SOME REFLECTIONS ON THE ORIGINS OF INDUSTRIAL CAPITALISM IN A COMPARATIVE PERSPECTIVE.¹

(talk given to Past and Present Society, Worcester College, Oxford, on 26.5.94 & Queen's College, Cambridge)

SECTION ONE: The problem and the mystery.

The dramatic escape from Illth.

If we look at the history of the world over the last two thousand years, the most important and dramatic event was the escape of first one, then increasing numbers of countries, from a world of 'Illth', as Ruskin called it, namely a world of the Malthusian positive checks, perennial war, famine and disease and appallingly low standards of living for ninety per cent of the world's population. For this event we have many names - industrial revolution, 'modernity' etc. The odd thing is that it is not difficult to argue that this event should not, could not, and even cannot be understood to have happened. Let me explain what I mean.

The view from before the event.

The greatest thinkers of the later part of the eighteenth century, showed decisively that there was no way in which an 'Ancien Regime' agrarian civilization could possibly escape from an endless cycle of 'misery' or 'Illth'. Let us take the two most famous analysts of this cycle of misery.

Adam Smith's Wealth of Nations was the blueprint for a new age. Yet Smith could not envisage how such a world of Wealth could possibly emerge. He realized that there was a built-in contradiction which would forever trap agrarian societies and prevent their escape from eternal misery. This was the law of population. It was clear that "every species of animal naturally multiplies in proportion to the means of their subsistence, and no species can ever multiply beyond it." Mankind was just another species in this respect, for "men, like all other animals, naturally multiply in proportion to the means of their subsistence." He pointed out that an improvement in wealth would lead to a decline in mortality among the common people, hence more children would survive and the population would increase. Likewise, increased wealth through increased wages would lead to increased fertility. "The liberal reward of labour, therefore, as it is the effect of increasing wealth, so it is the cause of increasing population", or, as he put it in a marginal note, "high wages increase population". ² Recently Wrigley commented that as far as Smith was concerned "his view of the prospects for growth in general induced him to discount the possibility of a prolonged or substantial improvement in real wages, and to fear that the last state of the labourer would prove to be worse than the first..." (Wrigley, Two Kinds, 99). The only question was whether a country would be 'trapped' at a low or high equilibrium, in other words with sparse or dense populations.

¹ Especial thanks to Gerry Martin, who adorned my barn with a magnificent telescope and told me about its lenses - which has obviously entered my mental process.... And to Sarah, who has shared the fun of looking through many mental telescopes.

² Smith, Wealth, i, 89,163,90.
Building on Smith and others, it was Malthus who sketched out more fully the iron laws that shackled human beings to the eternal tread-mill. When he published the first version of his Essay on the Principles of Population in 1798 he painted a bleak picture of a closed world from which there was no escape. His work provides a clear insight into the mechanics of agrarian civilizations and their intrinsic 'limits to growth'. His argument is well enough known: population grows in the ratio 1,2,4,8,16, doubling each generation; resources can only grow at the rate of 1,2,3,4,5. The result is a pattern as follows:

(Malthusian graph)

After the event explanations.

Despite the predictions, however, the transformation did occur. Yet even with the facts before us, we are still perplexed as to why it occurred. All attempts to explain why this event occurred have been as unsuccessful as the attempts to predict it. There is a huge literature on this, so let me just give two small examples of the failure to explain what happened.

One of the most thoughtful attempts to summarize the major explanations put forward by economic historians to account for the industrial revolution in England is that by R.M.Hartwell. He lists the various factors that have been suggested: capital accumulation, innovations in technology and organization, fortunate factor endowments (coal, iron, resources), laissez-faire in philosophy, religion, science and law culminating in the eighteenth-century, market expansion (foreign trade and the domestic market), and a number of miscellaneous facts, including war, the autonomous growth of knowledge and 'the English genius'.

After examining all of the economic explanations in detail, however, he comes to the conclusion that the theories "have added little to our understanding of the industrial revolution". We are still in the dark. A few years later Peter Mathias implicitly came to the same conclusion; the spectrum of causes of the industrial revolution are known, but they are not satisfying.

