# Making Sense with Backcasting: the Future Perfect

A creative method and it's backgrounds illustrated through a practical case

#### Marc Tassoul - TU Delft

#### **Summary**

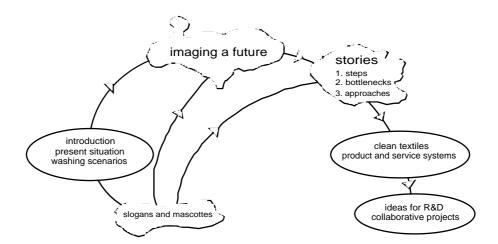
During his work as a creativity practitioner and researcher, the author has developed a Future Perfect approach to achieve a collaborative sense and vision about issues of change.

This article reports the experience of both participants and facilitator in using this process, in a project undertaken to develop new approaches to clean textiles in the context of sustainable development. The process is described in part on the basis of McWhinney's 'Six Systems Model' and Catford and Ray's 'Path of the Everyday Hero'. The experience is then developed into helpful hints for creativity practitioners.

#### The author

The author works at the Delft University of Technology at the Department of Industrial Design Engineering. He is a design mentor and the coordinator of the creative problem solving courses at the faculty. He is also doing a doctoral study on "Making Sense as a Design Discipline".

He is the founder and director of Innovision, a consultancy for creativity consulting and product development. As such, he has been involved in projects which include strategic planning, new business search, technology transfer, vision building and product development.



**The Future Perfect Process** 

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# Making Sense with Backcasting: the Future Perfect

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#### Introduction

On an ongoing path of research and consulting, I have come across a process which shows great potential to achieve a collaborative sense or vision about future developments around some issue: the Future Perfect<sup>2</sup>. In this paper, you will find some of the reflections and insights acquired over time on using this process. It will be illustrated through one particular event where this process was used explicitly to develop a perspective on new technologies to clean textiles.

The paper starts with a description of the project in which this process was used. It will then move to more conceptual considerations on change. This is followed by a 'six systems model' as developed by McWhinney (1992, 1995), which will provide for a map to depict the Future Perfect process in an explicit and insightful way. Once the stage is set, the Future Perfect process will be presented step by step, illustrated with examples from the clean textile project and some of its results. The paper will end with reflections on this project both from the participants and the facilitators, through which potential pitfalls and helpful hints will be developed for facilitators.

# Clean Textiles: a test case for the Future Perfect<sup>3</sup>

The Clean Textile project was initiated by DTO, a Dutch governmental programme aimed at developing methods for technological innovation in order to achieve sustainable development. The program's central methodology is 'back-casting': working backwards from a long term perspective, 40 - 50 years in the future. The DTO program is aimed at exploring methods to help develop technologies and products with a higher consideration for a sustainable world<sup>4</sup>. At the moment, all kinds of scenarios are being developed on the implications of present policy decisions on longer term development of our planet and society, the main consideration being our ever growing population on a 'fixed sized' globe. These scenario's talk of reducing our use of natural resources and pollution to levels varying from one quarter to 1/20 of present levels if we are to garantee some kind of sustainability of our planet. One can argue about these figures, but I assume that everybody will agree that substantial reductions will be necessary. Such changes may delve deep into our habits in terms of beliefs and priorities. For example the ownership of products: do I really want to own the car I am using or could I share 2 cars with 5 other households, thereby limiting the total number of cars being produced and disposed of ? Such

<sup>&</sup>lt;sup>1</sup> A word of thanks to Will McWhinney (Enthusion, Venice CA) for his continuous mentorship and assistance and to Bas van den Broek (student at the Delft University) for reproducing the flip-chart drawings so beautifully.

<sup>&</sup>lt;sup>2</sup> The Future Perfect as described in this paper is an extended version of the Future Perfect as described in McWhinney & McCulley (1993) and Ziegler (1982).

<sup>&</sup>lt;sup>3</sup> This project was initiated by Prof. Philip Vergragt of the DTO program and co-facilitated by Rens Meijkamp and Helga Hohn.

<sup>&</sup>lt;sup>4</sup> For more information on Sustainable Development, you might want to look at Magretta (1997), Hart (1997) and van den Berg & Mooij (1996)

changes delve deep into our habits, values and basic assumptions about wealth, personal expression, indepence and co-operation in communities.

The objective for this particular project was twofold: on the one hand to test methods to work with multi-disciplinary groups in developing ideas for future technologies in the context of Sustainable Development, on the other hand, to obtain useful results in the field of detergents, washing machines, consumer consciousness, etc., in short 'The Future of Clean Textiles'. For the workshop, we invited representatives from various organisations in the field. This included people from the industry, consumer organisations, universities and applied research institutions. As Weisbord (1993, p. 143) puts it: "Get the whole system in the room." We ended up with a group of 25 people working in a conference centre in a park on the border of The Hague at walking distance from the North Sea.

The workshop was planned on a Thursday evening and a Friday. The evening program served three purposes: getting aquainted, presenting the objectives and sharing some expert's views on the subject. In doing so, on the Friday morning we could start with the creative part of the program: generating scenarios through imagery, drawing and other so-called right-brain exercises. The afternoon was spent on 'extracting' more concrete and realistic scenarios on 'The Future of Clean Textiles' and agreeing on the next steps for this project.

