

We know but we do not make sense of it

Back stage.....	1
Challenges for bear and for man.....	5
Priorities.....	9

We know but we do not make sense of it

By

E P S Agrell

p-s.agrell@stromstadakademi.se



Fig 1 The general approach

Back stage

FOA, the National Defence Research Institute of Sweden was a courageous and successful innovator for design and planning methods. Carl Gustaf Jennergren was the motor for this development as a head of department, the FOA P. We had for example a very early version of a Webb-system called the KOM,¹ developed by Jacob Palme independently of the American Internet. Giving the similar American systems a match did not work for political reasons, but the KOM is surviving (still the year 2014) as a research instrument for Asynchronous Group Communication.

¹ Palme, J. 1979: *A human-computer interface for non-computer specialists*. Software practice and experience, vol. 9, 741-747 (1979).

FOA also had an innovating role in combining and transforming the methods of operational research for the design and planning of defense systems. One branch of this development went into planning issues like commitments, liberties and regret. This line is ever more useful these days, 2014, when the defense budgets are reduced to the very limit of the possible.

Still another branch stayed closer to the operational research culture using quantitative models and simulations for systems design but in frameworks of varied approaches. This was in an effort not to trust structures and figures in absolute terms but to use such elements in building locally relevant knowledge. By relevant I then mean as judged from the limited possibilities of what would be known here and now and with *purposeful* projections to the future.

Let us devote the following pages to this latter area of research and applications. I give a theoretical framing before going into our global predicament in a following section. Let us first notice some of a kinship to literary studies since management and literature studies both work with the reception and the more or less subjective use of texts. Riita Felski for example distinguishes four kinds of ways to receive and digest literature:²

1. Recognition. 2. Enchantment. 3. Knowledge. 4. Shock.

I once made a list of ways to receive and digest the texts of military operational research³:

To design, initiate a discussion, give a warning, make aware, give a syntax or a language, explain, make tangible a problem, identify and put names to problems, lay out aspects, give arguments, test coherence, criticize, invite criticism, explore, give frameworks, express goals and objectives, create consensus, allocate responsibilities, make agendas, clean up a discussion, claim excellence, transfer a responsibility, decrease a psychological anguish.

Possible similarities? Both references are extremely important for applied futures studies. They make those both possible and meaningful by obliging limits of validity thus abandoning false and impossible efforts to grasp an absolute objectivity. Others may continue to explore the possible cross-fertilizations between the domains of management and literature studies and I proceed calling my elaborations of capture, interpretation and use *management*, or *operations management* though I focus a very global issue.

The real story I can offer starts in 1981 by a conference with the Operational research society where I presented a paper about teaching *Facts, Techniques and Approaches*.⁴ That was a first visible approach to theoretically embed the operational research (OR) of my employer FOA into the context of understanding and advice with layers of complexity levels about a national reality. Something really necessary! The global debate about that subject had become too blunt: for or against figures. In my draft of a taxonomy we see however three levels of method: *approaches* which use *techniques* which in their turn use *facts*; all three levels having their respective nested purposes. So far my methods perceptions were not very original. It has always been permitted to think of purposes and

² Felski, R. (2008), *Uses of Literature*. Wiley-Blackwell

³ Agrell, P. S. (1985), *Operational Research at the National Defence Research Institute of Sweden (FOA)*. In Omega Vol13, No2.

⁴ To be found in my thesis Agrell P. S. (1991), *Systems Theory for Systems Practice*, Stockholm University, TRITA-IS-5437.

strategies. This could also be true for acts of analysis though the purposes of those traditionally would be bluntly overshadowed by the true-false dichotomy. The same year the teaching of OR at the Institute was redesigned in this vein of distinguished complexity levels. Teaching became organized in the three levels mentioned above plus a fourth one: *Paradigm*, we called it, being a kind of fundamental basis for the work by the other levels, this fourth level taught by West Churchman and by three students of his: Russ Ackoff, Ian Mitroff and John P van Gigch. FOI had the privilege of meeting and working with all four of them.

Still in this dynamic year of 1981 the four levels were further specified into subclasses, useful for the teaching of comprehensive OR-courses but also for the systemic views of the clients, needed for the quality of their deliberations and for an effective management of their problems:

- *Facts* are both with the client himself and his issues,
- *Methods* are both for creativity and for analysis,
- *Approaches* and *paradigms* both have social and technical sides.

