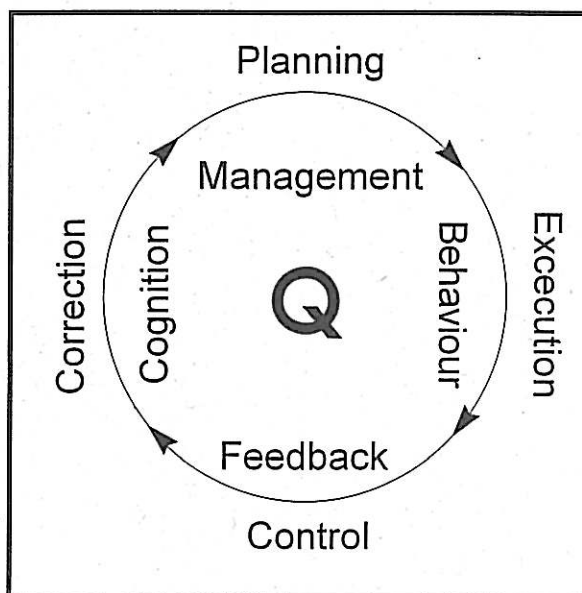


Kristin Hedenstad and Bjørn Otto Meyer

Establishing a Quality System

Pitfalls and psychological problems



NBI

Norwegian Building Research Institute

Kristin Hedenstad and Bjørn Otto Meyer

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Kristin Hedenstad and Bjørn Otto Meyer
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Pitfalls and psychological problems

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Preface

"Quality Management: A Challenge to the Building Industry", published by the Norwegian Building Institute in 1989 described the methods and aids for establishing quality management in building and construction companies. The Institute has, since then, practised and further developed these aids through consultant services provided to companies – both as individuals and in groups. NBI's model has been implemented in more than 100 Norwegian companies, and twice as many in Finland, Holland and Iceland.

The model gives advice on how to introduce and establish improvements within the company. Understanding of this type of work is not a typical part of normal engineering experience! Therefore NBI grasped the opportunity for a closer examination of the methods recommended by the model when two psychology students expressed interest in "quality management in practice" as the theme of their subject thesis.

The results are useful for all managers and consultants involved in establishing quality management in their companies. The Institute hopes that this publication can result in even more companies developing genuine quality control, as opposed to "paper work systems".

It is with great pleasure that we publish this report.

Norwegian Building Research Institute (NBI)
Oslo, May 1993



This report is based on a thesis in psychology. The thesis, "Psychological Factors in Establishing Quality Management" was handed in to the Institute of Psychology at the University of Oslo in September 1992.

The report is a presentation of some of the findings presented in the thesis. They are reported here in a simplified form, although the reader may find some parts of the report demanding. But "one can't plant potatoes without sweat on the spade!"

The object of this report is that people working with or interested in quality methodology can make use of our conclusions. This is the first published psychological study of quality methodology.

The conclusions that emerge in this report are intended as counsel for those companies working

Preface to the English Edition

This edition is a translation of a corresponding Norwegian report, i.e. our Project Report 127/1993. The English report differs however slightly from the Norwegian as the list of references is shorter than in the original. The translation has been done by Babs Sivertsen.

Apparently this report appeals to managers that have embarked on the establishment of quality systems and quality management. As the advice in the report seems to be general and not only applies to Norwegian conditions it is reasonable to present an English edition. We hope this will encourage an increased international exchange of experience – as the psychological factors have so far scarcely been discussed in building industry literature.

Oslo, October 1993
Ola Stave
Head of Building Technology Department

with the integration of their own quality management. We present some of the pitfalls and give guidelines for the avoidance of these.

The data basis, some of the methodological evaluations and some theoretical comments are not included in this report. Those readers that wish for deeper information can contact the authors (see the addresses on the previous side).

Finally, we would like to thank NBI for making our research possible.

Oslo, February 1993

Kristin Hedenstad
Psychologist

Bjørn Otto Meyer
Psykologist

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1. Introduction

The concept of quality has been developing rapidly. It has become a corner stone in the on-going development processes of many business concerns that are exposed to competition, and have to meet high performance requirements.

The difference between quality management systems and other organisational development (OD) is that the former meet the external customer's demands for documented work processes in addition to the internal demands for improvement. Our investigations show that, to a large extent, the establishment of quality management meets the same problems as OD as a whole. By quality systems we mean quality control, quality assurance, quality management, and Total Quality Management (TQM). This report is mostly concerned with quality management (QM).

Most organisations today are faced with an unstable environment, characterised by a high degree of complexity and a low degree of predictability. This means that organisations have to arrange internal conditions such that adaptation and learning can take place continuously. Organisations must not only be able to react to conditions in their work environment, but also be active in themselves administering changes. The ability of an organisation to adapt and learn will be of great import for its survival. The learning process within the organisation and the development of organisational processes such as quality management are closely inter-related. But it is important to note that although such internal education is a form of OD, not all OD necessarily involves learning.

This investigation has therefore chosen to look at work with the establishment of QM from a learning perspective. Different forms for learning must take

place before a QM process can root itself in the organisation.

Within modern Organisational Theory the idea that organisations learn as they go has gained a good deal of support (Argyris 1983, 1990). Learning on an organisational level involves the organisation's changing its structure and activities in response to experience and new understanding. An important question is whether it is the organisation as a whole that learns or the individuals that make up that organisation that adapt to new ways of thinking and behavioural patterns. Learning on an organisational level can be regarded as a collective term covering all those processes where an organisation demonstrates the ability to adapt to and master changes and unknown entities in its surroundings. The organisation learns however through its individuals.

If the barriers against learning within the organisation are too great, individual learning will not be able to be absorbed by the organisation in the form of new lines of action (Argyris 1990). Conflicts within the organisation that are tackled in such a way that they inhibit learning are an example of this. This implies that learning on an organisational level is more than the sum of its individual members' learning experiences. Individual learning is, of course, necessary, but not sufficient for learning on an organisational level.

In our study of the establishment of QM in the co-operating companies, both consultants and those we interviewed in the companies, drew our attention to the effect that consultants, management, communication and conflicts have on the integration process. This is a theme that has been thoroughly investigated by research into organisational psychology. Our aim has been to relate the results of this research to the process involved in establishing quality management.

2. Project description

2.1 *The aims of our investigation*

In 1991 NBI started an analysis and updating of its Model for Quality Management Systems (QMS) to adapt it to the 90's new demands and requirements for quality control, on both a national and international level. In this connection an investigation of some of the processes fermenting in an organisation working with quality control was carried out in the period January to August 1992. This investigation was a step in the attempt to obtain better knowledge of the inter-human processes involved in the establishment of QM in an organisation. NBI wanted more knowledge of these matters so as to be able to manage them more efficiently.

Experience gained from working with the QMS showed that it was at least as important to work with changes in the attitudes and values of the individuals involved as it was to work with documentation of the work process, and the formal structure of the organisation.

It became obvious that the work involved in developing a positive attitude to QM lay outside the traditional technical engineering competence, and required a more inter-disciplinary knowledge.

So the task of this investigation was to bring psychological insight to the work already carried out in the companies involved, and at the same time give new impulses to the task of reviewing and further developing the QMS.

The object of the investigation was to bring the knowledge and research techniques of psychology to bear on the processes of change that are set in motion in the various companies by the establishment of QM.

QM has not been studied in this way by psychologist before. There is therefore no earlier research on which we could base our work. Our analysis of the processes of change in the different companies is therefore built upon knowledge of processes of change in general. The conclusions we drew can therefore be the first contribution to the filling of a vacuum in the development of QM.

This project has not had the intention of evaluating the work carried out by NBI, or the conclusions the companies have drawn from their work with QM. The investigation cannot evaluate how profitable this work with QM has been for the individual companies, be-

cause we lack information about the companies' starting points.

Our research has purely been aimed at the processes set in motion, and how the individuals involved experienced them.

This research was the basis of the authors' main subject thesis presented to the University of Oslo's Institute of Psychology.

2.2 *Presentation of the problems*

Because of the lack of time, and of earlier research in this area we found it appropriate to have an open approach in the beginning, and did not set ourselves specific problems to study.

We started out with two main areas of study:

- What factors in the internal circumstances in the organisation can encourage or impede the establishment of QM?
- What happens to the relationships between the people working together in the organisation, and how do they experience the implementation of QM?

We should point out that a desire to locate critical success factors often lies behind such an investigation. We have concentrated more on the problems experienced during the QM establishment process. The positive results achieved by NBI in its work with QM will be less visible in this report.

We wish to set our research conclusions in a larger context. By locating improvement areas, our research will relate to QM-traditional thinking.

2.3 *Choice of methods*

Our methods and the conclusions we will present can be characterised as applied psychology, since the main object of the research is to solve practical problems in a better way. We have therefore paid less attention to things of purely academic interest, and demands for rigorous methodology.

We chose to do a comparative case study, in order to have the opportunity of going into each individual case in depth. It was important to us to include as many variables as possible in order to be able to make hypotheses. We have therefore chosen to include several cases in our study. Our conclusions cannot directly be transferred to other organisations,

since each company has its own unique QM history. Even so, certain common characteristics emerge when we compare the experiences of the various companies.

In order to allow for the complexity of the processes we were to study we employed a semi-structured interview technique. That is, we set the themes to be covered by the interview, without making a standard interview guide. In this way the interviewer was free to follow up answers and problems as the need arose. This method is sufficiently flexible to be able to pick up the greatest possible number of factors. It was important to have as broad a data basis as possible in order to form a picture of the processes involved in the establishment of quality methodology.

In this way we wanted to ensure that we focused on what the companies themselves regarded as the primary problems (Mills 1979).

2.4 Selection of interview subjects

Selection of companies

The companies we studied have been chosen according to the following criteria:

1. The chosen companies should have carried through NBI's programme for the establishment of QM. This would ensure that all companies had been working with QM for about 30 months.
2. The chosen companies should have concluded the programme in the course of 1991. This would ensure that the process and details would still be remembered as clearly as possible by the participants.
3. The chosen companies should represent at least two different co-operative groups. This would ensure that our conclusions did not reflect the results of a co-operative project that was not representative.
4. The chosen companies should have had different consultants from NBI. This would ensure that our impressions were not coloured by the style, with its strengths and weaknesses, of one individual consultant.
5. The chosen companies should have permanently employed production workers. This would ease access to those who had participated in the project. In a building contractor's company there is always a large turnover of workers. We would have had to carry out a piece of regular detective work to trace the various workers that had been employed in the company while the QM process was under development.
6. The chosen companies should have a reasonably fixed organisational structure. This was to simplify classification for us. Some companies in the building trade have a flexible project-like organisa-

tional system. We assumed that these would be of such special character that we chose to exclude them.

7. The chosen companies should be willing to give us the time to interview their employees. We were completely dependent on their goodwill, unable to give anything in return but a copy of the project report when it was completed a year later.

There were 22 companies that fulfilled the criteria 1-6. Of these, we made a random selection of 10 companies from three different groups. We wrote to these and asked if they were willing to participate in our research. Seven put themselves at our service, but of these one had misinterpreted our letter as a following up from NBI's side. We chose not to continue work with this company after this misunderstanding had become apparent.

Selection of interviewees

We have interviewed employees on all levels in every company. That is, the general manager, department managers, office staff, team leaders, foremen and production workers. We have especially focused on the management and those who have participated in management groups. Altogether, we have interviewed 48 people, and each interview took about 2 hours. Some of the interviews were shorter (half to one hour), and group interviews were somewhat longer (about 3 hours). We have also interviewed the NBI consultants that worked with the co-operating companies.

2.5 The limitations of the investigation

Our results are clearly limited by the methods we have used in our research. We cannot determine whether work with QM has been profitable to the individual companies. In order to do this we would have to have looked more closely at each company's starting point. Neither can we in any way assess the consultant service offered by NBI, nor the Model System created by NBI.

As a result of the methods we used, we gathered an enormous amount of information. We regarded it as important to study a wide spectrum of psychological problems. This in turn has meant that some subjects have been treated in greater depth than others.

We have tried to avoid discussion of concepts such as motivation and company culture. We have chosen rather to describe some of the processes that demonstrate these concepts, in order to shed more light on them.

Our research has not covered external relations with the authorities, customers, or suppliers. We have chosen to omit these in spite of the fact that these re-

lations have an important influence on the design of a company's QM system.

QM involves many disciplines. The technical and economical side of QM is not studied in this investigation. The crisis in the construction industry has had great influence on the daily life of the companies that we studied. The external economical framework is one of the overriding factors influencing all that happens within the companies.

In our introduction we pointed out that this study came about as a result of practical problems in the work with QM. As a result, this study has placed less emphasis on the criteria for reliability and validity that are usually demanded of psychological research. Our most important objective has been to pin point the problems and point out possible solutions.

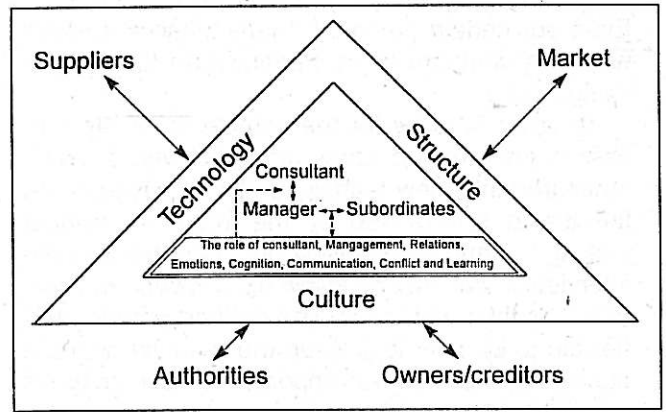


Fig. 2.5
The Organisation and its surroundings
This investigation deals primarily with the internal conditions in the organisation (inside the triangle):
These conditions influence and are influenced by external factors.

