

---

## Flexible sense-making

---

Per Sigurd Agrell

Ekelöw Infosecurity AB,  
Rökubbsgatan 6, 11559, Stockholm  
E-mail: epsagrell@gmail.com  
Website: www.agrell.info Website: www.ekelow.se

**Abstract:** In management science, we have a debate about the role of à priori structures and my stand in this dilemma is that no reasonable synthesis may be produced without a simultaneous consideration of explicit structures and a mood of *making sense* of those. A balance has to be struck. I recognise that a structure may be produced early or late in a project. What I find important is that a structure appears at all, so that the *make sense* will refer to something visible. So that democracy and audit can have a chance. This way of thinking creates freedom and varieties for control. The more you know about how to make sense, to yourself and to others, as analyst or as client, the more variety you can permit your procedures for thinking and choice. To be explicit both about the perspective and about how the parties make sense of it, that is the methodological idea. It is tested and it provides a help to avoid parochial and corrupt decisions.

**Keywords:** explicit perspectives; make sense; policy; decision-making; democracy; ethics.

**Reference** to this paper should be made as follows: Agrell, P.S. (2007) 'Flexible sense-making', *Int. J. Applied Systemic Studies*, Vol. 1, No. 2, pp.154–167.

**Biographical notes:** Per Sigurd Agrell got his Masters degree at the University of Göteborg with a major in Mathematical Statistics. His doctor's degree was awarded 1991 by Stockholm University (Sweden) in Systems Science and a Professor's degree in Management 1966 by the University of Lincoln, UK. The professional experience has been mainly with the Swedish defence but also with civilian public sector management consultancy in several countries. Present interests are public sector decision-making, personnel management and the concept of competence.

---

### 1 Management today

The story begins in the 1970s when I worked on design and risk issues for the National Defence Research Establishment of Sweden, in close contact with other European and US planning milieus. In the best cases, I worked on and learned about, there was some theoretical backing with concerns for criteria, cost, impacts, risks, stakeholders, law and commitments, also for present and future commitments, often also with an explicit concern for political actualities like gender issues, regional policy, industrial policy, egalitarian aspects, etc. We had, and have, proponents for quantification and modelling

on the one hand and those in favour of a communications-oriented facilitating methodology on the other. We have a dichotomy of managers for or against models, methods and quantitative knowledge with the latter in majority, much depending on the domain. Feedback is common and not always supplemented by more theory based predictions. Business areas have different cultures. In marketing, aviation and defence, I have met good abilities to talk method. Lobbyism can sometimes be put to use, but more often it is nuisance and jeopardy.

Mainly we have pragmatic approaches in our administrations, both in the private and in the public sector not much in contact with a methods debate. Khakee (2003) describes the situation very precisely for evaluations and assessments. Churchman (1978) also testifies a certain disillusion and offers some still valid explanations by paradigms of politics, morality, religion and aesthetics. When's (2005) cruel revelations are offered with accusations of sectarianism, romanticism, commercialism and hypocrisy. Even expressions like mumbo-jumbo and counter-productive folly are used. I do not share all his views on religion and politics, but I am grateful for his informed piece of modern history with 17 pages of references. Ahlenius (2005), head of UN audit, testifies how a parochial consensus praxis also involves the Swedish government. She writes about how a corrupt personnel policy leads to ignorance and corrupt decision-making in all areas.

This is not the complete scanning of management today, which I would have wished to make before lancing a diagnosis. It is Norbert Wiener's outrage in the last chapter of his book (Wiener, 1948) that finally gave me the courage to write. I quote: *The state is stupider than most of its components*. He does not write about the war, I must add. This is general about man and society.

This still limited set of observations means to me that a defence against superficial consensus, parochial compromises and lobbyism is lacking. A wide enough spectrum of methodological and scientific knowledge, ready to use, is clearly rare and there is even a widespread resistance to methodology.

These observations lead me to a focus on how to *make sense* with knowledge, not sense with a situation or with the world in general. Moreover, how to understand and act is not all; there is also a matter of trust and how to appreciate qualities of knowledge. I shall investigate this hypothesis and I shall show how that side of the problem may have a solution. My approach now will be a cultural diagnosis and an idea of a methodology with some corroboration. It is *projective* (Le Moigne and Morin, 1999).

## 2 Management science today

My quick scanning now of management science and its decision support methodology has got the purpose of showing the kinds of human dialogue there are.

There are many management sciences and all of them more or less deal with information, knowledge and decisions. Let me start with Operational Research (OR). Despite having developed a flourishing formalism with optimisation, multi-criteria methods, simulation and many other methods by the 1970s, it was not accepted by its prospective clients as expected. Figures and models became less popular, and then the subject's academic domains also suffered. A resurrection might come by the comprehensive book by a leading IFORS team (Bouyssou et al., 2005) since it offers

models, not methods, e.g., building blocks to go flexibly into management analyses of different kinds.

