

52: The Rise of Science and the Enlightenment

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Introduction

We are pushing on further into the pulse at the end of the fourth epoch. We have talked about the Renaissance and the Reformation, and the fruits thereof. They are bitter fruits from the standpoint of the breakdown of the Catholic unity, which was somewhat mythical, actually, but important.

But the main thing now is to realize there are so many things blowing off at once that it is almost impossible to keep track of them. The way historians do this is to take a certain thread running through this period. They take the political thread, for example, and notice that a lot of very powerful rulers emerge. Not just a ruler for all of Europe, like Charlemagne or Charles V in the earlier period, but rulers in France, in Spain, in England, in different parts of Germany. This is called the Age of Absolutism, when kings had incredible concentrated power. Louis XIV is probably the epitome of all this. This is one story.

But there are other things going on which link to this story, and rarely do historians link these things up. Your book by Clouse, Pierard and Yamauchi, *The Two Kingdoms*, has a whole series of chapters: 11, 12, 13, 14, etc., that all cover the same period. They each take up a different string. We have started out with a so-called religious revolt, or “the Reformation’s pearl” would be a better way to speak of it. Why mention the political? You could, if you want, trace the wars. Military history would be an absolute menagerie of detail and confusion, if you tried to trace it through all the different states and so forth, up through this period. It is very easy to get lost in the detail in this period.

Again you could trace the development of science. For example, there is Copernicus, who lived roughly at the time of Luther. Then when he died, Galileo comes in. Then Galileo dies and Newton is born in the same period. Copernicus, Galileo and Newton are “laid end to end,” so to speak, running through this period. Contemporary and overlapping with Galileo is Kepler, who in many ways, though not as well known, is even more important than Galileo. Thus we have got a story that could be called scientific.

You could also talk about philosophy and the philosophers. You could trace theology and its

developments. There is an incredible vitality and agitation of all kinds! You could even speak of the rise of the common man. I would actually like to promote that phrase, along with “the rise of absolutism,” because in my mind the reason for absolutism was the fact that there was so much ferment. You had riots, uprisings of all kinds: intellectual, musical, artistic, philosophical, military, political, theological—you name it! What are you going to expect under the circumstances? Absolutism, holding on tight, just to keep order.

Now for an American this is a terrible thing. But actually a lot of lives were saved simply by firm central control. On the other hand, it is also true that this would not last. The very ferment itself created, and then eventually disposed of, these absolute monarchies. People rose up, especially in England as compared to France, and said, “Look, the Bible tells us that we’re free!” The Bible behind the scenes is probably the one most clear-cut prime mover.

Now, you could give credit to the printing press. Yes, the printing press unleashed all kinds of new ideas, and mixed everybody up, and produced confusion that makes the Catholic idealists for central unity keep weeping forever after. But frankly, the printing press by the time of Luther had produced something like two million pieces, three-fourths of which were religious, and even more in the Reformation itself. It is a gorgeous, complicated, confusing situation.

Enlightenment refers mainly to the new ideas that science churned up: the sense of release, the sense of conquest of nature, humanism flowering in the sense of rationalism vs. theology. The fact is that during that period, it was one continuous story. I would suggest that you page back through some of these earlier chapters; they are earlier chapters, but they are not earlier history. All of these three or four chapters happen at the same time, between roughly 1500 and 1750.

Now 1750 is the pinnacle of the Enlightenment. This is ahead of us now, and we are ushered then into a period from 1750 to 1815. This is another one of Latourette’s recessions, or he calls it “repudiation and revival.” He has to call it revival, because frankly, from the evangelical point of view, his repudiation in the area of rationalism, philosophy, and so forth, is contemporary with

huge, enormous unleashed powers of revival. So you do not find much that is going backwards, by the time you get this far down in history. Practically everything is going forward, in terms of increased influence around the world, of the religious forces that are enhanced, but certainly not created, in the Reformation.

The Enlightenment and science are not a single story, unrelated to the rest. Page through these other chapters and find out that you have got Kepler and Galileo; you have got Elizabeth I; you have got Jansenism in the Catholic Church. A little bit later you have got Pietism welling up; you have got Spener, George Fox. All of this is going on in the end of the sixteenth and the beginning of the seventeenth centuries. And these things are all related. All I would say is, let us try to get the big picture. This is a single story. We are not just learning “one more blooming thing after another.”