3. The role of the consultant and the "ownership responsibility" of the QM-process

We have already pointed out that a process of change also involves learning. The changes may be aimed at the attitudes of the individuals, and their values and assumptions about themselves and their surroundings. Such changes may, at first, appear uncomfortable or even unnerving. In an OD process where an organisation employs external consultants, the consultant will have a central role as advisor, support for the management and catalyst for the process.

3.1 "Specialist consultancy" versus "Process consultancy"

Consultancy is often described from two different perspectives that mirror the consultant's degree of control in the process of change. Schein (1990) differentiates between "specialist" and "process" consultancy.

In the case of "specialist consultancy", the company itself has diagnosed the problem, and orders a specific service from the consultant. Success, then, depends on whether the company has diagnosed its problem correctly, and on whether this is sufficiently clearly communicated to the consultant. The consultant will analyse the problem, and, based on his

knowledge and experience, decide what measures should be taken. The actual thinking process between problem and solution will then be largely carried out independent of the company. The attitude incorporated in the "specialist approach" is, in effect, that the consultant knows what is best for the company. The company will gain nothing from the learning process because it is only presented with a ready-made solution. This system gives a good deal of control to the consultant. He risks that the company does not even accept the measures he prescribes. He may also be made uniquely responsible for the supervision and management of the process of change. So the "ownership responsibility" for the changes will remain with the consultant and not with the company. This in turn can mean that the company becomes dependent on the consultant and the measures he prescribes. Research suggests that, typically, this situation arises from a lack of training in process control (Moore 1986).

Schein (1988) asserts that in order to have control over a process of change one must first have the ability to master the process. So the consultant's role ought to be to aid the the company to improve its ability to master the process of change. This is called "process consultancy". The emphasis here is on the company solving its own problems and measuring its own progress. The consultant's expertise goes to helping the company to help itself. This form of consultancy demands more of the company and its management than a more specialist orientated role. Maier (1970) says that a good consultant can increase the quality of the company's decisions by being the person who asks good questions. Questions can influence the direction of the management's thinking. Questions can be of an investigational, hypothetical, conscience raising nature, not evaluational. The consultant's role will not then be to put forth or reject ideas. It will not be his responsibility to run the process, but to follow it, and comment its development: to ease and inspire a change of direction.

Schein doubts whether a consultant can ever successfully take the role of specialist. He argues that it is far more fruitful to emphasise the company's own ability to master its problems. Basic to the whole approach is the idea that the client company is itself responsible for its own solutions and "owns" its own

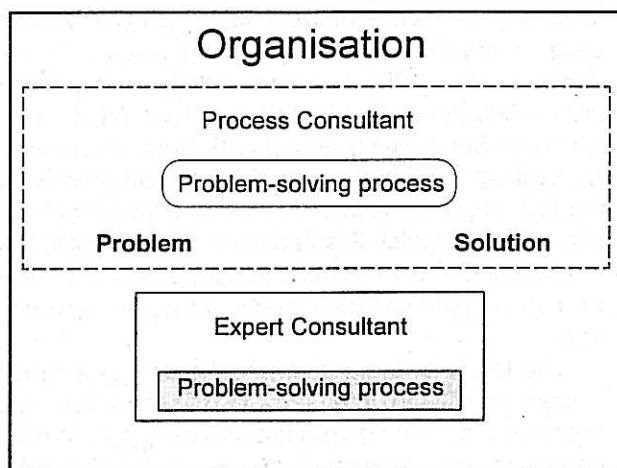


Fig. 3.1
The role of the consultant
The "expert consultant" draws the process of solving problems out of the organisation, while the "process consultant" helps the company to solve its own problems.

formula for change. The consultant's task is, then, to enable the client company to meet the problems and conflicts that both the management and the company as a whole will meet during the process of change. As an expert on the process of change, it is the consultant's duty to convey his help in such a way that the company does not become dependent on him. The assumption behind process consultancy is that only the company can actually know what sort of measure will work. The company is expert on itself: the company itself is best suited to the task of solving its own problems.

3.2 Phases in Process Consultancy

The intention of an OD-process like QM is that it is to be an on-going process. The role of the OD-consultant will, then, change as time goes by. The consultant starts as teacher, goes over to a training role, and ends up as adviser.

The foundation for the process is laid in the first phase. The consultant's most important task is to get the company to understand what OD and organisational learning is. It is important to define the consultant's relationship with the company. In order to transfer knowledge he must first learn about the company's standard of values, and, at the same time make the company conscious of them (Schein 88).

In this teaching phase the company will be dependent on the consultant. If the consultant is not present meetings and plans often collapse. When the company starts to identify its status then the consultant's role becomes another. He must get the company itself to take responsibility for what is happening: his teaching role disappears. He has become a trainer, helping the company to overcome its own weaknesses, and to develop the knowledge and abilities needed to master the problems facing it.

Gradually, as the company learns to master these problems, the consultant's role will change again. He is responsible for freeing the company from dependence on himself. This means that the development process/quality management has become integrated, and is part of the daily activity of the company. The consultant will now function in a purely advisory capacity, commenting on work methods from the sidelines. This does not mean that he has to remain passive until the firm turns to him. It can be a good idea to come to agreement about how the relationship should function in this phase.

The balance is difficult for the consultant to achieve: too great a degree of involvement may result in dependence and passivity from the company, while too little may lead to loss of initiative and momentum. The consultant must continuously question his degree of initiative and choice of means. His role must be defined from these.

3.3 Pitfalls arising from the employment of consultants in development processes

"We work better with the consultants on our backs. They are our drivers."

The "specialist" consultant will quickly establish his credentials as an expert in his discipline and in the field in which he is consulting. He may gain the authority to organise and supervise right from the beginning of the process. The degree of his authority will affect the company's expectations of him, both in relation to how and to what degree he will lead them through the process.

The specialist's professional jargon may be one factor which serves to emphasise his authority. Quality terminology is difficult: it has many complicated concepts and expressions. Nearly every term is prefixed by the word "quality". This means that terms that have completely different meanings can be comprehended as similar: "quality program, quality system, quality control, quality assurance, quality management". To make things even more complicated, recently the word "total" has been placed in front of the word "quality", so that one, for example, talks of "total quality control" as something qualitatively and quantitatively different from just "quality control". This makes the terminology into a confusing barrier between consultant and company, as was expressed by one of our interviewees: "The consultant just chattered away. At first I didn't like to ask when there was something I wondered about - one doesn't want to appear stupid!"

Our study showed that very few of the companies we investigated had a clear idea of what they were committing themselves to. Many of them experienced themselves as forced volunteers to QM- coerced by their dwindling share of the market. "If this had been completely voluntary we would have failed to fill the demands of a quality development process." In many companies the work with QM had low status: "QM was something we struggled with in the evenings." Several companies expressed a bad conscience for the lack of progress in QM-work. It is tempting for a consultant to exploit this bad conscience to raise the position of QM-work in the company's priorities. "We have never paid so much money, to receive so much flack!"

The result is, of course, that the company tends to work with QM in order to satisfy the consultant, not because it sees its own gains. The consultant risks ending up with a leadership role superior to that of the managers themselves. The entire control and supervision over the process of change lies with him.

This, in turn, may well result in a situation where QM never becomes an integrated part of the company. Morgan (88) claims that the consultant himself

encourages this situation when he controls the stream of information and knowledge of aims and measures. It creates dependence on him. Giving the "right" information at the "right" time, demonstrating his ability to gather information and identify problems efficiently: these are things that increase the authority of the consultant, and conserve his "specialist" status. The responsibility will also belong to him. As one manager expressed it: "The consultant is responsible if this doesn't succeed."

Research and practice both show again and again that the process of change can come to a halt when a "specialist consultant" terminates his work. "QM has died on us. It has derailed." To be effective, therefore, learning cannot just consist of that knowledge the consultant has formally communicated to the company, but also develops through his form for co-operation with the company. This has been confirmed by the situation of the co-operative project between LO (Norwegian Federation of Trade Union) and NAF (Norwegian Employers' Confederation): the process came to a halt as soon as the researcher-consultant withdrew (Gulowsen 1975).

3.4 The choice of consultancy style, and its effect on the learning process

The choice of consultant-role affects the type of knowledge that is communicated to the company. Not all consultants seem to be aware of this fact.

Scandinavian research traditions hold that it is necessary to differentiate between two types of learning in an organisational context. These are called "knowledge-based learning" and "experience-based learning".

Moxnes (1981B) describes knowledge-based learning as aimed at facts, abilities and procedures. These are communicated by a consultant with a fixed aim. This form of learning is dependent on a specialist who gives out the knowledge in suitable doses, administers the truth, and provides the correct answers. It is a worry-free form of learning, since it concentrates on facts and figures. Traditional ideas of rationality assume that action follows as a natural consequence of insight and knowledge (Asvik and Espedal 1989). Research shows that this is only part of the truth (Bandura 1977, Argyris 1990). It becomes important to differentiate between insight and action.

Experienced-based teaching lays emphasis on action. First in practice can one see whether one

possesses the necessary ability (Luthans and Kreitner 1985). The aim of experienced-based learning is to make those who are learning better equipped to tackle future problems. It increases the ability of the individual and the company as a whole to set its own aims, and experience that this is useful and important. It gives the company the ability to ask questions about its solutions (Argyris 1982 B). It involves the company evaluating old solutions, to see whether they are the most fruitful. Those who are learning may experience the process of moving from the known to the unknown as unnerving. This form of learning is dependent on a trusting environment that allows one to hit and miss, and reflect on one's experiences.

Knowledge and rationality are therefore no guarantee for better action. Insight that does not lead to practical action can be regarded as incomplete learning.

One form of experience-based learning is "meta-learning". This is the form of learning absorbed by the company as a result of the process of change (Argyris '90, Moxnes '80). One side of learning is the documented company objectives, the consultant's immediate intentions and their obvious function. A quite different side is the effect of the process of change, independent of declared aims. This is meta-learning. It will always be a factor, and can either promote or oppose the intentions of the consultant or the company (Moxnes '81 B, Argyris '82 B). An example of meta-learning is the lessons learnt as a result of co-operating with a consultant, and the form this co-operation took. In process consultancy meta-learning will lead to increased mastering of the problem-solving process. Whereas, in specialist consultancy meta-learning will lead to an increased ability to tackle the relationship with a consultant.

From this we can see that it is important for the company's managers and consultants to choose a line of action that satisfies the needs of the company.

A specialist consultant will be able to give simple quick solutions to practical problems without increasing the company's ability to solve future problems.

A process consultant works with a longer time frame. The route to the solving of the problem is longer and more demanding for the company, but in exchange the company will increase its own competence and mastery of problem solving. The company will become more independent.

4. Rooting the process of change in the company

The literature about organisational changes tends to describe these in terms of success or failure. But few organisational changes can be described in terms of these extremes. Changes occur to differing degrees. The problem is not to tell whether the change has taken place, but to what degree it has taken place. The answer depends on how deep the process of change has rooted itself in the company. One way of measuring the degree of rooting of a QM-process is by seeing how far down the hierarchy the process has reached.

"Internal rooting" is defined here as the strength of the individual's identification with, and involvement in the organisation (Mowday et al. '82). This identification includes sharing interests and goals with other individuals, experiencing belonging, loyalty and supporting the aims of the organisation. Involvement includes engagement in activities that support the company's aims, and a wish to retain one's membership of the company (Patchen '79 and Gould '79).

One aspect often underestimated by the management in the implementation of QM is their responsibility in relation to the internal rooting of the process. This responsibility can be put into practice by establishing and explaining aims and expectations, and by going in front with a good example for one's fellow workers.

4.1 *The importance of goal setting in QM-work*

"We do the best we can"

In companies where there are several decision makers, there is an ever present danger that subordinates receive different, mutually inconsistent, ideas as to the desired direction. "Our managers are badly co-ordinated and their priorities diverge." Characteristic of such companies are that they lack guidelines for the work, and that laying of foundations and following up are inadequate. The lack of guidelines makes it difficult for the management to know what they can demand of their subordinates, and visa versa.

According to one of the founders of Quality System thinking (Juran '88), it is important for the integration of quality in an organisation to establish a

vision, a policy and objectives. A vision is a declaration from the management about how far they wish to have come at a given point of time in the future. Policy is a declaration stating the principles and values that should characterise the company. Very few companies have a documented vision and policy. A quality policy should be a part of the company's total policy, and should clearly show what priority QM should have in the company, and, at the same time, define what activities are compatible with QM. Lack of a policy means that the employees are unable to confront each other with their inadequacies. One of our interviewees said that "We lack guidelines for what we can demand of the management."

Vision and policy are not sufficiently concrete objectives. Locke and Schweiger ('79) claim that if one is to demand efficiency and motivation, one must move away from abstract motives and needs. The establishment of concrete goals, and subsidiary aims can be one way of doing this.

There is a good deal of psychological research about the effect of goal setting on efficiency and performance in large organisations (Locke et al, 1988 and 1986, Bandura and Cervone 1983, Griffin and Bateman 1986, Williams and Lillibridge 1992). Locke ('81) argues that a goal influences the performance by motivating the individual to achieve it. There are three factors in Locke's theory that are particularly supported by research: that the individual performance is better if the goals are difficult, if they are specific, and if they are accepted.

Specific goals are assumed to have a directional influence on behaviour. One manager said that their aim was to "do the best we can". His fellow workers understood that they had to "read between the lines." Such a company, with vaguely defined aims, will lack conformity of direction in its individual efforts compared to an organisation with specific goals. The employees will define their goals and standards themselves, and these may not concur with those of the management. "We've chosen to follow our own reasoning rather than that of the management". This can become a hindrance to the integration of a QM system, which in fact assumes a common effort and a common system of priorities. Many companies do not appear to take this assumption seriously. Bandura and Wood ('89) conclude that individuals with an unclear understanding of what they are attempting to

achieve, will be badly motivated and badly supervised. "The management says that now they know what the firm is like, and who has what function. But I thought they knew it all the time!"

