

History, Archaeology and Cultural Comparison

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Ian Morris's *Why the West Rules – for Now* (2010) is a brilliant book, dealing with Eurasian history from the first civilisations to the present. It takes an intermediate position in the famous debate about Europe and the rest of the world and European dominance during the last few centuries. Morris uses all kinds of sources. However, his general approach is staunchly materialistic: the motors of history are fear, sloth and greed. Cultural differences do exist, but can be explained by the former factors. This is an attitude not confined to archaeologists, nor necessarily shared by all of them, but may nevertheless have something to do with Morris's background in this field. One objection is that Morris may have underestimated the importance of institutional factors; he does not discuss the division of Europe into separate states, which has often been regarded as a central factor in 'the Rise of the West'. This in turn raises the question of the 'two hand-maidens' and their relationship to the EU. If political division is an essential feature of Europe, what will happen if this division disappears?

Once, in the 1970s or 1980s, I attended a presentation by an archaeologist, who was my co-author in a book series on global history, intended for the general public. Showing a skeleton from the Stone Age, he commented that this person was exactly like us. Biologically, this was of course correct, but I remember thinking that if the man had been able to talk, we would have discovered that he was different. As the professor was a venerable figure and I was still relatively young, I said nothing, but still remember the episode. At the time, I had just discovered the history of mentalities and was fascinated by the idea of radical cultural differences. Although I am now less radical in this respect, I still believe in the importance of cultural differences for understanding historical change and development.

The attitude to this problem may also correspond to some difference between historians and archaeologists, as written sources are likely to give more information of thought and ideas than material objects, with the reservation that only a minority were able to write in earlier societies and that material objects may also have a cultural and ideological importance. I am also aware that there are many schools and approaches within archaeology, including some that are very concerned with cultural

interpretations, while, on the other hand, historians may be as materialistic as archaeologists. The following comments, based on Ian Morris's *Why the West Rules – for Now* (Morris 2011), may therefore not be representative of the difference between the two disciplines. Nor is it my intention to claim that written sources necessarily give better information on the past than material ones; both have to be used, and cooperation between the two disciplines is therefore necessary.

Although Morris is an archaeologist by education, his book extends far beyond the field of archaeology. It is a brilliant book, dealing with Eurasian history from the first civilisations to the present. It takes an intermediate position in the famous debate about Europe and the rest of the world and the European dominance during the last centuries. The West (i.e. West Asia and the Mediterranean region) was ahead until around AD 550. Then the East (above all China) took over until the late eighteenth century, when the industrial revolution initiated a period of unprecedented growth in Europe, which eventually came to include the East as well. European superiority was certain from 1800, likely from 1650, while some tendencies in this direction appeared from around 1500. Morris uses all kinds of sources. From this point of view, the book might as well have been written by an historian. However, his general approach is staunchly materialistic: the motors of history are fear, sloth and greed. Cultural differences do exist, but can be explained by the former factors. This also applies to the history of science.

Theoretically, the great breakthrough in European science came with the study of astronomy and the replacement of the geocentric world picture by the heliocentric one, through a series of studies by scientists from Copernicus to Newton. The importance of this development lay not only in a new picture of the universe, reducing the earth from its centre to one of more planets circling around the sun and, later, to a tiny spot circling around one of many billions of stars in an enormous universe. Even more important were its implications for the nature of knowledge, based not on pure thought but on systematic observation and experiment. The logical next step from the study of nature and the universe was to apply a similar method to phenomena on earth: chemistry, medicine, zoology, botany and, not least, humans themselves and their society, i.e. history and the social sciences.