It was interesting to see that some preliminary work on clean textiles done by a work-group called 'Friday Washing Day' (ref. Vergragt et al., 1995) from the Delft University, presented on the Thursday evening, got to be criticised by the experts, but it did open up a space for possible outcomes. In fact, looking at the outcome, many of these ideas showed up again in the course of the workshop as valuable options.

The next morning, the group was split-up into 5 smaller groups. This was done to obtain a wider range of potentially useful results, and to achieve a more intense interaction for each participant. This was done by the facilitators on the basis of two criteria: a personality test (the Reality Inquiry, McWhinney & McCulley, 1994) and the idea we wanted 'new teams', in other words, groups of people who hadn't worked together before.

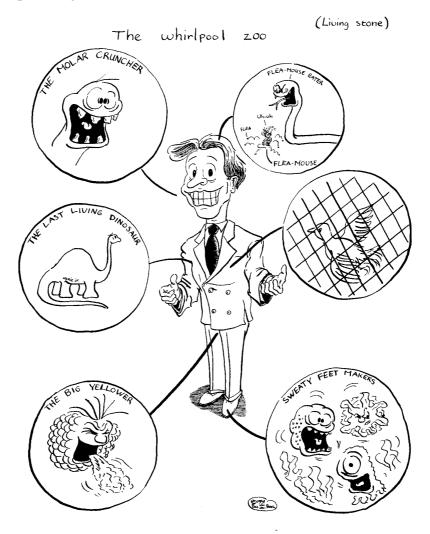
Then, after a warm-up, the group went into a number of imagery exercises, set up around imagining and drawing an animal zoo for the year 2025. Then, they had to imagine how health care was organised for the animals in that zoo. Following that was the actual Future Perfect: the participants had to imagine themselves being in a situation where they had actually realised this zoo (in 2025) and explain to other 'zoo-creating' teams how they had achieved this result. One of the instructions for this speech was that it had to be a story or fairy tale with some heroic features, in other words, they had to share some of the pitfalls they had gone through. And it had to start with: "Once upon a time, in 1995, we did this session in The Hague, and then . . .", thus showing a sequence of events and activities. After each creative step, there were plenary presentations so that each one could have an overview of the ideas 'forming'. This provided for a possibility to 'guide' the flow of ideas and for 'cross-fertilisation' between groups.

The afternoon was spent on coming back from the Zoo fantasy to concretise ideas into concrete plans. Elements from both the Zoo health care system and the stories leading to that system had to be 'force-fitted<sup>5</sup>' back to the original issue of 'the future of clean textiles'. In other words, principles that had been imagined for animal health care and the path leading to this result had to

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<sup>&</sup>lt;sup>5</sup> The 'force-fit' is a procedure used in creative thinking to make connections between some analogy (in this case the zoo) and the original issue: clean textiles. It comes forth from the Synectics procedure (Gordon, 1961).

be translated back into respectively ideas for 'clean textile care' and a path on how this might emerge/develop from our present situation. Simply put, this resulted in 5 scenarios (one per group) around the future of Clean Textiles and, as we found out afterwards, an enthusiastic community of experts, eager to continue this collaboration.



Picture 1: An imaginative animal zoo: a human being

### **Multiple Frames of reference**

Possibly starting with military practice but later on during the industrial revolution, larger organisations have been principally led by splitting up tasks into small controllable units. With today's fall of barriers, in part caused by the availability of modern communication technology, and the enfollowing confrontation with effects of one's dealings, this isolation of departments and specialisations becomes almost impossible to maintain, both in terms of the problems that we face and the tools we need. One has to deal with multiple realities, whether one wants to or not. The engineer developing a new product and then passing it on to the marketeer to solve the sales problem is passé. Co-operation, integration and sharing of ones responsibilities have become a necessity of present entrepreneurial and organisational life.

In 1986, Morgan published a book called "Images of Organisations" in which he demonstrated that different frames of reference (in this case metaphors) lead to different observations, and that each of these frames can be as important or real. In his book, he describes organisations in terms of machines, organisms, brains, cultures, political systems and psychic prisons. With each of these frames showing particular aspects of organisations. A conclusion of the book is that for a proper analysis of an organisation, the organisation should be looked at in a number of perspectives, of course depending on the issue at hand. But no serious analysis should be based on a simple single frame approach.

In the same way as Morgan looks at organisations, issues have to be looked at through multiple frames. As an illustration of a 'multiple-frame approach': during our workshop it became clear that the issues we were looking at could not simply be solved through a technological approach. Societal and cultural aspects have to be taken into account if one wants to obtain useful results on the environmental front.

But also for a society as a whole: we have to deal with short term versus long term choices, ecological issues in relation to economic consequences, ethical and political aspects, etc., etc.. These are all inter-connected. There is no such thing as a 'single frame' approach. Issues dealt with in single frames will almost per definition lead to 'spill-overs' in other words to effects in domains not foreseen, and often unwanted, by the problemsolver.

