Organizational Forms in Big Business

Managerial Hierarchies. Comparative Perspectives on the Rise of the Modern Industrial Enterprise. Papers from a conference, Cambridge, Mass., Sept. 1977. ALFRED D. CHANDLER, JR., and HERMAN DAEMS, Eds. Harvard University Press, Cambridge, Mass., 1980. xii, 240 pp. $16.50. Harvard Studies in Business History 32.

Max Weber would have thoroughly approved of the project that produced this exciting volume. The essays lay the groundwork for a comparative analysis of the development of the modern business corporation, and Weber was of course a pioneer in the use of the comparative method. The great German sociologist was also the foremost student of the bureaucratic structure of authority, a subject that is the central concern of this book. Following the lead of Alfred D. Chandler, Jr., the several contributors analyze when and why the modern bureaucratized firm arose in Great Britain (Leslie Hannah), in Germany (Jürgen Kocka), and in France (Maurice Lévy-Leboyer). Morton Keller adds to this an exploration of how these several nations developed regulatory systems for big business; Oliver E. Williamson provides an extended commentary on Chandler's previous volumes; and Herman Daems concludes the book with an essay that probes the conclusions suggested by this excursion through the business history of the leading Western industrial powers.

Chandler's essay "The United States: Seedbed of managerial capitalism" plays a crucial role in each of the comparative studies that follow. In it he sets forth briefly the major conclusions advanced in his pathbreaking volumes on the centralized corporation (*The Visible Hand: The Managerial Revolution in American Business*, Harvard University Press, 1977) and on the 20th-century organizational form that replaced it, the decentralized firm (*Strategy and Structure: Chapters in the History of the Industrial Enterprise*, MIT Press, 1962). Throughout, he emphasizes the efficiency of those big businesses that took over the distribution of their own products and reached back to bring their sources of supply within the firm. Modern management arose to direct the activities of these corporations, and in America managers gradually supplanted the families and financiers who had for a time guided their affairs. In transportation and communications, in distribution, then in production, managerial capitalism triumphed.

The firms of the other countries are then compared to the American pattern (briefly by Chandler; in more detail by the other authors). In each case national deviations from the American norm emerge. In Great Britain, the progress toward the "most dynamic form of modern enterprise, the integrated industrial firm" (p. 36), was slow. British businessmen showed a marked preference for organizations such as the federated holding company which enabled erstwhile competitors to control production and prices without surrendering control of their family businesses. As Hannah shows, this type of loose holding company was still holding its own in Britain as late as 1948. Germany was faster to adopt modern forms of enterprise, but here too loose federations or cartels were widespread and were, in fact, the most popular way to achieve vertical integration in the years 1887–1907. Not until after World War II, Kocka says, did the cartels begin to give way to tighter forms of combination. France was the last to adopt the "modern organizational and managerial techniques, which have created new sources of efficiency" (p. 118). Lévy-Leboyer carefully describes the French experience; he analyzes the "managerial gap" that persisted in France, he says, far longer than the oft-cited "technological gap." Like the British, the French developed intricate means of linking firms so that common policies could be formulated and adequate sources of capital provided without surrendering family prerogatives.

In the recent past, the companies in all three nations have evolved along lines closer to the American model. Herman Daems stresses this in his concluding essay, and, with Chandler, he finds that the hierarchical structure and centralized control of big business made for greater efficiency in these economies, just as it had in the United States. Weber would have found this conclusion pleasing. He too believed that bureaucracy would triumph over other structures of authority because of its relative efficiency.

Some of the contributors to this volume are slightly uneasy with this overwhelmingly positive evaluation. Hannah says that "the consequences of the visible hand of large-scale enterprise were not all benign." Combines that achieve monopoly power "may have negative effects." Echoing Joseph A. Schumpeter's concern, Hannah contends that bureaucracy can destroy the "freshness and vigor" of entrepreneurship (p. 71). Williamson points to the same problem. "Unless insulated against entry by patents or government regulations, it is the rare dominant firm that, over a period of thirty years, does not lose [a] significant market share to new entrants or aggressive rivals" (p. 198).

This is a healthy corrective that in my opinion calls for even more emphasis. Chandler and Daems both stress the role of vertical integration in the rise of big business. In that case, their argument that large enterprises replaced the market because they could do the job more efficiently is persuasive. When it comes to explaining why Standard Oil wanted to control 90 percent of the refining capacity in the United States, however, the efficiency argument falls far short of providing a convincing explanation. Standard Oil survived, and in that limited sense the combine proved that it was efficient. The traditional explanation of that survival has, however, involved market power, that is, the ability to bring under the control of one firm enough of the industry's capacity to stabilize market shares, prices, and thus profits. This aspect of the rise of the modern industrial firm is given only passing mention in this volume, and I think it deserves a more prominent place in our history of the large firm.

The essays on European enterprises clearly indicate that this should be the case. In Great Britain and France, and to a lesser extent in Germany, the drive to control the forces of competition took a different form than it did in the United States. Loose combinations were legal and apparently effective, and they were well suited to the social environments of these countries, as these essays clearly establish. For many years, businessmen thus used cartels, federated holding companies, and *participations* to achieve some of the same ends that Americans sought by creating highly centralized corporations. Those ends involved market power, and they raise questions about allocative efficiency that are alluded to but not analyzed in this book.

