

Rational Decision Making: Myth or Reality?

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Loizos Th. Heracleous considers the “rational” decision-making model and argues that it neither describes actual decision-making processes nor can be used as an adequate guide to effective decision making. An alternative framework emphasizing cultural, structural and processual factors is offered as a more useful guide to effective decision making.

Decision making is one of the most central processes in organizations and a basic task of management at all levels. Faulty strategic and operational decisions can and do seriously impair organizations’ competitiveness. An understanding of decision-making processes is therefore vital if managers are to go some way towards improving them. This article has three main aims:

- (1) To set forth the “rational” model of decision making and, with reference to empirical studies, show that its assumptions neither apply to most actual decision-making situations, nor are helpful guides to improved decision making. Having criticized the “rational” model, the question of whether companies should even strive to follow it is briefly considered, and a few reasons for its continuing popularity will be offered.
- (2) To suggest some ways, derived from relevant academic research, by which managerial decision making may be improved. An alternative framework comprising structural, processual and cultural factors will be offered.
- (3) As a subsidiary but important aim, the article will aid the diffusion of academic knowledge relevant to practitioners’ concerns in an accessible, understandable and brief way. Referencing will be relatively brief.

The Rational Decision-making Model

A rational decision-making process is often suggested as the way in which decisions should be made, and it involves the following strictly defined sequential process illustrated in Figure 1.

This process is underlain by certain assumptions and characteristics, which, as will be argued, are highly unrealistic in practice. Some of the assumptions are that:

- Decision makers have a *clear* and *unambiguous* understanding of the nature of the problem and of their objectives in relation to this problem.
- A *comprehensive* search for alternative courses of action and their consequences with respect to this problem is feasible and is carried out.
- Each alternative is objectively evaluated with respect to its chances of achieving the desired objectives, and the alternative most likely to achieve these objectives is selected and then implemented.
- Monitoring of consequences is continually and objectively carried out to determine success of chosen course of action with respect to objectives.
- The rational decision-making model makes no reference to the filtering and constraining influences of the organizational paradigm on the decision process as a whole.
- The model also ignores the significant effects of political behaviour on this process.

These assumptions and characteristics will be addressed in some detail. In general, empirical studies of organizations have revealed that most decision situations facing management involve ill-structured problems and uncertainty with respect to alternatives and consequences, partial search for solutions and their consequences, and

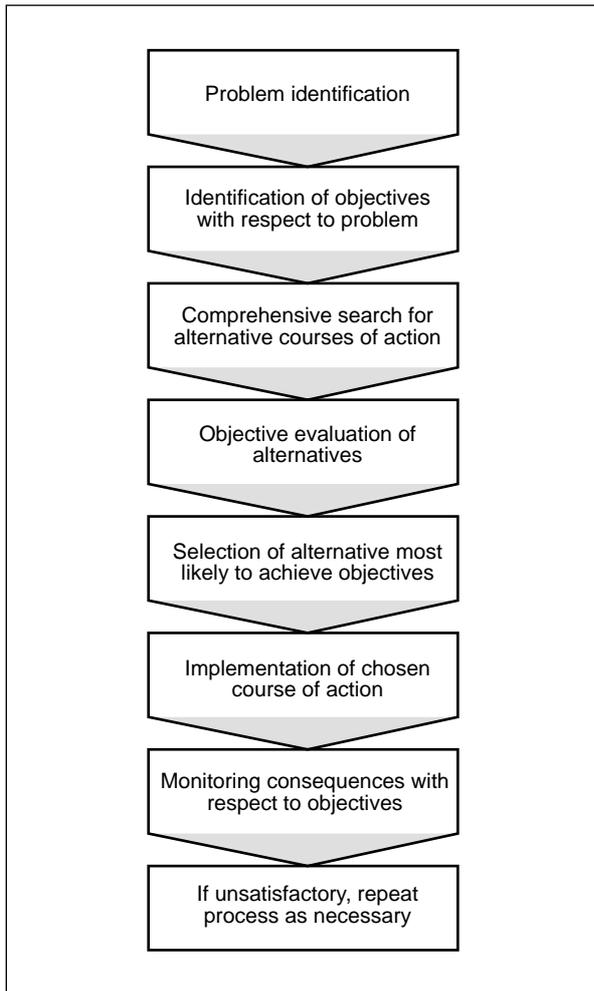


Figure 1.
The Rational Decision-making Model

biased evaluation, selection and monitoring of alternatives.