#### **Paradigms and Paradigm Change**

What Morgan described in terms of metaphors can be applied to paradigms and frames of reference. Kuhn (1970) describes paradigms on the basis of the history of science. He writes of how within one paradigm, a consistent set of rules is formed on 'how to act' within a particular scientific domain. But he also describes how new paradigms evolve, often coming forth from observations that cannot be given sense within the present set of rules. Often at first, these observations are not noticed, or if noticed, they are qualified as non relevant (e.g. faulty measurement). The paradox is that the efforts to make a school of thought consistent and knowledgeable also become the strongholds of that system. It is clear that all kinds of conflicts come to the surface when new systems start to emerge. A well known example is the discussion between Copernicus and the Church about our planet and its place in the universe. If I remember correctly, Copernicus had observed moons turning around Jupiter, concluding that we (the earth) are not at the centre of every object revolving in space. Of course, the church at that time didn't appreciate this proposition: "We acknowledge your scientific efforts, but please don't mess up the system we have so carefully build up over time".

The switch between two paradigms and the subsisting of two paradigms next to each other is often coupled with different groupings in society; this happens in religion, politics, science, etc.. As long as they aren't dependent on one another, they can survive without too much conflict. They can even develop rules to guide interactions, e.g. in a democratic dialogue.

It is different when people from different paradigms have to come up with some consensus or when, within some community, a basic paradigm doesn't provide the means to explain the observed world. A good example of such an event was described by Levitt (1960) in his article Marketing Myopia in which the decline of the American railroads is depicted in the context of rising road and air transportation, where their business definition didn't allow the railroads to see this new upcoming competition.

#### Change and transformation

Unfreeze, change, refreeze, an often cited model for change originally coined by Lewin (1951) provides an excellent basis to develop the subject. Looking at snow crystals, I'm not sure, but I believe there are innumerable variations. Each crystal is different. But within each crystal, one finds symmetry. This would imply that when a crystal is forming, there are rules for water molecules connecting to an existing structure, it has to follow a symmetry. Somehow, at the first formation of a crystal, rules are called up that deny further variation and force new molecules into a particular behaviour. Taking the analogy back to systems and products, this might mean that early on in the formation of a system, the first random events lead to rules that cannot be influenced or changed by later additions. So, to change a system, one would have to break it down to some initial state (liquid or gaseous) before a different system can re-emerge.

Taking this analogy<sup>6</sup> back to the context of creating new meaning, similar processes can be described, e.g. when locating and questioning assumptions. What this does is to make the present situation less obvious or stable. By 'unfreezing' our mental models, we provide a space where new images can emerge, where new and valuable perspectives on an issue may be discovered. I would like to note that to many people, this is not a comfortable place to be in. Leaving behind habitual survival strategies will generally lead to some anxiety which can be both beneficial in terms of motivation, and a nuisance to the process in the sense of not being able to let go. Especially with untrained groups<sup>7</sup>, this effect has to be taken into account. But in any case, attention has to be put into creating an atmosphere of trust.

One should also look at so-called 'right brain' activities, e.g. metaphors and analogies, drawing, imagery, story telling, etc., actually techniques we used as children but often forgot once reaching adulthood. Children spend a great deal of their time learning, exploring, experimenting, most of it through play. And it is through play that one finds the relaxation, an inhibited approach and the flexibility to experiment and discover, and acquire and accumulate successful behaviours and knowledge. It is in play that we take initiatives without trying to figure out beforehand whether that initiative is right or wrong. We will find out along the way.

The moral of these paragraphs is that successful change might be dependent on having some alternative space where ideas can be 'unfrozen' for some length of time, to permit the emergence of new images, new connections, separate from the battered trails of our habitual thinking patterns.

To integrate some of the ideas presented above, I would like to add a model on change as described by Catford and Ray (1991) which provides important additional insights on the 'snow-flake change process (see fig 1).

The path starts with innocence. One feels comfortable with the situation, there is no need to do anything. At some point, there may be a call, one recognises a challenge, or some problem appears. By delving into it, we get familiar with the subject, we start to understand where the challenges are, it is a time of setting oneself open, to let go of earlier assumptions. At some point, we start to make connections, we find allies, both in people and in theories. In the meantime, in parallel with this initiation and the finding of allies, an hypothesis<sup>8</sup> may form about

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<sup>&</sup>lt;sup>6</sup> later on in the text, I will refer to this perspective as the 'snow flake analogy'

<sup>&</sup>lt;sup>7</sup> by 'untrained group' I mean groups of people not familiar with creative activities, a.o. with the frustration that can precede some creative breakthrough.

<sup>&</sup>lt;sup>8</sup> the word hypothesis is used instead of 'idea' because the AHA or creative breakthrough can happen in terms of

the issues we are dealing with, sometimes in the form an 'AHA erlebniss'. The breakthrough, in this model, happens when one discovers the idea really does work in the world.

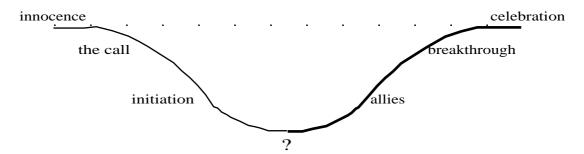


Figure 1: The Path of the Everyday Hero (ref. Catford & Ray, 1991)

This is an inhabitual way of looking at the AHA and the breakthrough as much of the literature on creativity deals with these two terms as being one. I suppose this is due to the fact that this literature is often limited to the conceptual activity of generating ideas and doesn't deal explicitly with the realisation of an idea. In this model one can see how there is a breakthrough in the forming of an idea or gestalt, yet vague, but of which one has the feeling it might work, and at a later stage, another breakthrough when finding out that this (at first hypothetical) gestalt really gets you to a useful outcome.

