Cwarel Isaf Institute

Stafford Beer
Fanfare for
Effective Organization

by Fredmund Malik

erschienen in:
To be and not to be, that is the system – A tribute to Stafford Beer,
CD-ROM, Carl Auer-Systeme-Verlag, Wiesbaden, 1997

www.managementkybernetik.com

© Copyright 2002 Cwarel Isaf Institute – All rights reserved

Stafford Beer – Fanfare for Effective Organization

Stafford Beer is without doubt both one of the few universal thinkers of this century and – what is more important to me - one of the most original thinkers ever. The published works on which he can look back at his 70th birthday span more than 40 years and with my congratulations on his anniversary comes my wish that he may have many more years of fruitful work.

He has a rather large followership which – dispersed as it may be geographically – may already amount to a school in its own right. I am quite sure he will not particularly like this idea; most certainly he will dislike it because part of his crusade has been directed against the way academia is organised and how she organises our knowledge about the world - and „schools“ are probably at the core of pathological autopoiesis of academia.

If I had to summarize Stafford Beer's thinking in one short statement I would say that he gave us a radically new way of organizing our knowledge about the world and – as a consequence – a new way of organizing the world itself. So his „school“ will have to live up to very demanding requirements in order not to fall into the old traps .

His new way of organizing knowledge refers first to our existing stock. But it goes way beyond that since Staffords work not only enables us to give a new order to the old answers but to ask competely new questions and thereby project this new organization onto our future knowledge. He also gave us a new language to talk about at least some aspects of those which according to Wittgenstein's Tractatus have been thought to remain forever beyond linguistic comprehension.

Fundamental innovations typically need a long time and very hard work to become accepted, for their full absorption and integration and until they become effective within the mental and societal fabric. This is clear from all historical cases of innovations. This holds particularly true for innovations which amount to revolutions and even more so for revolutionary changes in our "Weltbild“. It took about 60 years until Einsteins theory of relativity had become a standard subject for students of physics. Stafford himself has always been aware of that. This is crystal clear from his writings and why else did he choose exactly that statement from Macchiavelli as a motto with which he begun the first chapter of „Decision and Control“.

The Beerian revolution may be proven to produce the strongest resistance in historical comparison. Somebody once said that the greatest scientific successes were so bitterly fought because they were insultations to human vanity, to man's understanding himself as being something special. The great scientists demolished one cherished illusion after the other and caused traumatic collective disappointments. Kopernikus robbed us of the illusion to be at the center of the solar system; Darwin and Wallace killed the idea of man being the pride of creation; and Freud blew a stroke on us in destroying „rational man“.

These having probably only metaphysical consequences the Beerian revolution has a very practical one – it robs us even of the illusion that we know how to properly organize our ordinary live. From what he teaches it follows that most of our „scientifically“ designed organizations are totally ineffective in terms of performance, of costs and of viability. At best they are muddling along pretending that the rate of change will take care of itself.

But like every great scientist he also shows us the way out and points to the solution – well aware that many do not like them and therefore more probably will „bite his finger instead of looking where it is pointing“ as he once cited Warren McCulloch.

I recall very lively the moment I „met“ Stafford Beer – not in person but in mind. In retrospect it is clear that this meeting changed my thinking profoundly about almost everything. However, had I known the length and difficulties of the intellectual journey I was about to start at that point in time I am not sure if I had had the courage to undertake it.

It was when I was working on my diploma thesis at the University of St. Gallen, Switzerland, which may be roughly equivalent to a Masters thesis in the English speaking countries. Regulations were such that one had exactly six weeks in time for writing the thesis and that any specific preparation was forbidden. So we had to get the topic of the thesis at a particular day, it was

© Copyright 2002 Cwarel Isaf Institute – All rights reserved

handed out with a time stamp on it which started the countdown. Of course one could prepare oneself in a general way but without knowledge of the specific title of the thesis.

The reason I had changed from an Austrian University to St. Gallen was that under the leadership of Professor Hans Ulrich a project team was working on the development of a then brand new approach to the teaching of management in the context of a fundamental reform of the study program.

The first big step this team had undertaken was to distinguish clearly between the then well established and academically accepted german version of the theory of the firm or business economics – Betriebswirtschaftslehre – (for the quality of which the University of St. Gallen was very well known in the German speaking countries) on the one hand and a newly conceived discipline of management on the other. At that time this was a rather revolutionary step because most academicians took these fields to be identical if they were interested in management at all which most were not. Practitioners in the companies of the german-speaking countries on the other hand were of the opinion that management, not to speak of leadership, are neither learnable nor teachable anyway.