One of the many problems is that if we look at each of these many causes in turn, it is impossible to see why, for instance, England rather than Holland should have become the first industrial nation - for Holland and parts of France and northern Germany had many of these advantages. Nor can we see how England overcame the negative feed-back pressures outlined by Adam Smith and Robert Malthus.

If we turn to the question of demographic changes, we are faced with equal puzzles. Until recently, the general consensus then was that the rise in population must have been caused by a lowering of the mortality rate. Even if we now realize that rising fertility was equally or more important, it is still clear that there was some lowering of mortality during the eighteenth century, and that in the growing cities in particular, mortality did not rise as much as we would have expected and even dropped in some cases. We also know that certain diseases, particularly plague, disappeared very rapidly. Yet when it came to explaining why and how this enormously important step away from high mortality was taken, there is again no convincing solution.

The best known attempt to explain what happened is by Thomas McKeown in his work The Modern Rise of Population. He took each possible explanation and examined it. The result, however, was strangely negative. McKeown is certain that there was a significant decline in mortality. But on

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4 Mathias, Transformation, 11.
examining the possible causes for this, he is puzzled. Apart from smallpox inoculation, there is no
evidence to believe that improvements in medicine had any effect. They can be ruled out as an
explanation. Likewise, he is convinced that there is no reason to believe that changes in the balance
between the “virulence of the infective organism and its host” were important. Therefore it must have
been the third cause, “improved conditions”. Not that, apart from the potato, McKeown can find any
improved conditions, and indeed the general view is that crowded city dwelling and a possible decline in
real wages made conditions worse. But it must have been this because “the conclusion that conditions
improved in the late eighteenth century must follow rejection of the effectiveness of medical effort.” 5 In
other words, once again we know that something large happened, but all the positive explanations seem
to be unsatisfactory.

We are thus in a slightly curious position. Looking forward from the eighteenth century, we can see
that there was no way in which humankind could escape from recurring misery. Looking back from the
later twentieth century, we see that many countries have achieved the impossible - but we cannot see
why or how the first and most important break-through occurred.

Faced with this dilemma I would like to suggest that we alter our way of looking at the problem.

SECTION TWO: Constructing an intellectual telescope.

When I was an undergraduate I followed the approach of many historians, which was basically to
make a simple contrast between the present and the past. The 'present' consisted largely of implicit and
unexamined models of what my world was like.

If we adopt the metaphor of a telescope, which I shall use through this paper, I was looking at the
past through an empty tube or lens-less telescope. Through this tube I noticed certain things, either
because they were very familiar (through continuity), or very contrasted (through dramatic change). But
I only noticed a few things. The technique was not very strong.

Limitations of the empty tube: the difficulty of seeing the obvious.

The weakness of the direct opposition of present and past is shown when we consider, for instance,
the difficulty of seeing the large and obvious things about the past of our own culture. One
considerable difficulty for modern writers who try to understand the causes of the industrial revolution is
that in many ways they are too close to the phenomenon. We still live on the side of the mountain which
was created then, and it is very difficult to get it into perspective and to see more than tiny parts of it.

This difficulty has been noted by a number of broader thinkers. As David Hume wrote, "the views
the most familiar to us are apt, for that very reason, to escape us” or as Braudel put it, "...surprise and
distance ...are both equally necessary for an understanding of that which surrounds you - surrounds you
so evidently that you can no longer see it clearly". 6 Likewise, as Marx wrote "Human history is like
paleontology. Owing to a certain judicial blindness even the best intelligences absolutely fail to see the

5 In Drake (ed.) Industrialization, p.72.

things which lie in front of their noses..."  

As the old Chinese text puts it: "'As the fish swims in the water but is unmindful of the water; the bird flies in the wind but knows not of the wind'".

The difficulty of seeing absences.