The final stage on this path, the celebration, is what one might call the symbolic return home, in a new state, a new being which has left behind its previous habits, providing for a myth of origin as the foundation for a newly formed system.

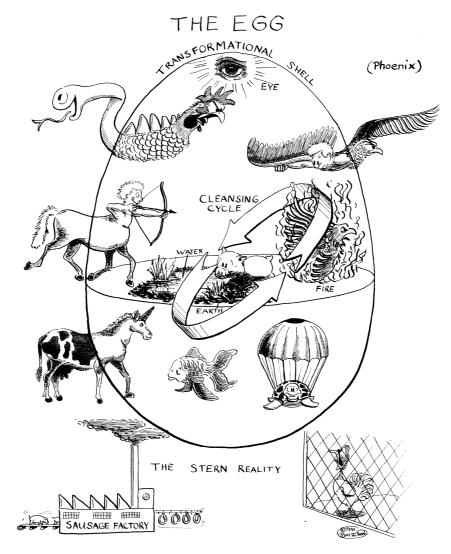
In this context I'd like to cite Teilhard de Chardin in The Divine Milieu (as referred to by McWhinney, 1992):

"And so, for the first time in life perhaps (although I am supposed to meditate every day!), I took the lamp and, leaving the zone of everyday occupations and relationships where everything is clear, I went down into my inmost self, to the deep abyss whence I feel dimly that my power of action emanates. But as I moved further and further away from the conventional certainties by which social life is superficially illuminated, I became aware that I was loosing contact with myself. At each step of the descent a new person was disclosed within me whose name I was no longer sure, and who no longer obeyed me. And when I had to stop my exploration because the path faded from beneath my steps, I found a bottomless abyss at my feet, and out of it came - arising I know not from where - the current which I dare to call my life.

Stirred by my discovery, I then wanted to return to the light of day and forget the disturbing enigma in the comfortable surroundings of familiar things - to begin living again at the surface without imprudently plumbing the depths of the abyss. But then, beneath this very spectacle of the turmoil of life, there reappeared, before my newly opened eyes, the unknown that I wanted to escape. This time it was not hiding at the bottom of the abyss; it was concealed beneath the innumerable strands which form the web of chance, the very stuff of which the universe and my own small individuality are woven."

an idea, but also in terms of reframing the problem, or finding more useful perspective on some issue.

I would see this process as an extreme form of 'going back' to an unformed stage, where all external habits have been disentangled, where the darkness, the nudity are faced, and then coming back to the surface, a new essence at the nucleus, leading 'unconsciously, as by magic' to new external forms.



Picture 2: An animal zoo as a transformational experience, a place and time where you can be your mythic self

### **McWhinney's realities**

The models we have at our disposal to explain processes and interventions often do not permit the explanation of what we intuitively feel or guess is right. We name it experience, intuition, or use phrases such as 'if you get my point'. In his book 'Paths of Change' (1992) and in later work (1993, 1995), McWhinney has developed a model based on the premise that processes of change move through different realities, each with their particular aspects of importance.

McWhinney describes how change processes as found in myths, history and in present political and organisational life can be looked at as moving through this 'space' which can be divided into

four realities: sensory, unitary, social and mythical. Next to a number of smaller paths, two major paths are described: a revitalisation path and a renaissance path.

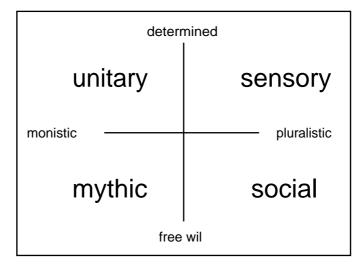


fig. 2: McWhinney's realities

The first one, revitalisation might be presented as "what are we on about?", going back to the first principles of an organisation. As McWhinney states: "It may begin with an effort to recover the radical, core belief or with insisting on an expanded interpretation of the maintained truths". Once this 'essence' is reactualised, It moves to convincing others in the organisation about the importance of that core belief. The top-down approach of management is a good example of this path.

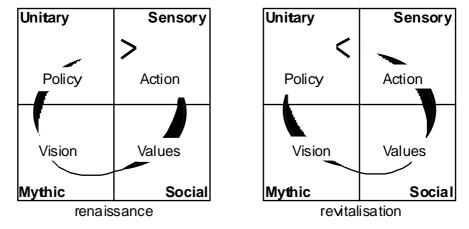


figure 3: Renaissance and Revitalisation

The second one, the renaissance path deals with the setting of a new system, a complete turnaround of an organisation or system when the old state can no longer be maintained, when the old meaning systems have lost their 'power of integration'. The diagram in figure 3 shows the consecutive phases when going through this process. The first steps consist of evoking individual values and visions in the social reality after which a shared vision is created in the mythic reality.

A new meaning system starts to form on the basis of which more concrete actions and strategies can start to grow. This phase of establishing takes place in the unitary reality. The habitual procedures then take place in the interaction of rules and agreements (unitary) versus observation of the world (sensory).