For example, you can compare this with the Carolingian Renaissance and the following years, in the so-called renaissance of the twelfth century, during which the great achievements were religious. The Gothic cathedrals you can compare with the Enlightenment, where the great achievements were the palaces, which were far more elaborate than the cathedrals ever were. So here is quite a shift in temper.

Religion controlled everything; it was absolute in some great extent in the Carolingian and the twelfth century renaissances. But in this Renaissance, or this further flowering of vitality, now you have enough freedom for there to be reaction against religion, and opposing views. But those opposing views, while they may be highlighted by the secular scholars, are in most cases nowhere near as powerful as the religious deepening, broadening and flourishing.

If you want to, you can get lost in any one of the rivulets through this period, but I would encourage you not to do so. This is part of a single story, a continuous story, that keeps on moving at a faster and faster pace.

Review

This may seem like just one more little study in a long series of things. But in a way, it deals with one of the most significant questions of the entire curriculum. We are talking about international development; we are talking about global civilization. The unanswered question in all such studies is: What makes it tick? What creates civilization? What is it that builds it? What is the glue? What is the prime mover of all that?

This is going to be a real mystery for everyone, unless a person is quite cocksure and perhaps not very humble. This will have to be a mystery for the rest of our lives, which we can chew on, we can work on, we can look for the answers to. This development in Western civilization at this period is the sort of thing which has great promise and great danger, as we will see later on. The offhand comments of Voltaire, deriding the clergy, were followed by the drowning of thousands and thousands of clergymen. He did not realize that; he would not have wanted it. But the fact is you cannot toy with the structures of society without getting into a dangerous situation. No matter who you are, no matter how high-minded your motives are for criticizing the status quo, revolutionaries, whether they are mere philosophers toying with ideas, or whether they are out in the streets, are always questionable and dangerous, as well as beneficial.

So here we have a profound mystery, and the aspect of it that we are focusing on (the science and the Enlightenment), is often thought to be the prime mover, and in some ways it is. But it is also the effect of other causes.

1. The readings talk of the rise of “absolutism” following the great reformation(s) of the 16th century. In what ways is it possible to speak of an even more fundamental “Rise of the Common Man”? What relation does this have to the rise of Absolutism? How can both be true?

Philip II of Spain, for example, was a very devout person as well as Napoleon—who did not establish any one church but he paid the pastors, both Catholic and Protestant, later on. This is part of the story. But the question is, what is it that is the leaven of the lump? You can see the loaf rising, you can see the flourishing of all these arts and sciences, ideas and changes of government which brought into play many destructive forces as well as democratic developments and so forth. But what is the prime mover?

I believe the rise of the common man is one of the things that all these new forces ultimately have to cope with. That development in turn, I believe, can be seen as essentially a religious development, whether they were Catholic pastors in the western part of France, holding out stoutly for their religion against the rationalists, or whether they were country preachers in England, using every bit of

freedom the English tradition allowed them. There is this change on the part of people, in large number, that eventually brought down many of the assumptions of the past.

2. Paraphrase Latourette's comments about science and the Christian movement (see pages 552, 604-605, 992, 995).

Latourette, for example, does directly tie the development of science to the Christian movement. He certainly believes that it was the Christian worldview that permitted science, as compared to the pantheon of quarrelling deities that inhabited the theological universe of the Greeks. They had capricious gods who could change their minds, and cause storms and pestilences, all kinds of problems for humankind. When the Christian world view came into the picture—you can call it the Judaic world view to be more fair, because the Islamic tradition held it as well, and they too nourished science—science became a possible faith, rather than impossible. And those pages bear this out.

3. Do your readings imply that science and the Enlightenment impact the Church or that they are an effect of the impact of growing Christian vitality? Or both?

Question #3 is again a question of cause and effect, and this is, I believe, what dominates our study of this whole period. There is so much going on that we are tempted to study strands and think of those strands as being automatic or self-developing strands, when there is interplay all across the board. We often talk about the impact of the Enlightenment upon the church, and that is a relevant subject. But at bottom, it was the other way around. The Enlightenment itself was the product of the church. Thomas Aquinas, centuries before, had talked about equality and the impossibility of forcing beliefs upon people. Now when the Enlightenment authors come out with this, it seems like it is an invention, and this is going to impact the church. In a certain political sense, it did impact the church, of course, and it eventually led to things like the French Revolution, where 30,000 pastors were driven out of France. Nevertheless, these ideas themselves, both in science and in the Enlightenment, derive from the church tradition.

