

The Modern Art of a Dialogue on Environmental Risks

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Abstract

The implementation of high-tech systems like genetic engineering plants, nuclear facilities or large scale chemical installations demands a multidisciplinary approach, a consideration of all aspects of danger and an open discourse of potential risks. In the case of environmental matters involving the general population, all the steps from planning, design, implementation, start up and monitoring have to be carefully assessed. Coping with risks necessitates overcoming the lack of communication and understanding between different disciplines and groups in pluralistic societies and their specific idioms. Therefore a professional risk discourse has to be established, in which all concerned groups have to be integrated. A prerequisite for the conducting of such risk discourse is the training of all participants in the mechanisms and rules of proper communication, i.e. in: problems of language, meaning of words, perception, repression; the emotional personal message; empathy, congruence, acceptance; active listening; body language and social surrounding. Only then can the discourse begin properly. First comes a phase of chaotic search, where all the participants have the right and the chance to express their feelings and opinions freely and openly to the problem. Then the expressed risks are structured and evaluated. After that the main problems are focused upon. Finally a strategy for coping with recognised problems has to be developed. The more complex the cluster of problems and risks, the more important the process of communication is.

1. WHY DO WE NEED RISK DISCOURSES ?

In the last 10 to 20 years of industrial development a large number of small scale and several big scale events or catastrophes has startled the public due to hidden risks. Therefore the implementation of high-tech systems like genetic engineering plants, nuclear facilities, or large-scale chemical installations demands a multidisciplinary approach, a consideration of all aspects of danger and an open discourse of potential risks. Within companies but also between companies and different public interest groups such dialogues about risks should indeed take place before any realisation of proposed projects (ref.1).

In a small pilot group at the Federal Institute of Technology in Zurich we were working very successfully with such a concept.

2. TYPICAL SITUATIONS WHERE RISK DISCOURSES ARE NECESSARY

And now from my own personal consulting practice I would like to give you three examples which demonstrate the necessity of risk discourses.

a) A big fire in one of the factories of a large Industrial Group, caused a damage of about 30 mio \$. For marketing reasons the production plant had to be reconstructed as soon as possible. Being involved as a consultant in risk management affairs in another branch of this Group, I was asked to assess the damage, to find the reason for the outbreak and the late detection of the fire. Already after a short analysis I detected severe mistakes in the safety-concept so that I recommended doing a detailed study of the technical and organizational problems in that plant. I was backed by the corporate Risk Manager. But the responsible management of the damaged factory pushed to start the rebuilding immediately. A full assessment of the risk situation was

therefore neglected. The management considered only the specific technical problem, which led to the fire, without reviewing the existing safety concept. From my point of view the main obstacle for this inappropriate handling of the rebuilding concept was due to the lack of communication. Unfortunately the corporate risk manager was not placed in an adequate hierarchical position to force the risk discourse.

b) In a food processing industry, the newly elected management decided to elaborate a risk management concept and to realize a bulk of measures to improve the safety situation in the company. The supervisory board refused the concept out of a superficial study of the composed work. They denied the risk situation of the factory and the need of the proposed measures without listening to the reasons for the proposals. Shortly after this decision the big disaster of Schweizerhalle (Sandoz) happened. This event caused a reframing of the awareness and awakened the supervisory board. The board now underwent a change of opinion and decided to check previously proposed measures immediately. They concluded that the risk management concept and the whole package of measures, they had first denied should be realized as soon as possible. This also included a risk discourse at all management levels. This case shows that the awareness of the supervisory board towards the risk situation in the factory is more dependent on external events than on the really existing risks. Therefore a risk discourse within the supervisory board where the real risk situation is being discussed should take place before far reaching decisions on a proposed concept.

c) In another food processing company the realisation of a storage concept for chemicals had to be planned. I was engaged to work out a safety study for this concept. In the first step of this project the employees in charge of the chemical storage opposed my detailed proposals. They argued that even a big chemical company did not take into consideration as much care as I demanded in a recently realized similar project. Only because the managing board followed my recommendation, out of awareness of marketing consequences in case of a disaster, to undergo appropriate risk discussions were the employees finally convinced to implement the proposed measures. Through their integration in the decision making and the open discourse on the risks they realized the concept accurately.

3. PRINCIPLES OF COMMUNICATION

The elaboration of risk concepts consists of two main parts. One is the cognitive side concerning technical/organisational matters, the other is the emotional side dealing with communicational/psychological aspects. These two parts have to go hand in hand. The technical-organisational part is not the subject of this report. Of course it has to be studied carefully. Before starting a risk dialogue the involved people have to be motivated and trained in communication skills. In the following paragraphs I will indicate and explain some very important principles for communication and dialogues (ref. 2).

a) Babel Syndrome

As every scientific field has developed its own language and values, every expert speaks in his own language with very specific terms. This easily leads to the Babel Syndrome. No one understands the idioms of the other and the different connotations of the same word may lead to complete misunderstanding (ref. 3). Therefore the experts of a risk dialogue coming from different fields should be trained to express themselves in a language understandable to all participants. I am aware this is not an easy process and it demands a specific training: The linguistic, social and psychological difficulties have to be uncovered and made aware.

