Peter F. Drucker, *The New Realities* (Harper & Row Publishers, New York, 1989, xi, 276 pp., \$ 19.95)

How fortunate we are to have Peter F. Drucker still writing the 'right stuff.' Born in 1909 in Vienna, Drucker belongs to the now almost vanished breed of Central European systems thinkers à la von Bertalanffy, Morgenstern, Jantsch, von Neumann, Schumpeter, von Hayek, Machlup and others. Like them, also Drucker remains the original, systems-oriented, non-reductionistic anti-specialist – even after the long decades of working and living in the United States.

What are the new realities? In Drucker's view, mostly knowledge: knowledge as a new, dominant, most productive form of capital mankind has ever known. Not the specialized and atomized data or information of so called 'experts' of the post-war West, but the holistic knowledge as action coordinative factor of production of the pre-war Central Europe. Now, finally, the most progressive societies, United States included, are rapidly moving from the age of specialization into the era of integration — of both task, labor, and knowledge. Peter Drucker knew this all along and has been blessed to live long enough to witness the 'grand transformation', even though increasingly only as a bystander.

The emergence of knowledge worker is changing the way businesses have to be managed. The knowledge worker is more of the Bat'a-system type of colleague or associate rather than a mass-production subordinate of GM-type hierarchies. Colleagues and associates have to be managed as such, or better yet, led as such. Leadership is replacing management as a corporate form of coordination, or better yet, self-coordination of task, labor and knowledge.

Drucker is now very firm and positive about the new role of knowledge (not data or information!) in the 21st century management:

'One of Karl Marx's insights was that capital has mobility. In this it differs from all other 'factors of production' such as land and labor. Capital can go where it is paid the most. Knowledge has now become the real capital of a developed economy. Knowledge workers know that their knowledge, even if not very advanced, gives them freedom to move.'

This shift towards knowledge, of which, fortunately, the U.S.A. is becoming an active part, redefines radically the business-competitive ecologies of global ecosystems: not the land, not the labor, not the raw materials, not the physical infrastructure, not the hardware technology and certainly not the money will ever make lagging economies more competitive. Rather, it is the knowledge, creativity and innovation of free and autonomous individuals which is becoming the main form of the 'wealth of nations.' Electronic 'infrastructure' of telecommunications matters, not the roads and rails; free and full support of end-user technologies matter, not the 'piles of junk' of restricted hardware; brains matter, not the 'hard labor.' It is quite easy to see that the so called 'perestroika' of socialistic countries is doomed to failure unless the dominant role of knowledge is explicitly recognized.

Drucker uses the example of one of the most tragically mismanaged and devastated countries in the world: Czechoslovakia. This country has now become the paradigm of environmental pollution in Europe, low productivity, devastated education, booming export (and import) in weapons and explosives, declining population health and longevity, cultural dissipation and aimlessness, and virtually no hope for the 1990s. What makes Czechoslovakia so tragic – in contrast to say Poland, Hungary or Nicaragua – is not its current material standard of

living, but the fact that this country was once among the best in Europe. Drucker writes:

'Seventy-five years later even European Russia is below most Third World countries in every single health category. Czechoslovakia, before it was made subject to Soviet planning (that is, before World War II), was the equal of West Germany in productivity and technology, and ahead of France. In World War II its industries were not damaged. Yet forty years after Soviet planning was imposed, Czech production per worker is less than half of that of West Germany or of France.'

Why? Who is responsible? Who will accept the responsibility for reparations to millions of devastated lives? It is not Drucker's duty to provide answers. It is sufficient that he raised the issue and perhaps helped to cool off some of the 'perestroied' heads in the West.

Drucker's recognition of globalism is so strong that he dismisses so called multinationals and start analyzing so called 'transnational' organizations and businesses. Drucker is one of the first intuitive business ecologists:

'No one country can, in fact, expect long to maintain a competitive lead in technology, in management, in innovation, in design, in entrepreneurship; but it does not matter much to the transnational company which country is in the lead. It does business in all of them and is at home in all of them.'

"The model we now need would have to see the economy as 'ecology," is a statement of indictment of all ecology-free and knowledge-free economics, both in the West and in the East.

Drucker even uses the term 'transnational ecology,' and he is of course right. "We still talk about 'environmental protection' as if it were protection of something that is outside of, and separate from, man. But what is endangered are the survival needs of the human race." No 'greenpeacenik,' 'green,' 'third-pathnik' or any other single-minded pseudopolitical activist ever put it better than Drucker. Somebody once, long time before his time, wrote 'Thinking globally — acting locally' as a credo.