A so-called soft methodology, soon enough accepted in the OR-culture, regained some of the methodological domains lost in the 1970s, aided by new approaches and a strategic IT-support (Rosenhead, 1989). Total Systems Intervention (TSI) appeared in the 1980s in northern UK with new ideas of democracy and scientific backing (Flood and Jackson, 1991). Then came critical theory of different kinds (Flood and Romm, 1996; Midgley, 2000), taking care of Werner Ulrich's Critical Heuristics (1983), which elaborates how to make reference to whole systems concepts and how to choose systems delimitations, sets of stakeholders included, purposefully and critically.

Multiple perspectives have been a popular theme for many years as a rebuttal to the mathematical, business-oriented and one-dimensional operational research. Important taxonomy designers for perspectives in management science are Churchman (1971), Linstone and Mitroff (1993), de Raadt (1997) and van Gigch (2003). Churchman offers a course in philosophy for managers and introduces the concepts of *guarantor* and *backing* for management science. Linstone and Mitroff argues for a balance between technical, social and individual perspectives. De Raadt argues for ethical explicitness, not only the freedoms I open for. John van Gigch offers a generic meta-modelling theory about facts, models and meta-models on to which I can map my methodology of sense-making. Sense-making will then be how to understand facts by models and how to understand models by meta-models.

Total Quality Management and Business Process Reengineering are relations-oriented, but in a way that also invites to considering comprehensive a priori models (Townsend and Gebhardt, 1990; Hammer and Champy, 1993).

The ISO (2006) standardisation in cooperation with professional societies like the International Council on Systems Engineering (INCOSE), the International Federation of Operational Research Societies (IFORS), the The Armed Forces Communications and Electronics Association (AFCEA), the Federation of European Risk Management Associations (FERMA) and the International Risk Governance Council (IRGC) should also be mentioned. This work meets difficulties, however, of being either too rigid or too abstract. The general gain is that methods and models become visible. Those should also be given names so that they can be assessed and spoken about and I shall return to this theme of visibility by the end of my text.

Jackson (2003) offers the flexible choice of kinds of overviews and a setting of priorities on such a base. What I add now is essentially about how to perceive such overviews and about specified varieties and liberties for such a control plus a dramatic touch (sense-making) with the necessity of our kind of improvements in real management.

Vallée (1995) develops an epistemo-praxeologie building upon the phases: *connaissance*, *decision* and *action* and stressing their necessary integration by a co-evolution = auto-construction. Vallée writes this in explicit agreement with Kant, Piaget and Heinz von Förster but in disagreement with Henri Bergson. This is the same constructivism as argues Le Moigne and Morin (1999). The perspectives grow out of practical needs.

Moison (1997) at the Ecole des Mines de Paris elaborates modes of *making sense* quite explicitly building upon case studies with a client. They write about *how* the tools of management are used for discovery and understanding vs. for advice. Do notice that their choices are really of how to *make sense*. Their stories do not end by

the applications of the tools. This team makes the most complex organisations intelligible by a conscious and varied *sense-making* supplementing more conventional uses of management tools.

From the Centre de Recherche en Gestion of the Ecole Polytechnique de Paris, I also collect some striking sense-makings (Charue-Duboc, 1995). The important and successful one is the logics of statistical control. Another is the ignorance; not to discard knowledge, but to leave partners in peace with their abilities and their mandates. That is the Cartesian–Taylorian division of work, not new but neatly expressed. The contextualisation of general knowledge is also mentioned as a worthwhile way to articulate knowledge.

Griffith (1999, 2003) is quite explicit about it that *sense-making* is her research object. Her studies deal with knowledge management within groups, not with relations to a client. Still her work is very relevant for this study, first of all by recognising the same communication problem, that methods are not easy to transfer. Then she recognises types of *sense-making*: whether the organisation reacts at all and what level of initiative is produced, also routines which may become established, proactive thinking, other changing attitudes and organisational developments. Her ways to influence the group may become an essential part of my wish to change decision-making cultures.

Baecker (2006) writes about organisation as combinations of process and hierarchy. He builds an organisational model that is to free organisational theory from binding restrictions of other sciences while at the same time looking closely at the possible contribution of those, including ways to *make sense* of them! He finds references in different sciences and in established cultures for product, technology, work, organisation, economy, business, society, corporate culture, individual and communication. These references are then made sense of for further management and it is within such a framing reference that you may make the distinction between an operation and its context. Sense-making for Baecker then mainly depends on the enterprise culture and its informal communications. I wish to add here that formal audit, methods competence and personal feelings of responsibility also import.