Moxnes ('81) claims that lack of aims or standards with which one can compare one's performance lead to incomplete learning. The individual has little basis on which he can evaluate his performance or his abilities. The company's main objectives are too distant to be motivating. Ivancevich ('76,'77) shows that long term objectives have a positive effect on well-being, but that this effect is reduced over time when there are no concrete subsidiary goals. So subsidiary goals have an important function. They increase effort and direct behaviour for short periods. "If one doesn't have subsidiary short term aims it is difficult to see where one is on the way," explained one manager. Motivation increases most with long term objectives that steer the action, combined with a series of short term goals that keep up the momentum (Bansura and Wood '89).

This means that the company is dependent on both long term main objectives and short term subsidiary aims to increase worker performance. A QM system should include both long and short term aims. Our experience shows that this is one of the greatest problems for the company managers in our investigation. They had not managed to operate with long term objectives. The few that had been introduced were diffuse and of little practical use in managing the company.

4.2 The importance of feedback for QM

Feedback combined with objectives increases effort and efficiency (Locke and Schweiger 1979, Cusella 1987, Algera 1990 B). Feedback on the individual level can be defined as information on the individual's earlier performance, communicated to that individual (Cusella'87). There are two factors that make feedback an important instrument. In the first place, feedback can be compared with a goal, and secondly, the receiver is motivated to reduce the distance between the goal and the actual situation as indicated by the feedback.

Feedback in relation to goal

"We don't get any feedback from the management"

Normally one differentiates between feedback given in relation to the final result, and feedback giving information on the process leading to that result. The latter is seen as having the greatest effect on efficiency and performance. In order for the feedback to be effective, the individual must at any one time comprehend the goals and current results so that they can adjust their performance in relation to the

programme (Lawler '82). Individuals that have the advantage of receiving feedback in combination with clearly defined goals double their performance compared with those that receive either goals or feedback, but not both (Bandura and Cervone '83). This indicates that a lack of feedback is a waste of the company's resources.

Carver and Scheier's model ('82) focuses on the importance of goals combined with feedback. Changes are stimulated when an individual perceives a divergence between his performance and an established standard. The perception of this divergence acts as motivation for action as the individual seeks to reduce the perceived difference. This is a self-regulating system. The employee motivates himself by achieving goals, but also by setting new ones. The model is therefore built on several self-regulating systems that are organised in a hierarchy. That is, a superior standard serves as a reference frame for the next standard in the hierarchy: a "hierarchy of goals". Carver and Scheier differentiate emphatically between the abstract objectives at the top of the hierarchy and the concrete goals at lower levels.

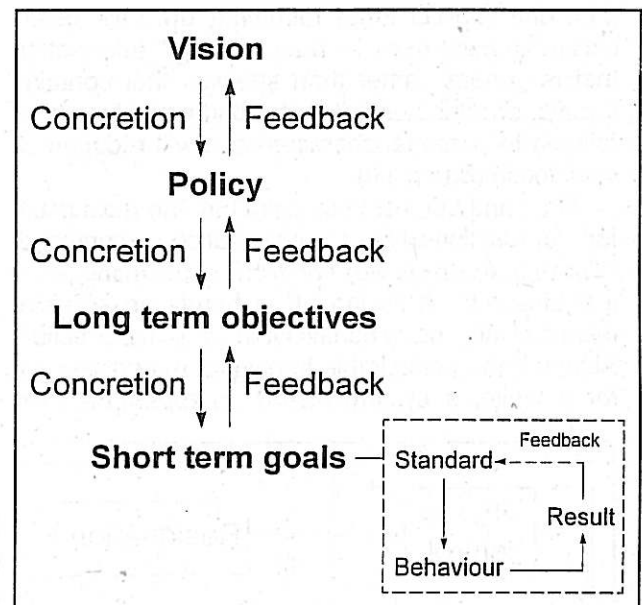


Fig. 4.2 a

The hierarchy of goals

Carver and Scheier claim that goals at each level will transform themselves into more concrete ones at the next level down. At each level one will create a standard with which results will be compared. Feedback will first be used within one level, and then applied to the level over. This means that there are two feedback loops at each level: one internal and one between levels.

The importance of vision, policy and concrete goals can be regarded in relation to Carver and Scheier's model. The company's vision comprises the top level of the hierarchy. It functions as a reference framework for lower levels. But the vision is too abstract to stimulate concrete action. A quality policy could comprise the next level, which describes general princip-

les and gives, to a larger degree, guidelines for behaviour. Concrete objectives and subsidiary aims comprise the lower levels. If the company works towards the vision via concrete aims and objectives, and through the company policy, there will always be a reference framework to correct behaviour so that it agrees with the main objectives. The individual is thus given the opportunity to see his work in a larger and more meaningful context.

Feedback and motivation

If feedback is to be effective, then the receiver must understand how to make use of it to adjust his performance. The feedback must give information on whether positive actions have been successful or not. Feedback that indicates that the performance is good can further improve performance and encourage learning. Feedback that indicates the opposite is often presented in a fashion that discourages learning, and reduces motivation, self confidence and the feeling of mastery. The consequence is that the individual sets himself lower aims (Gist '78). One worker explained: "Of course one can work faster, but then one expects more following up. One needs encouragement to make things swing." Information that is general rather than specific, that contains threats, or attributes blame for bad performance or failures to personal characteristics will reduce self confidence (Baron '90).

Sims and Lorenzi ('92) claim that the most usual form of reaction within an organisation is reprimand. "The only feedback we ever get from the managers is a ticking off!" A ticking off is hardly an effective means of influencing behaviour in a positive direction. Although the undesirable behaviour may disappear for a while, a system based on reprimands will

eventually create unwanted side effects. The employees will learn to avoid the managers, and the desired responses such as effectivity and increased productivity will fail to appear. Sims and Lorenzi claim that the long term effect of reprimand is aggressive behaviour, passivity and lack of creativity. The employees' efforts are limited to exactly what they are asked to do and no more. This creates a risk for polarisation between the management and his subordinates, and will lead to an increased need for manager control. Confidence in the management and credibility is threatened. This is a barrier to the integration of QM. QM requires a continuous improvement process, with initiative from all the employees.

One reason that many managers continue to reprimand their subordinates is that the immediate effect appears to be positive (Sims and Lorenzi '92). But the long term effect is counteractive, because a ticking off does not give information on what is desirable behaviour, only on what is undesirable. The result is passivity. It is important that the manager explains what is expected behaviour when he gives feedback.

4.3 Expectations and mastery

"Nothing is expected of me"

We can differentiate between explicit and implicit expectations. The explicit expectations are verbally expressed and known to both management and subordinates. They vary as to how specific they may be. They are often connected to goal setting. Implicit expectations are taken for granted. They are assumed and are seldom the object of confirmation or negation. This has led to uncertainty.

Managers that communicate high, realistic and explicit expectations together with faith in their subordinates have a positive influence on their fellow worker's self confidence and faith in their own competence (Williams and Lillibridge '90). This is a form of self fulfilling prophecy, since faith in one's own competence improves performance. Good performance in turn influences the manager's faith in his workers. On the other hand, many workers felt that the management's expectations were unrealistic: "They expect more of us than we can manage." The management itself confirmed this.

The latest psychological research into the theory of goal setting focuses on the thought processes that connect aims and expectations to performance. A concrete goal influences motivation and performance through the individual's experience of mastery. (Bandura and Cervone 1983, Bandura and Wood 1989, Williams and Lillibridge 1992). Goals and feedback, in other words, not only contribute to better performance, but they also help the individual to build up confidence in his own abilities.

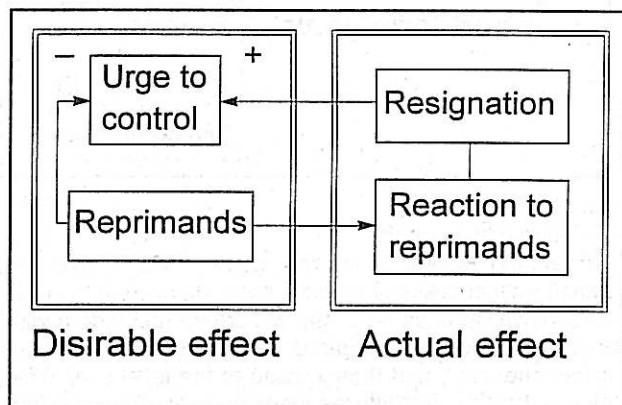


Fig 4.2 b

Effect of reprimands from the manager

The manager feels that he must control his subordinates in order to get them to do things as he wants. In order to achieve the desired quality he reprimands them. The desired effect is that they will do as he wishes, and the need for control will be reduced. The actual effect is passivity and a lower standard of performance. This increases the manager's urge to control.

Bandura (1977) claims that an individual with high expectations of his own competence will make greater efforts to achieve his goal. Others' expectations of one's competence can have the same effect. The achievement of goals can also increase one's faith in oneself. Individuals with high expectations of their own competence will develop a greater tolerance for the divergence between the current reality and the ideal situation. A person with greater faith in himself will invest more energy and show greater stamina to accomplish his objective.

There is a difference between faith in one's abilities and the ability to use them. Research shows that the result of not knowing the goals, demands and expectations is insecurity. Several interviewees connected this problem with self-image and professional experience. Those who have worked longest in the profession have learnt what is expected of them, how to avoid reprimands. Bandura claims that the expectations of one's own competence plays an important role in the meeting and mastering of new situations. Williams and Lillibridge (92) claim that feedback is an important component in the development of self confidence because it influences the individual's experience of control over his surroundings.

People with low expectations of their own competence will have a tendency to evaluate the difficulties around the execution of a task as greater than they are (Bandura and Cervone 1983, Williams and Lillibridge 1992). According to Bandura and Cervone, people with little self confidence will perform worse, and give up more easily. This shows that low self confidence not only influences behaviour, in that one avoids tasks one believes will lead to failure, but also stamina and effort to achieve the objective.

4.4 The manager as a good example

"Why should we follow the standard procedures when our managers don't?"

Our conclusions show that the companies we investigated struggled with two particular problems with the integration of QM. One is the bad quality of the management's own work. The managers themselves are bad examples of what they are trying to introduce to the company. The other problem, probably as a result of the first, is the lack of credibility granted to the leaders by the workers. When the worker's doubt the management's ability and the feasibility of their carrying through a change, the company will experience opposition from its members.

Inadequate planning and following up in relation to production is one area where bad quality leadership is apparent. In order to deliver good quality products, the workers are dependent on good quality management. Errors in the reception of orders, for example,

will have significant consequences for the workers. They will not be able to fulfill the management's quality demands and expectations. "It's depressing to go to a job you know the management has calculated wrong, and you know is doomed to failure." Here, the management is biting its own tail!

Juran ('88) claims that a condition of success in the integration of quality in a company is that the top management are committed, engaged and involved in the process. It is only through this that a manager can demonstrate what priority the concept of quality has in the company. "I don't know what the management's priorities are right now. If he would only concentrate on quality we'd be alright!" Newer psychological theories look at the role played by the behaviour of the managers in organisational development and processes of change.

Bandura ('77) claims that it is important to be able to identify with a model in order to initiate learning and change. By watching their leaders, subordinates can see what behaviour is desirable, and can use this information as a guideline for their own actions. "We have our skeletons in the cupboard when it comes to following prescribed procedures ourselves," said one manager. Sims and Lorenzi ('92) assume that power, status and prestige are significant factors in this context. This means the manager is himself a potentially important source of change in behaviour, by the example of his own role and behaviour.

Bandura (1986) claims that the relationship between knowledge and action is often neglected. Knowledge is a necessary, but not sufficient condition for new behaviour. A manager is not going to tick off a worker who has noted that he does not follow the prescribed procedures himself. "There are two sets of rules: one for the management and one for us!" Knowing the manager is in no position to reprimand him, the worker may well neglect his own prescribed procedures.

Argyris (1982 B, 1983 and 1990) shows how managers themselves can be a barrier to learning and change. He claims that managers often operate from two theories. The one is a facade, the theory the manager expresses verbally, built up from the aims, premises and values he claims to operate from. The other is the applied theory that actually steers his behaviour in practice. In other words there may be a large divergence between what he says he does and what he actually does. The individual is seldom aware of this difference. If learning only leads to change in the expressed theory, but not in the applied theory there will be no change. Changes lie in the mind only, and are not coupled to actions. Even though a manager may have problems in identifying his applied theory, it is apparent to his subordinates. It is his visible actions that will act as a model for them. The applied theory must also be altered in order for new knowledge to influence behaviour. Since applied theories lie at a subconscious level they are often

difficult to reveal. One aim should therefore be to make each manager conscious of his own applied theories. Only then will he discover that his behaviour is not suited to the role of model for his fellow workers. The manager's behaviour, when his expressed and applied theory diverge, can actually discourage change.

The quality of the end product is, then, as dependent on the quality of the managerial work as it is on the quality of the worker's work. The manager's model behaviour is the workers' guideline as to what priority QM has in the company.

The credibility of the managers

"They said they would improve the quality of the administration, but it looks as if it's going to take some years!"

A manager that is not a good role model discourages the establishment of QM in a company. At the same time he damages his subordinates' perception of their management's credibility. If QM is not taken seriously in both thought and behaviour it runs a danger of being regarded as a circus, with the managers in the role of clowns. "Quality management is just one big joke. When something goes wrong we blame it on the QM-system. If the goal is effectivity, then I wonder what they've used all that money on!" This indicates that the management in several companies have problems justifying their roles.

Sims and Lorezi (92) claim that if the management are to be effective as role models they have to have credibility. Research shows that credibility is weakened if the managers create unrealistic expectations that cannot be accomplished. When expectations are not fulfilled, disappointment and passivity are the usual reactions. It is counter productive for a manager to picture higher goals than are feasible. The comprehension of the management's reliability is important for a change of attitudes (Zimbardo, Ebbesen and Maslach 1977). Individuals

are more likely to change their attitudes if the driving force is a source to which they award credibility. The acceptance of new ideas and suggestions is dependent on the manager's credibility. A manager with a large degree of credibility will therefore more easily be able to introduce new ideas. He will more easily be able to influence changes in attitudes. This is an important point for those managers hoping to establish quality management.