The choice for one or the other path and the scale in which it is to be followed through depends in part of the loss (or change) of the existing culture and the appearance of fundamental dysfunctions in meanings that are normally not confronted in daily routine. The existing structures and cultures form a façade for the lack of meaning which is often hidden behind. Without a clear image of a path of resolution, it can be recommendable to choose the existing hell above openly dealing with some anomaly. The theory of paths provides a means to depict a course, but one should never forget the courage needed to choose a particular path and follow it through (McWhinney, 1992).

#### **Future Perfect**

When we look at stories as that of Jules Vernes: "Voyage into the moon" it will be clear that it doesn't look at all like the Apollo 11 trip. But that doesn't take away the fact that next to making such a venture imaginable, the actual fact of sending human beings to the moon, a number of aspects were explored and elaborated into quite realistic forms. And there are other examples, Aldous Huxley, George Orwell, etc. To a more or lesser degree, we can date these works, but they contain surprisingly good descriptions and elaborations of future events. What counts is that through these works of art, a first notion is formed of what might be possible at some point in the future. This is exactly what is attempted through the Future Perfect process: to generate images that will guide our efforts in terms of possibilities, principles, priorities, etc. without necessarily being an exact description of things to come. The term 'Future Perfect' is normally used as a grammatical tense indicating that some action will have been accomplished before some point in the future. Examples: "I will have finished this paper before April 15", or "This time next year I will have collected enough empirical data to demonstrate the effects of using the Future Perfect." This principle of the Future Perfect tense can serve as a starting point for a creative process.

There are different ways to go at it. In the version described by Mcwhinney & McCulley (1993) participants put themselves somewhere in the future and create a story how they got to where they are. They start the story with the session and then each participant, in turn, makes up story lines about events and actions as they develop over time till the point in the future where they are 'now'. In this procedure, participants don't know beforehand where the story will lead to, there is no 'a priori' image of some future state they have to reach. In doing so, the participants have to concentrate on initiatives they take themselves; miraculous events such as, ". . . and then, with no apparent reason, Management gave us a huge budget, so that we were able to . . ." are not permitted. If the process is done properly, participants will feel empowered to take action and some initiatives will actually just 'happen' without reference to the session. The course of action has become reality 'as if by magic' (see above Teilhard de Chardin).

In this project an expanded version was used. Where the original version works in the expert domain<sup>9</sup>, in this version, a future state and a path leading to that state are first developed through analogy. Afterwards, principles discovered in this analogy are force-fitted back to the issue.

At this point, I make a distinction between two domains from which to look at the world, one being the literal 'expert' domain with its jargon and skills, and implicitly, with the habits, values, criteria and thinking

One of the reasons for using this expanded version was that we wanted to avoid generating 'more of the same' kind of ideas, we wanted to, at least temporarily, move away from the expert domain, thus permitting more really new ideas to emerge<sup>10</sup>. In fact, what we did was to combine the Future Perfect with a Synectics (ref. Gordon 1961) approach.

With this in mind, we see the following process taking form:

- experts on the present situation, their views on the issue, an inventory of expectations, etc..
  In other words, build a shared understanding on the subject by sharing each other's
  perspectives.
- 2. a creative phase, with the Future Perfect, with metaphors and analogies, first in an initiative to let go of the familiar, and secondly, to provide a language (or space) in which new principles can emerge and become 'obvious' approaches to the issue.
- 3. a translation of the metaphorical images into concrete solutions and actions.

#### Elaboration of the process

Taking the Realities (figure 2) into consideration and the Renaissance Path (figure 3) as it moves through the Realities, the following steps were defined:

0. Introduction

A warm-up, getting to know one another, building trust, inventorise expectations and provide an image of the process that awaits the group;

- 1. Analysis of the issue (Unitary --> Sensory)
  - What do different experts say about the issue, what has already been done and achieved in this respect, formulating problem statements and finding an agreement on the objective for the workshop with the whole group;
- 2. Individual values and preferences in connection to the issue (Sensory --> Social)
  - what do you personally find important / of essence?
  - what do others think is important?

acknowledgement of these different sets of values and priorities

- 3. A synthesis between these different sets of values through analogy and metaphor (Social --> mythic)
  - This is mainly a 'right-brain' exercise: imagination, fantasy, metaphors, analogies, drawing and storying are the common activities.
- 4. Force-fit of these (Mythic) images back to a realistic approach or plan (Mythic --> Unitary) This is the hardest creative act throughout the process. Useful principles are to be recognised and force-fitted back into realistic options or concepts. Deferring judgement and thinking in terms of possibilities is essential at this point.

patterns that come with the trade, it is goal oriented, overseeing consequences, politically correct, etc.,and another domain which is more intuitive, where analogies and metaphors play an important role, where play and fun 'lure' the participant into 'being in the moment', in other words, to facilitate a state of 'suspension of disbelief'. Put simply (but arguable): a left-brain and a right brain approach.

with reference to the earlier described snow flake analogy, in which the solid and the liquid state stand for respectively the expert domain and the fantasy domain.

At this stage ideas are like little seedlings, in need of great care, the tendency is to go back to an habitual expert style - keep that atmosphere of playful experimentation going: 'What if . . .?' and 'How could we improve this ?' It is a phase of hypothesis formulation, not one of testing!