Larrasquet (2003), the promoter of a field called projectique, studies attitudes in learning and how such may be prepared. His main examples come from organisational development research and consultancy where it is important that stakeholders in organisational change projects *make sense* of new learnings in due time. Similar situations appear in crisis management where new situations as well as new flows of information have to be assimilated and *made sense* of. Larrasquet is one of the few in management science who focuses on receiver's and learner's ways to *make sense*.

I myself introduced an explicit theory of combinations of method to the OR-culture (Agrell, 1983, 1997) with further developments in 1997. It was based on activities and activity levels: *facts, methods, projects* and *cultures* with a need to *make sense* between these. Others slowly joined this combination of methods theme. For them, it was felt as a worry that the different methods in a composite project would build upon differing theories (Midgley, 2000; Jackson, 2003). Such combinations were supposed to cause confusion as if the academic advice of Kant, not to mix different sciences, had to be followed across all kinds of combined thinking. But why? Popper (1959) did not feel this worry when he combined conjectures with refutations. I do not share this worry either. It is just that the interfaces between methodological items have to be functional and to satisfy the input/output demands of the different and separated epistemologies concerned. At a conference, I heard the metaphor of Lego pieces that have to fit

to each other in order to describe this relationship (Seifert and Weinhardt, 2006; de Vreede et al., 2006). This is a pretty analogy, but it shows a rigid interface. I prefer the word *thinklet*, which is also used. It opens better for adaptive *sense-making*. Phases of analysis have to *make sense* to each other, I say, and already this is a tough requirement.

Group Decision Support Systems (GDSS) and Group Decision and Negotiation (GDN) appeared and engaged many of the same analysts as the above-mentioned methodologies (Seifert and Weinhardt, 2006). Cooperation in extended networks and hierarchic administrations oblige a new transparent information and knowledge management. Sense-making becomes ever necessary, now that nets and relations come into focus. Kolfshoten (2006) is explicit about this, drawing a systems view about more or less accepting attitudes towards a process and its outcomes.

There is also a segregation and tough debate in this group support area between the communications and the logics-oriented analysts. The extremes do structure on the one side and social relations on the other. I saw this in my two latest conferences (Andersson, 2006; Seifert and Weinhardt, 2006) and in years of practice. I saw this with a recent set of applications to the EU-Commissions Research Directorate, where in spite of clear instructions requesting integrated views most applications (in the refuted majority of applications) addressed either social or structural issues. This is not surprising. Researchers belong to their academic niches and we have a very general problem of making sense between those. This deficient communication both between researchers and at the interface science/administration is worrying. This is not a necessary antinomy though. It is just what appears at present in our administrations and think-tanks.

Real antinomies (balances) exist though. We have transparency vs. limitless thinking since transparency requires a model described in comprehensive terms, not only a set of collected experience. Such a model then also means some of an obstacle for the very free thinking. Here a balance has to be struck so that the model is produced by participation and creative thinking and so that it stimulates to further creativity in the vein of de Bono's list method (1973) and van Gigch's (2003) level 3 meta-modelling. Easier to say than to do! But necessary in order to counter tendencies of corrupt opaqueness!

Another real antinomy is the one of the model vs. the sense-making of it. It is often said that in the natural sciences and in technical issues, modelling and quantification are useful. Here the sense-making of a model is not discussed so much. A feeling of realism and relevance is enough. A kind of comfortable realism is felt even in meteorology, not so well though in nuclear physics. Efforts to model human and socio-technical systems have not been so well received though, and here I am very inclined to ask whose fault is this. Some say that the models are not fine enough, but that is stupid. No model equals reality. I blame in another direction. It is the *make sense* abilities which fail. It is the inability to see other than true or false. They do not see the truth-values of Foucault (1971), van Gigch (2003) and Halldén (1999), not the difference between *Verstehen* and *Vernunft* (Kant, 1781a) and of course they have not read my paper about differing objectives in an administration (Agrell, 1985).

There is a tension between *idiographic* and *nomothetic* approaches. The former would mean that the key issues and trade-off dimensions are not given in advance (Eden and Ackermann, 1998; Bouzdine-Chameeva, 2006). The respect for and interest in individual cognitions within their projects are high and they refer to Kelly (1955) when they make cognitions visible with a client. A priori ontologies are avoided, even used as options in plural. Some of their methodologies have names, the SODA for example Eden and Ackermann (1998) and the GroupSystems (2006). The *nomothetic* approach would

mean a greater willingness to discuss and even to accept known structures in the beginning of a project. My synthesis is that a structure may develop gradually but that it should be settled early enough to offer a frame for cooperation and for setting priorities.