A particular difficulty concerns absences. In all societies, many of the most interesting things are the absences, and it is extremely difficult to notice these. The idea of the significant absences, the silences and spaces, is worth developing a little. It is an idea which we could link to Adam Smith's great insight into the possible nature of the solution to the problem we have set up.

In the manuscript of a talk given in 1755, he wrote: "Little else is requisite to carry a State to the highest degree of opulence from the lowest barbarism, but peace, easy taxes, and a tolerable administration of justice; all the rest being brought about by the natural course of things."  

We may note that he realized that these conditions were seldom met, and never for a long period. But what is particularly interesting is that he his referring to absences - the absence of the normal condition of war, the absence of the usual predatory taxation, the absence of arbitrary and unequal judicial system. He directs our attention to looking at things which are normally present, but where, for some reason, the normal tendencies are suspended.

An analogy of the method can be seen in a technique used by detectives, by Sherlock Holmes in the 'Silver Blaze', or the postman who did not call in Raymond Chandler's 'Farewell, My Lovely'. One of the key links in Holmes' detection is described as follows: "Before deciding that question I had grasped the significance of the silence of the dog, for one true inference invariably suggests others. The Simpson incident had shown me that a dog was kept in the stables, and yet, though someone had been in and had fetched out a horse, he had not barked enough to arouse the two lads in the loft. Obviously the midnight visitor was someone whom the dog knew well."

The real problem is, how can we look at absences? They can only be detected if we have a strong positive image of what is 'normal' in the course of history, and then see that in the exceptional cases the predicted did not happen. We need a strong back-cloth, against which the foreground can be seen. Without it, much of the foreground is invisible. This is one of the reasons why many of the most important and outstanding features of early modern England, for instance, are literally invisible to many of us. "He little knows of England, who only England knows", refers to this phenomenon. How then can we proceed?

Constructing the first lens: the method of contrast.

The first step we can take to overcome this 'judicial blindness' is to build up a model of what

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7 Marx, Pre-Capitalist , p.140.

8 Cited by Koestler, Lotus, 269.

9 D.Stewart, Works, x,68.

10 Collison, Indexes, 13.

11 Adventures of Sherlock Holmes, 305.
'normally' happens in agrarian societies. It is not, of course, an easy matter. If I may be autobiographical, this is what I attempted to do in a number of earlier works. In relation to witchcraft, I looked to see how witchcraft worked in Africa and elsewhere, and then contrasted this to England. In relation to peasantry, I did the same and came to the conclusion that a 'real peasantry' was never to be found in England. In relation to violence, I found an absence of proper bandits, mafia etc.

This widening of the perspective can be enormously valuable, yet it poses several problems. One of these is that we end up with a very long list of contrasts. For instance, if we took a composite model of seventeenth century 'Asia' and compared it to 'England', we would end up with a vast number of 'absences' on both sides. This may lead us to ask all sorts of new questions of a counter-factual kind and hence stimulate the mind. What we have done can be represented in terms of our telescope image. Through the method of contrast we have now created a lens. This is a lens which widens out our vision. We begin to see many things in our past in a fresh light because they are no longer 'natural'. It brings into the field of vision, through a mysterious process which it is difficult to describe, a huge array of material which was hitherto invisible. Almost everything in the past becomes special, significant, different, odd.

The need for a second lens; comparison.

The danger of just having this one lens, however, is that the expansion of our vision is too large. In a sense, too many solutions are let in, the answer is over-determined. In relation to the 'European miracle', for instance, we are at a loss as to whether it is the absence of slavery, the absence of pollution beliefs, the absence of strong gender, the absence of hydraulic agriculture, the absence of rice cultivation or whatever that is important. Like a single lens in a telescope, it makes it difficult to concentrate, to see a long distance. There are a host of facts and interpretations, an endless inventory of possible explanations for everything.

Here I would like to suggest a further refinement of the technique, which is, I am sure, standard in scientific work, but which has become increasingly of interest to me largely by 'accident'.