Together with a French colleague Robert Vallée the following synonyms were later entered for the four levels: *matter, method, program* and *paradigm*.⁵ Later on still another vocabulary was used: *phenomena, method, process* and *culture*. And still another synonym to program and process must be offered before I close this discussion: *Implementation*! In a latest and possibly last theoretical paper of mine I abandon further efforts to be absolute about the names of the methodological complexity levels while still recognizing that such levels are necessary for the organization of executive work in planning and systems design. If someone else would plead for five such levels, that they could make such one a more respectable terminology, I would listen but not worry. Words are symbols, not reality. And they are subject to distorting translations. At present and for many years I have come to prefer a four level taxonomy for methodological work. This feature permits a pretty symmetric duality: preparation to the left, execution to the right.

Phenomena:	Object	Subject
Method:	Imagination	Analysis
Process:	Process of thought	Process of communication
Culture:	Myths	Rites

Table 1 Facets of management methods.

A picture of the nested methodology is offered in the beginning of this article, a Klein’s bottle⁶, skillfully drawn by Fredrik Tersmeden, illustrating an amusing and rather general feature of explicit methods. There is nothing magic about it and certainly no truth value. It is just another way to present the methodological levels of the matrix above, but do notice its circular character. He who wants to may take it as a possible reminder and an agenda with some head-lines for how to produce an argument to a serious audience.

There is a conscious idea of choosing a Klein’s bottle for such an illustration since *phenomena* are given different roles:

⁵ Agrell P.S. & Vallée, R. (1985), *Different Concepts of Systems Analysis*, in *Kybernetes* Vol 12 pp.81-85.
⁶ https://www.google.fr/?gfe_rd=cr&ei=E2JGVpNNOsOA8QegllIDICw&gws_rd=ssl#q=klein%27s+bottle

1. Providing input to the *methodological* applications: Any analyst with empiric ambitions would know what I mean.
2. Expressing properties of the analysts own activities with their dependence to a *cultural* context.

An experienced analyst or advisor should recognize this two-sided dependency of the empirics.⁷ In order to draw further on the metaphor of the picture we may see some similar dualities: Methods make on the one hand a kind of organized consideration of phenomena; on the other hand they make the building blocks to shape a process. Process is on the one hand a collection of methods and on the other a realization of a cultural posture. Culture is both a collection of possible processes and a kind of stable governing standard, sometimes possible to describe as a paradigm, sometimes implicit. So we have an auto reference with our method: We know what we see; we see what we do. Phenomena are both for the specification of actors and objects and for the less visible metaphysics of a ruling culture. They are both *in* an analysis and *about* it. Inclusion, not metatheory⁸; In spite of the reflexivity of the phenomena concept!

When *using* computerized software this view of methodology of levels is most natural since the software applications (the methods) have got to be imbedded in administrative processes in order to work at all. This methodological view of planning and design gave its spirit to the interventions of FOA, not always explicitly with a precise reference to the methods taxonomy now presented, but always with respect for the problems of implementation of analytical solutions. Implementation is far from ever with just blue-print logics. It has got complexities of design, both in the proper organization and with the clients.

This short paper was neither intended as a memorial for defense research nor so for the Research Institute, though such a document may be produced some other time. It is written to announce a methodology which has proven useful not only in defense but also in civil contexts, in Sweden and abroad.⁹ Let us now tentatively, but courageously, adopt the challenge of a bigger problem, an effort to match the framework just presented with the problem of survival of humanity and its elements of culture.

⁷ The point 2 draws on a projective paradigm, that useful data would from come from purposefully designed inquiries. See first of all Churchman, W. *On the design of purposeful systems*. Also Foucault, Larrasquet and others.

⁸ Edwards, M. G. (2014) Misunderstanding Metatheorizing. In *Systems Research and Behavioral Science*, Vol 31 no 6.

⁹ Such writings can be found on the webb-site <http://agrell.info/per-sigurd/> .

Challenges for bear and for man



Global warming makes all of us suffer.

A dominating fact (not only a perception) with our world as an *object* for risk management is a raising temperature and that makes not just the pleasure of a sauna for everybody. Whole biotopes die.

And the bear on the picture looks sad. Does he know that he is lost? Anyhow this is a precursor to the human predicament or, for he who dares to know, this is now!

