

Quality, Japan, and the U.S.: The First Chapter

A course on management immediately after the war introduced some of Japan's new top executives to the importance of quality

by
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Much has been written about Japan's "new" industrial management, but virtually nothing about how it was created. Yet it had to be created. Here are a few of the creators. They alone did not create the new management; knowing what they did, however, helps us understand what many other Americans and Japanese contributed. As a British engineer who saw the generous and influential teaching of American industrial managers after World War II, it gives me pleasure to tell this story on the 40th anniversary of the end of hostilities with Japan.

THE EMERGENCE OF JAPAN AS A major world power is due more to the creation of a new system of industrial management by Japanese production managers than to any other reason. The new Japanese management was based on American ideas and on Japanese traditions and practices. American ideas came to Japan in the postwar years not only from American experts but to perhaps an even greater extent from practicing American industrial managers. The sharing of know-how by American industrial managers in the postwar decades reshaped the world economy. Not only allies but bitter enemies were taught—and turned to allies.

The role of quality in Japan's emergence is well known, as are the names of advisors like Peter Drucker, W. Edwards Deming, and J.M. Juran. What is perhaps surprising is the alacrity with which the new American ideas were adopted and tried (and sometimes rejected). An important factor in the rapid application of the new ideas on quality control and on management in general was a course prepared and taught by Americans—Charles Protzman, a senior manufacturing executive from Western Electric, and Homer Sarasohn, a young development engineer who had fought in the Pacific War—with the support of their supervisor, Frank Polkinghorn from Bell Laboratories in New Jersey. That course, known as "CCS," is little known in the West; it was presented from late 1948 to early 1950 to top executives of Japanese communica-

tion equipment manufacturers—companies like Fujitsu, Furukawa, Hitachi, Matsushita, Mitsubishi Electric, Nippon Electric, Sanyo, Sharp, Sumitomo Electric, and Toshiba (or their predecessor companies). Offered only twice, CCS played an important role in getting Japanese industry on its new path.

To understand how this came about, we must return to the situation that existed in Japan in 1945. Immediately after the end of the war, many of the nation's top executives were purged because of their presumed association with the wartime regime. The same thing happened in Germany; in that nation, however, many of those executives were apparently reappointed out of a belief that no one else could do the job. In Japan, by contrast, the Americans working under Gen. Douglas D. MacArthur discussed that idea—that the old executives were essential—and rejected it.

The Americans probably made their greatest contribution to Japan's very effective new management when, following the purges of top executives, they chose replacements from the ranks of operating managers. By doing so, they not only brought able men to the top, they also introduced the vital uniformly promotable features of what I like to call "classic" American industrial management, with its consequent reasonably uniform motivation across the width of the company structure.

The good American company of those days had a promotable management structure (i.e., it had able, highly promotable junior executives in almost every important area of the business). This was in marked contrast to Europe where there were not only social and special educational requirements for those who could reach the top, but there were also limits on how far someone, say in maintenance management, could rise in the organization.

The result in the U.S. was that, because of promotion, the good industrial organization was run by a group of top executives who, among them, had a wide range of experience in the business, starting at a low level. Mabel Newcomer

described the chief executive of the typical large American corporation in 1950 as a college graduate with a bachelor's degree who "while still relatively young and inexperienced . . . obtained a minor position with the corporation that he eventually headed, and . . . gradually worked up, through operations or production. . . ." The similarity of this structure to that of the modern Japanese company is readily evident. The previous top Japanese executives had a primary experience associated with the head office of their *Zaibatsu*²; their postwar replacements were former sales managers, factory managers, etc.

The classic American organization, with its able executives rising from practically every important corner, had to impress postwar observers for characteristics such as the way so many executives down to quite low levels could feel some identity with top management; for the comparatively free flow of information rising up the management chain, unhindered by the strata of the European organization; for the integration that the horizontal promotions that virtually always preceded a vertical promotion brought across the width of the company; for the motivation that executives rising slowly through the organization brought to working groups at all levels as they rose; and for the arrangement that some executives would specialize for pretty well their entire career. Others would move into specialist divisions for a year or two, then move on, with their experience greatly widened.