I mention all these methodological streams because of the dialogues and the explicit interface problems going with them.

### 3 Offers from philosophy

To get ideas about possible interfaces in *make sense* processes, I turn to philosophy first. I shall not make a general reminder of existing knowledge. Neither will it be a complete nor a systematic scanning. I shall find some instances of *sense-making*. What I look for are kinds of transfer of knowledge that may help understanding and action. It is not only to agree on a perspective or world view. It is rather about the contextualisation of knowledge and about attitudes to it. It is about kinds and qualities of knowledge. What I find in this will be the backing we shall have for my conclusions.

I start my philosophical journey with Hume (1748) as the most striking example of courageous *sense-making*. In his professional texts, he proves that *causes* do not exist. “We must not believe in that kind of regularities in nature” he claims. However, he also has paragraphs where he admits that life would be impossible if we did not accept certain regularities of it, including the concept of a *cause*. He seems after all to have been a nice and social fellow who well endured this contradiction.

Kant (1781a) explored the history of philosophy carefully, and his distinction between *understanding* and *reason* (Vernunft) is precisely what I am after. *Understanding* is a learning that has got a positive or negative correspondence to earlier cognitions. The *reason* contains also other dimensions, use, judgements of moral and epistemological qualities, etc. The difference to the *understanding* is the *make sense*. Reason is specified into the famous *categories* out of which the *modi* are of special interest for this essay: *problematic*, *assertoric* and *apodictic*, e.g., the possible, the existing and the necessary. In my milieu, there has been too little thinking about the possible. I see research about the existing and about law-bound necessities being more respected. With more inquiry about the possible, our settings of priority could have been more transparent, more defensible and provided with a declaration of alternatives excluded. This is a generally neglected *sense-making* in assessment, which has got practically no room at present either in research or in real management.

Kant’s (1781b) elaborations on the *ding an sich* illustrates nicely my thesis about the adaptive make sense concept since he makes himself both a transcendental idealist<sup>1</sup> and an empiric realist<sup>2</sup>, this at the same time and in relation to the same object. The subject reasonings are different in the two roles in a way that cannot be entirely explained by different *understandings*.

The *ding an sich* aspect of Kant’s is already well known and it has had an important sequel in way of critical theory and critical praxis. The concept counts for me in a chain of transfer of information and knowledge between parties in the common situation where the interpretations of a second partner is a problem. The expression of the one becomes the *ding an sich* of the next one.

Kant’s antithetic (1781b) is also worth more attention. He argues for the importance of specifying conflicts into intelligible trade-offs so as to reduce misunderstandings, to promote learning and to find useful new directions for thought. This way of thinking is

not far from Hegel's dialectic and it lives in management of today as pragmatic problem formulation. Coakley (1991) is a nice and useful exponent of this. His expression is *a matter of balances!*

Our next master of perspectives and truth values will be Foucault (1971), though he uses the word discourse, neither perspective nor *make sense*. He uses the word *truth value*, which I interpret with him as the way to make sense. It is the processes he describes. He also describes cultures with comfort for those *within the domain of truth* and conversely discomfort, even suffering, for those outside this closed domain. He gives very striking examples of truth values and whether they last or not and in which form. Neglect of different kinds is a common truth value, in fact an essential purpose of many discourses. One of Foucault's truth values does not have anything with the subject matter to do; it is instead a matter of how well an initial anguish is relieved by an authorised methodology.

Foucault is close to Kant in that he stresses the difference between a material reality and that which may be perceived and that is the basis for his interest in the variety of discourses. He describes a cruel world and he has a heart for excluded people and rejected ideas. He reveals the power game behind different truth concepts. He shows us that the ways to make sense are attached to culture and that they are stable within those. So, if we are to plead for conscious and deliberate sense-making in our respective milieus, we are up to resistance. At the same time, Foucault gives arguments to my venture. His dry neutrality of language calls for subjective sense-making, I would say, and our thick domains of inattention call for exploration (Foucault, 1966).

Sartre (1943) and de Beauvoir (1947) share the existentialistic idea of man's responsibility to take a stand even in cases when nothing can be done. They differ though in mood. de Beauvoir sees more of possible relations between persons and she is more specific about some different ways to *make sense* of the world. She sees characters like the underdog, the serious, the nihilist, the adventurer, the passionate, and the aesthetic. Those indeed *make sense* of their worlds, and of course also of their readings, in different ways and, as describes de Beauvoir so nicely, their differing *sense-making* make them act very differently. Here de Beauvoir exposes different sense-makings based upon the same factual conditions, but she also offers an example of the contrary, the same *make sense* in different situations. It is when she normatively pleads for the ethics of ambiguity: whatever your world and whatever your systems delimitations, she says, you have the obligation to take a stand, to act and to react.