Decision processes as a whole are influenced by the constraining and filtering effects of the organizational paradigm or culture, by actors' perceptions of their interests and which course of action will best foster them, and by humans' necessarily bounded rationality. In such situations, the mythical status of the assumptions of the rational model of decision making is clearly exposed[1].

Case Example

The following brief illustration will be used to clarify the critique of the assumptions underlying the rational decision-making model.

Securico is a financial services organization which has mainly been providing insurance services to its clients. It has been in its market for around 30 years and its market share for the last

ten years has been around 28 per cent in the geographical area in which it has been operating. Its structure was highly bureaucratic, and had a conservative, inner-directed culture. It had felt safe in its market in which it perceived itself as the leading provider of insurance services. In the last four years, however, it had seen its profitability declining and its market share eroding to 16 per cent with the downward trend continuing.

Field agents began to become aware that something was going wrong when clients began pressing them for lower premiums, additional services and tailor-made policies, and seemed increasingly to prefer competitors' services. This information, though, did not reach top management as there were no systems in place for the gathering and evaluation of intelligence from the marketplace – marketing was considered to be something that other, less professional, organizations did. The highly bureaucratic nature of the company ensured that everybody who came across such information, strictly following their job descriptions, perceived such information as irrelevant to their task and ignored it, safe in the knowledge that this was not their own, but management's problem.

Management became aware of the problem only when the company's financial accounts showed the decline clearly. The problem was discussed among the top management team, and it was decided to reduce premiums by 10 per cent and to improve the (manual) claims processing system by hiring additional staff. The discussions were not characterized by much disagreement as to the causes of the decline, which were perceived, in line with past experience, to be increased price sensitivity of clients and inefficient claims processing. Lower levels were not consulted as management should surely know better!

In developing solutions, it searched its memory for ready-made responses which have worked in the past. The process of identification of alternatives to the problem was highly overlapping with the selection process, as commitment to the solutions built up during their discussion, especially since powerful members of top management seemed to favour these solutions.

The responses were implemented but did not produce the desired effects. Profitability and market share continued their downward trend. It was decided to proceed with further reductions to the premiums and tighter cost controls. The problems continued and the holding company owning Securico replaced most of the top

management team with professionals recruited from profitable financial services companies, who managed to reverse the downward trend.

These professionals had realized that the paradigm dominating the financial services industry, which emphasized conservatism, risk aversion, long-term security of the organization and short termism in financial results, was no longer appropriate to the changing environmental conditions. There was increased client sophistication and increased deregulation of the financial services sector, leading to higher competitive pressures.

These conditions called for outward-directed, consumer-led companies, continually gathering, diffusing and effectively utilizing information about their markets and other environmental aspects, and tailoring their strategies, structures and systems to the dictates of the marketplace while strategically choosing the product markets in which they can best compete.

Critique of the Assumptions and Characteristics of the "Rational" Model

The assumptions and characteristics of the rational decision-making model will now be addressed.

Assumption 1: Clear and Unambiguous Understanding of the Nature of the Problem and of Objectives in Relation to This Problem

As the illustration shows, the top management team, deluded by "groupthink"[4], thought it had a clear and accurate perception of the problem, when it did not. The signals from the marketplace were blocked at grass roots because of the inner-directed, bureaucratic nature of the company and the non-existence of appropriate systems of market monitoring. When the problems eventually manifested themselves in the annual financial accounts, the perception of their causes was conditioned by an organizational paradigm emphasizing conservatism, risk aversion and tight cost control, and by the influence of powerful members of the team.

Securico's reaction to declining performance was guided by mistaken perceptions of cause/effect relationships, as it assumed that these reactions would solve the problem, whose root causes were also misconceived.

Assumption 2: Comprehensive Search for Alternative Courses of Action and Their Consequences Is Feasible and Is Carried out

While decision makers might like to legitimize their chosen courses of action, by the appearance

of rationality (e.g. that a comprehensive search for solutions and their consequences is undertaken, among other things), empirical studies show that memory search is the initial tactic followed, and only if the problem persists is a more extensive search undertaken. This search for possible solutions and their consequences is largely informal, qualitative and conditioned by the organizational paradigm. This paradigm will usually be challenged with the onset of a perceived crisis[6].