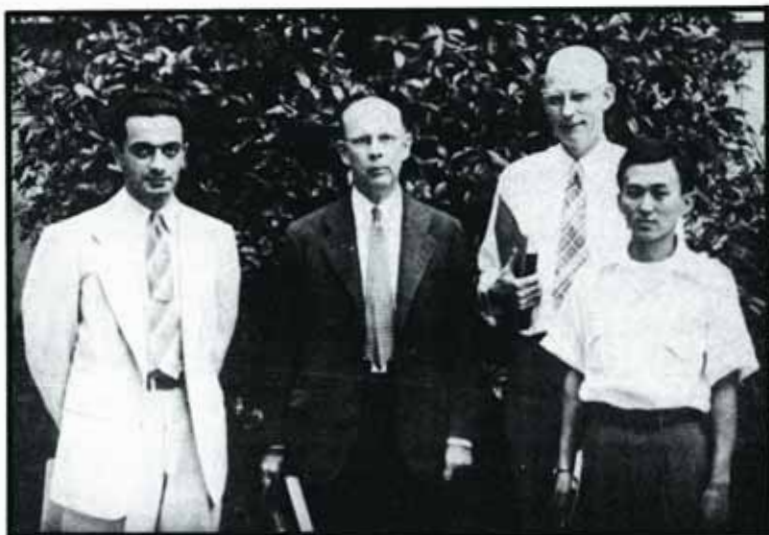
This kind of organization was far from perfect, but with its large number of adequately motivated, mobile staff, it seemed invincible to many abroad. Furthermore, certainly by the 1950s, U.S. management was evolving in the directions which would now be described as *Japanese*, but directions which are probably better seen as directed by the common imperatives of modern technology management.

However, while some American companies have stuck stubbornly to this traditional management, many no longer follow it, no longer stress experience on the shop floor or in selling as preparation for future top executives, and allow many more people to specialize, leaving the modern Japanese company the most dedicated practitioner of this particularly American tradition.

Postwar Japanese industry, devastated by the war and led by a new group of executives, was uniquely open to new ideas. Into this environment came the Civil Communications Section (CCS) of GHQ, SCAP—the General Headquarters of the Supreme Commander for the Allied Powers. CCS was organized to work with and advise Japanese communications equipment manufacturers. One of its most influential activities was a course nowadays called simply "CCS." The course was prepared by two men working in the Industrial Division of CCS, Charles Protzman and Homer Sarasohn, with the strong backing of the supervisor, Frank Polkinghorn. The significance of the CCS course may be judged by the fact that the Japan Industrial and Vocational Training Association

(JIVTA), which is the important training affiliate of the Nikkeiren (the Japanese Federation of Employers' Associations),³ still lists the course in the number one place of honor in its 1982 catalog—even though the course has not been presented for years.

It was not just through the management course that the Section influenced Japanese quality. The American authorities from the early days of the Occupation realized that the Japanese people must have satisfactory communications. The Japanese had more than impressed the Americans with their ability to resist through the Pacific islands. SCAP was anxious that misunderstandings might lead to civil unrest and insurrection. Accurate news, it was realized, not rumor, was the key to harmony. To the Occupation forces it was therefore almost as important that Japanese civilians have good communications as that they have food and shelter. In addition, the Occupation authorities depended on the Japanese communications system for their own needs. The implications of good quality were very widespread in this case.



The three men responsible for the CCS seminar for top executives, along with their translator: Homer Sarasohn, Frank Polkinghorn, and Charles Protzman, engineers in the Civil Communications Section of the headquarters of the Allied high command.

There can be little doubt that the CCS and its engineers made an important contribution to Japanese quality. Perhaps the best documented evidence of CCS's contribution came in the 15th anniversary edition of *Quality Control* (1965) published by the Union of Japanese Scientists and Engineers (JUSE). *Quality Control* honored five pioneers of quality control in Japan. All five, either in this anniversary issue or elsewhere, have referred to CCS as an early source of their quality inspiration or instruction. All five came from the electrical communications industry with which CCS was so closely involved. They were B. Inoue of Sumitomo Electric⁴; K. Kobayashi of Nippon Electric; T. Kato of (Mitsubishi) Nippon Kentetsu; K. Wake of Furukawa; and E. Nishibori of Nippon Telegraph and Telephone. Three of these five (Inoue, Kato, and Wake) attended the first CCS seminar.