Popper's (1963) conjectures and refutations are different ways to *make sense*. He is also the obvious example of a possibility to combine discourses based upon differing epistemologies. His combination of conjectures with tests and subsequent degrees of corroboration require subtle interfaces have given modern science a firm ground.

Habermas (1981) claims that the parties in a dialogue must *make sense* of each other mutually and seriously. This is also true of course for the dialogue between proponents of management science and management as well as in the dialogue between the individual actors in such relations. Unfortunately, though he has no requirements specification for the stuff, which has to be made sense of, this influential philosopher is rather communications- than systems-oriented.

The hermeneutic movement of course has got things to say about *sense-making*. Heidegger (1927) offers the nice example that you do not understand something fully until you have lost it. Another master of this movement, Gadamer (1972), makes

understanding a reciprocal affair. You understand something by understanding its influence upon yourself.

Halldén (1997, 1999), as Michel Foucault, constructs extended and varied truth concepts like humour, comfort, anguish, relief, empathy, utilitarian views, seeing the lacunas, drama, fiction, ambiguities, for competition, with different references, with and without backings. These perspectives are to be optional, not rigid as with Foucault. In general terms, Halldén worries for a superficial consensus culture coming with a new generation.

Now, let me make reference to some para-philosophical authors. Morris (1946), master of semiotics, makes a taxonomy of different sense-makings based upon the two dimensions: use and mode. His modes are not the same as Kant's, nor as Aristoteles'. Morris writes: *designative, appraisive, prescriptive* and *formative* modes.

In literature research, sense-making aspects become popular. They fall into the dynamic research area of *genres*, which covers fields like worker and gender literature where the reader's *sense-making* is an issue for the author and for a substantial research area (Jansson et al., 2004).

In Pedagogy, the strategy of how to reach the student is a standard problem for research as well as in practice. The student's desires, rejections, acceptance and interpretations are standard stuff. Their *sense-making* process consists of *cognitive, affective* and *behavioural* components (Triandis, 1971). de La Garanderie (1987) is the famous ikon of the *gestion mentale* (management of the brain). He studies motivation and for this he helps his students to make personal models of relevant situations. He writes for teachers, not for managers, but his writings go well with my efforts in management. Quoting Aristoteles, he pleads strongly for conscious sense-making and so far that is also what I do. His essential kinds of sense-making are the *conquest* and the *witness*, to feel involved and to love or to stay outside. The difference for me in management is the broader spectrum of different sense-makings, which I feel is necessary.

Kelly (1955) and his personal construct theory is important both in design and learning. Both Kelly and de La Garanderie offer rather idiographic than nomothetic norms for their readers.

What seemed to be a tough problem at the outset finally appeared to have many solutions. It became obvious after this exploration that a *make sense* concept may very nicely be filled with meanings. So, as an intellectual challenge, a large part of the problem disappeared.

#### 4 Discussion

We have seen that it is easy to find kinds of sense-making. To avoid misunderstanding in communication is not all. Neither is it to search convergence by iteration. Still in management the problem is there. Figures, models and methods do not fit into management without tensions. They are not used as could be. The academic efforts to create solutions have failed, not on all logical levels but clearly in the implementation. This is a problem that has worried me for 30 years. All my professional learning up to the doctors' and professors' grades is at stake and I am not alone. This is a global cultural problem.

My diagnosis of occidental decision support and knowledge management is that much science and knowledge are refused because management knows too little about how to *make sense* with it even in parts of the world that wish to see themselves as democratic and efficient. I shall not argue about figures or proportions, but the phenomenon is frequent enough to bother about and we have just learned from philosophy that there are different ways to proceed in our communication and implementation problem. My experience also tells me that superficial consensus procedures take over when other methods are not attractive enough. This is what makes the problem globally worthwhile.

The common remedy to the superficial consensus is said to be the representative democracy. This cannot be objected to, but is it sufficient? I normally suggest a complement, which is to initiate democratic cogitations, at least once in the project, about the total ontological framing of the project. This framing then is to be an explicit reference: not necessarily a verified standard, metaphor or systems view, but something with an aesthetic quality or at least with a declared completeness. Personally, I do not exclude that it may be a known structure with a name. It will have to be spoken about, so that everyone concerned, during and after the project, will understand what is done. Sense-making of an ontological reference will have to be different before and after choice. Before it is one *possibility* out of many. After it is some kind of a chosen intellectual/psychological *reality*. The frame is not an *apodictic* necessity of course even if a firm decision may come out in the end and that has to be controlled by conscious sense-making (Vernunft). It is not an error to think of Kant in this cogitation.