Already the world suffers from this new climate by sequels and combined disasters in the lack of water and food, flooded land and cities and corrupt business on top of that. Abundant migrations are the cruel proof of the combined disaster, not neglecting that war and genocide may have many causes. It is just too clear that the world is in a complex situation of multiple influences and critical thresholds.

Humans, the *subject*, are abusing the existing resources of the earth by pollution, war and inventive criminality and they also create what Dror calls disruptive technologies, the worse of which may be a next-generation genomics¹⁰ not to be confused with Clayton Christensen's more positive elements of liberal competition¹¹. The set of more or less disruptive technologies are more real than science fiction but I claim that a disruptive exhaust of the world's limited capacities is a more imminent threat. Much disaster is already here but we can try to discover in time useful bifurcations towards relatively enduring futures. The world has got the warning but we have not invented enough of responses and the world, neither men nor nations, have not got the pathos due.

My earliest reference about the *fact* side of the crisis is from 2007: Mark Linas, *Six degrees*.¹² Mankind, at least in all civilized forms, will be threatened already by the now generally accepted increase of two degrees, Linas writes. This small book has got a more important perspective than the giant FN by connecting climate to all sides of society. Its optimism is refreshing, but that was seven years ago. Now, 2015, desertification has not only started. It makes people migrate. Several countries miss drinkable water. Nonlinear developments, bad synergies and self-enforcing processes accelerate these sad proceedings as is explained more and more the last years by different kinds of researchers and organizations.

Last year, 2014, the world's supreme administration, the UN, published an impressive trilogy about an endangered World, its prime *object* of governance. Too late perhaps and they write still very little about systemic connections with war, criminality and migrations! Still less about the fundamental causes, by which the globe is getting exhausted and overpopulated. And nothing about human abilities to agree and cooperate! Let us hope for something more responsible with the COP 21 in Paris this year 2015. But the invitation papers do not promise much even if they recognize a serious global situation. They are still very Cartesian limited to a climate sector of society not realizing the catalytic effects of other sectors interfering.

Other UN-organizations like the UNFCCC and the GIEC quantify and provide information but, as the IPCC, they also hide terrible realities in a non-emotional scientific language. Their climate dominated texts do not claim more than *almost* verified the human artefacts as if this ambiguity should be an argument for a continued non action or delay. The hesitations are a scam for humanity but the UN will have to sharpen their judgments by time. A less conventional, more close to human, presentation could wake up more efficiently. Many ONG:s and individuals give more clear warnings not only Linas pamphlet just mentioned.

The annual report 2014 from World Economic Forum is comprehensive, including issues as combined causes, confidence, resilience, mitigation and systemic interconnections between risks. I quote a list from them of dominating perils:

¹⁰ Dror, Y. (2014) *Avant-garde Politician*. Westphalia Press

¹¹ <http://www.claytonchristensen.com/key-concepts/>

¹² Lynas M. (2007) *Six Degrees*. Harper Collins

1 Fiscal crises in key economies 2 Structurally high unemployment/underemployment 3 Water crises 4 Severe income disparity 5 Failure of climate change mitigation and adaptation 6 Greater incidence of extreme weather events (e.g. floods, storms, fires) 7 Global governance failure 8 Food crises 9 Failure of a major financial mechanism/institution 10 Profound political and social instability.

Methodological concepts like Abrupt Impacts and Anticipating Surprises are also dealt with by the Forum. Their basis in finance taints their presentation but this has not prevented their analysis to have an impressive global relevance, in fact more so than the UN documents. This is not only a matter of a wider coverage but also a deeper view on how disasters of different kind enforce each other. We see not only a change of climate but also the kinds of combined disasters of interfering evils and the consequences of such combinations.

In response, and more than ever before, leaders are looking to strengthen their situation awareness and contextual intelligence. In this regard, the World Economic Forum's Annual Meeting provides an unparalleled platform for leaders to develop the necessary insights, ideas and partnerships to respond to this new context. It achieves this by convening global leaders from across business, government, international organizations, academia and civil society in Davos for strategic dialogues which map the key transformations reshaping the world in 2015. The Annual Meeting remains the foremost venue to shape and develop global, regional and industry agendas at the beginning of the year and its importance competes with what the UN is producing.