- 5. Take decisions, defining a list of actions (establishing in the Unitary)

  Although expertise is important throughout the process, in this phase, the experts are essential to assess ideas for their potential (but giving ideas the advantage of the doubt) to find out or develop ways on how to make these ideas real, in terms of content and in a social context (political and budgeterial frames) and finally to establish some kind of consensus and defining action plans.
- 6. Reflection with the group on the process and the results

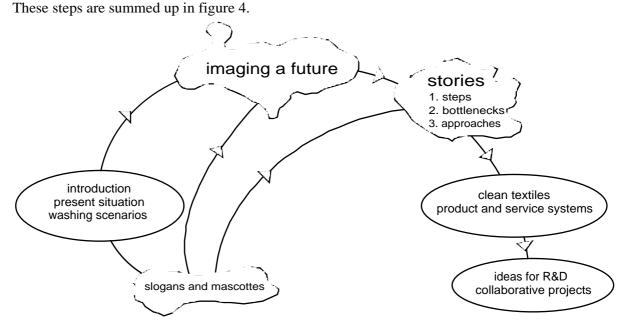


Figure 4: The Future Perfect

#### Some results<sup>11</sup>

It is not easy to summarise the outcomes of the workshop. A division in product oriented innovations, process innovations and cultural changes did not serve as a guideline in advance, but turned out to be useful as a framework in which the main results can be clustered. The groups paid a lot of attention to the strong entanglement of product, process and culture. Especially the possibility of new relations between textile-technology, function and design of clothing and alternative washing methods were discussed.

These ideas are meant as illustrations of possible outcomes. It is not a full report of results. These were presented in van der Wel's contribution 'Results of the Workshop "Washing Services" in Vergragt et al. 1995.

Some examples of potentially successful developments:

- new textile technologies: to prevent dirt from attaching to textiles, special fibre coating should be developed. Fibre coating can also speed up the time required for drying, which can save considerable amounts of energy.
- it is worth considering the use of disposable textiles for clothes with a high washing frequency, e.g. underwear.
- the use of detachable garments to separate often washed parts from less critical parts from garments
- a distinction between different functions: the expressive function could be taken over by ornaments, jewelry and accessories.
- better climate control in buildings, this reduces the need for insulation, various ideas to diminish the amount of clothes needed
- bacteriological washing leading to the 'bacteriofaghus': in a laundry-closet bacteria eat, so to speak, the dirt out of dirty laundry.
- the time clothes wait in the laundry basket is made productive by enzymatic soaking and prewashing.

Next to these technology and product ideas, many suggestions were made on process innovations and cultural change, e.g.:

- by characterising textile as personal (a dress, for instance) and non-personal (sheets, towels), one can choose to keep the small, more expensive laundry at home in a smaller or simpler process. The other laundry is handled by specialised companies as a washing service.
- \* washing seems to fulfil not only a material need but perhaps also a ritual and symbolic need, understanding these might help reduce the frequency of washing garments, e.g. Is it necessary to always wash 'whiter than white'?

This is only a subset from the ideas resulting from the workshop, not to mention other effects such as an understanding of each-other's perspectives on such an issue as 'clean textiles'. Some of these less explicit effects are described in the following paragraphs.

## Evaluation on the basis of comments from the participants.

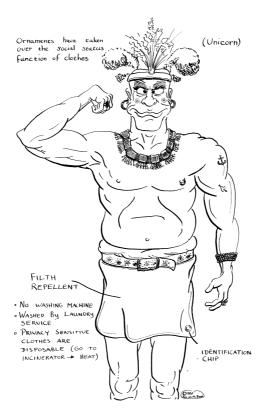
At the end of the session, the participants were asked to make a short evaluation of the workshop on the basis of

- 1. What is good about it?
- 2. What would you improve? and
- 3. What are you taking with you as an important learning?

Apart from some remarks on the location (low budget), all the participants indicated that they went through a very worthwhile experience in developing new perspectives on the future of "Clean Textiles".

A very positive general comment was on the quality of the group. Here we had a multidisciplinary group of representatives from a wide variety of organisations in the Netherlands listening to one another and sharing their views on the subject, with some restrain on information with a competitive or strategic content, but overall in great openness. Interacting with one another provided an important opportunity to meet with people from other organisations in a collaborative atmosphere, getting to know one another, whereas in other circumstances, such quality of meeting is seldom realised.

The technique used, the Future Perfect, was also evaluated as a very positive exercise, both in terms of process and interaction as in terms of results. The opportunity to share different views on the subject, with an emphasis on values and possibilities, seems to be part of this positive evaluation.



Picture 3: What we might look like in 40 years time? minimal clothing, jewelry for personal distinction

Some of the participants noted that more time should have been reserved to come back from fantasising (letting new perspectives emerge) into the reality of one's priorities and agendas.

The "What next?" question is mentioned in some of the evaluations. It is not clear yet, both to the participants and to the organisers what the next steps should be. A dilemma is that the quality of the content result is partly due to the non-preconceived ideas about these results. Participants allowed themselves to be taken into a process and, in a trustful atmosphere, accepted the emergence of new perspectives. This aspect of 'suspension of disbelief' seems to be an important condition to have experts get into new, inhabitual approaches to an issue.

