

(martin3)

Tendencies

1. Authoritarianism rests on the ability of the few to control the lives and behaviours of the many. Control is exercised mainly in three ways, singly or in combination.

a) Economically, through the monopoly control of essential resources.

b) Religion, through the monopoly control of presumed knowledge of supernatural forces.

c) Militarily, by force.

The third (c) is the most rapid, violent and dramatic but for this very reason is unstable in effecting long term authoritarianism, and hence is usually used to initiate or reinforce control b a) or b).

2. In agrarian societies - almost the only form until the nineteenth century - authoritarian economic control can best be produced by control of land, which produces effective control over food production, the most essential of all resources.

3. Land is a limited resources. While the amount of land available for food production can sometimes be increased, as in the colonization of America or the more southwards in China, or by earlier deforestation in Europe, the potential amount available for food production is virtually fixed, and monopolization of land is not effective in allowing authoritarian control of the population living on the land.

4. Industrialization, which has existed sporadically for many centuries but in sustained and rapidly growing form for only the last two or three, consists of the innovation of new functional artifacts, many of which are perceived to be useful resources, and the quantity manufacture and distribution of these artifacts.

5. These artifacts require design skills and knowledge, and manipulative skills and effort. They are not limited by land availability to nearly the same extent as food production.

6. Therefore they have a strong tendency to circumvent authoritarian control based on control of land.

7. The steep rise in the process of industrialization which we call the Industrial Revolution is generally geographically located, by historians, in Britain, around 1770-1870.

8. On the other hand, the great majority of the techniques, materials and product concepts which comprised the industrial revolution arose on the continent or even further afield, in China or Islam.

For instance:-

Iron and steel and blast furnaces
Glass and spectacles and telescopes and microscopes
Spinning and cotton
Weaving and cotton

Gunpowder and iron cannon
Printing
Much chemistry
Lathes
Presses
Screw threads
Ceramic glazes

Some important artifacts arose primarily in Britain, i.e. the steam engine.

9. So, why did the industrial revolution take place in Britain, and not on the continent?

10. One major reason is the increase in agricultural productivity in Britain, enabling rapid urbanization. GRIGG XXX

11. A second major reason is the predation-on-affluence trap in which, in times of material prosperity, people withdraw from the innovation and manufacture of artifacts which represent that prosperity, into careers which predate on prosperity. (Renaissance Italy, Dutch Golden Age, contemporary Britain).

12. As much of the continent inched towards industrialization, many societies shot themselves in the foot.

The cotton textile industry proved to be the first major industry of industrialization, providing 50% of Britain's exports in 1800.

13. Innovations in textile machinery which could greatly improve productivity were banned by officially sanctioned Luddism in Switzerland, Danzig, Holland, Nuremberg, Cologne, Frankfurt.

14. Movable type printing had earlier been banned in Islam and iron production severely curtailed in China.

15. Luddism was rife in England, but was forcefully suppressed by government policy.

16. i.e. the liberty to innovate was enforced policy.

17. In the area of the generation of new knowledge, Galileo had been excommunicated in Italy.

The counter-reformation brought the banning of a large range of books throughout continental Europe.

The Bishop of Paris had...

18. In Britain, Boyle, Hooke, Newton suffered no prohibitive doctrinal constraints

19. The 17th century scientific revolution advanced notably in Britain.

20. The new knowledge generated substantially fuelled future economic growth i.e. pneumatics in formatting the understanding of the steam engine.

21. Just as artifact innovation in Britain was an extension of previous continental development, so innovation in the generation of new knowledge in Britain was founded on prior continental practice.

22. Innovation proceeded in Britain in both these areas **and was not halted**.

23. We are observing a strongly **selectionist** process at work. Material and intellectual advance

could only take place where they were at **liberty** to do so.

24. Tocqueville was right. The liberty had to be deep rooted, it **had** to come first.

25. The link between liberty and material prosperity is not chance, it is not accidental. It is **evolutionary**, selectionist.

26. Economic growth through the innovation and manufacture of functional artifacts, in addition to improving the wealth of society as a whole provides disproportionate wealth occasionally to the innovators, more often to the manufacturers and commercial distributors, thus **outflanking**, in a manner which avoids official control, the wealth monopoly of established hierarchies.

27. As the generation of new knowledge proceeds the possibility of innovation of new artifacts occurs in a very non-linear manner, as we have discussed in detail before.

28. As new products proliferate, as they have done, and wealth generation and accumulation proliferates, as it has done, the economic monopoly which underpins autocracy crumbles, as it has done.

29. As new reliable knowledge proliferates, as it has done, presumed knowledge of supernatural forces is outflanked, as it has been, and the hierarchy which underpins religious autocracy crumbles, as it has done.

30. The preceding argument has been constructed as a possible sequence of events in the interaction of liberty, the generation of reliable knowledge and the innovation of functional artifacts within one on-going culture, i.e. England, over a time-span of six to eight hundred years.

Another mechanism can take place in a cluster of cultures which are bounded from each other, but leaky, so that information on reliable knowledge on the techniques of artifact innovation and of artifact design can accumulate and be available to all members of the cluster, in which only a very few, or even **only one** member is sufficiently free from traps to use this available knowledge to innovate further. This seems to be the manner in which Europe as a whole progressed to modernity, while each individual member of the cluster ran into traps. The long-run freedom from prohibitive traps that characterised England appears to have been crucial in permitting the industrial revolution to take place when it did and so to set the seal on the escape from agraria.