we'll have to look at one other very interesting thing. Although this seems -- if one thinks it through

-- to be very superficial, to be a kind of mockery of Christianity; still it's very true that at this period there was a great flourishing of the arts. In fact, many people would say that the arts in the West never again came back to the standard of this period; particularly in music, it is indeed true that this is a golden age of modern Western music.

And so we'll have to see, we'll have to look at the positive side to see why there can be a positive flourishing of the arts like that which seems quite profound also when the philosophy is based upon something which seems quite superficial. And that will be the subject of the next lecture.