Drucker now accepts it: 'Environmental action has to be local. But such action has to be based on a common, transnational commitment.'

Drucker also laments about the damage done to the world by narrow minded and increasingly specialized experts and specialists. "Tunnel vision is always the degenerative disease of specialists, the price they pay for 'professionalism' and for their narrow focus," he writes.

The shift to knowledge and education is irreversible. It represents a shift to the post-business society, in the sense that the traditional separation of business from its environment or community is now counterproductive. Knowledge has become the economy's foundation and its true 'capital.' Whether the industrial workers' own institution, the labor union, can survive, and in what capacity, is becoming problematical; most likely not. Management has emerged as both central social function and a new and distinctive liberal art.

Addressing the reformists of socialism and socialists with 'human face,' both in the West and even in the East, Drucker writes:

'But socialism has become the anachronism. Instead of capitalism being a transition stage on the socialist road, it now increasingly appears that socialism is a detour on the capitalist road.'

One has to agree as argument with wisdom is unwise. After all the 'Shining paths,' 'Third ways,' and 'Other paths,' there is still only one way: an evolving social order of free-market capitalism, from the age of specialization to the era of integration, from the employee-owner separation to their integration in an open, customer-dedicated transnational ecosystem.

Drucker himself concludes about this book:

"Its thesis is that the 'next century' is already here, indeed that we are well advanced into it. We do not know the answers. But we do know the issues. The courses of action open to us can be discerned. The realities are different from the issues on which politicians, economists, scholars, businessmen, union leaders still fix their attention, still write books, still make speeches. The convincing proof of this is the profound sense of unreality that char-

acterizes so much of today's politics and economics ... This book does not focus on what to do tomorrow. It focuses on what to do *today* in contemplation of tomorrow. Within self-imposed limitations, it attempts to set the agenda."

What is the agenda? Here the work of Drucker awaits completion. Table 1 represents one such attempt by the reviewer:

Table 1

Moving From	Moving Towards
specialization	integration
division, dedication	multifunctionality, rotation
training	education
command management	self-management
single-purpose, dedicated	multi-purpose, reprogammable
man 'appends' machine	machine 'completes' man
labor	work
capital	knowledge
caveat emptor	our customer-our master
economies of scale	economies of scope
quantity	quality
mass production	small-batch, customized
mass consumer	individual consumer
services	self-service, do-it-yourself
dependency	self-reliance
centralization	distributed functioning
rigidity	flexibility
hierarchy	self-managing networks
separated work & leisure	integrated work & leisure
producers vs. consumers	'pro-sumers'
control & regulation	autonomy
social engineering & design	spontaneous social orders
central government	local community networks
state	self-government
collectivism	individual
individualism	teamwork
absentee ownership	employee co-ownership
pay for position	pay for contribution
pay for labor	pay for knowledge
reductionism	holism
international competition	international integration
multinationals	strategic alliances
atomization of suppliers	vertical integration
just-in-case	just-in-time
middlemen	direct customer contact
national markets, niches	global marketplace
R & D department	distributed R & D function
union hierarchy	independent contractual agents
push-change from top	pull-change from top

Can the above table capture the agenda for the 1990s? Would P.F. Drucker approve of it? Is it even important?

The point is that we have now started working. Just in time.

A good book.

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Gerard Endenburg, *Sociocracy* (Stichting Sociocratisch Centrum, Rotterdam, 1988, 432 pp. ISBN 90-800184-1-4)

Despite its forbidding title, a 'vanity-press' appearance, and social-engineering perspective, Endenburg's *Sociocracy* is a useful book. It was first published (as *Sociocratie*) in 1981 and has now been translated into English by Clive Bowden. The subject matter has very little to do with any other '-cracy' except democracy, but bureaucracy or autocracy are still, unfortunately, the most frequently evoked connotations of the 'first encounters.'

The subtitle of this book is equally vague and unappealing: "The Organization of Decision-Making 'No Objection' as the Principle of Sociocracy."

Yet, Sociocracy turns out to be a very good book in terms of its contents, pioneering aspirations, systems orientation and respect for the individual. Perhaps new and good thought and ideas are rarely well written or presented. Their very novelty, their being 'out of the mainstream,' prevents the smooth, effortless, catchy and mass-approved presentation we often encounter with the things old, boring, uninspiring and just plain tired and tiresome.