The second big step was that they had asked the question if there existed anything like a base-discipline for management comparable for example to physics as a basis for the technical fields. The traditional and easy answer would have pointed to economics with the consequence that except for names very little would have changed with regard to the substance of the teaching of management. This choice would have led straight back to business economics. The conjecture they came up with was that the then rather exotic fields of systems science and cybernetics could provide sort of a foundation. The reason was, of course, that at that time these were the only disciplines that took complexity seriously whereas everything else took its scientific legitimation from a basically reductionist and unidimensional approach.

Equipped with this general background after having got the title of my thesis which was „Cybernetic Models and Management Concepts“ I had already collected some dozens of books from the library. Making a last stroll between the shelves my eyes accidentially fell on a book „Decision and Control“. I did not have the intention of adding anything else to my book collection because it was already much larger than I could hope to study during six short weeks. Nevertheless I opened it and was struck by three things – first, the subtitle „The Meaning of Operational Research and Managerial Cybernetics“; second, the above mentioned citation of a passage from Macchiavellis „Il Principe“ at the start of the first chapter of the book; and third, for a book on managerial issues like decisions and control the very uncommon and in fact rather strange content of the index, ranging from the „Bhagavad-Gita“ via „Cosmical Numbers“ to „La Rochefoucauld“ and from „De Motu Cordis“ via „Bertrand Russell“ and „Shannons Tenth Theorem“ to „Winnie The Pooh“. Although this added another almost 600 pages to my collection I took it with me .

This book was fascinating reading right from the start. Neither was my finding the book the result of a conscious and systematic search of literature nor was I capable of assessing its content systematically from what I already knew about systems science and cybernetics but I felt its relevance from the very first page. My back-ground of education comprised some philosophy, in particular the theory of science and therefore I had the clear impression that this for once was an excellent piece of good, real and relevant science. Beyond that I was touched by the beauty of the language of the author. English not being my native language as the reader certainly will notice I nevertheless felt like reading a literary piece of art rather than a business or management book – masterfully formulated sentences, almost poetic passages , a wonderful selection of citations – in short, it was not only good science but also impressing aesthetics.

But despite its lucidity I was not capable of understanding the book. It was not a matter of my knowledge of English – it was one of conceptual comprehension. In fact I had to read – no, to study the book at least a dozen of times. I really had to work at it. Not only on „Decision and Control“ but on literally everything Stafford ever wrote. I collected each and every paper he ever published. That in itself was hard work and almost caused insanity to the librarians – it took another twentyfour years until – thanks to Allena Leonard and Roger Harnden – all the „grapes went into the wine“...

But, of course, studying Staffords publications was not enough by far. I soon noticed that if one really wanted to understand his thinking one had to study as well Ross Ashby, Gordon Pask, Warren McCulloch, Heinz von Foerster, Gregory Bateson, Gerd Sommerhoff;

© Copyright 2002 Cwarel Isaf Institute – All rights reserved

William Powers, C. H. Waddington, Norbert Wiener, Shannon and Weaver to mention only some of the „coordinates"; add of course all the Proceedings of the Macy Foundation, some large volumes on Self-Organization-Symposia, a number of volumes of „Cybernetica" – and you are still nowhere. The universe of discourse of this man Stafford Beer includes Bourbaki and St. August, Teilhard and Heisenberg, India and the MIT, British Upper Class and Chilean campesinos. So, where to start ...? And where to end...?

It was a very long and very hard intellectual journey – but I enjoyed every minute of it, every single step. I still doubt wether I have understood everything; but even in moments of great despair I felt that I could trust in Staffords honesty and sincerity as a scientist and as a person and that it would be worthwhile to keep on.

Only twice did I have the opportunity to meet him personally. The first time was in 1974, in his cottage in Wales where he tried to recover from his Chilean experience and the second time twenty years later when he was in St. Gallen as a Visiting Professor, and in a rather bad state of health. For more than one reason I will never forget those events and our discussions part of which I can remember to the word. I am still envying all the people who had the opportunity to work with him and to have him as a personal teacher.

What did I learn?

Although it took me a while Stafford Beer tought me to see – vaguely as it still may be – the „pattern which connects" as Gregory Bateson put it ten years after I had read the first book by Stafford.Yes, there is a pattern which connects such apparently diverse dimensions as Bourbaki and St. August, Teilhard and Heisenberg, the Indian Sikhs and the M.I.T., General Motors Corporation and the Berlin Philharmonic Orchestra, the amoeba and the United Nations. And what appears at first as hopeless dilettantism – because nobody can seriously claim to understand each of these phenomena in its own right – becomes a solid way of comprehension as soon as one looks at them as systems and in particular if one looks at them through the Model of Viable Systems.