How can we explain European success in this field? One possibility is, as Morris claims (Morris 2011, 476), that it was simply a side-effect of European development in other fields, notably the expeditions across the oceans which necessitated precise measurement of time and space and, in turn, made European authorities more tolerant of eccentric intellectuals. According to the same logic, the Muslim world with its extensive maritime trading networks ought to have developed similar theories, but it did not. Moreover, there is little evidence of any connection between Copernicus and other scientists and sea voyages; studies of Greek science and systematic observation and experiment are likely to have been more important. Although intellectual development is not without connection with social and material phenomena, there is still much to say in favour of it as an independent variable. Inventiveness is not a permanent characteristic of some peoples in contrast to others, but certain inventions may nevertheless be more likely to occur under specific cultural and social

conditions. Europe had the advantage over China that it had access to Greek science, probably the most advanced in antiquity, as well as the Muslim improvement of it in the early middle ages. Indirectly, Europeans were probably also able to learn from China. By contrast, the Chinese were little influenced from the outside; they mostly regarded themselves as superior to all foreigners. When the Europeans surpassed the Muslims in the later middle ages, it was mainly because of increasing distrust in science by Muslim rulers, notably the Ottomans (Weinberg 2015, 120–123).

Admittedly, intolerance was also increasing in Europe in the sixteenth and seventeenth centuries, the period of the great breakthrough in science. When this did not lead to the same result as in China and the Muslim world, the explanation must partly be sought in stronger institutions, namely the universities, and partly in the usual factor, the divided state system, which made it possible for people persecuted in one place to find refuge in another. Concerning the former, some scholars have traced the origins of scientific discoveries back to the middle ages, when the universities had already received considerable intellectual freedom despite general intolerance, while they were also able to preserve the progress that had been made. In addition, the study of law, logic and philosophy has been regarded as the theoretical foundation for the science that led to the heliocentric theory.¹ The institutional factor seems stronger in this case than the intellectual one; it can at least be argued that the development of science from Copernicus to Newton represents a radical novelty (Weinberg 2015, 124–188). In addition to the universities, the relative intellectual freedom, open discussion and meeting of people from various parts of Europe in the Italian city republics and later in the Dutch Republic and England/Britain must have been an important factor (Berman 1983, 151–64, 271–94, 520–558; Huff 1993: 119–148, 321–364).

These observations of course only explain why the new science became dominant in Europe once it had occurred, not why it occurred in the first place. The occurrence of genius and its development is both unpredictable and inexplicable, but different intellectual traditions and thought systems may nevertheless give some clue to the kind of discoveries that may be expected in a particular culture. The classical study of this is Joseph Needham's great work, based on years of study of China and intimate knowledge of its language and culture as well as science in general (Needham 1969). Needham was full of admiration for Chinese science, but was nevertheless clear about the decisive superiority of Europe from around 1600 on, with Galileo. In the previous period, he finds no decisive European advantage but great differences in modes of thought as well as in the fields in which the two cultures excelled. Nevertheless, he hints at an explanation in the European concept of law: 'We may perhaps ask whether the state of mind in which an egg-laying cock could be prosecuted at law was necessary in a culture which should later on have the property of producing a Kepler' (Needham 1969, 37).

1. Needham's studies are published in a series of volumes, comparing European and Chinese science in various fields. The following is based on his discussion of the main differences and similarities in *The Grand Titration*.

In other words, the crucial difference does not necessarily consist in an obvious advantage, but might equally well be a mode of thought likely to lead to absurd consequences. The European notion of ‘laws of nature’ in analogy with ‘laws in society’ given by a ruler, is totally alien to China. Although not more scientific, it might possibly have been more likely to have led to the scientific discoveries of Copernicus and his successors. In addition, increased knowledge of Greek science was a factor in Copernicus’ formulation of the new theory. In the next stages, its verification by Kepler and Galileo was the result of observations through the use of better instruments.

China had been in contact with Europeans since the sixteenth century and must have had many opportunities to adopt their technology, but failed to do so. Further, because of their relative backwardness in the earlier period, Europeans were much more interested in China and other parts of the world than the Chinese were in Europe, and learned from other cultures. Finally, once the industrial revolution had taken place in England, it gradually spread to the rest of Europe – to the extent that Germany was already ahead of England in the 1880s – but only spread to one country outside Europe, namely Japan.

The general conclusion from the preceding observations is not that culture is a complete, unchanging package dominating a certain area, but that intellectual traditions to some extent have a life of their own and take time to change. China is now a serious competitor of the West in the fields of science and technology and may well surpass it in the near future.

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