The experiment I am undertaking is to add to the thought process a country which in many ways is extraordinarily similar, and in many ways extraordinarily different, from England, namely Japan, over the last thousand years. By keeping the first lens of contrast in place, and then adding the case of Japan, the whole process is made very much more powerful.

If we turn briefly to the case of Japan, on the surface, the differences are perhaps the more striking. Sir Rutherford Alcock in the 1860's. "Japan is essentially a country of paradoxes and anomalies, where all - even familiar things - put on new faces, and are curiously reversed.... They write from top to bottom, from right to left, in perpendicular instead of horizontal lines; and their books begin where ours end... Their locks, though imitated from Europe, are all made to lock by turning the key from left to right. Their old men fly kites while the children look on; the carpenter uses his plane by drawing it to him, and their tailors stitch from them; they mount their horses from the off-side - the horses stand in the stables with their heads where we place their tails, and the bells to their harness are always on the hind quarters instead of the front,... and finally, the utter confusion of sexes in the public bath-houses, making that correct, which we in the West deem so shocking and improper..." 12

12 Alcock, Tycoon, i, 414.
I'm sure I do not need to labour the differences - in language, religion, art, thought etc.

And yet there is a curious and deep similarity. One aspect of this, which concerns me here principally, is that Japan went through a early, rapid, and successful industrial revolution. This has been widely recognized. Just as England was, as Rostow shows, some eighty years ahead of any other European nation in its transition to industrial growth, in the same way, Japan's very rapid transition to industrialism occurred about 70 years before that of any other part of Asia. As of the 1960's it was still possible to look at Japan as unique in Asia. The economist Kuznets noted that "Japan is the only nation outside of those rooted in European civilization that has joined the group of developed countries so far." Bronfenbrenner wrote that "Japan remains the outstanding if not the only case of sustained growth under capitalism by a Non-European country without European colonization, and without unhealthy or paralytic dependence on the West." Finally, we may cite Baechler who writes that "Japan is the only country that has modernized itself in the space of one or two generations...the hypothesis can be formulated that pre-Meiji Japan had developed endogenously all the conditions for the possibility of modernization."

The general economic success of Japan, and its uncanny familiarity led one of the most penetrating of observers, E.L. Jones to conclude: "in certain respects Japan was as 'European' as if it had been towed away and anchored off the Isle of Wight." We have now constructed the two lenses that are needed for a proper telescope. This telescope could be shown thus.

The first lens widens our vision - it distances our past by comparing the English experience with some stark contrasts, namely India, China etc. The first lens allows us to see some very large and important features - of the kind which Weber drew our attention to - in the west, Christianity, pluralistic and competing small nation states, peculiar cities, an absence of slavery and very rigidified caste, an absence of pollution beliefs and animal sacrifice, a very powerful and constantly advancing technology, a less crisis-ridden demography and so on. We get a sense of the whole area which we need to investigate. But there is too much in the lens, hardly anything is excluded. The eye expands and expands.

Adding Japan provides a second lens, which draws in the eye again and allows it to focus in on what seems most significant. We can do this because we know that the outcome in the two islands was

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13 Kuznets, Growth,177; cf.,p.34,226-8 also.

14 In Bienefeld, ed, Struggle, 93.

15 In Baechler et al. (eds.), Europe, p.40.

16 Jones, Miracle, 159.
Section Three: What we see through the full telescope.

I will need to generalize at a very gross level. But if we now look briefly at some of the ways in which England and Japan were similar to each other, yet different from all other large agrarian societies, we see the following.

The Restraint of Centralized Feudalism.

Western Europe and Japan are the only two major agrarian societies which are known to have passed through a stage of authentic 'feudalism'. But even more significant was the similarity between England and Japan, which each had a peculiar form of feudalism - what one might call 'centralized feudalism'. Its major feature is that it provides order, without choking society by developing into 'absolutism'.