This is the pattern which connects them and which makes them intelligeable – in all their healthyness and beauty and in all their pathologies and uglyness. This – to me – is the pattern which transforms data into information and knowledge into understanding. As I said it constitutes a completely new way of organizing knowledge and – more important – a revolutionary way of organizing not only knowledge about the world but the world itself.By the way – and contrary to what some of the critics thinks – it includes and integrates a rather large variety of philosophical models which so far have to be thought to be completely incompatible. Most important the Model of Viable Systems comprises not only what some people take as empirical science but also politics and ethics and in my opinion aestethics too. How else could it be an Model of any Viable System...?

But everything can be misused and perverted in many ways. To blame the model or its inventor (discoverer?) for that – as some of his critics do – would be comparable to blame fire of being capable of burning houses. Nobody can prevent all sorts of criminal or otherwise questionable organizations, from the Mafia to corrupt governments, to use the Model of Viable Systems for their own destructive purposes. Judged from their effectiveness I have a strong suspicion that they are among the most refined and advanced users of cybernetics and it certainly cannot be ruled out that some veritable experts are on their payrolls. That this is sheer misuse must hardly be said.

At least this sort of misuse can clearly be recognized and stated as such. More dangerous in a way is what I call, for lack of a better word, perversion of the Model of Viable Systems. What I mean are those well intentioned „applications" of the model which in fact turn out to only prove total failure to comprehend it.

In some cases these perversions are simply illegal in terms of the constitutive elements of the model. One must never forget that Stafford Beer`s work is characterized by scientific rigour in the best sense of this word. Even his most expressionistic drawings are rigorous. The Model of Viable Systems has a strict logic and the language in which it is expressed – be it mathematical, neurophysiological or managerial has a strict grammar. No element must be sacrificed and one has to be very careful about making compromises.

In other cases so called „applications" turn out to be a perversion because they completely lack any substantial content. There are people who appear to think that the reproduction of drawings of boxes and arrows amounts to an application of the model. But of course the handy drawings have to be correctly interpreted other-

© Copyright 2002 Cwarel Isaf Institute – All rights reserved

wise the result is at best meaningless or at worst dangerously misleading.

The strongest propensity of misinterpretation can according to my experience be observed with people who have a business background. This is the reason why I always recommend students of the model, first, not to start with applying it to an industrial or business company, and second, not to start at all with a system with which one is familiar. First, there are much too many preconceptions and conventions regarding a business company – above all the unfortunate organization chart which may have been a useful way of envisaging the Prussion Army of 1870 but certainly bears no relationship to the complexities and regulatory systems of a modern company and, consequently, is itself a misapplication. Second, familiarity with an organization most often provides only easy excuses for not thinking through its systemic peculiarities – its systemness, as one could say. But exactly this is what is necessary.

One must not forget that Stafford Beer, already in his early days of Operational Research was a strong critic of the kind of OR which confused applying methods and techniques for doing research into operations. Doing research into the systemic traits, behaviour and rules of an institution is what is needed and this, of course, is much more than just renaming ones preconceptions in terms of the Model of Viable Systems. The most effective way, therefore, to learn to understand this model is to experiment with it in the context of institutions of which one has no or very little knowledge. For example, it is very worthwhile for people with a business background to study a philharmonic orchestra in terms of the model, or the Catholic Church, the Jesuit Order, the Amarna Period of Ancient Egypt and its institutions, or the Israely Kibbuz before one then applies it to the more familiar organizations.
By the way, the fact that very little is known about some of the examples mentioned is an advantage for any systemic study.

I said that this second kind of misuse, perversion of the Model of Viable Systems, is probably more dangerous than the first kind.Why so? There can, in my opinion, be very little doubt that the world, its economies and its societies just now are undergoing one of the most fundamental transformations which the human race ever experienced. The reasons for this are mostly cybernetic in nature and Stafford was partly among the first of its predictors and partly the only one who had a clear perspective. Remember only what he said about the irrelevance of automation as early as the late fifties, or about being inundated by data which for the most part are sheer noise, or about the irrelevance of time and space due to communications technology more than twenty years before „Cyberspace“, „Information Highway“ and „Globalization“ became everybody's buzzwords. He was among the first to critizice the common use of computers in the early seventies when he said that the way computers are used amounts to automatize the quill pen. He also, at the same time, formulated the only correct question, namely: Now, that we have the computer and telecommunications – what could an organization now look like? It took another twenty years and the „advent“ of Business Process Redesign that at least this question is rediscovered – however stupid some of its answers now are and however many obscenities are connected with them, among them the mass-shedding of people which can only add to all the other instabilities of the fundamental transformation I mentioned.