I quote from a summary of their annual meeting of January 2015.¹³

“Complexity, fragility and uncertainty are all challenging progress at global, regional and national levels, potentially ending an era of economic integration and international partnership that began in 1989. What is clear is that we are confronted by profound political, economic, social and, above all, technological transformations. They are altering long-standing assumptions about our prospects, resulting in an entirely “new global context” for future decision-making. This new context requires a greater awareness of the near and long-term implications of the following trends and developments:

- The systemic impact of deepening geopolitical fault-lines, decreasing multilateral cooperation and increasing strategic competition.
- The expected normalization of monetary policy through the reduction of quantitative easing and a future rise in interest rates.
- The continuing erosion of trust in public and private sector institutions, and the deteriorating dialogue between government and business globally.
- The breadth and velocity of scientific and technological advances that are considered inspiring and empowering as well as disruptive and ominous.
- The inability to significantly improve the management and governance of critical global commons, most notably natural resources and cyberspace.
- The ecological, societal and business repercussions of unabated climate change, youth unemployment and income inequality.
- The generational shift from societies sharing common values to those that are primarily interest-driven, and the related rise of sectarianism, populism, nationalism and statism.”

Returning to my own systematics we may see that the *methods* of management hold facets of *imagination* and facets of *analysis*, the terms taken from our taxonomy above. The normally desirable context of *imagination* is flourishing indeed more on the sides of business and criminality than with any responsible political body. Strange, since so many people are involved in the latter and

¹³ http://www3.weforum.org/docs/AM15/WEF_AM15_ExecutiveSummary.pdf

from so many different professions! *Analyses* of the situation are done though.¹⁴ We see clearly that there is nothing to hesitate about. The decay of the world has started; it is finally made visible and it is going on by a pace quite precisely estimated: 6 mm per year for the raising sea but (!) it may worsen abruptly if we are to believe and interpret the modern theories of chaos¹⁵ and catastrophe.¹⁶ Linear and smooth developments do not promise to continue. So the whole idea of feedback for planning may go astray.

The processes of management have facets of *thought* and of *communication*. A report from a working group GIEC of April this year 2014 is a kind of an alert, but they do not make clear just how serious is the situation. They hold a restricted view, to the theme of climate and its mitigation.¹⁷ According to *Washington Post* two pages, the most alarming ones about raising temperatures were deleted because of the non-agreements of the participating governments.¹⁸

The impressive report of IPCC is more definite in its latest 2014 version. They write:

Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history. Recent climate changes have had widespread impacts on human and natural systems .

They have also produced a report about a necessary mitigation of the climate decay. As a whole I find the set of IPCC-reports a timely warning from the international authority we should trust. As a *communication* though to political bodies the language of rigorous and balanced scientific information is surely not effective enough. Better then would be the *Global Risks 2014* by the World Economic Forum because of its more common language and an explicit and wider systems thinking. It is worth an observation that this is an NGO, sponsored by enterprises and not by a public agency.¹⁹ Let us really hope that the COP 21 will approach the comprehensive responsibility.

The national levels then are more silent. Some do sectorial studies according to sector-wise budgets. They are resilient to budget systems and they do not want to worry, I think, before they have an idea what to do about it. Still it is a nasty paradox that it is private and entrepreneurial organizations which are in the lead for saving the world (still now 2015).

We would need, says Dror,²⁰ an improved global administrative process with some redesign of the UN. *Démèler*, Descartes would say and so far I say the same but without following his paradigm of separated issues. This reserve imports here, not only because of the global framing of the issue but because of the vicious nesting in the world of all detrimental factors including the inventiveness of less responsible human actors.

We still live in the *myth* of stable growth, in an expanding economy, and our political *rites* are based upon that. Financial growth will be possible for ever, that is the strange myth both with the public and the private power. We pay huge salaries to politicians for being busy with each other, not with the world. And generally we react slowly to warning. We had for example the Pearl Harbor disaster

¹⁴ IPCC report april 2014. The IPCC is a scientific body under the auspices of the United Nations (UN).

¹⁵ Gleick, J. (1997), *Chaos*. Random House.

¹⁶ http://en.wikipedia.org/wiki/Catastrophe_theory

¹⁷ Le GIEC a été créé en novembre 1988, à la demande du G7 (aujourd'hui G8), par deux organismes de l'ONU : l'Organisation météorologique mondiale (OMM) et le Programme des Nations unies pour l'environnement (PNUE).