Protzman lecturing to the Tokyo group of top managers in Waseda University. The seminar ran from Sept. 26 to Nov. 18, 1949. The group included executives from Fujitsu, Furukawa, Hitachi, Mitsubishi Electric, N.E.C., and Toshiba, or their predecessor companies.

"... the difference between success and failure ..."

Dear Mr. Protzman,

... Your recent accomplishments in planning, preparing and giving the Management Training courses to the Japanese telecommunications manufacturers have demonstrated your unusual ability to analyze and solve the unique telecommunications problems facing us in Japan. Your achievements in this field may well set the pattern for a truly democratic system of management and may prove the difference between success or failure of the telecommunications manufacturers. Furthermore, your advice and guidance on numerous and varied problems has contributed materially to the accomplishment of Civil Communications Section's mission.

Please accept my best wishes for continued success and happiness.

Sincerely yours,
George I. Back
Brigadier General, U.S.A.
Chief, Civil Communications Section
General Headquarters
Supreme Commander for the Allied Powers

Nishibori and Wake provide some background on the interplay of influences. Nishibori, who was later director of Japan's Antarctic expedition, reported that Sarasohn had "opened my eyes" to QC with a personal lesson at SCAP headquarters, and that he, Nishibori, and K. Koyanagi of JUSE had subsequently discussed the value of future lectures by Deming. Afterwards, Wake discussed with the Japanese Ministry of International Trade and Industry the need for that organization to study Japanese quality.

From about the end of 1946, CCS was very active in areas concerning quality.⁵ Sarasohn, on his arrival in Japan in February, 1946, found that "The Civilian Communications System on which everyone, including SCAP, depended was always breaking down. The new equipment we were getting from the Japanese manufacturers was of poor quality."

Protzman had been instructed before he left the U.S. that, with his substantial knowledge of manufacturing, one of his prime duties would be to help improve quality. When he arrived in Japan in 1948, he concluded that while "in some individual cases good quality levels had been attained," in general "it was still far below reasonable standards." In a 1950 report on his return to Western Electric, Protzman confirmed that, for CCS, "the need for improving product quality, which had been for the best part second rate (by our standards) before the war and ... even worse afterwards, was secondary only to building up productive capacity."

It is not surprising that because of the requirements of SCAP, and the dedication of its engineers, the small CCS Industrial Division had a significant influence on quality among the communications manufacturers (and hence eventually in Japanese industry as a whole); it is surprising that it should have an important influence on Japanese management practice as a whole; yet this happened.

The CCS seminar was offered twice: once in Tokyo and once in Osaka. Each lasted eight weeks, four afternoons a week, and was attended only by top executives from the communications companies. Enrollment was voluntary but thereafter, no substitutions by other staff were allowed, nor were excuses accepted for time off.

Six sessions of the CCS seminars were on quality control—more time than was devoted to any other subject.

The CCS seminars started out with a clear statement of the need for a company philosophy. Nowadays, we associate formal statements of company philosophy with Japan. In 1949, I am told, few Japanese companies had them; many American companies did. Some 30 years later, M. Matsushita, chairman of Matsushita Electric, speaking to his company's annual worldwide staff conference, reminisced that the CCS engineers had asked if any company present had a formal company philosophy. He found that only his company had. "I felt very proud," he added.

It is interesting to note the strength with which

Sarasohn advocated such company statements, and the examples he gave. The most striking was that of the founder of Newport News Shipyard:

"We shall build good ships here
At a profit, if we can
At a loss, if we must
But, always good ships."

Sarasohn put it this way "... the primary objective of the company is to put the quality of the product ahead of any other consideration. A profit or a loss notwithstanding, the emphasis will always be on quality."