I can recognise another existing quality that may help cultural improvements. That is the well acknowledged principle that all knowledge, not only models and figures, depends on assumptions, which put limits to its validity. From the Centre de Gestion Scientifique of the Ecole Polytechnique, I learned the expression “contextualisation of general knowledge” (Charue-Duboc, 1995). It is this contingency I think which has to be expanded into a *make sense* ability, both on the producing sides and on the receiving ones by adding a subjective cognitive posture to the recognised assumptions. Then any problem can be treated with new freedoms, but (!) afterwards you must understand, explain and communicate what you have done in order that all concerned may *make sense* in defendable ways. This piece of a doctrine is my learning from different disciplines about *make sense*.

## 5 Conclusion

The value of knowledge for decision cannot be denied, and we also know that methods and theories represent knowledge. Hume (1748) is the only scholar I know of who really denies this, others feel the need of them in some way.

We have also seen that there is a rift between what science offers in ways of methods and theories and what is accepted in the real decision-making processes. There are many explanations to this. See for example Charue-Duboc (1995) with a chapter of Jacques Girin among others. The explanation that I have found to go with my experience is the general inability to *make sense*, and I have tried to test this idea by the preceding pages with examples and counter-examples. I have at least shown that it is a meaningful concept and that the need for sense-making is imperative in all decision processes and also that we have a choice.

What also must be stated, and I do it as a linguistic evidence, is that sense-making needs an object. If an overview does not exist in a tangible way, it is not much to make sense of. Much less so to make policy of it! Now, we come to the essence of my conclusion: Management and decision-making need quality in the combination of overview and sense-making. They need quality in both and they need the match between view and sense. This also means that deficiencies in the one may be compensated by adaptations in the other.

Now we can return to my original problem about the operational research in the 1970s. What happened is that this methodology was not made sense of by management. It was perceived either as a scarecrow or as a producer of truth. With the backing of this paper, I claim that there are other ways to see and perceive than true/false. I claim this for operational research but also for other kinds of methods and theories, which are to be used or transmitted. I think that the idea of matching knowledge and sense-making in all knowledge transfer relations with a new flexibility will be useful even without a precise definition of how far this principle may be extended. Some structures will have an obvious relevance across much sense-making like the office package, simulation software, computer conference systems or many religious texts. Other structures shall need a much more specific sense-making, like for example the optimisation or multi-criteria methodology. The former requires that you watch out for unexpected not wanted effects. The latter will require that you take a stand as to which trade-offs you will consider as legitimate.

Structures are neither true nor false. They are not always better or worse for some objects than for others. They are just sometimes not obvious to make sense of and that would require some talent. It would be useful though for managers to learn to make sense of explicit methods and theories, for themselves, for their missions and for democratic participation in complex organisations.

The ways to *make sense* are not developed without a minimum of knowledge in philosophy of the kind that was offered in all good schools not long ago at least in England and in France. I think it is coming back in Norway in a new kind of first university year. I have shown above that there are a plenty of relevant sense-making varieties in philosophy and other academic domains for the one who wants to profit from the existing liberties. What I wish to add now is the multiplicative amplification of control variety produced by the combinations of explicit methods with cognitive kinds of sense-making.

You may share my view or not about the urgent need for a development in occidental governance cultures about knowledge management and decision support. It cannot be denied, however, that what I suggest increases the variety of control, something often desired. For a suitable discussion about variety engineering you may see Espejo et al. (1996) where it is basis in the Ashbys law of requisite variety is explained.

I have tried the principle most explicitly in a recent study to update a command system. All facts and a basic knowledge of the system were present before the project in an extensive documentation. What was asked for by my project was to set priorities before fielding experiments in a computerised test-bed. As an ontology, we choose James Miller's Living systems, not (explicitly) Stafford Beer's Viable systems or any of the more pragmatic lists also tentatively presented. The *sense-making* became a sequence. First, our ontology was seen as a hypothetical alternative, one out of many, then, after a choice and due specifications into a model, it became an agenda for deliberations about

priorities for what had to be improved in the present command system. It was never considered as a normative design rule, but it could be in other cases.

I shall not go into command and control issues here more than indicating that the result of my project was to explain and advice about the balances, which had to be settled in a command system with mandates, networks, robotisation and security. What have to be noted for the present conference-paper, however, are the more direct provisions for the project from our flexible and conscious way to make sense of an explicit structure.

*A relatively complete overview*, specified by a systems structure with a name.

*A framework for creative thinking*, the functionalities of the systems structure to differing degrees called for specified improvements.

*A language of functionalities*, to match an immediately present terminology about staff and material.

*A framework for the expression and the trimming of improvements*, so that the use of those will be seen in a context.

*A framework for the organisation of concrete facts*, names of functionalities are at the same time good head-lines for the documentation. The whole documentation could follow the same structure.