And instabilities it will create on a larger scale than any other transformational period of change humanitiy has so far gone through. Although it is in full swing it is still very badly understood and its cybernetics is practically not known at all by those people who have the positions and the power to use this transformation as an opportunity not just to revamp societal institutions, and – for lack of better knowledge – simply to downsize, privatize, decentralize and deregulate them but to implement the only regulatory systems which carry the hope of being capable of coping with the explosion of variety which is the consequence of the said transformation.

What I learned from Staffords writings and my own studies of complex systems along his lines enabled me to predict by the late eighties that – contrary to established expert opinion – that the nineties will not, as „everybody“ then knew, be the Golden Decade of this century but quite the opposite of that. The reasons „everybody“, and in particular the experts of all kind, could give for their opinion were quite strong.
To mention only two: the pending common market of the European Union and above all – with the breakdown of the communist world – its joining the free world and providing it with wide open and completely unsaturated markets of those countries. Even some of the harshest realists among the economists dared to make euphoric predictions.

Miracles sometimes do happen and one should use them if they do. But my question was which of our

© Copyright 2002 Cwarel Isaf Institute – All rights reserved

societal institutions – from business corporations to the non-profit-sector and from the national governments to the bureaucracies of the European Union – showed at least some, however weak symptoms of having requisite variety and had at least some embryonic regulatory systems to cope with these changes. The most important question, of course, was how the seemingly victorious part of the mega-homeostat of global equilibration after World War II would behave after its counterpart broke down. To me the idea of „The End of History" was the ultimate stupidity which non-cybernetics could ever produce.

On the other hand in my consulting projects and seminars from the late eighties on I more frequently than ever before have been meeting executives who, out of their disorientation, were almost too interested in the findings of systems science and cybernetics. As soon as they had learned something about the potentials of these fields they suddenly understood what Stafford Beer meant when he wrote in 1966 that „cybernetics is the science of what management is the profession".

A first precondition of effectively teaching Beer's „managerial cybernetics of organization" to executives of all kind and of convincing them of its potential was and is in my experience to translate it into their language and into their universe of discourse. This requires to renounce of all kinds of jargon and – alas – in many cases even of the beautiful graphics Stafford is rightly famous for. One has to be very careful not to loose the rigour of Staffords thinking in the course of this translation process – a requirement which sometimes borders at the impossible. As a rule only in an advanced state of discussion do I begin to introduce cybernetic language and the Model of Viable Systems as such. Of great help is the fact, consequential of the above cited statement, that managers are – and always have been – the craftsmen of cybernetics – without knowing it, though.

It is therefore not very surprising that the experienced and sensitive executives are very familiar with selfregulatory phenomena – their only problem is that selfregulation as they know it sometimes has very undesirable results. They know that a lot of things organize themselves – again sometimes with deastrous outcomes. And they are very conscious of evolution and entropic drift – however, not always do the resulting states correspond to their criteria of success and achievement and to what they think the purposes of their institutions should be.

The second precondition of making executives enter an alliance is to convince them that cybernetics is more than just renaming their organization charts – which certainly holds true and that it is more than just another management fad . So, what they feel is great interest and at the same time a certain absence of confidence.

These are the reasons why I find the second kind of misusing cybernetics and above all the Model of Viable Systems to be even more dangerous than putting it to the service of criminality and corruption. It destroys any possibility to enter a joint venture with those people who are the most important allies if we want to achieve anything. The motives of the second kind of misusers are in most cases beyond doubt and some of them are enthusiastic apostles of Stafford. But as West Churchman already said very long ago: some of the friends of the systems approach may turn out to be its greatest enemies...

The world societies and the planet earth need systemic solutions more than ever before . Viability cannot be had without them. So, perhaps the greatest gift to Stafford is probably not a Festschrift and most certainly not my own modest contribution. The greatest gift could be a „ Beerian School" – not in the academic sense but one which is itself effectively organized – which should not be too difficult to achieve now that time and space finally are irrelevant; and one which would heap all our science together including what we know – and that is not too little – about establishing effective alliances with those in „princely" positions; and one which is based on the integrity of cybernetics itself which the founding fathers have given example of perhaps more than in any other field – Stafford Beer being most prominent among them. The Beerian School – in short – would have to blow the fanfare of effective organization.

© Copyright 2002 Cwarel Isaf Institute – All rights reserved