4.5 Conclusion

The setting of good goals and expectations is a significant dimension of management. Goals that are specific, challenging, and accepted result in higher performance than those that are vaguely defined. Feedback has a positive effect on performance when it gives a concrete definition of how things should be done, and is not limited to how things should not be done.

The establishment of these objectives and the organisation of suitable feedback appears to be one of the greatest challenges for companies working with the integration of QM.

At the same time managers have a great responsibility to arrange conditions so that their fellow workers do have the possibility of producing good results. Faith in one's own competence and mastery increases if the individual feels that he has control over his work situation.

Managers seem to meet two important problems, both of which can hinder the establishment of QM. The first is their lack of awareness of the difference between their expressed and their applied theories. The second is the difficulty of setting a good example in order to initiate the change and behaviour they desire in their fellow workers. Unless these problems are solved, the management will lose its credibility. Internal establishment of QM presupposes that the managers enjoy a high degree of credibility.

5. Shared Decision Making

An employee's control over his work situation is increased when he is involved in decision making. One assumes that increased control increases his motivation and efficiency. This control is increased through a system of joint consultation or through delegation. Shared decision making, or joint consultation, implies that the employees are routinely consulted, to varying degrees, before the management makes decisions. Delegation means that the subordinate himself is given the responsibility to make decisions, according to an authority granted him by the management.

Joint consultation and delegation are two different processes with differing aims and backgrounds. They have much in common, but here it is fruitful to treat them separately in order to see their respective effect on the employees and on the efficiency in a company. Delegation and joint consultation can be seen as two different points on an axis (Scandura, Graen and Novak 1986). Delegation is seen as the opposite of an autocratic decision. Joint consultation lies somewhere in between.

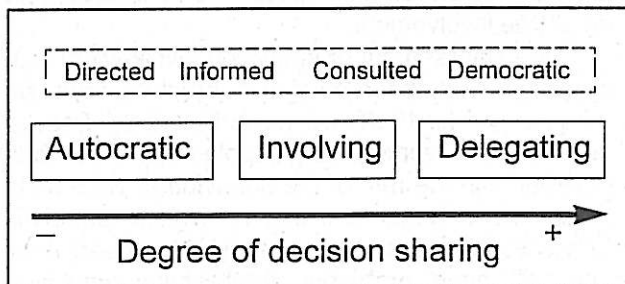


Fig 5.0
Varying degrees of employee involvement in decision making: The various managing styles (middle row) give the subordinate employees differing degrees of influence on their own work situation. The graph moves to the right with an increasing degree of authorisation to take decisions.

The axis represents an increasing degree of authority transferred from the management to the employee (Tannenbaum and Schmidt 1958, Heller and Yukle 1969, Heller 1973, Bass and Valenzi 1974 in Leana 1986)). Shared decision making has the intention of improving the efficiency of the organisation as a whole, and creating more equality between managers and subordinates. Delegation has the intention of

improving the individual efficiency (Leana 1986, 1987).

The degree of employee involvement influences the power sharing between managers and other employees. Employee involvement in decision making is often characterised as "power-sharing", while delegation is characterised as "power distribution".

5.1 Employee involvement

Employee involvement has a long tradition, not only in organisational psychology, but also in Norway where it has influenced the laws governing the work environment.

The Work Environment law § 12 p.3 says that the employees and their elected representatives should have insight in, and participate in, the design and planning of the management system.

Much of the research on participation comes from investigations of well-being and democratisation (quality of life/employee involvement), which developed in the seventies (Mohrman, Ledford, Lawler and Mohrman 1986). The main objective was to motivate and satisfy employees through increased independence. Currently there is a renewed interest within organisational psychology in this train of thought (Van Beinum 1990). Employee involvement is one expression of the democratic principles the Western cultures are founded upon. The intention is to improve productivity by improving well-being and personal engagement. We see this as one of several aids in developing QM.

Research has found only weak evidence that employee involvement increases productivity (Miller and More 1986, Wagner and Gooding 1987 in Hollander and Offerman 1990). On the other hand, research has found strong evidence that it increases well-being. Some claim that a system based on employee involvement gives increased product quality (Davis and Cherns 1975, and Hackman and Suttle 1977, in Lawler 1982). This is explained by the fact that employees identify themselves more with their produce and do not wish to be associated with bad quality. Research also shows that employee involvement leads to lower absenteeism, a lower employee turnover, and lower expenses (Lawler 1982).

Varying degrees of employee involvement

Our investigation has not gone into formal employee participation through representatives on the board or trade union activities.

We found it useful to grade the degree of participation in relation to the degree employees could influence decisions made in the organisation. Scandura, Graen and Novak ('86) have a similar axis, but they have set delegation as the form for involvement that gives employees the most influence.

1. Co-determination (shared decision-making): here the managers and the other employees make decisions according to democratic principles where the managers share their power with the other employees. Suggestions made by subordinates have as much clout as those proposed by the management.
2. Joint consultation: here the manager makes decisions after hearing subordinate employees' opinions. Employees are encouraged to make suggestions. These are evaluated by the management.
3. Informed co-operation: the management makes decisions and informs employees about them. Employees are not encouraged to make suggestions.
4. Directed co-operation: the workers carry out the orders of the managers, full stop!

In the companies we studied we saw varying degrees of employee involvement, but no examples of co-determination. So employee involvement is not an all-or-nothing process that covers the whole company.

From our investigation there appears to be a connection between the degree of involvement at lower and at higher levels in the company. In those companies where employees have little or no influence on the directors, they also have little or no influence on those managers directly superior to them. Schein and Argyris ('90) claim that the norms for co-operation in a company are strongly influenced by the managerial style at the top. The directors of a company will influence the attitude of the managers under them. This reveals a need for manager training if a system based on employee participation is to work.

Basic criteria for employee involvement

In some companies the employees have expressed clearly their desire to participate in the process, and have asked for information on the progress of the management's work with QM. "We don't know what they're up to. We never get to hear anything. Do they think they can run the whole show alone?"

The management had understood what they wanted. They also wanted a greater degree of participation from the employees. So why did they not manage to carry it through?

The reasons are complex, and we cannot make a thorough analysis from the limited material we have available. But we can point out some of the criteria necessary for a greater degree of involvement.

The change from a traditional hierarchical structure to a more democratic organisational form is deep and extensive. It is usually described as a profound alteration of the basic assumptions of the management and the organisation (Van Beinum 1990, Mohrman et al 1986, and Lawler 1982). Such a change cannot be carried out as a "Friday night job". Even if employee participation is limited to certain areas and is not a part of general democratisation, it still demands that managers and employees must establish a new type of relationship, with new guidelines. If an organisation is going to accomplish a restructuring to an organisational form based on employee involvement, the managers must publish an explicit formulation of their intentions and underlying evaluation (Van Beinum 1990). "We wondered whether we ought to let the lads know what we were up to". In addition they must, through their own behaviour, show that they want and support the new changes (Argyris 1983, 1990). These criteria are not present in many companies.

Lawler (1982) claims that the changes involve a large number of areas such as organisational structure, job design, information systems, career ladder, selection, training, performance rewards, personnel policy and physical surroundings. Not all of these factors are equally important, but they all contribute to the development of employee involvement. None of the companies in our investigation had altered their structures with an eye to encouraging employee involvement.

The establishment of employee involvement presupposes that the rest of the structure must be adapted (Lawler 1982). It is not sufficient to introduce employee involvement as a supplement. It has to fit together with the rest of the behavioural patterns in the company. A manager with the urge to control his fellow workers doesn't comply with the conditions, and will have problems establishing employee involvement in his department or company. "We feel that they're hanging over our shoulders all the time to see what we're doing. They don't trust us to do our job." The managers' behaviour, with all its underlying variations, must agree with the concept of employee involvement.

Well-being

Our investigation showed no direct connection between increased employee involvement and increased well-being. Those employees that said they enjoyed their job came from companies with varying degrees of employee involvement. So well-being is not directly connected or dependent on involvement. Well-being within one group can also be

a result of pressure from outside. The doctrine that external danger gives internal solidarity seems to apply here. "We enjoy our job, and stick together because of them (the management)".

One possible explanation for earlier results that connect well-being and employee involvement is that the latter improves the relationships between colleagues. Some research indicates that employees enjoy their jobs more because of their colleagues than because of involvement (Leana 1986). It is reasonable to assume that if a sense of solidarity between colleagues is created because of a conflict, it is not likely to contribute to increased productivity. Well-being can, however, act as a safety net to ensure that productivity does not sink any lower.

Employee involvement encourages employees to identify with the company's aims and objectives. In this capacity it will contribute positively to the QM process. Further research will show to what degree employee involvement is necessary for QM.

The relationship between a manager and his subordinates affects the degree of involvement. A leader-member exchange that is characterised by mutual attraction, mutual influence, support and trust is rewarding for both partners in the form of increased well-being and productivity (Scandura et al 1984, 1986). "They (the management) are good people. ..They listen to what we say. They take us seriously." At the same time these factors give the employees greater influence on managerial decisions. A relationship characterised by formal authority, little mutual influence, little trust, and support results in formal performance rewards for the employees, and for the managers: no more than adequate effort from the employees (Yukl 1989 in Deluga and Perry 1991). This type of relationship gives the employees little influence on managerial decisions. If they should wish to exercise influence under these circumstances they must first be able to demonstrate good results and performance levels (Scandura and Graen 1984). From this we can conclude that employees' influence on decision is dependent on mutual professional and personal trust (Scandura et al 1986).

An employee can exercise greater influence when he enjoys a mutual trust with his manager (Deluga and Perry 1991). Such an employee will to a lesser degree turn to obstinacy, to higher authorities (going over his manager's head to the next level), or support from his peers to influence his manager. Mutual trust is also associated with satisfaction and high managerial efficiency. On the other side lack of trust will often lead to the employee's resorting to peer support, higher authorities or emotional tactics. This indicates that a feeling of trust and access to influence help to prevent conflicts, and that the relationship between employee and manager will affect productivity and well-being.

Angst

Employee participation breaks down the traditional hierarchical system of a company. This can be perceived as threatening by the managers. They are under obligation to be more open to their fellow workers and their criticism. They must also give up their total control over information and decision-making authority. How they regard their fellow workers will affect the expectations they have of employee involvement. Managers that regard the other employees as competitors in relation to the company's economy will not want to relinquish control. "If we give them information about the company's situation they will only want more." This also applies to managers that regard their subordinates as inferior. Such managers will have difficulties accepting that suggestions made by their subordinates will be up to standard.

The manager's image of himself will also affect the degree of employee involvement. A manager with low self confidence and feeling of mastery will be less tolerant to others' involvement (Bandura and Cervone 1983). When such employee involvement leads to negative results it is the manager that must take the blame (Pfeffer 1977, in Hollander and Offerman 1990). Uncertainty will also depend on the company's external situation. The companies in our investigation are experiencing a crisis in the market, and competition is considerably harder. This increases the pressure on the manager. Managers have a tendency to reject employee involvement in times of crisis (Lawler 1982). Research also shows that managers that control and direct tackle high pressure situations better than those who are less autocratic (Fieldler and House 1988).

Some people prefer to have limited tasks with a high degree of external control (Cummings 1982 in Mohrman, Ledford, Lawler and Mohrman 1986). These people will experience employee involvement as a negative development – it may even cause angst.

5.1.1 Conclusion

One of the aims of QM is that workers should take more responsibility for their own work situation. This should lead to a continuous improvement in the quality of the work process and the product. It is important that employees are involved to a certain degree in the QM process so that the management can learn from their experience in the production process. Only the wearer of the shoe knows where it rubs.

Limiting employee participation to carrying out those procedures that the management have designed is a waste of the resources the employees actually represent.

The degree of involvement enjoyed by employees is a result of the manager's attitude towards his

subordinates. Very few managers will deny that the employees are the company's most important resource. Unfortunately, for many this appears to be a beautiful theory that is not transferred to action. The proof of the attitude lies in the actions, not *visa versa*.

Various forms of limited employee involvement are evident in the companies studied. Involvement in the context of QM presupposes that the managers have confidence in the other employees. Those that do not, must change their attitudes if they are to accomplish true employee involvement.

5.2 Delegation

Redefining the relationship between manager and subordinate

Delegation affects the relationship between he who delegates and he who receives authority.

Delegation is a redistribution of tasks in an organisation. It can be described as a transfer of authority and responsibility downwards through the hierarchy of a company (Hackman and Dunphy 1990). It is a complex set of activities that affect the distribution of tasks and functions in an organisation. It also involves a change in the distribution of authority and responsibility from manager to subordinates (Hackman and Dunphy 1990). Delegation can be described in relation to authority, responsibility and duty to report.

Authority describes the formal power enjoyed by a position, which includes the right to act, to supervise activities and tasks, to make decisions and to initiate actions. Delegation of authority involves the right to use this power. A relevant question is to whether responsibility and authority can be totally transferred. Hackman and Dunphy (1990) have summarised the research done in this area and concluded that it is possible to delegate total authority. Some would object that not all the authority is delegated anyway, since the manager can always withdraw the authority again. "We are set tasks that are later taken from us. This is frustrating." This indicates that the manager will always be in position of a remainder of authority that cannot be delegated (Heller 1971, in Hackman and Dunphy 1990). Authority and the right to act are criteria from which a subordinate can use his power.