*An instrument for search*, the 19 functionalities made nice foci for attention.

*An instrument for setting priorities so that both positive choice and rejection becomes visible*, we had 19 nice headlines to organise the work.

*A framework for teaching and understanding between levels in the client administration*, the initially given big set of data was given a digestible structure with both positive and negative priorities specified.

*Transparency and accountability*, so that the information can be shared with other working-groups and with the audit.

*A framework for assessments and for setting standards for vital functionalities*, by model based assessment.

The complete method is described in Agrell (2004, 2005).

In other kinds of mission, I dare say that the following kinds of result could also have been achieved from the same method:

*A framework for a definition of necessary co-operation*, even a pattern for auto-control in your project.

*A means to see analogies and to express hypothesis by these.*

So what is new in this presented approach?

- I try to give the *make sense* concept a face so that it can be spoken about and even taught.
- I collect examples of *make sense*.
- I give an original list of possible benefits from the combination of explicit method with flexible sense-making.

- I add the dramatic touch. Method is not just nice to have. It is a necessity for an occidental democracy together with the transparency and the *sense-making* that should go with it.

Now, it only remains to set a name to the methodology: *Flexible sense-making*.

## Acknowledgement

I wish to thank my colleagues Helmuth Karcasonyi and Michael Agrell for improvements of many expressions and for their verification of my disillusioned view of contemporary management praxis.

## References

- Agrell, P. (1983) 'Facts, methods, programmes and paradigms', *European Journal of Operational Research*, Vol. 14, No. 3, pp.335–340.
- Agrell, P.S. (1985) 'Operational research at the national defence research institute of Sweden (FOA)', *Omega*, Vol. 13, No. 2, pp.121–124.
- Agrell, P.S. (1997) *Free and Simple Total Systems Intervention*, Lincoln School of Management, Working Paper No. 15, Lincoln, UK.
- Agrell, P.S. (2004) 'En ledningsstudie', in Derefelt, G. and Friman, H. (Eds.): *Samhällsförsvaret*, Utrikespolitiska Institutet, Stockholm.
- Agrell, P.S. (2005) 'Participation and priorities in risk management', *Group Decision and Negotiation Annual Conference, Proceedings on CD*, University of Vienna, Austria.
- Ahlenius, I-B. (2005) *Har Sverige blivit en 'Soft State'?*, Bertil Ohlin Institutets skriftserie, Stockholm.
- Andersson, K. (Ed.) (2006) *VALDOR*, Congrex, Stockholm.
- Baecker, D. (2006) 'The form of the firm', *Organization: The Critical Journal on Organization, Theory and Society*, Vol. 13, pp.109–142.
- Bouyssou, D., Marchant, T., Pirlot, M., Tsoukias, A. and Vincke, P. (2005) *Evaluation and Decision Models, A Critical Perspective*, Kluwer.
- Bouzdine-Chameeva, T. (2006) 'Collective casual mapping methodology', in Seifert, S. and Weinhardt, C. (Eds.): *Universitätsverlag Karlsruhe*.
- Charue-Duboc, F. (1995) *Des Savoirs en Action*, l'Harmattan, Paris.
- Churchman, W. (1971) *The Design of Inquiring Systems*, Basic Books, NY.
- Churchman, W. (1978) *The Systems Approach and its Enemies*, Basic Books, NY.
- Coakley, T.P. (1991) *Command and Control in War and Peace*, National Defence University Press, Washington DC.
- de Beauvoir, S. (1947) *Pour une Morale de l'ambiguïté*, Gallimard, Paris.
- de Bono, E. (1973) *The Use of Lateral Thinking*, Harper, New York.
- de La Garanderie, A. (1987) *Comprendre et Imaginer: Les Gestes Mentaux et Leur Mise en Oeuvre*, Centurion, Paris.
- de Raadt, D. (1997) *A New Management of Life*, Edwin Mellen, New York.
- de Vreede, G-J., Kolfshoten, G.L. and Briggs, R.O. (2006) 'Thinklets: a collaboration engineering pattern language', *International Journal of Computer Applications and Technology*, Vol. 25, Nos. 2–3, pp.140–154.

