

Japanese Industrialization and Its Social Consequences

Edited by

Hugh Patrick

with the assistance of
Larry Meissner

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This volume is one of a series on Japanese society published by the University of California Press under a special arrangement with the Social Science Research Council. Each volume is based upon a conference attended by Japanese and foreign scholars; the purpose of each conference was to increase scholarly knowledge of Japanese society by enabling Japanese and foreign scholars to collaborate and to criticize each other's work. The conferences were sponsored by the Joint Committee on Japanese Studies of the American Council of Learned Societies and the Social Science Research Council, with funds provided by the Ford Foundation.

Editors' Note

Japanese personal names are written in the Western order of given plus family name. Japanese government agencies are cited by their Japanese names to facilitate finding the sources in library card catalogs. All information contained in figures and tables has been included in the Index.

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Preface

This volume is the result of a conference held 20-24 August 1973 at the University of Washington's Lake Wilderness conference center outside Seattle. The Conference on Japanese Industrialization and Its Social Consequences was one of a series of five international conferences planned under the auspices of the Joint Committee on Japanese Studies of the American Council of Learned Societies and the Social Science Research Council. Funds for the conference series were provided by the Ford Foundation in a grant to the Social Science Research Council in 1969.

The conference, and this volume, benefited from considerable lead time, extensive planning, and the cooperative efforts of a number of persons. The main work in determining specific themes, identifying potential paper-writers, and selecting other participants was done by the planning committee, consisting of John W. Bennett, Washington University; Solomon Levine, University of Wisconsin; Kazushi Ohkawa, Hitotsubashi University; Henry Rosovsky, Harvard University; Koji Taira, University of Illinois at Urbana-Champaign; Tsunehiko Watanabe, Osaka University; Kozo Yamamura, University of Washington; Yasukichi Yasuba, Kyoto University; and myself as chairman. The committee encouraged collaborative research where feasible and desirable; four of the twelve papers in this volume are the result of intensive collaborative efforts. The conference budget contained very limited funds for research support; these nonetheless were particularly helpful in making three papers possible. John Creighton Campbell of the Social Science Research Council aided substantially in these preparatory stages.

The participants in the conference were twenty-five economists, sociologists, and anthropologists from the United States, Japan, England, and Israel. They were John W. Bennett, Washington University; Tuvia Blumenthal, Tel-Aviv University; Martin Bronfenbrenner, Duke University; Masayoshi Chūbachi, Keio University; Robert E. Cole, University of Michigan; Ronald Dore, University of Sussex; Hiroshi Hazama, Tokyo Kyoiku University; Solomon Levine, University of Wisconsin; Ryoshin Minami, Hitotsubashi University; James Nakamura, Columbia University; Chie Nakane, Tokyo University; Hiroshi Ohbuchi, Chuo University; Kazushi Ohkawa, Hitotsubashi University (emeritus); Akira Ono, Seikei University; Hugh Patrick, Yale University; William V. Rapp, Morgan Guaranty Trust Company; Henry Rosovsky, Harvard University; Gary Saxonhouse, University of Michigan; David L. Sills, Social Science Research Council; Michio Sumiya, Tokyo

University; Koji Taira, University of Illinois at Urbana-Champaign; Ken'ichi Tominaga, Tokyo University; Tsunehiko Watanabe, Osaka University; Kozo Yamamura, University of Washington; and Yasukichi Yasuba, Kyoto University. Susan B. Hanley, University of Washington, capably and effectively took care of all local arrangements, as well as serving as a rapporteur. Larry Meissner, Yale University, was the main rapporteur; John Wisnom, University of Washington, assisted both in their responsibilities.

The original drafts of the twelve papers contained in this volume provided the foci for the conference discussions. Participants were expected to have read the papers in advance, so it was not necessary for authors to present them. Instead, two or three discussants presented prepared comments on each paper; the author was given the opportunity to reply; and a general discussion followed. The discussions were extraordinarily frank, direct, friendly, critical, and interdisciplinary. All participants—paper-writers and discussants—took an active role in making the conference a success. It was not a meeting in which most Japanese participants took one position and most American participants took another. Americans criticized Americans and Japanese; Japanese criticized Japanese and Americans. I believe the fine rapport was achieved both because of the high level of professionalism of the participants and because most of them already knew one another. Others have pointed to the virtually continuous Ping-Pong game outside meeting hours as both a highly integrative and competitive force.

The conference discussions subjected each paper to thorough analysis, which resulted in substantial revision by the authors for inclusion in this volume. To that has been added extensive editing, particularly by Larry Meissner who has done a job beyond the call of duty.

