

In This Issue

Anderson, Dooley and Misterek's 'Profound Knowledge'

The University of Minnesota team has analyzed the possible meaning of Deming's concept of *profound knowledge* and concluded that it does present the requisite intelligence needed to implement the scientific method for continual improvement of quality in organizations.

Deming's '14 Points' are being finally transformed, mostly by Deming himself, from catchy slogans and exhortations, which have unfortunately attracted many gurus and quick-fix artists, into a respectable theory of management and therefore, by implication, into effective action. In 1989, in his Osaka paper, Deming declared: 'There is no substitute for knowledge'. Deming's elements of profound knowledge are still in a 'working form', but the trend is unmistakable: quality management is not a bunch of simple statistical techniques, as many have hoped for, but a qualitative rethinking and reformulation of traditional management systems themselves.

How much more successful could the implementation of Deming's views have been, if the systems theory, statistics, theory of knowledge and psychology had been integrated into a coherent theory of management earlier. It would have become the subject of legitimate academic research and not a preoccupation of 'trainers' and 'users' who lack profound knowledge and would have been turned away by it. Lots of simplification, vulgarization and misinterpretation would have been avoided.

Profound knowledge is necessary but complex and not easily grasped. We shall see many quality gurus and slogans peddlars quickly removing themselves from Deming's knowledge-based theories of management as they are now starting to evolve. It must be scary for such 'Deming practitioners' to listen to Deming recently: 'No number of examples [or cases?] establishes a theory,' or 'Experience

teaches us nothing unless studied with the aid of theory,' and finally 'There is no knowledge without theory.' Back to school?

Anderson, Dooley and Misterek have done a remarkable job in detecting the crucial importance of knowledge behind all quality management philosophies. There is still a lot of work to be done: What is knowledge? How is it measured? How is it produced? How is it disseminated? How does knowledge relate to language? How are knowledge technologies integrated into strategies? What is the difference between knowledge and wisdom? There are more questions than answers and that is very good: the knowledge production process can finally be started.

We have now moved beyond shouting 'Drive out fear' and started the process of its understanding: What is fear? What kind of fear? What is positive about fear? How is it related to system variation? What do you mean by 'drive it out'? Through managerial exorcism? How can we eliminate fear without understanding how people are motivated?

The successful teacher and implementer of quality management has to wear many hats – has to be a 'renaissance' person. That does not come easy and that is good, because it should not. There is no substitute for knowledge.

Dimitroff's 'Transformation in Management'

Dr. Gail Dimitroff, from Process Management International, calls for a transformation of the prevailing Western system of management. Such transformation is essential because the traditional management has discouraged individual initiative, decreased the rate of innovation and reduced technological applications precisely at the time when individual must be empowered, knowledge has become capital and technology is integrated with strategy and organization.

Human knowledge has become central to business, its management and their transformation. Or,

in Deming's terms, *profound knowledge* is the missing ingredient. Profound knowledge has to be rooted in coherent and reliable *theory of knowledge*: there can be no practice without a good theory. It has to be based on understanding and appreciation of a *system*, its *variation* or fluctuations, and motivational psychology and *human behavior*.

We are starting to see the long expected and long-missing transformation of Deming's philosophy itself. This philosophy has for decades consisted of statistical-quality measurement and improvement approaches and some organizational slogans. Now the pieces are starting to fall together: the notion of a system, the notion of knowledge, the beginnings of actual employee organization, motivation and ownership, etc. It is interesting that these efforts towards the completion of the management philosophy have not been led and initiated by any Deming's followers, but by Dr. Deming himself.

One crucial item is still missing or not fully appreciated: *technology*. Technology, especially information and knowledge technology, is changing the workplace and business organizations profoundly and irreversibly. Striving for quality, customer satisfaction and employee motivation *requires technological platform*. There is no way around it and there can be no profound knowledge without it.

Dimitroff also echoes the recent preoccupation with leadership instead of management. She argues that a 'critical mass' must be created by management in order to effect the necessary transformation. This is, schematically: Critical mass = Knowledge \times Position Power \times Leadership. The emphasis on position power of the hierarchical command management approach is unmistakable.

Yet, command systems cannot be changed by orders and decrees from the top. The USSR and Eastern Europe provide plenty of examples of that. American hierarchically organized companies have shown a remarkable inability to transform themselves even in the face of incredible, successful and irreversible competitive pressure from abroad. Transforming GM has proven to be as difficult and as futile as transforming the USSR.

The very first paper published in *Human Systems Management* (in 1980) was titled 'Leading-Edge-Leadership'. The role of leadership has never been

more important. Yet, the sense of slowness and even inability to respond, to transform and to take lead seems to persist.

