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III. ECONOMIC, SOCIAL, AND POLITICAL TRANSITIONS

Transitions from Agricultural to Industrial Societies: Some Introductory Remarks ¹⁾

Patrice Bourdelais

From the end of the 18th century on mankind has experienced the most fundamental transformation since the stone age -- the industrial revolution. Its impact is so profound that contemporaries began to analyze it and the term "industrial revolution" appeared in the writings of Marx and Engels as well as John Stuart Mill in the middle of the 19th century. By nineteen hundred it had become common usage (Arnold Toynbee). Thus the question discussed below, if broadened to include the whole process of transition from rural to industrial society, is one of the great "classics" of contemporary historiography. The innovation in approaches derives not only from the application of recent quantitative methods, but also from a change of perspective, since historians usually analyze the past in the light of their own time.

I. The evolution of the problem

At the beginning of the present century, Mantoux in the first major work on the industrial revolution placed primary emphasis on industry and technological change ²⁾. At that time the phenomenon was limited to England, Germany and France, since the power of the United States was not perceived until the First World War. Growth seemed uninterrupted, driven by periodic revolutions in steam, electrical and then oil technology. But this view was strongly criticized in the 1950s, since the Great Depression suggested the idea that growth was not solely dependent upon technology. J. U. Nef showed that the acceleration of technical progress occurred about 1780 rather than in 1750, if one looks at the metallurgical sector and the use of steam power instead of limiting oneself to changes in textile production ³⁾. For him the industrial revolution is not a break but simply an acceleration; it is a part of a long term development of technical progress. The countries involved in this speed-up had already experienced a first revolution of metallurgical and mining techniques during the Renais-

1) Translated by H. Best and Hannelore F. Jarausch as well as edited by K. H. Jarausch.

2) P. M a n t o u x, *La Révolution industrielle au XVIIIe siècle* (Paris, 1905).

3) J. U. N e f, *La Naissance de la civilisation industrielle et le monde contemporain* (Paris, 1954).

sance. According to T. S. Ashton, technical innovation was therefore of secondary importance ⁴). How could it have had such a powerful effect, if favorable conditions had not already existed in the non-industrial sectors? Such prerequisites for the profitable introduction of new techniques might consist of agricultural improvement, the accumulation of capital and labor as well as the formation of internal and external markets.

This controversy which might seem out of date has, on the contrary, been revived by sophisticated quantitative studies. For example, M. Yamaguchi takes a macro-approach on the sources of Japanese economic development (1880 - 1970). He attempts to measure the effects of differential rates of technical change in the agricultural and non-agricultural sectors as well as of population growth on Japanese economic development in every decade for this period. His originality lies in the utilization of a model which includes nine exogenous variables and eight endogenous variables. The model distinguishes an agricultural sector, a non-agricultural one, intersectoral relationships and demand factors (population, per capita income, terms of trade, and import as well as export. He concludes that in the whole period technical change contributed more to growth than traditional factors, perhaps because of its weight since the Second World War. Population growth had a bad effect on per capita income, because resources for increased food production had to be drawn from the non-agricultural sector. Technical change had a double effect: in agriculture it tended to push resources out, and in the non-agricultural sector it tended to draw resources in. Further, it would be very interesting to distinguish different periods in the factor of growth so as to answer the questions: how was accumulation, which allowed initial investments for technical change, possible and when did it occur? How did people leave agriculture and go into industrial work?

Gradually analyses of transitions from rural to industrial societies have begun to emphasize the extent and irreversibility of growth. Economic historians are trying to measure growth-rates to determine the timing of the take-off and the stages of growth ⁵). But Marxist historians oppose such a reduction of their role and of their subject matter. For instance, P. Vilar, in distinguishing different phases in the transition between "feudalism" and capitalism, refuses to separate the study of production levels and fluctuations from their social context ⁶). As will become clear, this refusal is shared by numerous non-Marxist historians.

The scope of historical research has increased greatly since the 1960s ⁷). The widespread discovery of underdevelopment and of social inequality during

4) T. S. Ashton, *The Industrial Revolution* (London, 1937).

5) W. W. Rostow, *The Process of Economic Growth* (New York, 1952).

6) For example, P. Vilar, "Développement historique et progrès social. Les étapes et les critères", *La Pensée*, No. 4, 1961.

7) E. Le Roy Ladurie, *Le Territoire de l'historien* (Paris, 1973 and 1978), 2 vols.

growth has stimulated a concern for the differences of growth in each country and the inequities which it produces or simply perpetuates.

For that reason we prefer to speak in the plural of "transitions" from agricultural to industrial society. The "industrial revolution" participates more or less directly in the passage of one type of economy or society to another, because neither the causes nor the sequence of transitions should be measured by the onset of growth in North-West Europe. This is so because the impact of the initially developed countries on the international market changes the conditions for the development of the rest of the world. Industry does not necessarily stay put at its birthplace⁸).