Louise Danishevsky has, as always, efficiently handled the retyping and duplication of edited manuscripts and a myriad of other small but essential details. To all who have contributed so much to make the conference a success and this volume possible, I offer my thanks.

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An Introductory Overview

HUGH PATRICK

Japanese economic development has been a source of fascination for foreigners and Japanese alike, not only in its purely economic context as well as its broader social, political, and cultural context but also for purposes of international comparison. Much research by economists has focused on establishing the general contours of Japan's process of economic growth in the aggregate. Even discussions of industrialization—particularly those in Western languages—have tended to be aggregative in nature. At the same time other social scientists have examined other features of the Japanese process of change, usually taking as given the concurrent process of economic development.

Substantive research seldom occurs in a vacuum. The topics deemed important, the questions asked, are inevitably influenced by perception of the states of knowledge and ignorance — by the results of earlier research. At the Conference on Japanese Industrialization and Its Social Consequences, held in August 1973, the intellectual antecedents of the participants have several major strands, reflecting the diversity of the group. Many American and some Japanese participants felt a linkage to certain of the earlier conferences on Japanese modernization, particularly the Conference on the State and Economic Enterprise in Japan, under William W. Lockwood's chairmanship, and the Conference on Social Change in Modern Japan under Ronald P. Dore's chairmanship, both held in 1963. In important respects the conference resulting in this book was also related, at least for the economists participating, to two international conferences on the macro features of the Japanese long-run growth experience held in Japan in 1966 and 1972 under the chairmanship of Kazushi Ohkawa.¹ One consequence of these results has been the realization of the need for future research to turn to more microeconomic issues, and especially to explore the interrelation between social and economic variables in order to understand the Japanese experience better.

This book is both ambitious and, in certain significant respects, limited. Its ambition lies in attempting to analyze the interrelationships among the broad themes, Japanese industrialization and its social consequences, and in bringing together at the conference specialists on Japan from anthropology, economics, and sociology to consider problems of common or overlapping interest.

¹The results of these four conferences are published in Lockwood (1965), Dore (1967), Klein and Ohkawa (1968), and Ohkawa and Hayami (1973).

We recognized from the beginning this would be a pioneering effort, for it meant exploration of topics not yet well covered in the literature. More importantly, we recognized analysis of the feedback among aspects of industrialization and social change in Japan, as elsewhere, is complex and difficult at best. Nonetheless this is the first book in Western languages treating Japanese industrialization which provides extensive emphasis on the social dimensions. The limitation is that we certainly far from succeeded in fully integrating social and economic theory and data. We did not plan the conference with any preconceived, overreaching framework of comprehensive hypotheses, nor did we attempt to end up with any such framework. This was probably unavoidable in what was, after all, a major innovative effort to explore the effects of industrialization on social change. As such it was inevitable that only a few of the possible causal interrelationships and effects could be treated.

This book reflects certain other limits imposed by the conference planning committee. We attempted to cover the entire time period from early Meiji (which began in 1868) to the present. It should be remembered that we are considering an evolutionary, historical process of industrial development and social change; the Japan of 1975 is far different from the Japan of a century ago. Inevitably, the committee had to delimit the topics to be considered, and to some extent were constrained by the research interest and activities of possible paper-writers. Because considerable research at the macro level on Japanese industrialization has recently appeared in English,² the committee asked certain authors to prepare microeconomic studies of three selected industries and other authors to focus on selected aspects of the industrialization process itself. The range of possible social consequences of the industrialization process is extraordinarily wide; the committee had to select a few that seemed of major importance and amenable to treatment within the context of the conference. Perhaps the greatest delimitation was the decision to exclude from formal consideration the other side of the coin: the social *causes* of industrialization, as distinct from consequences. We leave this important theme to future research. Inevitably, social causes did creep into the discussions and the papers themselves, as in the theme of paternalism or examination of the role of female workers.

Each of the papers in this volume stands on its own as a significant new contribution in English to our understanding of Japan. At the same time there is substantial overlapping and interrelation of themes among most of the papers, as authors examine different facets of the same general problem. This provides much greater continuity and focus to this volume than occurs in some conference results. It also poses some problems of classification, for several alternative schemes are valid. The papers here are divided into three parts—those dealing with evolving sociological and economic aspects of Japanese as industrial workers, those treating specific industries and the issues and problems associated with various features of industrial firms by size, and

²See, in addition to the items cited in the previous footnote, Ohkawa and Rosovsky (1973).

those examining certain important social consequences of industrialization.