The separate section on quality control was lengthy. Of the course manual's 400 typed pages, 63 were devoted to quality control. Andrew Carnegie was quoted very effectively by Sarasohn: "There lies at the root of great business success the very much more important factor of quality. The effect of attention to quality, upon every man in the service, from the president of the concern down to the humblest laborer, cannot be overestimated. . . . The surest foundation of a business concern is quality. And after quality—a long time after—comes cost." I think I hear in these quotes the cry of someone who had been trying for nearly four years to build a reliable national communications system with poor equipment.

BECAUSE OF JAPAN'S RAPID productivity growth since 1950, and the part human relations are acknowledged to have played in it, the human relations taught in the seminars also hold much interest. The human relations taught in the CCS seminars were different in very important ways from those that were to be taught in later years in the United States and Britain, particularly from those that fell under the dominion of the human relations movement and which have since received much criticism, both for their "manipulative" nature and for weaknesses in some of the early basic research (namely in the famous Hawthorne experiments).⁶

There are many phrases in the CCS text that I assess as fundamentally different from the doctrine of the then-dominant human relations and other academic management schools. For example, on leadership, Sarasohn argued, "A leader's main obligation is to secure the faith and respect of those under him" and "(the leader) must himself be the finest example of what he would like to see in his followers."

In my view, this flew in the face of the philosophies of both the American graduate business schools and the European class-based society which saw leading as being different from following, therefore allowing, if not demanding, different qualities.

Inoue of Sumitomo has drawn my attention, on several occasions, to Protzman's presentation on leadership, saying "it strongly impressed not only myself but also other Japanese people." He finds confirming evidence in it of his own belief that in the matter of "love" of a leader for his followers, and vice versa, "Europe and the United States are really the same as Japan."

From the Ground Up

It has been argued that Japan would have benefited from an earlier introduction of SQC. Sarasohn disagrees strongly. He argues that there had to be able executives in a suitable management structure before SQC could be used.

Sarasohn remembers a committee established in March 1948 by the Union of Japanese Scientists and Engineers to study SQC. "I made myself unpopular by saying they were taking too theoretical an approach. First the factories had to be brought up to a minimum standard. And I told them they were trying to reinvent work already done by people like W. Edwards Deming in New York." He recalls suggesting to the economic and scientific section of SCAP that Deming might be invited to advise Japanese industry. "They picked up the ball, and I went about my business."⁸

Sarasohn recognized that SQC had to take a back seat to a more fundamental need to improve working environments. He says, "When you see photographs of modern Japanese electronic factories with workers in clean smocks, do not think workshops then were anything like that. They were dirty. They would have a man with some strips of cloth tied to a handle which he whisked over the benches. I think his job was to keep the atmosphere dusty."

He tells of visiting a small company called Tokyo Telecommunications. Its listed capital was \$600; the miniscule staff was housed in shabby shacks where in a rainstorm executives had to work with umbrellas over their desks. "This company had been given an order for some highly sophisticated equipment. . . . I saw they had potential, but I felt I had to get a message across about their factory's work environment, so I did something which I knew was very rude in Japan. I got up from a meeting with them on their quality and walked out without even saying good-bye. I remember it well."

Some 30 years after, one of the co-owners of that tiny company also remembered it well. When the incident had been reported to him, he vowed that the company must show its worth; and they did indeed produce an excellent mixer console, and they produced it on time. The company biography recounts that the American engineer was "amazed" and insisted that future orders be placed with the company.⁹ This company is called SONY. The executive referred to is the present honorary chairman Masaru Ibuka.



Sarasohn remembers visiting Tokyo Telecommunications. He thought they had potential and encouraged them; the company is now called SONY. A. Morita, honorary chairman of SONY, is second from left.

My translator tells me that the word used by Inoue is the Japanese *ai*, a word not equivalent to our all-purpose "love." In her book, *The Chrysanthemum and the Sword*, Ruth Benedict explains, "*ai* means specifically the love of a superior for his dependents." Most of us in our careers experience feelings of affection, respect, and appreciation for at least some of our seniors and juniors. Whether or not our management practice is here the same as the Japanese, it is quite certain that our major modern management philosophies do not see importance in the feelings the Japanese call *ai* and indeed do not even have an accepted word or phrase to describe them.

