

Obituary

W. Edwards Deming (1900–1993)

'Wisdom sounds foolish to fools'
Euripides



Dr. Deming died on December 20, 1993. The whole world is poorer. So much remained to be done.

A curmudgeon who has taken up American executives and CEOs and would not even think of blinking: 'How do you know that what you are doing is right? You cannot possibly know!' 'Experience? You cannot possibly learn from *your* experience. Your experience is inadequate. What is your theory? Where is your knowledge?' 'You cannot learn from *your own* mistakes! From the mistakes of others, perhaps, but not from your own!' 'Do not blame your competitors! Do not blame the Japanese! Blame yourself. You did it *all* yourself!'

In his deep, guttural voice, Deming has uncovered the U.S. executives' fatal weakness: lack of relevant education, lack of relevant theory and lack of relevant knowledge – all their world was naively experiential, reduced to perpetuation or lukewarm pseudo-improvement of the status quo.

For all this, Deming could be pulling in close to \$ 100,000 a year from a single client. Not because he would ever need the money, but because of the: 'How else could *these* people judge they were getting something of importance?' His contempt was as profound as his knowledge.

Not all U.S. executives were offended by Deming's intense gaze, only the weak ones. Some exceptional people at Ford, Dow Chemical, Procter & Gamble, AT&T, etc., withstood 'the gaze', some even returned 'a look'. All Japanese executives accepted *and* returned Deming's gaze. What a difference!

Although Deming was American at heart and never really longed for going to Japan, his first official consulting encounter with a bona fide U.S. producer (Ford at Dearborn, MI) came in February 1981 (!). Until then, neither quality, nor Japan and least of all Deming were acknowledged or taken seriously in the old U.S. of A. ('We were not quite sure what to make of him', admitted James F. Bakken from Ford Motor Co. later on.) Deming refused to have anything to do with companies not willing to make top executives available to him (which was a sizeable majority in the U.S.). Deming also never built a formal organization, consulting group or other money-making venture (like Juran, Crosby, Peters and similar gurus). He more closely resembled that other lone, original and influential personality of U.S. management, Peter F. Drucker.

Deming was formally associated with New York University (from 1946), where Ernest Kurnow later pushed through the faculty a non-mathematical course based on Deming's '14 points of management'. He also regularly lectured at Columbia University. At Fordham University, Deming presented many lectures, advised on the business school curriculum, received a honorary doctorate and left a large number of devoted disciples.

W. Edwards Deming was born on October 14, 1900, in Sioux City, Iowa, into an old, pre-Revolutionary War family of the Norwegian stock. His father was a part-time lawyer and land developer in Powell, Wyoming. His studies included engineer-

ing at the University of Wyoming in Laramie, mathematics and physics at the University of Colorado and a doctorate in physics from Yale University in 1928. Dr. Deming was a physicist, mathematician, engineer and statistician.

There was no economics, management, marketing, finance, behavioral or organizational theory in his background. That's why, after World War II, he became all but a non-entity in the U.S.: he was marching to a different and distant drummer. How many such 'Demings' are being forced into their intellectual exiles in the turbulence of today's information revolution in America? Many.

Deming, during his employment at AT&T's Hawthorne manufacturing plant in Chicago, was crucially influenced by Dr. Walter Shewhart of Bell Labs, a pioneer in the use of statistics to control manufacturing processes. Shewhart's teachings and books formed the main base of Deming's philosophy. During the mid-1930s, Deming studied statistics (on a one-year leave of absence from the Agriculture Department) with Sir Ronald Fisher of the University of London. This must have been one of his proudest moments. In the 1930s, Deming designed the sampling techniques for the U.S. Census Bureau. During World War II he applied statistics to the production of supplies for the U.S. military.

What is at the core of Deming's teaching? Certainly not statistical charts or so-called quality control techniques, even though he had taught about their misuse and misapplication. He rarely mentioned computers, technologies or telecommunications. He had very little to say about organizations, ownership, corporate governance or management hierarchies. His main message was simple and quintessentially American: restore joy and satisfaction to work. Abolish annual ratings, merit systems and performance appraisals – all foreign stuff to the American spirit of self-reliance, self-help and neighborly cooperation.