In the initial paper in this volume Hazama summarizes and generalizes from his extensive research published in Japanese on the evolution of life styles of industrial workers. Cole and Tominaga examine the changing occupational composition of Japanese workers, and consider the concept of occupation in Japan in terms both of the relatively low level of occupational consciousness and the importance of occupational position as providing information on such important aspects of stratification as a worker's economic status, political opinions, and educational career. Saxonhouse, in a paper which in certain respects is also an industry study, examines labor-force recruitment and technological diffusion in the prewar cotton-spinning industry.

In addition to cotton-spinning, two other industries of importance in Japan's historical industrialization process are examined. Blumenthal analyzes the growth of, technological induction in, and the role of government in the development of the shipbuilding industry. Yamamura examines the origins, growth, and continued evolution in function of the large, general trading firms (*sōgō shōsha*), one of the few uniquely Japanese economic institutions in modern industrial societies. Three papers compare aspects of the economies of scale and production in large and small firms, a theme that came up in many contexts throughout the conference. Rapp examines the evolving structure of export production and industrial development in terms of the changing shares of small and large firms in exports in a paper related to Yamamura's discussion. Yasuba traces and analyzes the emergence and widening of wage differentials by size of factory in a number of industries for the prewar and the postwar periods. The differential structure in wages has had profound implications for life style, income distribution, poverty, the nature of labor-management relations, and the like—as is apparent in a number of the other papers. Minami stresses the significance of electrification and particularly the development of small electric motors in enabling small firms to compete on relatively less disadvantageous terms with large firms, thereby narrowing productivity and wage differentials from what might have been the case otherwise (assuming small firms could have continued to exist, certainly true for some industries).

A major purpose of this volume is to break new ground in exploration of the social consequences of Japanese industrialization, which are many, varied, complex, and on the whole relatively unexplored, at least in publications in Western languages. Perhaps one of the most fundamental changes in Japan is summed up as demographic transition: Japanese population growth accelerated with initial industrialization, and then slowed, and the patterns of fertility and mortality have changed dramatically. Ohbuchi considers this transition, with particular emphasis on the socioeconomic forces bringing it about. He also evaluates critically the various estimates of population size and growth from early Meiji to the first population census in 1920. Ono and Watanabe examine changes in income distribution, particularly between rural and urban areas, as a consequence of the process of industrialization. This, too, is an area in which data are poor and not much research has been done on either the historical or the postwar period. Chūbachi and Taira examine

the concept and facts of poverty, particularly urban poverty, over the course of Japanese industrialization—another important, relatively new area of research.

In treating the theme of social consequences, the planning committee was concerned that the conference incorporate consideration of major social costs of industrialization as well as benefits and other effects. We also thought it useful that, although most papers would focus on rather precise topics, one paper should be devoted to a broader assessment of the social effects of the industrialization process, building in part on the analyses of the other papers prepared for the conference. Bennett and Levine have prepared such a paper: they focus on the undesired consequences — social costs, absolute and relative deprivation — that have manifested themselves and become widely perceived as social problems. This has occurred mainly within the past decade. They examine the welfare gap, environmental problems, population density and urbanization, and conditions of work and leisure, particularly as they come to cut across classes, occupations, and geographical boundaries.

It is impossible to summarize succinctly yet adequately the main findings of these papers, or to convey the richness of evidence and analysis they embody. Nor is it the purpose of this introductory overview. Rather, in what follows I discourse on some of the major themes of the conference and of this volume, problems of methodology, and related matters.

APPROACH

The conference discussions fortunately did not bog down in disputes on methodology or terminology. Happily, the participants steered away from such vague and complex concepts as “modernization versus Westernization” and “modern versus traditional,” although they did consider the concepts of “economic dualism” and “paternalism.” The papers reflect these efforts at precision. While trying to isolate certain issues and utilize case studies fully, the participants struggled with the problem of recognizing that everything relating to the conference topic depends on everything else. This was true not only in an input-output sense—the use of electric motors by small enterprises depended on both electrification and a motor-producing industry, and shipbuilding and innovations in that industry depended on the availability and improved quality of steel, for instance—but also true of interdependence among a host of economic and social variables. Many of the consequences of industrialization have been unintended, or certainly not well understood when they first appeared. Who, for example, a hundred years ago would have anticipated the effects of industrialization and urbanization on fertility and mortality rates?