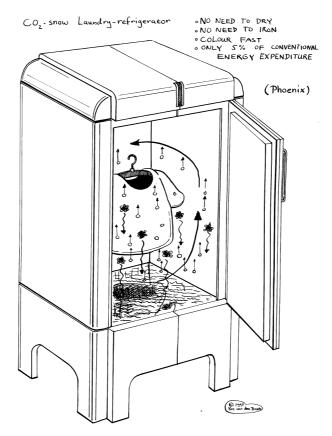
It would seem that a process like this frees a lot of energy and enthusiasm from the participants. The readiness to partake in following steps is obvious. How this should be done is not clear yet, maybe just by setting a new date with the group to talk about what would be worthwhile developing on the basis of what we have: a (starting) community of different disciplines, all in the field of 'clean textiles', a shared experience of a process in terms of an initiation, and a number of scenarios and visions that should be of help to guide our efforts.

### Learnings and recommendations for facilitators

The workshop is built up of a number of different activities each with their particular work style, respectively expertise, fantasy, through design and planning, back to expertise. In practice, the switch between one style of activity and the next can be hard to achieve. For example, when switching from expertise to fantasy, suddenly there are no limits, everything is possible, we go exactly against an expert's work style.

In the case of this particular workshop, we did the expert's step the preceding evening, so the next morning we could start fresh with our excursions. In other words, the switch was made in a natural way.

More pitfalls lye on the path: at some point, we need to come back from fantasising to destillating useful principles and integrating these into our design or 'force-fit'. This part is tough for untrained participants. Only after one has done this successfully a couple of times, one becomes familiar with this technique. It will always be hard to do, but one learns that it always works (it works because you believe it works).



Picture 4: One the the more concrete ideas: the 'Frige-O-Mat'

Another pitfall has to do with the translation of ideas into concrete action plans. Next to the fact that the participants have already spent lots of energy into a creative excursion, one suddenly comes back into the daily practice of agendas, priorities, personal consequences of particular plans, etc. The group can then easily block if the conditions for the workshop have not been set right (e.g. trust and shared ownership). One should try to stay away from 'standard meeting

procedures' and politics (i.e. influencing each other's values and priorities) as this might take the group away from consensus.

If during the different phases of the process, different sets of conditions are in order, in general terms, the following list of recommendations applies most of the time:

- 1. work to obtain an atmosphere of openness, trust and playful learning and discovery;
- 2. keep a balance between active input and passive listening for participants in the group;
- 3. lots of air, light, short brakes and movement;
- 4. provide a possibility for each person to express their 'personality', e.g. let experts be experts once people have been allowed to demonstrate their selves to themselves and to others in the group then participants will more easily suspend judgement and accept moves to new, unfamiliar domains;
- 5. provide information on the process and the kind of results that might be expected. This is somewhat paradoxical, as one doesn't want to lead participants to pre-established ideas. During this workshop, we presented a number of solutions (scenarios) prepared before the workshop. The experts criticised these, but at the same time got an idea of what might be expected. In other words: an image within the expected solution-space is provided and at the same time, through the opposing action, the content is 'broken down'. Afterwards, we did see ideas similar to the ones proposed, but these were newly generated by the participants. The idea is that the participants should be able to trust the process for a useful outcome, whatever that may be-come.
- 6. as social scientists might tell you, the facilitator has a key role in the process. The state of mind of the facilitator is reflected back by the group. In other words: the dynamics of the group will find a basis in the facilitator's demonstration of integrity, trust and creativity.

#### **Concluding remarks**

Special approaches (processes and interventions) are needed when systems become obsolete, when the meanings that served to maintain and explain a system in a particular context cannot keep that system together any longer, e.g. in this case, systems that provide for the function of "clean textiles" in the context of changing environmental needs and the concept of sustainable development.

Having to deal with the need for new solutions and the letting go of old habits make it a hazardous experience for the various parties in such a field. Politicians, experts, managers, consumers, users and entrepreneurs, all have their habitual ways to act within a particular context, and till then with success. But under changing circumstances, the rules of the game change, even the games themselves, and the reasons why we play these games sometimes become obsolete.

An approach to deal with an event like this is to create a space in which participants from different disciplines find the courage and the trust to 'suspend disbelief' to let new meanings and paths emerge. An effect of the future perfect process is that the participants will recognise themselves in the results, and through these, develop a sense of ownership, thereby improving the chance of a successful implementation.

Dealing with pluriformity and complexity is one of the important challenges in today's society. To develop processes that make it possible to develop shared visions in this context is an important challenge for process consultants. The Future Perfect looks to be one of these.