There is a notably strong advocacy of consultation in the CCS manual. Periodic meetings are recommended between management and workers. "If we who are paying these people for working with us could foster that desire to participate, what a profitable undertaking it would be . . . The factor of participation has been overlooked . . . everywhere," argued Protzman. He warned it would require participation at every level: ". . . teamwork and cooperation must be established by the attitude and example of each executive level from the president down . . ." Sarasohn added, "Building up employee morale and making policies effective require a constant process of education."

Protzman was to return to Japan on business in future years and was frequently asked to lecture in human relations and management. At one lecture in 1956 he made what may have been the first public proposals of possible coordinating mechanisms for what we now call QC circles. (I. Sakamoto, who translated for Protzman, tells me that this particular suggestion was not influential at that time. The fact that Protzman made it indicates, however, that there was then no wide use of such groups by the Japanese electrical communications manufacturers—later to be leaders in the field—and that the time was ripe for participation.) It is therefore interesting to find an apparently Japanese flavor in some of his CCS advice. He assures me, however, that while Japan did influence him in the parts of his experience he taught, he nevertheless taught nothing that was not part of his personal philosophy.

Let me note some of his other advice without further comment. "(The leader) earns his people's loyalty by being loyal to them." "This concept of teamwork, of working together, should be the basic approach of each supervisor in the analysis of the job of subordinates . . . to make it possible through teamwork to correct the cause of the trouble—to do a better job." ". . . in approaching subordinates it must be remembered that they are human beings who have human feelings." ". . . if one is a good enough leader, one can usually find ways of encouraging subordinates to see what is needed without 'telling' them. When this is done, the subordinate is helped to develop his own ability . . . In the final analysis, this is the true measure of . . . a per-

son's own ability as a leader." "Today a company cannot afford the extravagance of managers who are not good teachers." Much of this sounds very much like what we are now trying to learn from Japan.

A AMERICAN MANAGERS of the postwar period believed that democracy was not only the best form of government, but also the most effective method of motivating employees. In European industry, even in politically democratic countries, individual organizations had a quite rigid class structure which joint consultation committees only worked around. The class structure placed barriers on rising information. Democracy in industry meant a cultivation of suggestion and sensible criticism from subordinates—always, of course, respecting the hierarchy.

Polkinghorn, therefore, after describing briefly in his foreword to the manual some of the features of democracy in the West, went on to state, "The pursuit of this policy (of equality and democracy) has raised the general level of ability, the sense of responsibility and the understanding of the people, and has been a major factor in achieving the Western standard of living."

Nowhere else in the manual does the missionary spirit of the American show more clearly than here: ". . . greed, selfishness and other anti-social characteristics . . . must be controlled either by the individual or by society." Continued Polkinghorn in phrases reminiscent of an early Puritan preacher, ". . . cooperation is to be . . . fostered in every way possible." If the Japanese would practice this, they would be rewarded. There was no need to threaten punishment; the Japanese need only have looked at their \$132 per capita GNP. Polkinghorn has told me he wrote this introduction specifically because he felt he must stress the contribution democratic practices made to successful management.

Well before the seminars started the American occupation had started to wind down. It mattered little to SCAP that the participants found the seminar "so invigorating" or that the economic and scientific section was looking to see if any parts could be presented to the rest of the industry. The big wheels turned: there would be no more seminars.

Japanese executives thought otherwise. One who had attended the Tokyo seminar was Takeo Kato of Mitsubishi Electric. (Kato had long been a leading figure in the development of Japan's industrial methods.) Inoue remembers contacting the Japan Management Association, which immediately sponsored Kato and Inoue to tour Japanese industry spreading the CCS gospel.

The Federation of Japanese Electrical Communications Industries Association ran the seminars in 1950. Later, other groups accepted that responsibility. By the end of 1952, some 1,300 top executives had attended. The JIVTA took over CCS in 1959 and continued to run it until 1974. By that time, at least 5,100 top executives

had taken it. Since other organizations also ran CCS seminars, no exact figure for total instruction is possible.