4. Political decentralization and theological diversity, we have observed,

went together in the Reformations. How did the Enlightenment enhance both developments even further?

Question #4 is sort of a Catholic question, or I should perhaps say that Catholics would raise this question. Catholics to this day look back upon all this turmoil and all this tumult, and you know, you cannot blame them. They represent what was originally in their mind as a stable workable tradition. Then chaos ensued, and the Reformation fanned the flames of breakdown and chaos. Then one thing after another ensued and all sorts of chaos broke out! That is the Catholic point of view.

The political decentralization and the theological diversity, here referred to, which is deplored typically by the Roman Catholic instinct and perspective, probably would have been inevitable, had the Bible been readable or available to a lot of people, which it was. The Catholic Church itself made it available. Obviously, if the Bible is translated thirteen times into German before Luther, during the Catholic period, it was not that the Catholic Church was opposed to that. The Catholic Church began to oppose the Bible when it appeared that the Bible was the source of all this tumult—which it was!

The Enlightenment simply came along and underscored and reinforced those ideas that developed from the reformation of theology and the reformation of the breakdown of politics and so forth. The Enlightenment brought into play forcefully the idea that man was the arbiter of all things, not God; that reason rather than theology or faith should rule. This essentially ended forever the thought that we could go back to an age of faith, where the theology was decided by the aristocratic powers, and everyone simply followed suit, and there would be no pluralism.

The word *pluralism*, by the way—a modern word—is virtually non-existent in all of the readings we have been doing. But that is the thing that was coming, which would ultimately allow different ethnic traditions, different expressions, and different personalities as well. It allows for and defines freedom of religion; it makes it impossible, as our Constitution has it, for the establishment—that is to say, the official backing—of any one church tradition. This, of course, did not mean that religion itself was to be abolished, but that the linking of a government and a uniformity of religion would be questioned.

So there is very much a linkage between that breakdown of a uniformitarian hypothesis, whether

we are talking about politics or religion or philosophy or science, or whatever. People were free to propose their own ideas of science, without going to jail. At the same time, they could propose their own theological ideas; they could propose their own philosophical ideas.

It is interesting that David Hume comes along, in the full flower of the Enlightenment, surfing as it were on the surfboard of Reason, and says that reason itself cannot determine anything. So you see, doubts come around even to the question of doubts: you doubt doubts. Or you reason doubt's reason. So everything goes. Of course, looking back, we are not so fearful of all this. You must understand, however, the reasonable fears especially of godly governors, potentates, kings and rulers, and so forth, of unrest. Because this sort of thinking often produced loss of life, it often produced conflict, it often produced breakdown of order, civil order, mobs and destruction. It was not unreasonable for the absolute powers to tighten up as much as they could, not just to be famous or to be powerful, but to preserve order.

It is very hard for Americans to admit that that kind of government could ever have had benevolent goals, but often it did. It is interesting that Napoleon himself, so to speak, tried perhaps

consciously to recreate the Charlemagnic unity, which ended wars. When Charlemagne conquered, there were no more wars. But when that breakdown occurred, wars of all kinds, between all kinds of little parts of Europe, took place for years on end. You can easily see that there are two sides to the whole attitude of what should or should not have been done.

This is not the end of the story. The more gruesome fruits of this delayed renaissance in the realm of philosophy will have its manifestation in the French Revolution. One of the leading thinkers of the earlier period was Erasmus, a very theological type of person. Voltaire is the leading thinker of the later Enlightenment. He too believes in God, believes in the established authority of the Church, and so forth, but he tweaks everything, criticizes everything. He hobnobs with famous and illustrious people, but he is a constant critic. Only days after his death there are scientists being decapitated in the French Revolution. He himself, as I say, would have turned over in his grave had he known about this.

We are dealing with explosive forces and the greatest excitement is yet to come. But at least, this is an interesting and fascinating transitional period.