Without these volumes, however, I would be unable to speculate on these questions, because Chandler, Daems, and their coauthors are breaking new

ground, providing us with the first reliable comparative studies of these important aspects of business history. We are much in debt to them, whether we agree with their "tentative hypotheses" or not. Without their essays we would still lack the essential comparative perspective this volume provides. The book and the project that gave rise to it are boldly conceived and well executed. One can safely predict that the book will evoke in Europe and elsewhere the same sort of enthusiastic scholarly interest that Chandler's work has already stirred up in the United States. The result will be a far better understanding on the part of historians and economists of those giant corporations that dominate the Western economies today.

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Evolutionism in America

The Triumph of Evolution. American Scientists and the Heredity-Environment Controversy, 1900–1941. HAMILTON CRAVENS. University of Pennsylvania Press, Philadelphia, 1978. xxiv, 352 pp., illus. $17.50.

The debate among scientists about the relative importance of heredity and environment in human evolution and about the respective roles of cultural and genetic factors in explaining apparent differences among ethnic, national, or racial groups has continued from Darwin's day to the present. Hamilton Cravens believes that the period between the 1890's and the 1940's constituted a distinct and particularly important epoch in these transatlantic disputes.

Cravens describes the widespread claims made during the 1890's by a new generation of largely American biologists and psychologists that their experimental evidence finally made it possible to disentangle genetic from environmental phenomena and thus to produce clearer explanations of evolutionary questions. On the basis of their reading of that evidence, this generation of American scientists imposed radically hereditarian interpretations upon virtually every problem connected with evolution. Cravens attributes that hereditarian bias largely to the ethnic makeup of the American scientific community—almost completely WASP—at a time when their ethnic group felt itself challenged by others, such as blacks, eastern and southern European immigrants and their children, and individuals of Irish Catholic descent. These "others" were occupying American cities and seizing positions of political and economic power. The same WASP scientists led the way in encouraging the belief that a science of human behavior, the outlines of which they claimed to know, could predict and perhaps control human behavior. Their claims for their "science" justified laws, customs, and beliefs that did indeed control to a significant degree the challenging "other" ethnic groups.

Cravens devotes the second half of his book to the successful attacks on hereditarian theories launched between 1915 and 1930 by another generation of again largely American scientists. By 1930 cultural evolution held the primary place and biological evolution a secondary one in explanations of human social behavior. This time American anthropologists and sociologists, rather than the biologists and psychologists who had done so earlier, took the leading roles in the controversy, though virtually every type of natural and social scientist and many popularizers of scientists' data and ideas both in the United States and Europe participated. Once more changes in American society determined the course of the scientific debate. The rise to positions within the American scientific community of members of the formerly "inferior" groups and the development of an American intelligentsia with its own value system were the most critical social shifts connected to this new dominant scientific perspective. In an interesting but not fully developed section of this part of the book, Cravens describes continued interest in a science of man, and he implies that progress was made toward creation of such a science.

Most of the ideas in *The Triumph of Evolution* will be familiar to scholars acquainted with the literature concerning evolutionary concepts. They dominate recent writing about the topic. Cravens's most significant contribution lies in the extraordinary comprehensiveness of his treatment. He has brought together most of the recent scholarship with a formidable amount of his own and thus covers most of the important sectors of the natural and social sciences. He tends to move systematically from one scientific field to another, providing careful and reasonably thorough descriptions of the most important developments connected with his topic in each. Although he concentrates on events in the United States, Cravens occasionally pauses to present informative and sometimes quite original analyses of analogous work connected with the controversy in Europe. His analysis of the theories of the Dutch botanist Hugo de Vries places de Vries more precisely within these disputes than does any work that I have seen, except perhaps for a single article by Garland Allen. However, his treatment of Franz Boas and his students is derivative and at important points superficial. For example, he seems unaware that scholars such as Margaret Mead, Edward Sapir, Ruth Benedict, Ruth Bunzel, Alfred Kroeber, and Alexander Goldenweiser rejected not only the hereditarian thesis of racial hierarchy but important aspects of the whole idea of Western cultural evolution in the Darwinian sense as well. In their view, and to a lesser extent even in Boas's, technologically primitive cultures provided more satisfactory lives for their members than did Western middle-class culture, despite the latter's allegedly higher rank on the evolutionary scale.

Cravens's scholarly caution and use of qualification usually seems an asset to his book. The "triumph of evolution," Cravens declares, was far from a clear-cut victory. "What had really happened," he suggests (p. 265), "was that, at least for a generation or so, American scientists had discovered that an either/or question . . . was too difficult and perhaps profitless to discuss further." Therefore the decision during the 1930's by most scientists to allow biological evolution to retain its primary place in the study of human beings as a species but to grant cultural evolution the major role in explanations of human behavior within society, with statements about both types of phenomena placed in the context of quantitative discussions about the relative weight to be given the biological and cultural variables, amounted to an armed truce.

Cravens believes that the nature-nurture controversy will continue, and probably not in the old terms, such as those used by reactionaries still trying to prove racial and ethnic inferiorities. He discerns an acceptance within business and government bureaucracies of assumptions borrowed from evolutionary science, which taken together "provide the possibilities for social order and control in an entirely new kind of society." Industrial psychology, achievement and aptitude tests, and techniques used by the mass media, the advertising industry, and political parties all supply evidence for this hypothesis. Cravens seems quite optimistic about this "new kind of society," an attitude that would not have been shared by Boas's foremost students or by all of those who agree with Cravens's hypothesis about the new possi-