In the early years, incidentally, only top executives who had attended seminars themselves were allowed to present CCS. There was thus a laying on of hands.

An event as momentous as the successful reshaping of a major world economy is bound to be an object of study for economists and others. Though we must admire the dedication of the engineers ("it could have been a holiday for us, as it was for many in SCAP," they say), and though without them much of the advice they gave the Japanese probably would not have arrived in time, it has to be remembered that elsewhere in the world the equivalent of the CCS advice was widely available, nowhere more so than in the U.S. itself. If good advice were all that were necessary, America would now be looking back proudly on decades of good productivity growth. Managers were required to apply the new ideas, create a complete new management style, and then run the business—and that the Japanese provided.

If we accept Inoue's generous acknowledgments of the contribution of Americans to Japanese management, we must also listen, I suggest, to where he says influence was low. The positive, very important contribution, in his view, was giving Japan the opportunity to learn scientific management—though he believes Japan still uses at higher and middle levels more art of

management than one would find in the United States.

It must also be recorded that important practices advocated by CCS were tried conscientiously by Japanese industry, and later dropped. Perhaps the most famous of these efforts was detailed job descriptions, but they also advocated other procedures such as an American wage structure, which the Japanese found unacceptable.

It is in the areas of human relations that Inoue, despite his praises of CCS material and of advisors like Drucker, denies great American influence and argues that the sources of Japan's now world-famous practices are Japanese culture. Of group working in the factory, he argues that though he had not seen anything comparable to modern QC circles prewar, nevertheless the human relations that underlie the new practices were there. In his experience the foreman was always more a big brother to his worker.

He regards the 1946 in-house regulations adopted by Sumitomo Electric Industries (S.E.I.), together with the concept "to have workers centering round the foremen to improve their work," to have been an important early step to the establishment of QC circles in his company. This, of course, was well before any substantial new teaching from the Americans had arrived.

Protzman comes close to confirming the continuity of Japanese practice. He tells me that while his 1949-50 teaching was based on his American experience, the inspiration for his 1956 suggestions to the Japanese on coordination of



CCS Seminar Group, Osaka, Nov. 21, 1949, to Jan. 20, 1950. In the front row are B. Inoue, Sarasohn, Polkinghorn, and Protzman (respectively, third, fifth, sixth, and seventh from left). M. Matsushita, present chairman of Matsushita Electric, is fourth from left, second row. Other members of the Osaka group included top executives from Matsushita, Sanyo, Sharp, Toshiba, and Sumitomo Electric, or their predecessor companies.

participative working came entirely from his experience and observations of Japanese workshop practice and relationships during the occupation.

Another important aspect of human relations on which it has been argued that Americans had a voluntary or involuntary influence has been in the creation of Japan's "bottom-up management system"—sometimes familiarly called B.U.M.S.—a key feature of modern Japanese industrial management. Inoue points instead to the many examples of bottom-up management in Japanese history going back to early times. He has also given me a dramatic illustration from the months immediately after the surrender in 1945 when S.E.I.'s factories were largely destroyed and S.E.I.'s top management was rendered largely ineffective. He tells me S.E.I. middle management, under the leadership of K. Kitagawa, later president of the company, formed a long-term plan for the company. Thanks to Japan's long tradition of bottom-up management, the plan was put into operation smoothly. It seems an excellent illustration that bottom-up management was there before postwar American management training arrived.

DESPITE THAT TRADITION, it appears that not all Japanese firms actually assigned responsibility and authority to lower levels of management. Sarasohn and Protzman in their preface criticized the communications manufacturers for not having progressed, while the Japanese communications system itself and its research arm had improved. They blame this backwardness on "traditional feudal concepts of company officials."

Later in the manual, they return to this attack on autocratic management: "... responsibilities and authorities are not being used in a manner that will make top management or lower management effective. The president of a company is so involved in small details, in approving what should be routine action, that he does not have time to be president. . . . The people at lower levels who should be responsible and accountable for and have the authority to do these detailed functions are confused by the lack of proper definition of their job. . . . any initiative and interest they may have in trying to do a job is often destroyed by the interference and meddling of higher management."