b) Perception and repression

The perception of any risk is highly dependent on the personal position in the enterprise, the personal experience (ref. 4) and the point of view of the observer. (e.g. An astronaut and two lovers on a romantic evening walk will see the moon in a very different way.) Human beings also tend to repress negative experience in different ways and therefore obvious risks can be denied even though the respective person should recognize them (ref. 5). This has to be considered and respected by the members of a dialogue group, without expressing negative feelings when they discover the above mentioned effects.

c) Acceptance, congruence and empathy

The communication in a group can only be successful and open if all members have the feeling to be accepted, if the communication is honest and if personal feelings can be expressed and will be respected (ref. 6). Under such conditions it will be possible that so called "I-Messages" can be expressed (ref. 7) e.g. "I am afraid or I am anxious that the speed of realisation of this project is too fast, so that many important details may not have been analysed sufficiently, which may lead to very dangerous situations."

d) Active Listening

Active listening is more than just to be present and to listen superficially to what the partner says, and hanging on to his own thoughts. Active listening is a highly active participation in the communication, I observe my partner, I accompany his words in an empathic way. It includes to encouraging the other group member to express his feelings. e.g. "What did you mean by the remark, you gave me too much work?"

e) Body Language

By observing the body language of my partners, I get a lot of information about the feelings and thoughts of the participants. Especially if the body language and the words do not coincide I should be warned and therefore try in an empathic way to find out the discrepancy.

f) Social Environment

Within the communication of a discussion group the social environment of each member plays an important role (family, company, social level, union, race, etc.). The participants are not free, they know about the expectations of the group they represent, the wishes of the family etc. (ref. 8). So it can happen that a discussion partner personally could agree with a proposed solution to a problem but he never had the courage to propose it to his social surroundings. Also this aspect has to be respected.

Only if the participants of a risk discourse are trained in the mentioned and some other important principles of communication and if they have really internalized them will it be possible to entertain the risk discourse openly and the hidden obstacles of the study case can be discovered and properly dealt with (ref. 9).

4. AN EXAMPLE OF A SUCCESSFUL APPROACH

The board of directors of a large engineering company decided to do a complete assessment of risks in all their activities. The managing director was aware that a successful risk-analysis is only possible, when an open and transparent communication between the different departments and their representatives is established. Therefore communication training and conflict-management exercises were integrated in the proceeding of the project, which finally consisted of the following steps.

a) The whole management of the company involved in the project was trained in the above mentioned principles of communication and the rules of group-dynamics. In a seminar of 3 days in a remote area in the mountains the participants first learnt the theory and then practised it in many exercises and finally in group dynamic sessions, so that good communication became part of them.

b) Over a period of six weeks the risk auditing including profound interviews with the responsible managers took place. A complete report of the risk situation (Building, production, organisation, future plans) was worked out. During the interviews I became aware of many hidden conflicts and different views of the risk situation

c) After the risk auditing a further 3 day seminar took place. Again in a remote place where no one could escape from the group, the responsible management was trained in conflict theory. Here they learnt to deal with problems they were occupied with. In a phase of chaotic search, all the participants had the right and the chance to express their feelings and opinions freely to a conflict in a way of a "Rogerean" encounter group. The variety of opinions was collected, structured and finally evaluated. After that the main problems were focused upon. Finally a strategy to cope with the considered problems was learnt and applied.

d) The risk-management team then had the necessary emotional know-how to deal with the problems that would come up during the risk evaluation session. All registered risks during the auditing and interview session in the different departments had to be presented in the risk-evaluation meeting to the risk-delegates of the whole company. Every risk-management team member had now the duty and right to express his perception to the considered risk. After that process the risk was viewed in all his complexity and perspectives. From now on a realistic evaluation of the risks according to the above mentioned method was possible. To every risk which was not tolerable out of costs/benefits considerations (ref 10) or of possible big danger the problem was given to the relevant manager to work out measures to reduce the risk to an acceptable danger.

e) In a next session the elaborated measures for risk reduction were evaluated again according to the above mentioned method.

f) In a last seminar of three days the human conflicts during the process were elaborated. Especially power problems between the different managers and departments were openly discussed and explained according to the psychotheory and models of Alfred Adler. Even though it was not possible to reach a complete agreement in every point, it was possible to understand and to respect one another, as well as to be aware of the whole risk situation in the company.

CONCLUSION

A risk-dialogue within a company has to be based on a precise technical and organisational risk-analysis on one side and an appropriate handling of the communication and the conflicts in the participating group. This approach can also be used in a modified form for risk-dialogues in public about critical projects with potential environmental risks. The different interest groups have to choose their delegates for this discourse. All the delegates form the dialogue group which has to go through the same training and process as mentioned in the example of the engineering company before. Instead of detailed risk-analysis in a factory, in such a group a detailed information about the potential risks in the project has to be explained accurately to all members. I want

to stress again, that it is essential to train the delegates in communication skills before the onset of the discussion of the project.

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