Responsibility refers to the commitment to act, execute tasks and produce results. Delegation of responsibility means that the subordinate is committed to carry out certain activities. Since authority is often connected to responsibility the concept of "rights" and "commitments" often get confused. The general assumption is that since the ultimate responsibility stays with the manager, responsibility cannot in fact be transferred. The manager will always be held responsible for the actions of his subordinates by his superiors, whether he delegated responsibility or not (Hackman and Dunphy 1990). This implies that even

if one does delegate responsibility, the managerial responsibility will not be reduced. The manager is ultimately responsible if tasks are not mastered and aims are not met. This means that the total responsibility in the company increases. Delegation redefines the relationship between manager and subordinate in the sense that the manager's role is now to support, advise and follow up. If he does not take responsibility for advising and following up, if he attempts to transfer all responsibility to his subordinates without any form of supervision, then this is no longer delegation: it is abdication (Grove 1983 in Hackman and Dunphy 1990)! Our investigation showed several examples of this. "Now, all the responsibility is left to us. They seem to have forgotten us!" "We miss supervision and following up from the management." Abdication is a misunderstood form of delegation, and can possibly be interpreted as managerial ignorance or uncertainty as to how far they should supervise delegated tasks. Research shows that subordinates' control is reduced in situations where initiative is allowed, but coordination is lacking.

Subordinates answer for their actions and results through their duty to report to their manager. Reporting and responsibility are often used synonymously. Delegation changes the relationship between manager and subordinate in relation to reporting.

Assignment

Another important factor is how much freedom the individual has in his execution of the delegated task. It is important to differentiate between *delegated* and *assigned* tasks (Donbusch and Scott 1977 in Hackman and Dunphy 1990). Assigned tasks do not allow the subordinate the possibility of influence. Many companies assign rather than delegate tasks. But research shows that what counts most for the subordinate is his feeling of being noticed by the management, rather than the degree or form of delegation. The formal influence that a subordinate has over his own work situation is, in this case, less important. Of greater significance is the emotional experience of being heard, noticed, and taken into consideration. This agrees with research that indicates that there is no correlation between delegation and more emotional factors such as well-being (Leana 1986).

Work load

"When there's little time they load the work over onto us. I don't call that quality management!"

Delegation is assumed to be a result of, among other things, an overworked management (Yukle 1981 in Leana 1986). When the management cannot give sufficient attention to decisions that must be made, they delegate them. The management

delegates tasks they themselves cannot handle, ordering materials, supervising executed work etc. This pattern is observable in several companies.

Whether a manager chooses delegation or assignment can result from how important he regards the decision (Leana 1987). Important decisions will not be delegated but made with the participation of the subordinates, particularly if it is important that the subordinates approve of the decision taken. The degree of delegation will increase if the manager perceives his subordinates as skilled and informed in relation to the decision that is to be taken. This brings us back to the argument that the manager's perception of his subordinates decides the degree of subordinate involvement.

Delegation and the manager's option of his subordinates

An organisation that is characterised by a cleft between manager and subordinates will have difficulty in developing the confidence in subordinates that delegation requires to function (Leana 1987). Managers will delegate when they themselves lack sufficient information, when subordinates share the organisation's objectives, and when subordinates' acceptance and commitment are important to the decision. Delegation will be then dependent on how the manager perceives his own managerial role (Hollander and Offermann 1990). An autocratic manager will have a greater tendency to regard his own information as adequate than a more democratic manager. The democratic manager will more easily assume that others' information can be conclusive in taking the right decision.

5.2.1 Conclusions

Delegation is a strategy that touches many levels in an organisation. The assumptions a manager makes about his own and his subordinates' functions will either encourage him in or hinder him from delegating tasks. His behaviour will demonstrate his real attitudes. Fine theories have, in themselves, little value. It is therefore important that managers that wish to introduce delegation as a part of their strategy for the integration of QM, take a critical look at the values signalled by their own behaviour. This can be a painful process for a manager. A managerial team, or a consultant can contribute to this process with feedback to the individual manager.

Subordinates do not appear to be preoccupied by formal delegation, but more by the manager's opinion of them. Most important is that they experience respect and a feeling that they are taken into consideration.

Delegation is dependent on an understanding of the relationship between manager and subordinate. A relationship that is characterised by mutual trust will

give positive results in the form of increased well being and responsibility on the part of the subordinate. This will in turn lay the foundation for increased production.

Delegation is not always the result of planned management, but often the result of an off-the-cuff solution in a stressed situation.

5.3 Managers' perceptions of their fellow workers

"We feel as though we were a necessary evil".

Manager's perceptions of their fellow workers vary. Their attitudes towards their subordinates in the daily life of the company appear to have a bearing on what happens to the QM process in general, and on shared decision making in particular. Various managerial models show that the degree of trust a manager accords to his subordinates will decide to what degree and how they will be involved in decision making.

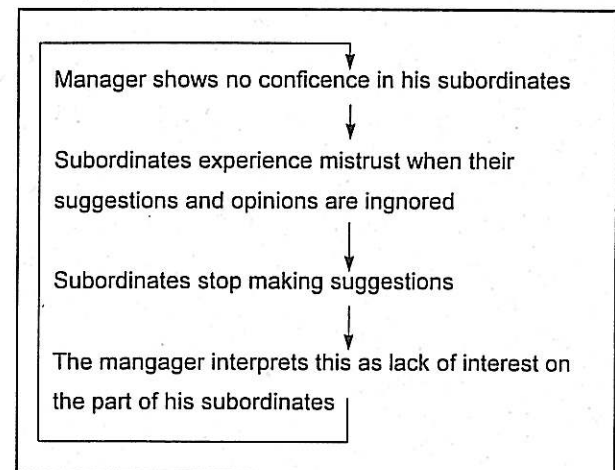


Fig. 5.3

The manager's attitude to his subordinates
The manager's attitude to his subordinates will affect their interest and initiative in QM work.

We have earlier concluded that the expressed theory (the manager's facade) seldom coincides with the applied theory (those thoughts that in fact control behaviour). Argyris (1983, 1990), claims that the applied theories are a result of insecurity and lack of trust. This behaviour he calls "Model 1 behaviour". All co-operation is characterised by one-sided control and competition. The manager does not in reality allow his subordinates to participate in the decision making process. An example of "Model 1 behaviour" is that several managers express confidence in their subordinates and a desire to draw them into the QM process (expressed theory) but end up by carrying through the process alone, and impose the results on their subordinates through orders (applied theory). This implies that it is not necessarily trust that characterises the co-operation between manager and

subordinate. The manager's description of "employees as a resource" has no consequence in practice, even though he may express a desire for cooperation, if he at the same time shows a lack of respect for his subordinates and their suggestions. The result for those that take the manager's invitation seriously is often disillusionment and passivity, a state reminiscent of depression. Vroom and Yettons model (1973, in Paul and Ebadi 1989) shows that there are several factors that influence trust. How the manager perceives the qualifications of his subordinates, to what degree he and they share objectives, whether he regards them as having the necessary information, and his perception of his own ability to make the right decisions are all factors which will decide to what degree decision making will be shared. This model, too, shows that mutual trust between the manager and his fellow workers is the decisive factor.

The integration of QM does not have managerial development as a specific objective. Our investigation nevertheless discloses a need for it. The attitude and behaviour of managers is the decisive factor for the success of the implementation of QM. It is essential that decisions made are accepted by the employees, and this is more likely to be the case if they have been involved in the decision making process. This means that subordinates should be properly included in the QM process.

We found that the subordinates' perception of their manager's attitude is a critical factor. If the manager's attitude is perceived by subordinates as a problem, this can easily hinder the entire process of integrating QM. Managers that show confidence in their subordinates will be able to control the QM process more easily, and meet less resistance to the changes brought about during the process.

6. Top-down and Bottom-up

The integration and practice of QM consists of two processes. The first is top-down supervision, which means that the management take responsibility for, and steer the process. The other is bottom-up, which is the direction in which subordinates exert influence, directly or through their performance.

It is important that QM involves the entire organisation. In order for the whole company to function effectively, everyone must work for the same overriding objectives. This presupposes that the QM process is supervised. All popular quality literature points out that the process must first be established at the top of the organisation, and start from there (Oakland 1989, Barra 1984, tenner and DeToro 1991, Juran 1988). Our investigation confirms these reports. but they say nothing about how the process should be established. Our arguments show that the rooting of the process requires clearly defined objectives, explicit expectations and good role models. The commitments of a manager comprise not only what he says, but also what he does. Anything short of a full commitment will be visible in his behaviour and comments. It is also important that the exertions and results achieved by subordinates are given attention and rewarded as deserved. Our conclusions point to the need to develop managerial competence in the work with QM.

Our conclusions suggest that the top-down process alone is not sufficient for true integration of the

QM process in a company. The management are dependent on the engagement and acceptance of their fellow workers. The management alone cannot carry through improvement measures. Their subordinates know the practical problems connected to the production of a high quality product, and are in the best position to suggest improvements. These resources can be tapped in various ways. The management can make use of varying degrees of employee involvement, or can delegate. Our results show that what counts most for subordinates, is the trust and respect shown to them by their manager. Without this trust any contribution to the process of adjustment from them will be impossible. Lack of trust results in resistance to changes, lack of well-being, conflicts and a lower quality performance. The bottom-up process presupposes mutual confidence.

Earlier, the management and the other employees were regarded as two separate systems. Organisational psychology and newer managerial theories have left this model. No manager can lead unless his position is legitimised by his fellow workers. The two systems exert mutual influence on each other. In the same way the bottom-up and the top-down process must be seen as two sides of the same matter, which must be mutually justified. These two process are mutually dependent and are a criteria for a continuous improvement process.

7. Conflicts

There will always be conflicts in an organisation. They can be perceived either as a resource, or as a threat to the progress of the company.

Those conflicts that exist in a company, and the way they are handled will have a bearing on the implementation of QM. Deadlocked conflicts will hinder the integration of QM, while the solving of conflicts will give employees inspiration and confidence that QM is an effective aid for the company. For the managers of a company it becomes essential to be able to identify, acknowledge and analyse conflicts that exist in the company.

We have seen conflicts that are so intense that the company is unable to tackle them. They paralyse the company's performance ability, and make the integration of QM very difficult. QM can become a new area of conflict in organisations that do not handle conflicts openly. In such companies conflicts are regarded as undesirable elements, and are partially covered up or denied by a greater or lesser number of the managerial staff.

7.1 Conflicts – how they arise, and what they look like

Groups that are "in" and groups that are "out"

A good relationship between managers and subordinates is regarded by Kets de Vries (1984) as a corner stone of the organisations efficiency.

Several of the companies in our investigation were characterised by a large cleft between subordinates and managers. "The atmosphere here is pervaded by a «them and us» attitude."

Individuals "belong" to different groups and therefore have different loyalties. Group loyalty will often mean more to the individual than loyalty to the company as a whole. "External enemies give internal solidarity".

This group loyalty, particularly when it results in managers and subordinates facing each other across a battle front, can be the source of significant resistance to the managerial objective of integrating QM.

Bion (1959, in Morgan 1988) points out that when a conflict arises that challenges the structure and function of the group, it draws energy away from production. The energy is used instead to cope with

the angst caused by the conflict. Bion further remarks that when preoccupied by internal conflicts employees tend to focus inwards and external problems are overlooked. This, claims Aldefer (1983), results in the company having a lower survival ability.

Research shows that the management often employ threats to solve conflicts (Howat and London 1980, Putnam and Wilson 1982, Morely and Shockey-Salabak 1986, in Putnam and Poole 1983). A group that is exposed to too much negative criticism will have a tendency to close together in self defence (Alderfer 1983). This has resulted in the group isolating itself from any outside influence exerted, for example, from the management. This is the way lines of conflicts and cliques are formed in a company.

There is a marked contrast between the actuality of a cleft between managers and subordinates, and the ideology of co-operation and employee involvement necessary to establish and practice QM.

This is further emphasised by the fact that a positive relationship between various groups, and between the company and its surroundings is necessary for its survival (Alderfer 1983). A mutually open relationship between groups will encourage interaction between the organisation and its surroundings.

Another point is that the management is dependent on a good relationship with its employees in order to exploit conflicts as a resource, instead of conflicts leading to a breakdown in communication and co-operation.

7.2 Mastering Conflicts

Managers have varying perceptions of the cause of conflicts in a company. The way in which a manager views the conflict will colour his handling of the conflict in such a way that his view may become a self-fulfilling prophecy. The manager that sees the conflict as part of the variety in the company's daily life will be, to a greater degree, able to exploit the constructive possibilities, whereas the manager that sees the conflict as resistance or opposition to his authority will experience that the conflict hinders him in his work.

The manager's perception of the underlying causes will be coloured by the relationship between himself and his subordinates. This in turn is coloured

by his own history of learning, both in general and specifically in relation to the individual subordinate and to the work process in question.

Thomas and Schmidt (1976, in Putnam and Poole 1987) reckon that a manager uses 20% of his time to handle conflicts. Some researchers argue that, up to a point, conflicts can be a positive factor in an organisation (Nelson 1989)

Nelson (1989) claims that little research has been done on the identification of the border between constructive and destructive conflicts. Fiedler and House (1988) claim that when a manager is acting under pressure, as in a conflict situation, he will make use of his experience rather than his intellectual resources. Argyris (1990) explains this phenomena as a result of the simplest type of learning where one uses old solutions on new problems. At the same time a manager has a tendency to defend himself if he perceives the situation as potentially threatening.

This leads to a freezing of the conflict and undermines all attempts at solving the problem (Argyris 1990). Threats with reference to the manager's position of power are characteristic of managers with poor leadership qualities (Conrak 1983, in Putnam and Poole 1987).

Nelson (1989) claims that one means of identifying the level of the conflict is by network analysis. Positive contact between social units in the organisation can reduce the level of conflict. The strength of the relationship in the network is measured by frequency, mutuality and friendship (Granovetter 1973, in Nelson 1989).

Informal leadership

Mitzberg (1983) differentiates between five different systems in an organisation: the formal authority, the regulated work process, informal communication, work constellations and ad hoc decisions. These various systems can work against each other, and need not necessarily have the same leaders. It is, then, important to locate any informal leaders in a company when mapping conflicts.