Bottom-up management, according to that criticism, was not a smoothly operating, universally practiced management system in Japan at that time. Though it is clearly a fundamental Japanese tradition, its creation in its modern form must rank as a major postwar Japanese achievement.

So much was changed in the rebuilding of Japan, and so great were the consequences, that it would not be difficult to draw a book of conclusions. Here are just a few.

- We in the West, as never before, are looking at new ways of managing. We should not forget traditional American management as it existed

and still exists in many good American companies. A number of these—William Ouchi lists IBM, Procter & Gamble, Hewlett-Packard and Eastman Kodak—are often said to have Japanese patterns of management.⁷ Yet managers who have worked for these companies for some time say their basic management structure and culture is not a recent creation. I can testify that P&G had many of the features we now consider Japanese in the early postwar years. Perhaps good management is good management everywhere. To return to and build an updated version of this traditional pattern of American management where it already at least partly exists, or where enough people have had experience with it, might be a policy worth trying.

- A concern of American industry has to be that, while a number of companies here had very impressive success in developing new forms of shop-floor relationship many years ago, it is the Japanese who have developed and implemented such methods on a wide scale. There is, I suggest, an important lesson to be learned. It is that while the teaching of Western social scientists helped the Japanese executives formulate their views, it was Japanese factory management, including foremen, who led in the development of the new ways of working.

If this has relevance for us, it means that American line managers and human relations specialists must find a better way of working together. A company, for example, should not appoint a human relations manager or specialist and expect him to act as some kind of high priest who will teach middle and junior levels of management how to function better. Line management to an adequately high level—according to Japan's example—must be leaders in the process, both to check and verify what is being taught, and then take a lead in implementation.

In Japan there is an overlap of abilities and interests creating what Inoue calls monolithic organizations, which he argues have many advantages. In the matter of implementing new methods of management, the monolithic organization would seem to have the strengths of firstly adding the considerable experience of the line manager to the assessment of which new methods should be tried, and then, of course, bringing his leadership to the application.

- Inoue stresses the key role that Japanese middle management played in his company when top management was rendered ineffective by the purges. The middle manager in Japan receives outstanding development experience, has high status, and is then counted upon for major contributions to company projects. Companies have a deliberate policy that, as K. Namura, president of Sumitomo Electric, U.S.A. Inc. expresses it "the Kacho (or Bucho depending on the organization) is responsible

for collecting all information on his responsibility—from above as well as from below”—i.e. from current shop-floor activities to long-term policy. If this is to be possible, the company must make the appropriate information available to him. This information allows him to play a major role in making not only day-to-day decisions with his subordinates, but also in formulation of long-term policy in regard to an activity or product. The success of the activity and the middle manager's perceived contribution to it will be major determinants of his future career.

Middle management, of course, has a similar role in the West; in Japan, however, the role is recognized not only within companies but through society: to be a *Kacho* in a major Japanese corporation carries much higher social recognition than being an assistant factory manager (the corresponding level) in the West. Middle managers in the West should look carefully at the circumstances and working ways of their Japanese opposite numbers. They may like what they see. They may also like their way of working together, instead of continually competing as American middle managers have been encouraged to do.

Readers will find further details on points covered in this article in "Creating Japan's New Industrial Management: The Americans as Teachers" by Kenneth Hopper, *Human Resource Quarterly*, Summer/Fall 1982, from which much of this article has been adapted.

About the Author

Kenneth Hopper's career as a management consultant has been mostly on industrial matters. It started in 1957, when he left Procter & Gamble where he had worked in factory management, and has since taken him through much of Europe, the United States, and Japan. He spent 1965-66 at the Harvard Business School researching the use of college graduates as foremen, and has published and lectured widely on economics and industrial management. An engineering graduate of Glasgow University, Scotland, he has lived in the U.S. since 1965. He is an associate of Intellectics S.M.B. Corp., Hackettstown, N.J.; of Savage Computers, West Hartford, Conn.; and of Management Advisory Associates, Toledo, Ohio.