The essence of this political balance is outlined by Tocqueville in his Reflections on English History. "There are two great drawbacks to avoid in organizing a country. Either the whole strength of social organization is centred on one point, or it is spread over the country. Either alternative has its advantages and its drawbacks. If all is tied into one bundle, and the bundle gets undone, everything falls apart and there is no nation left. Where power is dispersed, action is clearly hindered, but there is strength everywhere." De Tocqueville thought that only one country had found the balance and, with occasional wobbles towards absolutism, maintained it. "I don't know if a mean between these extremes can be found, but it would seem that William did find it." 17

This balance, encapsulated in the contradictory words 'centralized feudalism' is what was also maintained in Japan. Through its curious system of division between ritual ruler (Emperor) and military ruler (Shogun), through its almost identical form of feudal tenures, it maintained orderliness without absolutism, severe centralization with strong local power. It did not veer towards the 'dissolution of the state' feudalism of anarchy, or the absolutist state which Perry Anderson believed lay inevitably in the path to modernity. Only in the early twentieth century was the balance temporarily lost, with the abolition of the Shogun and the placing of the Emperor above the law.

The Modesty of the Family System.

Normally, the family is too powerful to allow the political system to act freely. Marc Bloch famously linked feudalism to the weakness of the North-west European kinship system. Indeed, it would seem that he was right. The most important fact about the kinship systems of both England and Japan was their relative unimportance. We are faced with the curious fact that North West Europe and Japan are the only two agrarian civilizations based on cognatic rather than agnatic kinship. Structurally the kinship systems, particularly of England and Japan, are very similar indeed. They both trace descent through both sexes; they have identical kinship terminologies, they both have the unusual system of primogeniture. 18 In the absence of corporate groups kinship cannot provide the basis of politics and religion. Only when we compare the kinship systems in these two parts of the world to those in India, China etc. do we realize how very self-effacing, not to say silent, they are.

17 De Tocqueville, Reflections, 4.

18 For detailed discussion, see my 'On Individualism'.

roughly similar. A contrast with Holland provides many refreshing comparisons - but it neither provides a sufficiently distancing lens, nor does it help us with finding some of the necessary ingredients, largely because Holland actually failed (until very late, along with many others) to achieve any spectacular transformation into industrial capitalism. Here it was unlike Japan.
The diffidence of religion.

In different ways, the religious systems of Japan and England were sufficiently, but not too demanding. There are, of course, as Bellah and others have pointed out, some curious and interesting parallels between Tokugawa religion and Puritanism. But the similarities go deeper than this. In essence, for accidental reasons, the form of bland Anglican/Puritan religion that developed in England, and the relatively tolerant, pluralistic mix that developed in Japan, left the individual and group relatively free to act without too many ethical constraints. What is most notable, as Max Weber also noted, was the anti-magical, anti-ritualistic, in other words puritan and ascetic and self-limiting nature of the forms of Christianity and Buddhist-Shinto beliefs that sprung up on these two islands. That famous "disenchantment of the world", which Weber regarded as "the distinguishing peculiarity of Western culture", was also to be found in Japan. It meant that religion no longer dominated the world. The "decline of magic" which Keith Thomas so magnificently documented, was a very old decline. Like the middle class, which was always rising, magic was always declining in England. And with magic, there was little ritual - no taboos, no pollution, few miracles. A largely practical, physical, pragmatic, orderly world.

The open social structure.

The central feature of English social structure was the absence of permanent, blood-based, estates or social classes. The absence was noted for the medieval period. As Marc Bloch wrote, "in the French or German sense of the word, medieval England had no nobility", or as Maitland put it, "our law hardly knows anything of a noble or of a gentle class; all free men are in the main equal before the law". The gap between England and most of Europe grew over time, but in the absence of comparison became invisible to the English. As De Tocqueville wrote: "Wherever the feudal system established itself on the continent of Europe it ended in caste; in England alone it returned to aristocracy. I have always been astonished that a fact, which distinguishes England from all modern nations and which can alone explain the peculiarities of its laws, its spirit, and its history, has not attracted still more than it has done the attention of philosophers and statesmen and that habit has finally made it as it were invisible to the English themselves..."