The essay of F. Dopico, for example, presents a new interpretation of the relative chronology of Spain's backwardness in the transition. The notion of advancement or retardation must be seen in the context of the situation in other countries. Therefore, F. Dopico reconsiders the demographic and economic levels and the terms of international comparisons. He shows that Spain was not in as good a position to benefit from industrialization as Great Britain, France or Germany. But if one compares it to neighboring Mediterranean countries, Spain's backwardness is not so striking. For example, at the beginning of the 20th century, the per capita gross national product was similar in Italy and Spain (but then we have to explain the slowness of growth in the Mediterranean world). After the Second World War, the differences became greater and greater. In 1950 Spanish per capital income was 79 % of Italy's and by 1960 it was only 69 %. That seems to be a result of the civil war and of the autarchic policy of the Franco era. This is a good example of the national peculiarity of the transition and of the influence of political choices in retarding economic and cultural development.

In other countries and different continents growth may take place without industrialization. In the case of Argentina between 1880 and 1930, a good example of Latin America development, capitalist control of the agricultural sector through credit and the domination of the banking system by the United States stimulated and organized growth, but limited it at the same time (Castillo-Tulchin). More important than industrial development was the maintenance of social control by a fraction of the dominant class through the use of usurious credit and the exploitation of Argentine agriculture by international investors via the manipulation of the commercial and financial structure. Regional differences in modes of agrarian production, population density, degree of urbanization, immigration patterns and so on seem to have been decisive for the degree and direction what development did take place.

Without question the focus of much research has remained relatively traditional, namely the economic and political preconditions of growth. The prin-

8) L. Bergeron, *Les Révolutions européennes et le partage du monde* (Paris, 1968).

cial reason is apparently the unevenness of historical literature. While there are relatively numerous case studies and syntheses on the big European nations, analyses of countries remote from these centers are terribly few⁹⁾. Moreover, in the latter area historians are still working on those aspects traditionally considered most basic, such as economic and political conditions.

During the last twenty years, the frontiers of historical investigation have, nevertheless, expanded considerably. Today historians explore the changes of daily life and popular culture. Physiological anthropology has become a promising field of research on the past, perhaps even an auxiliary science of history! For example the relationship between industrialization and the wellbeing of a population has become a controversial issue among historians. J. Komlos analyzes the case for the Habsburg monarchy in the eighteenth century by studying the relationship between the height by age profile of young males and the nutritional status of the population. He shows that the spread of malnutrition preceded the rapid industrialization of the 1760s and 1770s and that the diminution in real income took place before the onset of industrial growth. The height profile suggests that weavers, for example, were not poor because they wove, "rather they wove because otherwise they would have been poorer". The standard of living had begun to deteriorate prior to the spread of industrialization because of the growth of the agricultural labor force. "Protoindustrialization in Bohemia helped prevent the utter collapse of the local economy".

The connection between nutrition and height may not be as simple as it seems here. But the utilization of an unusual indicator makes it possible to conclude that the deterioration of living standards precedes the onset of protoindustrialization and in some ways supports it. Therefore, this study contributes to the reevaluation of the positive aspects of industrialization which have long been neglected in favor of the hard working conditions, emphasized by social and moral observers in the 19th century.

II. The interplay of time and space

Through these different contributions, the great debate about the territorial dimension of social analysis seems to be implicitly—and provisionally—closed. But for the subject treated here, it remains crucial. The French sociological school of the turn of the century reproached geographers for their regional approach whose overly narrow framework concealed the true explanatory relationships. Beginning with a definition of the phenomenon to be studied, Simiand proposed multiplying the sites of observation instead of starting with a division of the territory to which one limits one's investigation. In our session,

9) For example, H. H a b a k k u k, M. P o s t a n, *The Industrial Revolution and after* (Cambridge, 1965), vol. 4 of the Cambridge Economic History of Europe. Cf. also F. B r a u d e l, E. L a b r o u s s e, *Histoire économique et sociale de la France* (Paris, 1976).

most of our colleagues have chosen the national perspective. Is this the most relevant level of analysis for the transition or is this choice only dictated by the availability of sources? Lucien Febvre affirmed his preference for the case study approach, the only one compatible with the need for data of quality and for the collection of multiple pieces of information¹⁰).

Finally, numerous historians have followed the path suggested by Max Sorre¹¹). It satisfied sociologists without at the same time offending geographers! By the diversity of sites selected, the region has become a kind of "spatial laboratory". It offered, through the range of combinations found elsewhere, the possibility of multiplying comparisons and observing repetitions and divergences. By distinguishing several larger regions in the series of cross-sections which he analyses in relation to economic transformations, Komlos remains faithful to this approach.