- Eden, C. and Ackerman, F. (1998) *Making Strategy: The Journey of Strategic Management*, SAGE, London.
- Espejo, R., Schuhmann, W., Schwaninger, M. and Bilello, U. (1996) *Organizational Transformation and Learning*, Wiley.
- Flood, R.L. and Jackson, M. (1991) *Creative Problem Solving*, Wiley.
- Flood, R.L. and Romm, N. (1996) *Critical Systems Thinking*, Plenum, New York and London.
- Foucault, M. (1966) *Les Mots et les Chooses*, Chap VIII-IX, Gallimard, Paris.
- Foucault, M. (1971) *L'Ordre du Discours*, Collège de France, Paris, *Diskursens Ordning*, Translation 1993, Symposion, SE-24036 Stehag.
- Gadamer, H-G. (1972) *Idée und Sprache*, Mohr, Tübingen.
- Griffith, T. (1999) 'Technology features as triggers for sensemaking', *Academy of Management Review*, Vol. 24, No. 3, pp.472–488.
- Griffith, T. (2003) 'Virtualness and knowledge in teams: managing the love triangle of organizations, individuals and information technology', *MIS Quarterly*, Vol. 27, No. 2, pp.265–287.
- GroupSystems (2006) www.groupsystems.com.
- Habermas, J. (1981) *Théorie des Kommunikativen Handelns*, Suhrkamp, Frankfurt am Main.
- Halldén, S. (1979) *Vardagslivets Filosofi*, Doxa, Stockholm.
- Halldén, S. (1999) *Truth Strategy Simplified*, Thales, Stockholm.
- Hammer, M. and Champy, J. (1993) *Reengineering the Corporation*, Harper Collins, New York.
- Heidegger, M. (1927) *Sein und Zeit*, 1, Teil., Niemeyer, Halle.
- Hume, D. (1748) *An Enquiry Concerning Human Understanding*, Edinburgh.
- Jackson, M.C. (2003) *Systems Thinking*, Wiley.
- Jansson, M., Lothe, J. and Riikonen, H. (2004) *European and Northern Modernisms*, Norvik Press, UK.
- Kant, I. (1781a) *Kritik der Reinen Vernunft, Prolegomena Bviii, Bxix*, Verlags Hattfarch, Riga.
- Kant, I. (1781b) *Kritik der Reinen Vernunft, 2. Teil, A421*, Verlags Hattfarch, Riga.
- Kelly, G.A. (1955) *The Psychology of Personal Constructs: A Theory of Personality*, Norton, New York.
- Khakee, A. (2003) 'The emerging gap between evaluation research and practice', *Evaluation*, Vol. 9, No. 3, pp.340–352.
- Kolfschoten, G.L. (2006) 'Choice criteria for facilitation techniques', in Seifert, S. and Weinhardt, C. (Eds.): *Group Decision and Negotiation (GDN)*, Universitätsverlag, Karlsruhe.
- Larrasquet, J.-M. (Ed.) (2003) *Gestion des Connaissances -VIIIe Journées de Projectique*, Institut de cognitive, Bordeaux.
- Le Moigne, J-L. and Morin, E. (1999) *L'Intelligence de la Complexité*, L'Harmattan, Paris.
- Linstone, H. and Mitroff, I.I. (1993) *The Unbounded Mind*, Oxford University Press, New York and Oxford.
- Midgley, G. (2000) *Systemic Intervention*, Kluwer/Plenum.
- Miller, J.G. (1978) *Living Systems*, Mc Graw-Hill, New York.
- Moison, J-L. (1997) *Du Mode d'Existence des Outils de Gestion*, Seli Arslan, Paris.
- Morris, C. (1946) *Signs, Language and Behaviour*, Prentice-Hall, New York.
- Popper, K. (1959) *Logik der Forschung*, Springer, Vienna.
- Popper, K. (1963) *Conjectures and Refutations*, Reprint Basic Books, 1962.
- Rosenhead, J. (1989) *Rational Analysis for a Problematic World*, Wiley.
- Sartre, P. (1943) *L'être et le néant*, Gallimard, Paris.

- Seifert, S. and Weinhardt, C. (Eds.) (2006) *Group Decision and Negotiation (GDN) Proceedings*, Universitätsverlag, Karlsruhe.
- Townsend, P.L. and Gebhardt, J.E. (1990) *Commit to Quality*, Wiley.
- Triandis, H.C. (1971) *Attitude and Attitude Change*, Wiley.
- Ulrich, W. (1983) *Critical Heuristics of Social Planning*, Haupt, Bern, Switzerland.
- Vallée, R. (1995) *Cognition et Système*, l'Interdisciplinaire, Limonest, France.
- van Gigch, J.P. (2003) *Metadecisions Rehabilitating Epistemology*, Kluwer, New York and London.
- When, F. (2005) *How Mumbo-Jumbo Conquered the World*, Perseus, New York.
- Wiener, N. (1948) *Cybernetics*, Wiley.

### **Notes**

<sup>1</sup>E.g., believing in something beyond our senses reach.

<sup>2</sup>E.g., believing in a good value of our senses impressions.

### **Website**

ISO/IEC, [www.iso.ch](http://www.iso.ch), [copyright@iso.ch](mailto:copyright@iso.ch).