The pathetic Thurowian 'zero-sum society' philosophy of winning only what the opponent loses, the 'strategy' of choking the competitor, must soon end. The 'win-win' strategy of both sides' winning (based on the non-zero-sum game, the solution to 'Prisoner's dilemma') must become the only answer. It is paradoxical that even today, the 'win-win' strategy (both sides benefiting) is considered a paradox or dilemma in the U.S. academic economics. Competition and cooperation do not have

to be mutually exclusive, as Americans have so exquisitely learned from professional team sports. Compete, sure, but in the framework of cooperation, so that everybody can win. Do not break legs. Economics and business are not a boxing match. Firms must rely on employees working cooperatively with management for quality improvements. No other dependable resource is available for this purpose.

Some other parts of Deming's teaching are not as permanent and are bound to fade away. Statistical techniques will become part of in-built computer software and hardware. Quality will cease to provide competitive advantage as it transforms itself into a minimal, everywhere available constraint. Continuous improvement of a given system will be replaced by the non-continuous, revolutionary redesign and restructuring of a new system – continually. The emphasis on 'top or senior management' and its hierarchical leadership has already been replaced by the self-managing autonomous networks of horizontal (zero-level-hierarchy) organizations.

I have enjoyed personal acquaintance with Dr. Deming on many occasions, some dinners and lunches in the Greenwich Village, with him and some Fordham colleagues. Even in private, Deming remained challenging and cantankerous, nursing his pre-dinner glass of straight and neat Bombay gin. He could be positively intimidating even to his best friends and admirers. But he did accept a challenge, he liked when people 'dared' to return his 'gaze'. He did not hear very well, so one had to shout his challenges at him (it is difficult to shout accolades or approvals). Many a voice broke or choked before finishing ...

Deming directed me towards the philosophy of C.I. Lewis and his early works, on which I designed a new 'knowledge course' at Fordham's GBA. In my private thoughts and research, C.I. Lewis has remained and continues to be a most fruitful source and force – thanks to Deming.

Deming had some difficulties walking: we had to support him and prop him up when walking the streets of Greenwich Village. Always wearing a non-descript three-piece suit, considerably frayed and rumped, we walked and talked about food, cultures and government. As all curmudgeons, he loved to tell stories.

One of them concerned Dr. E.E. Nishibori of JUSE, whom I also had a privilege of meeting dur-

ing my IPM lectures in Tokyo and Osaka. Nishibori listened to some 1950s Bell Labs men talking about how statistical methods had improved the accuracy of American weaponry. 'Yes, I know something about that', Nishibori said, 'six fire bombs landed on my house during the war, and they were all duds'.

Although Deming accepted physical contact and support, he abhorred plain and unprincipled adoration. This is why even his greatest 'admirers' had to suffer some humiliation and ridicule. In fact, many of his most ardent protégés and hangers-on did not seek or enjoy the intensity of personal encounters with him. They preferred to go on with the dogma of their Master's voice, often missing that Deming himself was so often changing his views, growing and learning all the time, continually improving himself.

Deming's four-day seminars have been famous. My experience took place in Washington, D.C., in January 1986. Deming would manage to shock, entertain and instruct hundreds of bewildered subjects by simply stating the obvious: 'Make it right the first time around'. 'There is no substitute for knowledge'. 'How can you know what your business is? There is no way of knowing'. 'Only the employees can know, if you let them'. 'Slogans, goals, targets and yardsticks – get rid of them. Just do it better, always'. 'Your workers are not at fault, they do their best, as you do; it is your system which prevents you from performing'.

On the first day, there were always some cocky managers who tried to take him on by referring to their experience and the old, tested Yankee ways: they never tried it again. Many spent the remaining three days in silence: Deming froze them publicly, demolished them mercilessly. Yet, none of them left.

In July 1950, the Union of Japanese Scientists and Engineers (JUSE) invited Deming to present a series of lectures at the Eight-Day Course on Quality Control seminar, organized by JUSE. His lecture notes were assembled in a book, '*Elementary Principles of the Statistical Control of Quality*'. Among his other books are '*Out of the Crisis*' and '*Quality, Productivity, and Competitive Position*'.