### **References**

- Bateson, Gregory (1972) Steps to an Ecology of Mind, Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology, Jason Aronson Inc., Northvale.
- Bergh, J. van den, and R. de Mooij (1996) Economische Groei en Milieubehoud: Visies vergeleken, Milieu, The Netherlands.
- Buijs, Jan (1992) Fantasies as Strategic Stepping Stones: from Swot Analysis to SWOT Synthesis, in: Creativity and Innovation: Quality Breakthroughs, ICG, TNO, Delft, The Netherlands.
- Catford, Lorna, Michael Ray (1991) The Path of the Everyday Hero, Drawing on the Power of Myth to Meet Life's Most Important Challenges, Jeremy Tarcher, Los Angeles.
- Clarck, Kim B. & Takahiro Fujimoto (1990) The Power of Product Integrity, Harvard Business Review, Nov-Dec..
- Feldman, David Henry, Csikszentmihalyi, Mihaly, Gardner, Howard (1994) Changing the World, A Framework for the Study of Creativity, Praeger, Westport, USA.
- Foster, Richard N. (1986) Innovation, The Attacker's Advantage, Summit Books, New York.
- Frankl, Victor E. (1959) Man's Search for Meaning, Washington Square Press, New York.
- Fritz, Robert (1984, 1989) The Path of Least Resistance, Learning to Become the Creative Force in Your Life, Ballantine Books, New York.
- Gordon, William J.J. (1961) Synectics, Harper and Row, New York.
- Hart, Stuart L. (1997), Beyond Greening, Strategies for a Sustainable World, Harvard Business Review, Jan-Feb.
- Hicks, Michael J. (1991) Problem Solving in Business and Management, Hard, Soft and Creative Approaches, Chapman & Hall, London.
- Kolb, D.A. (1976) Management and the Learning Process, California Management review, XVIII, no.3.
- Kuhn, Thomas S. (1970) The Structure of Scientific Revolutions, Second Edition, Chicago Press.
- Land, George & Beth Jarman (1992) Breakpoint and Beyond, Mastering the Future Today, Harper Business
- Levitt, T. (1960) Marketing Myopia, in: Harvard Business Review, July August.
- Lewin, Kurt (1951) Field Theory in Social Science, Harper and Row, New York.
- Magretta, Joan, (1997) Growth through Global Sustainability, An Interview with Monsanto's CEO, Robert B. Shapiro, Harvard Business Review, Jan Feb.
- Martin, John N.T. & Jane Henry (1990) Problem Solving by Manipulation of Imagery, in "Creativity and Innovation: Learning from Practice, Innovation Consulting Group TNO, Delft, The Netherlands.
- May, Rollo (1975) The Courage to Create, Norton, New York.
- McWhinney, Will (1992) Paths of Change, Strategic Choices for Organizations and Society, Sage Publications, Newbury Park.
- McWhinney, Will, Eleanor McCulley (1993) Creating Paths of Change, Enthusion, Venice, CA.
- McWhinney, Will, (1993) All Creative People are not Alike, in: Creativity and Innovation Management, Vol. 2, No 1, pp 3 16.
- McWhinney, Will (1995) The Matter of Einstein Square Dancing with Magritte, Paper presented at the VUB conference 'Einstein meets Magritte' in Brussels.

- Morgan, Gareth (1986) Images of Organizations, Sage Publications, Beverly Hills.
- Nolan, Vincent (1989) The innovator's Handbook, Problem Solving, Communication and Teamwork, Penguin Books, London.
- Parker, Marjorie (1990) Creating Shared Vision, The story of a pioneering approach to organizational revitalization, Norwegian Center for Leadership Development, Norway.
- Sandner, Donald (1979) Navaho Symbols of Healing, A Jungian Exploration of Ritual, Image & Medicine, Healing Arts Press, Vermont, USA.
- Schön, Donald, A. (1983) The Reflective Practitioner, How Professionals Think in Action, Basic Books, Harper Collins.
- Schön, Donald A. and Martin Rein (1994) Frame Reflection, Toward the Resolution of Intractable Policy Controversies, Basic Books, Harper Collins.
- Senge, Peter, M. (1990) The Fifth Discipline, The Art & Practice of The Learning Organization, Doubleday, NY.
- Schein, Edgar, H. (1991) Organizational Culture and Leadership, Jossey-Bass Publishers, San Francisco.
- Schein, Edgar H. (1987) Process Consultation, Volume II, Lessons for Managers and Consultants, Addison-Wesley, Reading, USA.
- Schein, Edgar H. (1988) Process Consultation, Volume I (2nd Edition), Its Role in Organization Development, Addison-Wesley, Reading, USA.
- Sievers, Burkhard (1984) Motivation as a surrogate for meaning, Arbeitspapiere des Fachbereichs Wirtschaftswissenschaft der Bergischen Universität Gesamthochschule Wuppertal, Germany.
- Sievers, Burkard (1994) Work, Death and Life Itself, Essays on Management and Organization, de Gruyter, Berlin.
- Tassoul, Marc (1994) A Session that Made Sense, in "*Creativity and Innovation: The Power of Synergy*", Fourth European Conference on C&I, Geschka & Partner, Darmstadt, Germany.
- Tassoul, Marc (1994) bookreview "Creating Paths of Change, Strategic Choices for Organizations and Society", Will McWhinney, in: *M&O*, *48ste jaargang*, Nov Dec.
- Tassoul, Marc (1997) Making Sense of Design, in "*IMPACT*", the Fifth European conference on Creativity and Innovation, EACI, The Netherlands.
- Vanosmael, Pros and Roger De Bruijn (1990), Handboek voor Creatief Denken, DNB/Pelckmans, Kapellen, Belgium.
- Vergragt, Philip, Marjan van der Wel, Rens Meykamp, Marc Tassoul (1995) Involving Industry in Back-Casting Scenario Building, 4th Greening of Industry Conference, Toronto, Canada.
- Vroom, Piet (1989) De tranen van de krokodil ("The tears of the Crocodile"), Ambo, Baarn, The Netherlands.
- Weisbord, Marvin R. (1993) Discovering Common Ground, Berret Koehler Publishers, San Francisco, USA.
- Ziegler, Warren L. (1982). A Mindbook of exercises for Future Invention. Future Invention Associates, Denver, USA.