I do recommend this book to all who are seriously interested in human systems and their management, quality-enhancing organizations, extensions of democracy, systems thinking and almost 'worship' of the individual — at the price of relatively 'rough' reading. This book is for a 'prepared mind.'

Endenburg insists that the great disadvantage of democracy is that majority decisions can evoke the same reactions as authoritarian decisions: this 'dic-

tatorship of numbers' has been discussed for centuries. The minority is defeated, but not convinced. In reality, what modern democracies are facing is the increasing 'dictatorship' of minorities, interest factions and lobbies, human-change agencies and what P.F. Drucker called the 'new pluralism:' nongovernmental and apolitical single purpose institutions.

As Drucker warns in his last book, *The New Realities*:

'An example of what not to do are the employment laws of Belgium and Holland. To protect workers, both countries impose heavy penalties on laying people off. All that this has done is to create record unemployment and economic stagnation.'

Single-purpose minority institutions employ specialists and experts and so the focus on the whole, focus on the entire organization is irretrievably lost. The single cause minority group derives its strength from its single purpose, not from its numbers. Its task is almost never to get something done. Its mission is to stop, to prevent, to immobilize new minorities have learned to do that within democracies almost too effectively. No one yet knows an antidote to the political disease of singleinterest pluralism. Endenburg would benefit from studying these new social realities and should provide at least some suggestions for overcoming minority-induced immobilization of democracies. In this sense, sociocracy does not allow for constructive, activist and courageous 'yes,' but encourages well-reasoned, immobilizing 'no' instead.

That wrong and politically tinted conclusions can be derived from sound and even original insights is nothing new. Endenburg's circular organization is based on the following principles:

- 1) The principle of consent governs decision making: a decision can only be taken when no one has any reasoned objection to it.
- 2) A sociocratic circle delegates the functions of directing, operating and measuring to its own members.
- 3) The connection between two circles takes the form of a double link: at least two people from one circle take part in the decision making in the next higher circle.

4) People are elected exclusively by consent.

The first and fourth principles are obviously identical and both could lead to immobilized indecision. Endenburg objects to electing people by counting votes, rather than by argument. 'Sociocracy is the power of argument,' he insists.

So, those who can argue, persuade and persist will hold the power. The weak and meek will not have their votes counted, as traditional democracies assured them.

Endenburg is aware of his problem and relies heavily on creativity and invention in order to bring forth the new, previously unthought of alternatives and options which will dissolve the remaining objections of individuals. Majority is not and cannot be always right, but has the minority, even if right, any right to impose its will on the majority? Even if 'by argument'?

Yet, Endenburg's notions of dynamic equilibrium are sound and useful. 'We are only able to maintain state of dynamic equilibrium while the circle of processes [closed organization of autopoiesis?] is closed and while our performance is being measured,' he says. Or, 'Deviation from the norm is necessary to preserve the state of equilibrium and the norm must be followed if it is to be possible to reach the objective,' he continues.

There are many other insights I have to agree with: 'Free enterprise production is the right production system,' or 'The authoritarian character [of management], which manifests itself in the opposition of employer and employee, calls for reaction against the system as a whole.' He even asks the right question: 'How can we arrive at a sociocratic corporate organization without jeopardizing the good properties of the free market economy?'

While the answer is, obviously, by introducing the free-market principles even within the authoritarian, hierarchical organizations, Endenburg opts for non-natural and artificial (socially-engineered) answers. For example, while it is self-evident that both social and absentee ownership have been ruining their respective economies, instead of employee = owner solution, Endenburg prefers that 'no one is the owner.' Equally simply, if no one owns a sick cow, the cow is most likely to die. This staggering call for no-ownership at the end of the

twentieth century is as puzzling as it is unnecessary for sociocracy to work.

In fact, Endenburg does recognize absentee ownership and ignores the short-term interest of shareholders which makes him surprisingly conservative vis à vis most progressive world-class companies. Equally surprisingly he does not recognize the consumer or customer as the major driving force of the enterprise ('Our customer—our master'):

'As regards the persons qualifying for a share of the profit, we decided [italics M.Z.] that only the participants who provided labour (the employees) and those who provided capital (shareholders) would share in the profit. We did not include [italics M.Z.], for the time being, the consumer or customer.'