¹⁸ In Figaro , 6nov 2014

¹⁹ *Global Risks 2014* by the World Economic Forum

²⁰ Dror, Y. (2014). *Avant-Garde Politician*, Kap 2. Westphalia Press.

where Japanese aviation eliminated a good part of the US navy in spite of existing warning signals. Does this military failure mean that the president shut up or that lower levels failed? Some say that President Roosevelt just let this happen to push the US into the war. Others blame negligence on lower administrative levels. Be as it may! Anyhow we have here a beautiful example of how to *make sense*, or not, of a statement: The US knew but it did not react. All available info was never made public. Never mind, *make sense* counts, and the *no make sense*.

The climate debate is a still better example of a *make sense* that should be there. We know but we do not act, not enough and not in an intelligent cooperation. Also the methods overview of this paper needs to be made sense of in its applications. So now I wish to plead for it, here and for future applications, to make a methods overview as a basis for setting priorities to the governance of an endangered world.

The UN has not really reacted yet, surely not by the conference 14-18 march, the 3rd World Conference on Disaster Risk Reduction in Sendai, Japan. They expressed a *determination to enhance our efforts to strengthen disaster risk reduction*, which is not the global prevention we really need. They dealt with split issues rather than combined causes of disaster. Nor will the (COP21/CMP11) be about the combined disasters, but they will try to gain a more or less binding agreement about the climate to keep the global mean temperature below 2°C.

Priorities

I promised in the introduction to this paper to use this methodological elaboration for setting priorities in a strategy for a delay of a further decay on our earth. Then, as a start, I claim that a rich, though depressing, collection of alarming *phenomena* have surfaced already in our world, into the scientific texts and to some extent also into daily journals and applied policy analysis, much less so in real politics. The world is expressed as a decaying *object* already but not visibly enough in politically striking terms. The message is rather hidden in scientific language and political abstractions. But the stuff is there. Now it is up to the so called implementation, teaching included. Politicians are not always much of learners, I would say, so we shall have to trust journals and schools to do the teaching. A long range perspective! How do we prepare the teachers? And how do we influence all differing able and unable countries? The latter is the *subject* side of our phenomena. We have to consider the double view again: phenomena about a very badly treated world as an *object* and phenomena about how we, the *subjects*, study, teach and govern it.

The world has not only got warning signals and frightening scenario. We have temperatures really rising but lamentable efforts to cooperate. We have the facts and we have lots of *analyses* but not any defensible priorities. We make war about other things than global heating. Man thinks and acts parochially and we miss an agenda to push us into a useful global *communication*. We need a political redesign says Dror with persistence.²¹ We have *methods* for details but not for saving our world and not for its governance, not the political *processes* necessary. We need the real shock now in the futile hope that it will not be too tough and not again just the chaos of competing lobbyists.

When must we wake up? Personally I think it is late already. What kind of a respite have we got, if any? We need now a new form of governance to help us stop minor disputes and to find and promote better priorities. Governance depends on ruling cultures (*myths* and *rites*)²² and there humanity has got a long way to go to find a way towards an endurable period of common survival. One step would be then to try to attenuate the roles of religions, thinking of Gödel²³, and so make religion a matter of polite presentation of an identity, as in Japan, not a matter of closure and war. Maybe the advancing decline of the world will one day, according to the path-

²¹ Dror, Y. (2001). The capacity to govern. Frank Cass Publishers.

²² Useful references about myths for management are to be found in Klein N. (2014) *This Changes Everything, chap 13 Conclusions*. Penguin and Riveline C. (2006) *Idées*. Ecole de Paris de Management.

²³ Clear enough in Hofstadter D. R.(1980), *Gödel, Escher, Bach an Eternal Golden Braid*, Vintage Books.

breaking chaos or catastrophe theories, give us such a shock as to make us ready for political design in cooperation.

As a blunt summary I set my priorities with the table1 above.

Phenomena:	Object	Subject
Method:	Imagination	Analysis
Process:	Process of thought	Process of communication
Culture:	Myths	Rites

Table 2, Suggested priorities for political redesign and action.

I find that much of the critical knowledge is present already in the world. What is missing is rather the quality of the political actors e g the *subjects*, their ability to *communicate* and their *myths*. This is my actual *make sense* of the methods taxonomy presented. May it be spread and used, not for itself but for the World, for us. Before it is too late!



On a shrinking globe. Crédits photo : VANDERLEI ALMEIDA/AFP: NOT MUCH ROOM ON EARTH.