The Deming Prize was instituted in 1951 by a formal resolution of the JUSE Board of Directors in grateful recognition of Dr. Deming's friendship and his achievements in the cause of industrial quality control, as proposed by the late Mr. Kenichi

Koyanagi, a board member and one of the founders of JUSE. Funding the Deming Prize began with the donation by Deming of the royalties received from the sale of the Japanese edition of his '*Theory of Sampling*'. There has never been any Deming Prize in the U.S. (Instead, we have a Malcolm Baldrige National Quality Award. Who's Malcolm Baldrige?)

In 1956 Deming received the Shewhart Medal from the American Society for Quality Control and in 1960 the Second Order Medal of the Sacred Treasure from the Emperor of Japan.

In 1990 Deming wrote: 'What I took to Japan was not export of American practice. I took to Japan profound knowledge of a system. I taught management and engineers in Japan manufacturing as a system. The Western world still does not understand a system and optimization thereof'.

This was Deming's great insight: Americans do not understand *systems* and they do not understand *optimization*. For some reasons, which I had the privilege of discussing with Deming, by systems they came to understand rigid classificational structures (and charts), not circularly concatenated *processes* in their dynamic interdependence. How many people in the U.S. study systems, general systems or systems sciences? Reductionism, specialization and competitive selfishness rule supreme, where holism, integration and cooperation should.

By optimization, for some reasons, they have come to understand maximization or minimization of a *single* function (like profits, costs *or* utility). Yet, by definition, any optimization must involve *balancing and harmonizing* many and multiple independent and interdependent functions. As Deming said, optimization does not and cannot mean purchasing everything at its lowest price. How many people in the U.S. study systems optimization, as opposed to mathematically manipulating a single function with respect to given, rigid constraints? What does that have to do with optimization? That's why there is still no Deming Prize in the U.S.A.

The final and crucial Deming's concept is that of *profound knowledge*. Americans are often afraid even of the word 'profound'. Their knowledge can be useful, pragmatic, sufficient, conventional or carnal, but profound? How many courses teaching knowledge are there? How many professors teach knowledge rather than simply packaging informa-

tion? How many people confuse knowledge with information?

Americans, even during Deming's heydays, still believed that there exists a trade-off between cost and quality, that better quality meant higher cost and that consumers did not want to pay for higher-quality products. This attitude survived well into the eighties, although it appears to be rapidly disappearing now.

Deming is all about systems, optimization and profound knowledge. On the contrary, his disciples and interpreters are often about statistical charts, slogans like 'drive out fear'), advocacy consulting and quantitative measurements. The mismatch is striking.

One cannot optimize a given system; one has to design a system which *is* (by its very function) optimal. There is no point in inspecting and correcting for defects within a given, inferior system: the system processes have to be *redesigned* so that they produce better quality *without* inspecting and correcting. 'How simple', Deming would say. One cannot improve product quality by improving the inspectors. One cannot improve management by improving its hierarchy.

'The fact is that management cannot learn by experience on the job what they must do to improve quality and productivity and the competitive position of the company. Nor can they learn at school. In fact, anyone could pass with high marks all the regular courses offered in colleges and uni-

versities in business, statistics, and engineering, yet come off with not the faintest idea about how to improve quality, productivity, and competitive position'.

Measurements of productivity, like assorted measurements of quality, do nothing about productivity as they do nothing about quality. Measurements simply measure. Like accident statistics, they can do little about accidents.

'The consumer is the most important part of the production line'. The consumer *is a part of* the production line, Deming implies, not just an external target of slogans (about being a 'king') or pre-printed invitations to call toll free in order to receive pre-taped messages on the other end of separation. Products may come back, customers don't. There is still such a long way to go. This was not yet the time to sleep, Dr. Deming.

References

- [1] C.I. Lewis (1929): *Mind and the World-Order: Outline of a Theory of Knowledge*, New York, Charles Scribner's Sons.
- [2] Walter A. Shewhart (1931): *The Economic Control of Quality of Manufactured Product*, New York, Van Nostrand.

Milan ZELENY
 Graduate School of Business Administration
 Fordham University at Lincoln Center
 New York, NY 10023
 USA