How refreshing and liberating are the views of some traditional capitalists. For example, Henry Ford:

"Money put into business as a lien on its assets is dead money. When industry operates wholly by the permission of 'dead' money, its main purpose becomes the production of payments for the owners of that money. If quality of goods jeopardizes these payments, then the quality is cut down. If full service cuts into the payments, then service is cut down. This kind of money does not serve business. It seeks to make business serve it. Live money in a business is usually accompanied by the active labour of the man or men who put it there. Dead money is a sucker-plant."

Or, Henry Ford again:

'Industry is not money — it is made up of ideas, labour and management, and the natural expression of these is not dividends, but utility, quality, and availability. Money is not the source of any of these qualities, though these qualities are the most frequent sources of money.'

Similarly, James F. Lincoln:

'The usual absentee stockholder contributes nothing to the efficiency of the operation. He buys a stock today and sells it tomorrow. He often does not even know what the company makes. Why should he be rewarded by large dividends?'

Or, Lincoln again:

'There are two groups who must be rewarded by increased profits. They are, first, the workers, from top to bottom, who increased the profit by their skill and cooperation. Second, of equal importance, is the customer. He paid for all the costs of production and all profit. He is the reason that industry exists. The last group to be considered is the stockholders who own stock because they think it will be more profitable than investing money in any other way.'

Finally, let us consider the view of Sir Fletches Jones and his Six Principles of good business:

'1. Customer benefits first. 2. Customer benefits first. 3. Customer benefits first. 4. Quality without compromise. 5. Management by Consultation. 6. Family & Staff Co-operative Ownership.'

Why do I take the pain of quoting from these capitalists? Because Endenburg's is a good, based on sound premises and insights, but being lost in the 'engineering of human souls' and arriving at strangely conservative, anti-humanistic and anti-business ideas. Yet, there is so much to be learned from the best thinking and practice of western management tradition.

So, in an unusual and unexpected way, Endenburg's 'Sociacracy,' which I admire and find useful, led me to a new and deeper appreciation of the wisdom of Western giants of management thought, the books of whom I have reread and share hereby with the reader of this review:

- [1] Henry Ford, *Today and Tomorrow*, Doubleday, Page & Company, Garden City, NY, 1926; reprinted by Productivity Press, Cambridge, MA, 1988.
- [2] James F. Lincoln, A New Approach to Industrial Economics, The Devin-Adair Company, New York, 1961.
- [3] Fletcher Jones, *Not by myself*, Kingfisher Books Pty Ltd., Cheltenham, Vic., 1976.
- [4] Tomáš Bat'a, Úvahy a projevy (Reflections and Speeches), TISK, Zlín, 1932. Reprinted by SÚTB, New York, 1986.

Also A. Cekota's *Entrepreneur Extraordinary*, Edizioni Internazionali Sociali, Rome, 1968.

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Howard Margolis, *Patterns, Thinking, and Cognition* (University of Chicago Press, Chicago, 1988, xii, 332 pp. illus., \$ 45; paper. \$ 15.95.)

Margolis's book is as brilliant in its daring opening statements as it is in its incompleteness and unfulfilled promise.

On the very first page, there is a statement that everything [decision making, judgment and problem solving] can be reduced to pattern recognition.

Then there is a powerful indictment of the utilityprobability artifacts of the so called decision analysis or multiattribute utility theory:

The brain chooses an act by manipulating sets of possible states of the world and their associated subjective probabilities and utilities. But if the argument here [in Margolis's book] is sound, what goes on in the brain is nothing like that. It would not work that way even in the very special case of a decision-theorist trying to demonstrate how to think that way.

Then there is one more insight of great potential import:

Apparently the brain works in a way that produces judgments that very often coincide with the judgments that a strictly logical process would produce. But (given the many exceptions) the actual process cannot be a strictly logical process, and perhaps not a logical process at all.

True. An outcome of an intuitive, holistic and pattern-recognizing process can be described and analyzed AS IF it were produced by a rational, se-

quential formalism of a 'utility' function. This rational-logical analyzability of an outcome has nothing whatsoever to do with the process of human decision making, judgment and problem solving.

The decades of Multiple Criteria Decision Making (MCDM) research, especially its recent interactive and decision support versions, have shown the above beyond doubt. So called Multiattribute Utility Theory (MAUT) has all but vanished from MCDM, as did the so called 'decision analysis.'