With regard to methodology, it may be noted that on the whole the approach of all authors is comparative, and a number of the papers explicitly incorporate comparative data. This is important and desirable, though it was not one of the major mandates of the planning committee. Fortunately, there were few assertions in the papers or at the conference that Japanese were

either unique or just like Westerners. It was pointed out that surplus labor and wage differentials by size of firm are characteristic of certain other developing countries as well as Japan; what is impressive is that substantial wage and productivity differentials have persisted since the early phases of modern industrialization. On the other hand, the evolution of the general trading company in its prewar and contemporary roles is an institutional development not replicated elsewhere. The participants noted Japanese firms were particularly skilled at absorbing foreign technology, although all were puzzled as to how and why. The cotton-spinning case study provides important insights, as is discussed further on.

In retrospect, the conference discussions were dominated by two interrelated themes: the conditions of people as industrial workers (in contradistinction, say, to consumers or farmers), and differences between large enterprises and small. This was mainly the consequence of the topics selected for papers, the selection of authors, and particularly the choice of participants. It was clear throughout the conference that the most significant interfacing of knowledge, methodology, and interests among the participants from different social sciences had to do with workers—such issues as their life styles, occupation, mobility, distribution by sex, wage differentials, and the causes thereof. This volume is somewhat broader in its coverage, for other social consequences are emphasized as well as those affecting Japanese as industrial workers.

LARGE AND SMALL ENTERPRISES COMPARED

The participants noted how certain constellations of features seemed to characterize particular phenomena when data were not adequate to determine either essential features or the relative importance of various features. For example, large firms were described as having new and usually imported technologies, skilled male labor, more capital per worker, higher output per worker, higher wages, and a special life style—in comparison with small enterprises. Yet the cotton-spinning industry—quantitatively by far the most important of the early modern industries engaging in large-scale units of production—depended mainly on unskilled female labor, who had a very different life style. And, as Yasuba shows, very small firms could not coexist with large once cotton spinning was well established, by 1910 or so.

Large firms were also described as either more or less paternalistic than small, according to the definition used. Nakane stressed the involvement of close personal relationships in paternalism, with discretionary modes of behavior making it applicable mainly to small firms. Dore and Cole contrasted this kind of paternalism with the managerial or institutional paternalism of large firms in which benefits are determined by impersonal rules rather than by personal relationships. Yasuba suggested large firms have to pay higher wages and fringe benefits to compensate for their *lack* of personal paternalism. Minami regarded this as one aspect of a fundamental behavioral difference between large and small (family-owned) enterprises: large firms can

be characterized as attempting predominantly to maximize economic goals (profits, growth), whereas owners of small firms, especially those using unpaid family workers, do not behave as economic maximizers but as the urban equivalents of agricultural households concerned with total family income and average income-sharing rather than marginalist calculations. Most of the conference participants agreed with the propositions concerning large firms. The characterization of small firms remains in dispute, however—a manifestation of the economic dualism controversy between those who characterize Japan as having gone through a classical surplus-labor economy phase and those who reject that interpretation in favor of a neoclassicist historical model of abundant labor with low productivity and wages equal to labor's marginal product.

Minami's position reflects his synthesis of two quite different ways in which the participants, following the rather confused literature, used the concept of economic dualism. At one point in the conference all were asked to write down their definition of dualism, and these were circulated to clarify varying uses of the term. One use stressed the phenomenon of wage differentials by size of firm within the same industry. The other definition of dualism was the classical two-sector case, in which labor in the modern, manufacturing, large-enterprise sector is paid its marginal product because owners are profit maximizers, and (surplus) labor in the traditional, agricultural, small-scale sector receives more than its marginal product because owners behave according to some sharing, average, or institutional (constant institutional wage) principle different from profit maximizing. This second concept was in the background in most of the conference discussion, but is explicitly incorporated into the papers by Minami and by Ono and Watanabe. The latter associate the postwar narrowing of income differentials with the ending of the surplus labor phase of Japan's development.

The framing of dualism primarily in economic terms was, in retrospect, excessively narrow. As some at the conference stressed, dualism is a comprehensive, complex, social phenomenon: economic variables are important but not all-encompassing. And many of the costs and benefits of dualism are social, not simply economic. The emphasis on economic criteria reflects the greater research on Japanese dualism by economists than other social scientists. This remains one topic (among many) for which a more comprehensive and integrated approach is needed.

WAGE DIFFERENTIALS

The wage differential issue is important in understanding not only the historical process of development in Japan, but the continuing process in developing countries today, for it is a general phenomenon with significant implications for policy in resource allocation and income distribution. We all well understand some wage differentials are inevitable and desirable, for example, differentials arising from occupational differences in skill requirements and in attractiveness of work. These differentials are associated with evolving demands for different types of labor and with evolving supplies of