References

1. Mabel Newcomer, *The Big Business Executive* (New York: Columbia University Press, 1955), p. 149.
2. The *Zaibatsu* were the major industrial groups such as Mitsui, Mitsubishi, and Sumitomo.
3. Nikkeiren is sometimes compared to the National Association of Manufacturers in the U.S. However, it is much more involved in improving personnel practices. See Robert E. Cole, *Work, Mobility and Participation: A Comparative Study of American and Japanese Industry* (Berkeley: University of California, 1979), p. 134.
4. A principal source of my information to whom I must express special gratitude is the distinguished Japanese industrialist, Bunzaemon Inoue, former chairman of Sumitomo Rubber Industries and until recently

chairman of the Top Management Study Group (of Nikkeiren and the JIVTA) for the Kansai, Japan's great western industrial region. He is respected for his teaching and development work in industrial management. When he was Sumitomo Electric's technical director, the company won the 1962 Deming Prize for the extensive use of what we might now call embryo QC circles; it was the first nationally recognized extensive use of such a technique in Japan.

Inoue has maintained a correspondence with me since February 27, 1979. His interest in the project has run to sending me 45 letters, some very lengthy, plus extensive documentation, arranging introductions and factory visits, and organizing translations. His response has perhaps given me a little insight into the famous dedication of the Japanese senior executive and to the importance of the vertical relationship in Japanese organizations. Training in Japan, it is sometimes said, consists of opening doors so that the trainee can learn. This has certainly been the case with Inoue and myself. Despite his close involvement, he has not in any way tried to censor my writing or conclusions.

Credit must also be given to Inoue's colleagues, among whom I would give special mention to I. Sakamoto, the former chairman of Sumitomo Electric and S. Nagasaki, former president of Sumitomo Electric, U.S.A. In addition Y. Takaokoshi of the JIVTA; J. Noguchi of the Union of Japanese Scientists and Engineers (the remarkable organization that has played such a role in the improvement of Japanese quality); and Prof. Y. Kondo of Kyoto University made valuable contributions.

5. Sarasohn says a change to a positive policy of making Japan able to pay its way took place at the CCS level about the end of 1946.

According to Prof. Yoshio Kondo, one of CCS's earliest civilian engineers, a Mr. Magill from Western Electric is credited with having first advocated in a lecture that Japanese industry adopt SQC.

6. A lengthy review of this criticism is in Charles Perrow, *Complex Organizations* (Glenview, Illinois: Scott Foresman, 1972), Chapter 8, pp. 97-143. Peter Drucker was a strong American influence in postwar Japan—as was his book, *The Practice of Management* (New York: Harper, 1954).

7. W.G. Ouchi, *Theory Z* (Reading, Mass.: Addison-Wesley, 1981), p. 68.

8. Sarasohn, letter dated February 17, 1982, to Kenneth Hopper, and telephone conversation. Deming visited Japan in 1947 and 1950 to advise SCAP on statistical sampling methods. Under SCAP auspices, he was invited by the Union of Japanese Scientists and Engineers to return in the summer of 1950 and teach SQC to industry. In December 1950, JUSE formally resolved to create the Deming Prize.

9. Nick Lyons, *The Sony Vision* (New York: Crown, 1976), pp. 10-17, 21. Lyons reports on page 21 that SONY "further improved their techniques of quality control by following concepts brought to Japan by Bell Laboratories' engineers working in the Civil Communications Section . . ." Polkinghorn, who was a Bell Lab engineer, lectured on quality control in Japan using old Bell Lab papers.

10. See "Work Simplification at Texas Instruments—Philosophy, Training, Impact and Effectiveness" J.P. Rogers and E.W. Hightower, *American Society of Tool and Manufacturing Engineers, Collected Papers 1961*, Vol. 61—Book 1, and "Increasing Profits Through Deliberate Methods Change," Arthur Spinanger, *Proceedings of Seventeenth Annual Industrial Engineering Institute*, University of California, Berkeley and Los Angeles, Feb. 5 and 6, 1965.