Several companies had problems with informal leadership. "We don't know who we should turn to". Informal leaders seem to hinder establishment of clear lines of responsibility. This is shown partly by subordinates not knowing who to turn to, and partly by a loss of authority on the part of the manager. It appears that, to start with, the informal leader takes care of some function that the formal manager has failed to fulfill adequately. This means that, in the beginning, the informal leader contributes to things actually running more smoothly in the company. But this way of solving the problem will, in the long run, undermine the authority of the formal management if the informal leader does not achieve formal status.

Informal leadership will often arise when conflicts

are not treated openly. "We go to X. because he's the only one you can talk to"

7.3 Causal Attributions

We have chosen to look at how the manager attributes errors made in the company. By errors we mean here lack of quality of subordinates' work that may lead to conflicts. The mental process that leads to explaining or errors is called attribution. We use the two words explanation and attribution synonymously in this context.

It is beyond the scope of this investigation to go into the various thought processes that lead to the equally various attributions. We will however refer to research done on factors that influence this process. The perceptions formed are often built on simplified analyses of cause and effect. We humans often make use of mental short cuts in our analyses.

According to Cronshaw and Lord (1987), and Brodt (1990) we often first give our attention to the analysis of cause and effect when a situation diverges from our stereotyped perceptions.

The essence of this theory is that the mental processes that lead to a causal attribution are not rational. This means that the individual who is to explain the relationship between cause and effect for a situation he is observing, will not be able to arrive at anything other than a hypothesis. The problem arises when this hypothesis is regarded as the truth. When a manager treats his hypotheses as if they were the truth he will have difficulties in solving the actual conflict he is confronting. A large number of factors influence the hypotheses a manager creates, and, as a result of these, which solutions he applies to the conflict.

It is therefore necessary for the managerial team, or the individual manager to analyse his own causal attributions in a co-operative context together with others. Such an analysis will not then result directly from his conscious thought, but rather from his behaviour, as others see it, when he seeks to solve the conflict.

As an example, we can mention Dobbins and Smith's findings (1990): that a manager's orientation to winning affects his perception of cause and effect. The causal attributions of managers that are less orientated towards results vary according to whether the subject of their explanations is an individual with higher or lower performance levels. Low performance individuals are treated with more tolerance by managers with low orientation to winning. High performance individuals are made more responsible for their actions regardless of whether they are caused by personal or external factors. Managers that are more orientated towards results tend not to be influenced by the performance levels of individuals.

The consequences of the behaviour in question also influenced the manager's attribution, and his be-

haviour. Behaviour with serious consequences was more likely to be attributed to personal factors, and penalising measures regarded as more suitable. Explanations/excuses could counteract the emphasis on personal attributes, and the execution of penalising measures.

In other words the attributions arrived at by a manager are influenced by factors outside of the actual behaviour to be explained.

Models for attributing explanations

Causes can be attributed to personal or external factors. With personal causes, the behaviour is explained by factors that are a part of a personality or other stable characteristics of an individual. Causes attributed to external factors are blamed on the conditions under which the behaviour occurred, independent of the person involved. We have supplemented with a type of cause we have designated "systemic". This is defined as being caused by a combination of personal and situational factors. A systemic attribution means that the manager must see the behaviour in the context of co-operation within the company.

We have chosen to include systemic attributions from a hypothesis that a manager that regards the company wholistically, will be able to execute more efficient, corrective and preventive measures. QM is achieved through preventive work and supervisory measures. Attributions can contribute to or hinder effective managerial behaviour.

We can divide attributions into three levels, from lowest to highest:

1. Personal attributions: the manager attributes the error to a person or the person's performance
2. Situational attributions: the manager attributes the error to the circumstances around the employee, such as lack of knowledge or equipment, or work conditions.
3. Systemic attributions: the manager attributes the error to the system: the totality of situation and form for co-operation in which the employee works, which the manager is also a part of. The latter also includes the person's effect on his environment, and visa versa.

This classification is intended as a rough sorting of the type of ways that managers seem to explain errors. These categories are overlapping in a continuous spectrum.

What we wish to emphasise is that the different types of attributions will give rise to different methods for altering conditions in the company.

A manager that attributes errors to his subordinates' personal characteristics will make it very difficult for himself to alter the conditions that caused the error to occur. One example is the manager that said: "It's because they won't exert themselves, all they do is demand." His recipe for change will be either to give the person in question notice, or de-

mand that he contributes more. The latter invariably is communicated through threats or scolding. This seldom leads to the desired result. At the same time as limiting his choice of action, he also disclaims responsibility. This is a consequence of the fact that, according to his attribution, the cause of the behaviour is beyond his control, even though he formally stands responsible.

Situational attributions give the manager a greater choice of action because he sees lack of knowledge or external circumstances as the cause of the behaviour. A manager has greater possibilities to alter the circumstances around an employee than he has to alter the employee's personal characteristics. This means that he must take more responsibility for the occurrence of the error, since his job as manager is to create conditions that are as favourable as possible for his subordinates. "Those employees who have received the information they need, and have access to the equipment they need, but still make mistakes: we can't employ them here!" The measures that are available are further training and/or restructuring of the work situation.

Systemic attributions include personal and situational causes. They expand the concept of external factors to include the aspect of relationships. The manager's behaviour, and his relationship to his subordinates is also drawn into the causal attribution. His responsibility increases even more here, as he is not only required to ensure that the necessary conditions are fulfilled, but must also take into account his own and others' behaviour when explaining why an error has occurred. He must have a wholistic approach in order to see how his behaviour has influenced the behaviour of his subordinates. This means he must be more familiar with all aspects of his department than if he were to employ personal or situational attributions. He can alter the undesired behaviour on several levels, either by changing his own behaviour, by altering the physical circumstances, or by attempting directly to change the behaviour of the subordinate(s).

If a manager takes "short cuts" in the attributing process he will arrive at a lower level of attribution (personal or situational). He must acknowledge his own short cuts before he can attribute the causes to the system. This means that systemic attribution is a mentally complex and work-intensive process that demands a high level of awareness of the manager. Managers need training to avoid the pitfall of making wrong attributions (Mitchell et al 1981).

Heerwagen, Beach and Mitchell (1985, in Dobbins et al 1990) conclude that managers evaluate corrective action as more appropriate when behaviour is attributed to personal factors. Measures tend to be evaluated according to how costly they are. Low expense measures are seen as more acceptable than expensive ones. Mitchell et al (1981) claim that managers tend to attribute errors to personal factors

because they assume it is easier to change people, by asking them to work harder, than it is to change the task or the situation. This amounts to the manager's disclaiming responsibility. The manager's own tasks, in the form of ensuring a good basis for the work, is toned down. Instead, the individual employee is left with the responsibility. On a short term basis the manager gets off free this way, but in the long term he loses control and influence.

The three types of attributions do not require the same time perspectives of the managers. Personal attributions make it possible to take steps immediately, and expect immediate results. Corrective action for situational attributions need longer term planning. For systemic attributions, corrective action involves a complex co-operation. It cannot be executed without long term planning and conscious execution of the chosen measures. It is not enough to change a part of an interacting system.

The time perspective factor also enters into how a manager perceives his own ability to master and control. The consequence for him of moving from the personal type to the systemic type of attribution will be to increase his responsibility, his choice of alternatives for intervention, and his time perspective.

The degree of control a manager has in his organisation will be influenced by his pattern of attributions. Paradoxically, the manager that has little control will aggravate this situation by attributing errors to factors beyond his control. It is difficult to know which is the chicken and which is the egg in this context! Is it the lack of control that results in the choice of attribution, or visa versa? One thing at least is certain: a manager's attributing pattern can contribute to his perception of lack of control.

We do not claim that systemic attributions are always the correct ones. Errors can certainly occur because of personal or situational factors. What we do claim is that a manager that only attributes errors to personal and situational factors is limiting his own choice of alternatives to change behaviour and prevent conflict.

The relationship between manager and subordinate

Effective managerial behaviour presupposes that managerial attributions agree with those of the subordinates and mirror the actual conditions in the organisation (Bannister 1986).

What attributions are employed by the manager and his subordinates will be guided by, and have consequences for, the relationship between manager and subordinates. It is reasonable to assume that the quality of this relationship will increase with a higher level of attribution. Better relationships mean that both parties have a greater degree of interaction. This increased interaction is necessary if conflicts are to be solved in a constructive fashion. Increased

interaction will also ensure that the various groups have a better chance of being understood. This in turn will lead to increased mutual trust.

Research shows that diverging attributions on the part of source (usually the subordinate) and receiver (usually the manager) results in the source not taking any notice of feedback or guidance from the receiver (Bannister 1986).

So the managerial attributions can have a domino effect in relation to the entire atmosphere of co-operation in the company.

Errors in causal attribution

As far as the behaviour of the subordinates is concerned, the degree to which manager's and subordinates' causal attributions agree seems to be dependent on the size of the psychological distance between them (Mitchell et al 1981). This distance is decided by factors such as empathy and power distribution.

Nisbeth and Ross (1980) have developed a theory that partially explains why people differ in their attributions. Any individual naturally tends to personal explanations for others' behaviour, but situational explanations for his own. This is explained by the fact that observer and actor have different view points in relation to the behaviour. When an observer has to explain others' behaviour, he focuses his attention on the actor. The actor meanwhile focuses his attention on the circumstances around him (Jones 1970 in Dobbins and Russel 1986, Monsen and Snyder 1977, in Mitchell et al 1981).

Another factor that influences the attribution of an error is that an individual has more information about his own behaviour, and how this varies in relation to circumstances, than he has on other peoples'. Mitchell et al. (1981) call this phenomena "self-based consensus". That is, he who is attributing an error compares others' behaviour with what he himself would have done under similar circumstances. This comparison stands in contrast to the more valid "sample-based consensus" where the basis for comparison is what a selection of the population would have done under similar circumstances.

An extension of this phenomena is the "self-serving attribution". Here, the individual attributes all personal success to internal, personal factors, and personal failures to external, situational factors.

All things considered, it is not surprising that managers make their causal attributions of others' behaviour on the wrong premises. Managers do take the credit for success for themselves, while they do lay the blame for failures on their subordinates (Green and Mitchell 1976, in Dobbins and Russel 1986). In the same way subordinates attribute success to themselves, while inefficiency is blamed on bad management. Basing their opinions on their own attrib-

utions they will perceive the manager's reaction (training, or punishment) as wrong and unfair.

Dobbins and Russel (1986) confirmed in their experiments the theory of self-serving attribution in cases of low performance. They also found support for the assertion that subordinates perceived their managers' explanations as incorrect. Their research, in fact, attributes personal explanations to low performance.

One factor that can alter this pattern is solidarity with a group. This appears to sink the frequency of self-serving attributions (Zaccaro, Pettersen and Walker 1987). This means that if the manager perceives his subordinates and himself as belonging to one group, with a common responsibility for the group's results (systemic attributions), then this will sink the frequency of self-serving attributions.

7.4 Conclusion

To summarise, we can say that managers that attribute errors to personal factors, disclaim responsibility, and are unable to take action to alter the situation in their company. Managers that attribute errors to the situation take responsibility for ensuring favourable conditions and adequate training for their subordinates. This is what "management" is about. Managers that attribute errors to the system are aware of their own part in what is happening. They can react by altering work conditions, ensuring proper training, and changing their own behaviour. They can operate with short and long term aims. This is a form of management that can truly be designated as "leadership".

Several of the companies we investigated had conflicts that made the establishment of QM difficult. These conflicts function as a hindrance to change. They had not arisen because of the QM process, but even so QM had become a new area of conflict in several companies.

Negative effects of conflicts are often visible and obvious. Conflicts can disturb communication and the ability to co-operate, and sidetrack energy away from

important activities. The result is that any conflict is perceived as negative. This is an underestimation of the positive potential of a conflict for an organisation. The diverging opinions that lie behind a conflict are an important resource for the company's ability to solve problems. If these resources are to be exploited, then the management must not regard conflict as a threat to its position. This will in turn depend on what the management attributes the conflict to. The management's comprehension of a conflict will, to a large degree, determine whether the conflict is perceived as destructive or as a source of growth for the company.

Conflicts bind energy when they become deadlocked, but release energy when they are worked out openly. This requires firstly that the managers are aware of the conflict, do not perceive it as a threat, and that they communicate openly between all parties involved in the conflict, without disguising "their" solutions, or forcing them on to their subordinates. The various causal attributions the manager uses will encourage or hinder communication in his company. This means that a manager's attributions will set the limit for how effective he can be in solving conflicts.

Investigations cannot give direct answers as to how conflicts can be solved, but from the finds we have presented, we can draw some general guidelines.

In the first place, in order to solve conflicts the manager must test his assumptions of cause and effect. First he must reveal how he forms his own hypotheses, and he must acknowledge that in this process he is dependent on others.

Secondly, the management must open up the communication in the company. This means that the managers will be more exposed to criticism, but it also means that their insight into what is happening in the company will increase.

Both of these measures will build up trust between the various groups in the organisation. Without trust the cooperative spirit and a high quality work process will remain unattainable.

8. Communication

QM can be regarded as a way of structuring the communication of the organisation, both internally and externally between the organisation and its surroundings. The implementation of QM is, then, absolutely dependent on the channels of communication that exist within the organisation.

Communication is not an isolated factor: it is interlinked with other aspects of the organisation such as management, inter-human relations, and conflicts. Communication in an organisation will be formed, among other things by the conflicts that exist in the organisation. Communication will be able to create, prolong, and solve conflicts. In other words there is a close connection between the communication patterns of an organisation and its conflicts.

Conflict research shows that a communication failure between the management and subordinates is one of the most significant sources of conflict (Philips and Cheston 1979, in Putnam and Pooles 1987). Lack of trust is one of the main reasons for communication problems (Jablin 1985, in Dansereua and Markham 1987).