Dimitroff concludes that people no longer need managers to control them or force them to do what is needed: workers are process owners/operators. What about the 'position power'? Who has it now?

Filios's "Social Accounting"

Human knowledge has become the most important form of capital. Human knowledge is produced, applied and maintained by human beings. Upgrading human knowledge is not expense but investment. Major output of human "resource" is knowledge, not labor. Employment of money, technology, raw materials and labor is impossible without human knowledge and ineffective without good human knowledge. Why do conventional accounting procedures neglect the most important asset of human knowledge?

How do we assign value to human knowledge? How do we account for it? How do we measure its contribution, its upgrading and its deterioration?

Professor Filios of the University of Patras has attempted to discuss the significance of human resource accounting (HRA) in terms of not only economic but also of social significance. Effective management of HRA requires information on (1) resource acquisition and development, (2) resource maintenance, and (3) resource utilization. These information needs must be provided by HRA-systems to both management and the "human resources" themselves.

An integrated accounting system is needed which would provide information on physical, financial and knowledge resources, both internally and externally. This *holistic socio-economic accounting system* has not been developed yet. Filios is not outlining such a system here, but is pointing out the difficulties of its construction and acceptance.

The fact is that nobody has devised reliable and solid measures for the contribution of human knowledge. This in itself should not be difficult once an operational definition of knowledge (ability to coordinate action) is accepted and the past research and application neglect remedied. It is necessary to free accounting from its preoccupation

with physical form and orient it towards economic substance. Under such conditions of concentrated effort and serious interest, the measurement of knowledge could quickly move from intangible to tangible.

There is very little “tangible” about the Polish zloty (money), but the knowledge of milking a cow, witness a pail of fresh milk, is as “tangible” as it can get: you either know or you don’t and the milk is the measure of your knowledge (coordination of action). So there is nothing inherently difficult about measuring the value of knowledge (and nothing inherently easy about measuring the value of money): the fact is that economists and accountants have not approached the problem seriously, scientifically and with open, searching mind. They just repeat each other’s errors, dead-end streets and professional lamentations.

Professor Filios has reviewed some of the literature on HRA and helped to revive an interest of researchers in HRA in these crucial years of knowledge, knowledge workers and knowledge systems.

Van Gigch’s and Roswall’s ‘Metaethics’ and ‘Conservation’

These two articles, van Gigch’s ‘Metaethics’ and van Gigch and Roswall’s ‘Conservation’ follow and complement one another and should be read in tandem.

Van Gigch’s work on metamodeling spans over many years and has yielded some good results and applications. Metamodeling concerns the theory of modeling: the metamodel embodies the properties which are abstracted from all models. That is, metamodeling defines the epistemology or design foundations of modeling.

An application of metamodeling is with respect to value systems. Van Gigch distinguishes levels of morality, normative ethics and metaethics. Metaethics asks: What does it mean to be ethical? How is ‘good’ and ‘bad’ defined?

Van Gigch then discusses metamodeling as applied to a conservation and an environmental ethic. The purpose is to develop meaningful comparisons between historical, esthetic and economic values. The questions arise: What is beautiful? What is of high quality? What is harmonious? How do we

measure such attributes or qualities? How do we choose between more and less beautiful? We cannot preserve everything, but we should preserve the best: who decides? Who makes the judgment and selection? How? Van Gigch does not discuss any of these crucial questions, but he does lay some foundations for thinking about them. He does conclude that governments and the public are in dire need of methods and criteria as well as normative and practical moral principles by which they can begin to establish a conservation as well as an environmental ethic.

Graphical MCDM Support Systems are eminently suitable for such purposes, but they are not explored here.

Roswall and van Gigch then probe the Problem of Conservation Ethics in the second paper of this tandem. Conservation and preservation is not only a matter of culture (although it is, primarily) but also of economics, self-renewal and general autopoiesis (i.e., including also questions of harmony, quality and beauty). It is the destruction or disruption of system’s autopoiesis that is at the core of conservation, preservation and, we might add, enhancement. Such extension of conservation from cultural and historical to natural, biological, social and autopoietic is very much needed and highly commendable.

The second paper raises a large number of questions à la How do we translate cultural and historical values into economic terms. Even though this is clearly a Multiple criteria decision making (MCDM) issue, the methodologies and visual support systems are not discussed.

One conclusion is being made: it should be economically advantageous to conserve, preserve and even upgrade the environment. Free market is the best preserver of values: Van Gogh’s paintings are still around, carefully preserved and exquisitely cared for, for all the posterity. It is economically advantageous to do so. The private hands seem to be more preserving and more caring than the public ones. The self-interest is the only motivator worth of exploring: otherwise we shall lose it all as the recently disclosed and incredible devastation and annihilation of people, environment and things brought about by all forms of state socialism clearly demonstrated.