Although the Tokugawa rulers of Japan made mild efforts to freeze the social structure and introduce some administrative distinctions between groups based on Confucian principles, little was changed and through most of Japanese history there has been the same restless and flexible system as England. As Chamberlain wrote in the later nineteenth century, "...there exist no impassable barrier between the different classes...The feeling only resembles that to which we are accustomed in England, if indeed it is as strong". Or as Reischauer more recently wrote: "Japanese society is rent by no sharp cleavages. There is virtually no great inherited wealth and very little degrading poverty".

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20 Bloch, Feudal Society, ii, 330; Maitland, History, i, 408.

21 Tocqueville, Ancien, 89.

Low pressure demographic regime.

All of the above would have been of no avail if there had not been a special demographic regime. Almost all pre-industrial societies have what is termed a 'high-pressure' or 'Chinese' demographic structure. That is to say, they have relatively high perennial mortality, with crude death rates of about 35 per thousand per year. Their average fertility rates are even higher, at 45 per thousand or so. Thus each year the population rises. Then every generation or so a massive crisis occurs - war, famine and disease. As Cipolla wrote, this applies to "any agricultural society - whether sixteenth-century Italy, seventeenth century France, or nineteenth-century India" which "tends to adhere to a definite set of patterns in the structure and movements of birth- and death-rates." 23

None of the above is true of either England or Japan. In both these cases, the 'preventive check' of restrained fertility through marital and other devices was very important in keeping population in check. Both perennial birth and death rates were below these levels and the crises were largely absent. The consequent population pattern in these two cases provides the only two known cases where wealth increased year by year for at least three generations while population remained stationary, a system which Wrigley has called 'dilatory homeostasis.'

The free-floating economy and technology.

Because of the above features, a peculiarly 'free' economy could develop, the market, pursuit of wealth as an end in itself, the widespread use of money (or rice in lieu). The pre-conditions which Smith suggested were present, and the curious demographic regime overcame the Malthusian negative feed-back trap.

SECTION FOUR: Conclusions

In both England and Japan, it is the balance and the absence of extremes that is important; as Gerry Martin put it, for any kind of growth one needs water, but too much water is as bad as too little. It was not a passive balance, but the active outcome of dialectical oppositions - the synthesis of the competing demands of the usual human desires, for power, salvation, love, wealth. Normally as time passes these drives skew society in one direction or another - political despotism, religious inquisition, clan domination. Societies usually have periods when the balance is right - when the conditions Smith called for are present - peace, easy taxes, reasonable administration. Such was the position in certain Italian cities in the fourteenth century; Holland in the first half of the seventeenth; Hong Kong in the 1970s onwards. What was extraordinary was that in England and Japan the conditions lasted not a century or so, but for hundreds of years. Only with such a long-term set of absences could the force behind the unprecedented move into modern industrial capitalism be built up.

Yet, if this is roughly correct, the case of Japan reminds us of another fact. That the right political, religious and social structure is not enough. For there is little doubt that without the development of western technology, Japan would not have industrialized. The same is true of England. Until the eighteenth century it was a net importer of inventions and without the developments in Europe, it would not have achieved much. In these facts lie some of the reasons for their differential success. If we carry out the thought experiment of placing Japan off Europe and England off China, we can see that the nature of the relations of a large island with its continent are crucial. We also need to remind ourselves that very small accidents, a strong wind to destroy the fleets of Philip II or Kublai Khan, can make all the difference.

What I have tried to show through a concrete case study is that our understanding of a problem can be deepened by changing our focus, by constructing an intellectual telescope which can help the naked

23 Cipolla, pp.76-7.
eye of the historian. As long as we remain within our culture and look at our past, we will only see certain things. If we add the lens of contrast and look at Europe or England through the lens of India, China, tribal societies etc., we will see many new things. But the extraordinary case of Japan provides one further lens - of similarity in difference. With this lens as well we can see even further into the most mysterious, yet portentous, change of the last two thousand years of human history, the origins of industrial capitalism.

(5000 words)