8.1 Our "guides"—the company's human links

Likert's (1967) system theoretical group model is built on the idea that groups in an organisation are connected by individuals holding key positions. These individuals can be said to belong to several groups simultaneously. They can act as a human link between different groups. One manager said "people come to me and complain of the diffuse lines of responsibility in this company". Vertical group formation fills an important communication channel upwards and downwards through the hierarchy of the company (Mintzberg 1983, Schein 1983). Individuals with membership in several groups play an important role as negotiators between groups in conflict with each other (Putnam and Poole 1987).

Communication researchers have been pre-occupied by network analysis, and what role networks play in an organisation (Lincoln 1982, Pearce and David 1983, Brass 1984 in McElroy and Shrader 1986). Ties between individuals influence the informal distribution of information and social solidarity. The importance of such ties to communication is they

bring information to groups and individuals that otherwise would not have received this information (Granovetter 1973, in Putnam and Poole 1987).

In our investigations we have met individuals that function as human links. These individuals have had a central role in our investigations as "guides" for our understanding of the companies.

Common to all these guides was that they occupied a sort of middle position. They were often closely connected to, or a part of the management. At the same time they enjoyed a good relationship with the subordinates. This implies that they had access to important information from both groups. This enabled them to form a clear picture of the company.

Network analysis is widely used to map informal communication. Lincoln (1982, in) claims that decisive for an individual's function as a human link is the centrality of his position in the network. Centrality is determined by which contacts the individual has in the company. Brass (1984 in McElroy and Shrader 1986) claims that the potential power of such an individual arises from his control over such an important resource as communication. Network analysis also makes it possible to identify those who are isolated from each other in the network (McElroy and Shrader 1986). An individual who is isolated from others in the network will not be able to send or receive information. This implies that these human links not only have an important function in communication between the management and subordinates. They will also be in a position of power springing from their central position. The management can be dependent on these key individuals in order to function effectively.

These "human links" appear to have a supportive function for the subordinates. They are often used as a Wailing Wall for the other employees' frustrations. Research has shown that people with a poorly developed network are more susceptible to stress (Ebeltoft 1990). A network can give support in difficult situations. Social support can be a buffer against stress in the work environment.

When conflicts arise, these key individuals will be able to serve an important function. Not only will they be in a position to obtain a wider knowledge of the conflict, but they will be able to open communication channels between different groups, since they, to a greater or lesser degree, have the trust of both sides.

8.2 Communication Failure

"We ask him to tell them what we think, but he doesn't dare confront the management. We want a manager with more backbone!"

An important condition for QM to function is effective communication. QM can be regarded as a way of communicating the demands and expectations of the client internally and externally. Communication is a managerial responsibility, and is regarded as one of the most significant of managerial tasks. Hunt (1989) claims that efficient management can only be practised through efficient communication. The will to exert oneself and high performance levels are not enough to make a good company (Lawler 1982). The individual performances must be co-ordinated through communication. Dansereau and Markham (1987) made a survey of the research done on effective management, and concluded that effective managers have a similar communication style. Managers displaying good leadership were characterised as communication orientated, open, interested and empathic listeners, questioning and persuasive, sensitive for their employees needs and feelings, open in their sharing of information, and willing to explain the reasons for established objectives and desired changes.

The subordinate's experience of open communication with his manager is related to job satisfaction in general, and satisfaction with his boss in particular (Dansereau and Markham (1987). This satisfaction is not only a result of an open and supportive relationship between parties. It is also dependent on the manager's ability to take care of his subordinates by influencing managers or directors higher in the hierarchy. Middle level managers and shop floor supervisors often hesitate to go to their superiors with information that they feel may be counted in their disfavour (Dansereau and Markham (1987).

Baron (1990) asserts that the key problem is individuals that unintentionally communicate in a way that irritates, disturbs or frustrates others. He claims that this is a result of ambiguous communication. This is especially noticeable in a manager's communication with his subordinates. The manager may regard his communication as clear and explicit, while subordinates describe it as confusing.

Argyris (1982 B, 1983, 1990) is preoccupied by disfunctioning communication. Expressed and applied theories convey equivocal messages when they do not correspond. That is, the aims ideas and values a manager claims rule his behaviour do not correspond to the principles that in fact steer his actions.

"We have an open relationship with each other (later, in the same conversation) I can't tell him what I think of his behaviour."

As we have noted earlier, it is the manager's behaviour that demonstrate the values and ideas that guide him. When these diverge from the ideas he publishes, then we have an example of the afore mentioned Argyris' Model-1 behaviour. The individual particularly behaves in this way when he perceives a situation as potentially threatening or embarrassing, or about to make him lose control (Argyris 1990). A manager who says one thing, and does something else is in danger of loosing face, and it suddenly becomes important for him to cover himself.

Model-1 behaviour is automatic, and can be quite advanced. A common characteristic is that it undermines the possibility of solving any problems that arise. Argyris calls this *skilled incompetence*. This learnt skill is used reflexively. Lack of awareness is a part of this skill. By being unaware that we act in defence we suppress the acknowledgement that something is embarrassing. This Argyris calls *skilled unawareness*. Others that are witnesses to Model-1 behaviour will often perceive it as defensive action. Then the observer's own Model-1 behaviour takes over. He avoids seeing what he is seeing, or comments the behaviour in a way that is difficult for the actor to understand. This is *defensive communication*.

Learning and development involve discovery of errors or weaknesses. According to Argyris' reasoning, these weaknesses will be experienced as potentially threatening or embarrassing, and release new defense mechanisms. In this way tabus can arise on an organisational level.

According to Argyris, subordinates play by the same rules as their superiors, and that this means that real feelings are seldom expressed. Even so, managers are responsible for how they co-operate with their subordinates. Ambiguous messages force both manager and subordinate to guess at each other's feelings and values, and base their conclusions on assumptions. This can give rise to conflict. Such conflicts will often be suppressed, resulting in a false appearance of agreement (Kets de vries 1984).

Subordinates find that their management exhibits Model-1 behaviour. The management use their role to control others and create security for themselves. if they meet resistance they respond with more defensive action.

The management arranges the situation so that it confirms their own premises (Argyris 1982 B). In this way they can never test the validity of these premises. The result is a self-confirming process, a teaching process where the management go in a ring (Argyris 1990). Rogers (1983 in Stohl and Redding 1987) asserts that managers control inter-personnel relations by exploiting their right to direct, structure and dominate the communication system. Ebeltoft (1990) thinks that defensive procedures are connected to the tendency to attribute lower performance

to subordinates' personal traits. Kets de Vries (1984) claims that defensive managers will accuse their subordinates of being nervous, unsuitable for the job, or overworked. In order to strengthen his position of control, a manager may even encourage his subordinates to express their opinions and exhibit independence, and then attack them for it. Such ambiguous messages lead to a misunderstanding of the manager's intentions, and subordinates will then act on the wrong premises. Their behaviour will not then meet expectations, and will then confirm the manager's causal attribution.

Tabus in management

Tabus exist in all organisations: communication marked by conflicts that everybody is aware of, but nobody talks about.

The management may ask themselves if there is any point in laying themselves bare to their subordinates. Holding back important information can be one of the ways in which a manager defends himself, so that he doesn't stick his neck out. Information to his subordinates is censured. The management projects an image of unapproachability.

ordinates' satisfaction with their manager is dependent on his being able to exercise his influence upwards through the hierarchy in their favour. Pincus (1986 in Dansereau and Markham (1987) claims that job satisfaction comes from having a manager who is open to and takes in important signals.

Defensive procedures or tabus can represent a way for the manager to control his own angst. This may be fear of losing face or fear that his own weaknesses and incompetence should be discovered. By expressing himself convincingly but ambiguously he is unapproachable. The ambiguity cannot be made subject to discussion. This is a form of control that brings one's subordinates to silence. Ebeltoft (1990) claims that ambiguous messages create angst and can cause various patterns of aversion. One of these may be finding a scapegoat.

Tabus can give rise to rumours and myths. Since these cannot be confirmed or denied officially they live on concealed, and colour perceptions and actions. Because it cannot be verified, information will be regarded with a certain amount of scepticism. The result of this scepticism can be further retreat, which will in turn create conditions for new rumours to thrive.

8.3 Managerial data

"He (the manager) is quite isolated from the rest of us in the company".

To steer the QM process a manager must be thoroughly familiar with his own organisation. Managers that isolate themselves from information will lose this familiarity.

People do not absorb and digest all the information that exists in the environment around them. They screen information according to how significant they perceive it to be. Information that is perceived as unimportant or disturbing is either ignored, avoided or stopped.

Managers can make two mistakes in this process. They can either place too much emphasis on information that is of little import, or they can overlook important information. In the companies we have investigated the latter seemed to be the commonest error.

The QM philosophy of continuous improvement is dependent on communication from subordinate to management. Why cut off the management from information that is important to their work in general, and QM in particular?

"Managerial data" is the name we have given information from subordinates on how the company is functioning. The fact that some managers do cut themselves off from managerial data is actualized in Mintzbergs classical study of managers. He shows that managers have little ability to evaluate their own behaviour. At the same time they do not accept information related to their own work from subordinates.

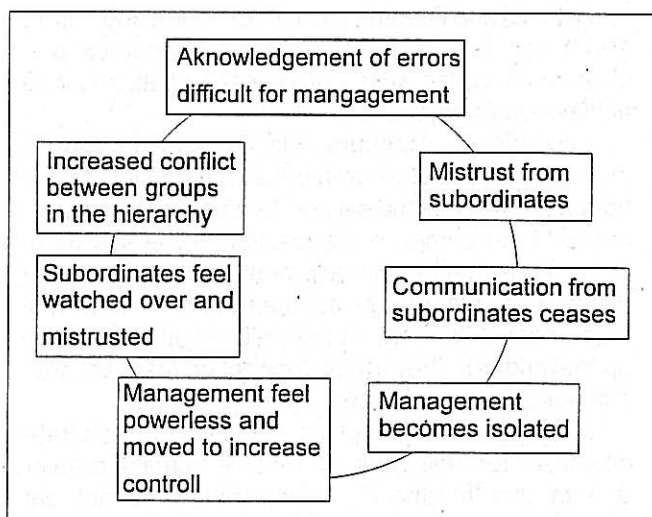


Fig. 8.2

The conflict circle

The relationship between conflict and communication. A management that shuts down communication will increase the level of conflict. Communication then stops altogether, and the organisation can no longer exploit its resources.

When the middle management are afraid of, or simply stop communicating the negative reactions of their fellow workers to his superiors, then communication will break down completely and tabus will develop. Dansereau and Markham (1987) claim that sub-

The manager's behaviour is not subject to evaluation (Mintzberg 1973, in Bryman 1989).

The subject of access to managerial data has been taken up by Ishikawa (1985), although his style must be taken with a pinch of salt! He advises managers always to smile to their subordinates whatever the nature of the information they impart. He calls this "*smiling management*". If the manager doesn't smile, the subordinate will not dare speak of his problems, or impart other important information about the organisation. The result is that the manager misses out on valuable information.

Managerial data can be regarded as a form of feedback from subordinate to management. All feedback research has seen the manager as the source of feedback, rather than the receiver. The problem of feedback in the opposite direction has not been illuminated. We have therefore had to apply the finds made by feedback research in general, with respect to the relationship between source and receiver, although in this case the respective positions, requirements and power relationships that influence the form of feedback are different.

Smiling management

The managers we talked to related differently to the information they sought or received from their subordinates. Their reaction to information received will effect the type of information they will receive in the next round. Several managers react with anger when they received unpleasant information from their subordinates. From the manager's point of view this is a natural reaction to the problem itself. But when he reacts with anger when he is informed, for example, that ordered goods have not arrived at the construction site, he risks cutting himself off from that type of information in the future. The consequence is that subordinates stop giving him information. Managers often do not appear to be aware that their own behaviour lays the premises for what type of information they will receive. Managers that can only tolerate good news will only receive good news. Managers who accept and react constructively to information about errors will also receive that type of information.

Communication between subordinate and manager is more complex than Ishikawa expresses. The flow of information resulting from the relationship between manager and subordinate is not *only* steered by the manager's immediate reaction. Subordinates do not only react to the latter, but also to whether the manager takes action about the situation they have reported. They have a common past with their manager. From this past experience they have formed expectations of their manager. Ishikawa has not taken into account human's cognitive ability to digest the stimuli they receive.

Feedback to the management

Manager: "I think feedback is just an unnecessary catch word they preach about"

Feedback can be regarded as a communication where behaviour is evaluated in relation to explicit or implicit aims. Psychological research has shown that feedback has an effect on motivation and can guide behavioural changes. These two aspects are dependent on how the feedback is given and what information it contains. Algera (1990B) finds that feedback influences well-being and efficiency. It appears that well-being is a result of efficiency, and not visa versa as has always been assumed.

One problem managers meet in relation to feedback is that it takes up their precious time. This means that the manager always has to balance between quantity and quality in his work. A manager that is under time stress will tend to give quality a low priority. The most immediate aim will be to get the work out of the way before he drowns in it completely. Feedback on quality will therefore have little meaning for him. For a manager to receive feedback on quantity from others, they must have insight into his work. Very few subordinates have such insight. The hierarchical structure is built such that only the management have insight (Mintzberg 1983). This means that managers under time stress will experience that they do not get feedback that is relevant to circumstances in their own work. On the contrary, they regard feedback as another burden.

Ashford and Cummings (1983, in Ilgen and Moore 1987) see feedback as a personal resource one chooses to exploit when one perceives it as an aid to achieve one's objectives.

According to Bandura and Cervone (1983), in order to evaluate one's own behaviour one must have both a personal standard and feedback. The individual will then compare feedback with the standard. This means that the management must have an idea of how they want their managers to be. Then they must receive information that tells whether they are up to standard. They are dependent on feedback that can guide their managerial style in the future.

Managers that have set specific and concrete objectives for their work will be able to make greater use of this feedback. Those that have not set concrete goals, but that have vague or non-committing aims will not know what to do with the feedback they receive.