Margolis also reinterprets famous Tversky-Kahneman experiments by pointing out that the so called 'biases,' 'reversals' and 'irrationalities' are based on very sloppy experimentation. Asking, for example, what is more 'probable' indicates disregard and insensitivity to natural language. People interpret 'probable' as contextually 'believable' or 'plausible,' while the experimenters mean 'probable' in a gambling sense (as does the entire expected utility theory).

There are several other good 'tidbits,' but the book inexplicably deteriorates into textbook discussions of Darwinian evolution and Copernican revolution (second half of the book) as well as discourses on Galileo, Watson and Crick, Monod and even Gould.

What are the patterns, how are they recognized, how are they produced, how can they be modeled, how can they be compared, etc., all that remains untouched. There are some beautiful statements on the contextually derived meanings of words in natural languages, on the role of ambiguity and blurring, etc., but nothing about fuzziness, fuzzy sets or approximate reasoning. There are references to Smith's 'invisible hand' and spontaneous (undesigned) complexity, but nothing on self-organization, autopoiesis, and spontaneous social orders. There are some allusions to 'habits of mind,' but nothing about habitual domains.

Instead, the crudest tools of logic (like computer curve fitting, probabilistic calculus) are used to prove that human brain is a-logical. It's like that man on the corner of Bowery who is distributing leaflets proving mathematically that mathematical proofs are a lot of nonsense.

Margolis's entire historical analysis (and it is extensive) boils down to denouncing the irrationality (from his viewpoint) of old, stubborn *idée fixe* of

equally stubborn and irrational old men. Why not ask about how does one cope with ambiguity or how the standards of explanation affect social sciences? Why denounce those who did not accept theory of relativity, Darwinian evolution or molecular biology? Is the process of science ended with Margolis's interpretation? Can't all of his modern 'heroes' be proven wrong in the future? Sure they will be. They are as surely wrong as the search for knowledge is endlessly adapting to the contextual changes of human condition.

Lamarck was not more stupid than Darwin as well as student-subjects in Tversky-Kahneman experiments are not more stupid or irrational than their manipulators.

Yet, none of the failures of Margolis's historical thinking, empirical 'applications' and crude instrumentalism can outweigh the exquisite insight that human decision making is tantamount pattern construction/recognition.

With the advances of decision support systems, the decision maker should be properly aided in the very process of decision production through repeated reformulations of the decisional network. Humans create or construct both information and decisions. All important aspects of decision making: criteria, alternatives, representations and evaluations are maintained in a constructive flux of mutual adjustment and interdependent co-determination. Nothing is to be fixed a priori.

Human decision-making process is a complex, organizationally closed search for *internal consistency*, passing through interrelated layers of definitions and redefinitions of the *problem*. Any problem has been fully formulated only *after* it has been solved. All aspects of decision making are changing and mutually adjusting until a relatively *stable pattern* or *cognitive equilibrium* among them has been reached. The problem is thus *dissolved*, the harmony achieved and recognized, there remains no other 'choice' possibility than that of the

approved pattern (ideal solution, dominant option, prominent alternative). Only *then*, retrospectively, one could look back and say: 'I have decided ...'

The choice-producing networks on the interconnections between the respective *languages*: of (1) option descriptions, (2) instrumental intertions and (3) value judgments. Decision making thus cannot be separated from the production of knowledge and therefore from the construction of individual local worlds. Any 'large' world (universe) consists of a variety of cognitively closed and essentially unmergeable 'small' local worlds: a multiverse.

All aspects (criteria, alternatives, representations and evaluations) are continually re-examined and re-adjusted throughout the process. This is not some pointless 'muddling through' a chaotic whirl-pool. It is a purposeful and often masterful search for harmony: a stable pattern which would (at least temporarily) dissolve the tension (or conflict) between what is and what remains desirable.

Modeling implications of the new (cognitive equilibrium) paradigm are rich, challenging and far-reaching. Multiple Criteria Decision Making (MCDM) community, especially its younger generations, should undoubtedly move to the cutting edge. But its philosophical implications are even more exciting:

For the first time in history we position ourselves to understand decision making not merely as computation of the world given 'outh there,' but as the very way of constructing our world, ordering our experience, making sense of the 'chaos' of reality. Making decisions does not mean finding our ways through a fixed maze — decision making refers to the very construction of that maze — our ordering of nature so that we *can* find our way . . .

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