But given or contrived space is only a simple framework. When one observes the diversity of the countries and periods involved in the question of "transitions", one may legitimately wonder how space and time interact in a complete historical analysis. In present practice, reductionism seems to dominate. There are many ways of conflating one of the two dimensions with the other so as to work along a single axis! The Braudel of *La Mediterranee* offers one main example¹²). For him space is a way of introducing into history the dimension of the longest time, neglected until now. Geography "helps to rediscover the slowest structural realities, to organize perspective according to the slope of the *plus longue duree*". But if space is "solidified time", should one not fear the risk that it may vanish as a distinctive dimension of human activity? The evolution of Braudel's thought seems to indicate that he had not underestimated this danger. In *Le Capitalisme* the analysis of preindustrial France which he proposes rests on a double system: the progression from basic cells to the "country", to the region, then finally to the national market and various zones, such as mountains and plains, north and south, interior and periphery¹³). A complex order of time corresponds to this pluralistic organization of territory. This approach can easily and successfully be transposed to another country and a more recent period (Castillo-Tulchin). Playing with the linkages of time and space, establishing the points at which these two dimensions coincide is no longer in the realm of speculation.

10) L. F e b v r e, *La Terre et l'évolution humaine. Introduction géographique à l'histoire* (Paris, 1922); and F. S i m i a n d, "Méthode historique et science sociale", *Revue de Synthèse historique*, 1903.

11) M. S o r r e, *Les Pyrénées méditerranéennes. Etude géographique biologique* (Paris, 1913).

12) F. B r a u d e l, *La Méditerranée et le monde méditerranéen à l'époque de Philippe II* (Paris, 1949), 2nd ed., 1966).

13) F. B r a u d e l, *Civilisation matérielle, Economie et capitalisme, XVe - XVIIe siècle* (Paris, 1979).

III. New directions of research

There are, of course, numerous aspects of the question which have barely been touched upon ¹⁴). For instance changes occurring in the agricultural sector, the transportation network or the banking system accompanied economic development. The very important phenomenon of proto-industrialization is only indirectly dealt with (Komlos). With the exception of Castillo-Tulchin, social aspects have remained outside the discussion, not to mention cultural changes such as reading and writing, religion, the world view, the conception of the family or demographic patterns ¹⁵). Treating them was not the assignment of the contributors.

Instead of enumerating the aspects of change which could not legitimately be included due to the brevity of time devoted to this vast question, I would like to linger over one approach which seems particularly promising: the linkage of individual data. To the extent that grand economic and social syntheses are available, historical questions have become finer and more demanding. Now the discussion focuses on the familial and individual factors of the rural exodus, on following the social itinerary of emigrants towards the city. Marriage strategies, voluntary birth control, regular school attendance must be linked with individual trajectories ¹⁶). As a framework for potential social or professional mobility and as crucible for a new acculturation, the firm becomes the critical place. This level of the causes and consequences of the transition from an agricultural to an industrial society cannot be treated by methods of aggregate analysis, even if they are sophisticated. One must therefore have recourse to the collection of nominal data in a necessarily restricted spatial area, unless one chooses to draw a national sample ¹⁷). In the latter case, the investigation can be enriched by defining regional disparities, but it lacks the support of several types of nominal sources.

When one limits the scope of research on the connection between mobility and industrialization to the small region of Creusot and a few communes which provided numerous groups of immigrants (and consequently to a sample of emigrants outside of the industrial center), it remains possible to link the data

14) D. Levine, *Family Formation in the Age of Nascent Capitalism* (New York, 1979); *idem*, *Proletarianization and Family History* (London, 1984); and P. Bairoch and A. M. Piuze, eds., *Les passages des économies traditionnelles européennes aux sociétés industrielles* (Genève, 1985).

15) H. Medick, *Industrialisierung von der Industrialisierung* (Göttingen, 1977).

16) Besides the research cited below, there are the projects directed by Cl. Desama at the University of Liege (in Belgium) and by Y. Lequin at the University of Lyon (in France).

17) Survey of "three thousand families" directed by J. Dupaquier, presented in "l'enquête des 3000 familles", *Population*, No 2, 1984.

of census lists and of pupils enrolled in school with the information supplied by personnel records of the Schneider factories. Thus multivariate analyses can be conducted and homogenous groups constituted over several decades¹⁸). Undoubtedly this means returning to the monographic case study which—although territorially structured in a different way—opens, as Lucien Febvre saw it, the way to a new synthesis.

18) For example, G. B o u c h a r d, *Les Saguenayens. Introduction à la population du Saguenay* (Quebec, 1986); and P. B o u r d e l a i s, "L'industrialisation et ses mobilités (1836 - 1936)", *Annales ESC*, No 5, 1984.