If the feedback shows that there is a great distance between actual behaviour and a personal standard it will act demoralising. It is reasonable to suppose that managers with little self confidence will try to screen themselves from feedback that can weaken their motivation to keep going in the stressed situation they are in. It is also reasonable to suppose that managers with high self confidence will be more open to feedback from their fellow workers.

The sources of feedback

Managers often give the impression that they miss feedback at the same time as they prevent the feedback they could have got from their fellow workers from reaching them. "Our manager is short sighted. He hunts us out of the room, but at the same time wants more information about what is happening."

One possible explanation for this paradox is that the manager is not aware of the value of the data he receives from his subordinates (Greller 1980). How relevant the manager will perceive the feedback from his subordinates will be determined by his own assumptions regarding his responsibility. If he regards his task purely in connection with obtaining assignments, then he will not see subordinates as a part of his feedback system. He will only see the value of feedback concerning the obtaining of assignments.

There is a connection between the credibility of the source and how the feedback is received. Information from a source that has little credibility has little value (Zimbardo, Ebbesen and Maslach 1977). McGuire (1969 in Porter and Roberts 1983) claims that the source of the feedback must have credibility, be attractive and/or have power if the feedback is to have any effect. This emphasises again that the relationship between manager and subordinate is of utmost importance if communication between the various groups of the organisation is to have any purpose. A manager who does not believe that his subordinates can contribute to a better management of the company will not consider what they have to say. When the subordinates perceive that nobody reacts to what they say, they will stop saying it. Again we see that the manager's opinion of his subordinates is a self-fulfilling prophecy.

Many of the subordinates in our investigation commented on the lack of communication with their management. Lawler, Porter and Tenenbaum (1968, in Porter and Roberts 1983) find in their research that managers regard communication with their superiors as more important than communication with their subordinates. They claim that this may be a result of the superiors' power over performance rewards, which makes contact with their superiors, and being noticed, more personally motivating. The consequence is that contact with subordinates is down graded.

When managers isolate themselves they can no longer receive information. This will result in their having little power to influence events (McElroy and Shrader 1986).

Orientation to reality

Every manager has a picture of himself and his relationship to his surroundings. This picture will, to a greater or lesser degree reflect his external circumstances (Kets de Vries 1980).

When a manager receives feedback that diverges from his picture of reality, it can have a demoralising effect. A manager who is fighting to keep his head above water may therefore try to screen himself from this type of feedback. Roberts (1971, in Porter and Roberts 1983) claims that people avoid information that does not correspond to their own perceptions. Clinical psychology and research supports this statement that people shrink from receiving information that diverges much from the picture they have formed (Killingmo 1987).

In order to maintain their picture of the world, managers can develop an almost paranoid suspicion (Kets de Vries 1980). They will avoid all information that could sway their control. Managers at the top of the organisation are often regarded as unapproachable with criticism. This will mean that subordinates can only bring them good news.

Several investigations show that people censure the information they give. In the companies we have investigated, it seems that the management also censures the information they receive.

8.4 Conclusion

We have identified variables such as: the manager's perception of his role as leader, subordinate credibility, the managers' and subordinates' causal attributions, and the manager's awareness. These variables can explain why managers cut themselves off from managerial data. They are all influenced by the style and type of communication that marks the interaction between the manager and his subordinates.

We conclude that managers avoid feedback that diverges too much from the picture they themselves have formed of their work and their organisation. Managers that have no confidence in their subordinates do not see the value of information received from them. As a result a manager can easily become isolated in his own organisation. He will then become a problem for his organisation: conflicts will arise. This goes back to what we have already asserted: that a manager's attitude to his subordinates is a decisive factor in the work on establishing QM.

Solving conflicts demands of the manager that he examines his own behaviour: that is, what methods does he use to win through with his ideas? how are these perceived by his subordinates? etc. Founded on such an analysis the organisation will be able to form premises that are a good basis for an open communication system. The latter is essential to solving conflicts in the organisation.

9. Substance and Structure

The QM philosophy has its roots in the Scientific Management tradition. Later it has also embraced elements from the Human Relations tradition. Scientific Management emphasises the structuring of working conditions in order to facilitate productivity. The result was not particularly productive in the long term (Hummel 1987). Human Relations lay emphasis on the encouragement of efficiency through altering working conditions so that they answered to the workers' needs. Research on this approach shows a stable improvement on factors such as absenteeism and turnover. The results when it comes to well-being and efficiency were mixed. In other words one has not yet arrived at a sure-fire approach for increasing efficiency and productivity in an organisation. These two traditions have lived their own lives with little contact between them.

The changes in the companies we visited have taken place on two levels: The structural level and the "substantial level". We feel that we should differentiate between these levels even though they have a mutual effect on each other, and can be regarded as dependent on each other.

The variables we have studied in our investigation can be classified as follows:

Structural variables	Substantial variables
- RATIONALITY	- EMOTIONS
- policy	- mental processes
- objectives	- managerial philosophy
- system of rewards	- commitments
- areas of responsibility	- expectations
- hierarchical structure	- trust and confidence
- decision making	- employee involvement
procedures	- meta-learning
- delegation	- conflicts
- formal communications	- underlying values
structure	- angst
- standard procedures	- emotional bond between
- check lists	company workers
- feedback	- relationships

QM can also be interpreted as a purely structural process. Every individual in the organisation must define his areas of work and responsibility. As long as everyone does what he is supposed to do right (in relation to requirements) first time, the result will inevitably be high quality.

On the other side, QM can be regarded as a process for changing attitudes, in other words "sub-

stance". The intention is that everyone in the company should develop an attitude that encourages high quality.

The assignment we got from the Norwegian Building Research Institute was to investigate what we have defined as the substantial variables.

What we have defined as substantial has elements from company culture and climate. Substance here is defined as the emotional interaction that happens between people, the messages of a positive or negative character that are passed back and forth. *Structure* is the more formal side of the organisation—all the elements of structure can be documented. *Substance* is then a name for what is left if we remove the documented elements of the company: the psychological and emotional side of the communication and co-operation in the company, the loyalty and reputation.

We can set up structure and substances as two vectors that must balance in relation to each other in order for the company to be able to exploit its potentials to the full.

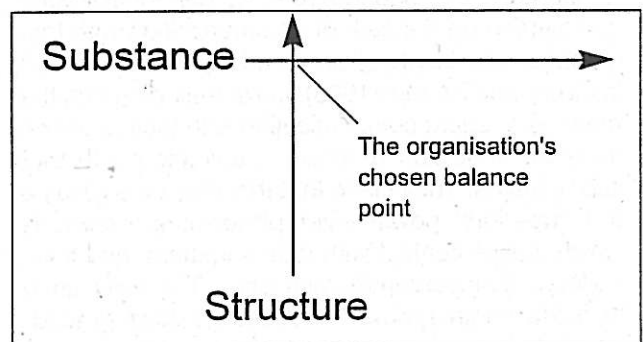


Fig. 9.0
Balance between measures directed at substance and measures directed at structure
There is no set point for this balance. Each company must find its own balance point: where one lays the emphasis between substantial and structural measures.

Our investigations seem to point to the conclusion that one must give more attention to substantial variables in the establishment of QM. If not, there is

a possibility that substantial variables will override the structural changes that the company needs to learn efficiency. If one takes no notice of the substantial variables in the organisation's learning culture, the learning will be limited to the individuals. This means that the organisation will not be able to convert individual learning into learning on a corporate level. As we remarked in our introductory comments, individual learning is a necessary part, but not in itself sufficient for learning on a corporate level.

We see a pattern where companies with conflicts and/or communication breakdowns can not exploit the structural changes positively. In a few cases one can question the company's ability to make use of QM on any level.

As a result of this we have asked whether it would not be an advantage to carry through a survey in the companies on how the internal relations function. Organisational development can be seen as therapy for unhealthy companies. As with any other illness, it is necessary to diagnose the illness in order to evaluate what measures to take. We believe that the division between structure and substance can be useful in this context. Companies that have a substantial interaction they experience as a problem must first take measures to bring this to an acceptable level. A company can have too low a conflict level, so that different view points are never illuminated, or it can have too high a level so that the different view points cannot be exploited in a positive direction. In relation to Fig. 6, a company must place itself in relation to its own perception of substance. This means that the zero point on the axes is not set, but must be seen in relation to the differing companies. Some organisations are productive because of a high conflict level, some are productive in spite of a high conflict level, and some are not productive because of the conflict level. The company must find its own most suited balance point. This is what the survey should aim to find out.

The necessity of this balance between substance and structure implies that any measures taken must be adapted to suit the substance of the company as it already exists. Measures are generally designed in relation to structure. A company director has little access to the substance of the company. The manager must evaluate whether the measure should aim at setting up a new structure or changing the sub-

stance of a company. Often a measure will be aimed at both substance and structure. Measures that have substance as their objective, or part of their objective must take into consideration the rational and emotional variables that can contribute to the change.

One factor we have not mentioned in this report, but that plays a significant role in the relationship between substantial and structural measures is the external demands the company meets in terms of ISO Standards, and certification of the quality management system. ISO Standards do not pay any attention to the substantial factors in a development process. This means that a company that sees its objectives purely in terms of gaining a certificate risks the danger of a lop-sided development, and that their measures do not have the desired effect. We would from this assert that a system built up purely to satisfy ISO Standards will be a "dead" paper system with no possibility of actually increasing efficiency in the company.

Based on these arguments, we would say that a successful establishment of QM must base itself on the following:

1. The company's managerial values must be known to those who are to steer the process.
2. The company's managerial values must be in accord with the quality system the company wishes to establish.
3. If step 1 or 2 are not satisfied, establishment of a quality system will be difficult or impossible.

This is not new thinking in the context of organisational development as a whole. But QM has been coloured by typical engineering thought processes, and this style of thinking does not usually tend to such considerations. Here, psychologists are needed, with their professional insight. Quality management systems are spreading rapidly, and have proved themselves successful in many contexts.

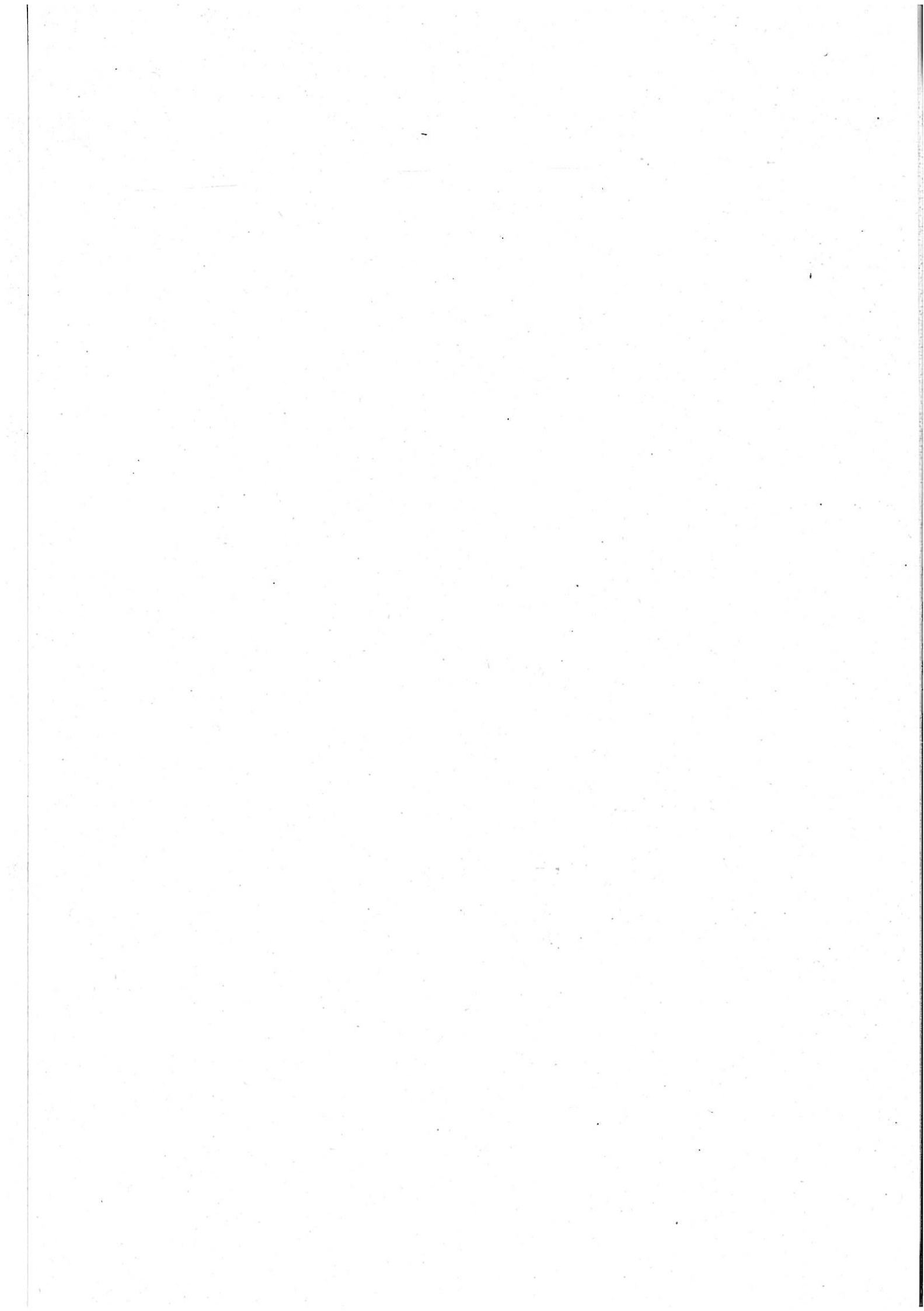
Total Quality Management, with its all-embracing thinking, will also incorporate environmental demands in its quality thinking. We assume that this will probably be one of the most significant sides in times to come.

There is still a danger that this thinking will be a "flop" if it does not care for the human angle. We hope that this assignment will contribute in this context.

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