In the Securico case, the dominant paradigm readily suggested solutions and expected consequences which did not have the desired effect since the paradigm itself was inappropriate to the company's environment.

A comprehensive search is also something which is often practically not feasible given the ill-structured and multi-faceted nature of the problems facing decision makers in organizations. It also involves time and money, which may not be available given the urgency with which decisions often have to be taken and the financial situation of companies in trouble.

Assumption 3: Objective Evaluation, Selection and Implementation of Chosen Solution

Empirical studies have shown that the evaluation of the limited set of alternatives arising largely from past experience and the selection of a course of action is not carried out through formal analysis but through managerial judgement (influenced by the organizational paradigm) and political bargaining. The evaluation and choice of alternatives also occur more through the comparison of possible courses of action against each other, rather than through a sequential evaluation of each alternative individually.

Even if there has been a reasonably extensive search for alternative courses of action and their consequences by different analysts, the "bounded rationality"[8] of humans and existing time pressures make it unlikely that the decision makers will in fact consider the full range of information at their disposal. Moreover, the rational model's prescriptions of the identification of alternatives and the selection and implementation of a chosen course of action in a neat sequential fashion do not describe what is in practice a much fuzzier process conditioned by cognitive limitations and socio-political processes.

In Securico, the identification of a limited range of alternatives overlapped with the selection process, as commitment to these alternatives built up during discussion. The selection process also

overlapped with implementation, as selection of alternatives is usually influenced by considerations of ease of implementation.

Assumption 4: Objective Monitoring of Consequences to Determine Success of Chosen Course of Action

Obtaining clear and unambiguous information on the consequences of chosen courses of action is often very difficult. In some relatively simple cases, such as a test marketing experiment in an isolated geographical area, the effects of manipulating variables such as advertising expenditure or price alterations on sales can be ascertained fairly accurately. In strategic decisions which involve significant resource commitments and long time horizons, however, feedback is delayed and ambiguous. There are many factors in an organization's environment which act jointly and with varying potency on performance, and the changes are continual.

Apart from that, however, the manipulation and distortion of information by organizational actors is a usual phenomenon. Information which can have adverse effects on people's perceived interests, reputations and job evaluations is usually suppressed and massaged.

Assumption 5: The Organizational Paradigm

By "organizational paradigm" is meant the beliefs an organization has about itself and its environment which guide its interpretations of, and actions in, this environment, and is shared to varying degrees by members of the organization. The paradigm develops through history, and is influenced by such things as the organization's experiences, sectoral conditions, and by charismatic and powerful figures. It is enshrined and supported by various attributes such as organizational structures and systems, power structures, rituals, routines, stories and symbols[10].

The paradigm ultimately resides in organizational members' beliefs and interpretations, that (subconsciously) influence which alternatives are considered and selected. For example, the paradigm at Securico, emphasizing conservatism and risk aversion, was blinding the decision makers to the real causes of the problem (and consequently to perceptions of appropriate action), which required a significantly different approach to doing business.

Assumption 6: Political Behaviour

Political behaviour is behaviour intended to foster one's perceived interests, whether or not they are

consistent with the wellbeing of the organization as a whole. The key beliefs comprising the paradigm are closely intertwined with the existing power structures of an organization. A department which has been providing a company with a competitive edge will have risen in status and influence at the policy-making levels. If environmental conditions change significantly, challenging the way in which business has been carried out and requiring changes in the company's operations which would bring about a redistribution of power, the individuals and coalitions currently in power are highly unlikely to be co-operative.

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Should organizations strive to follow the decision procedure suggested by the model?

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In Securico's case, existing power structures and the paradigm in general were inhospitable to the establishment of outer-directed, consumer-led market monitoring systems. This changed only when the survival of the company was severely threatened and when a new top management team with an understanding of environmental changes and necessary organizational responses was recruited[12].

Having considered the status of its assumptions, it emerges that the "rational" decision-making model is hardly descriptive of how most decisions are made in practice. But an interesting question is whether organizations should strive to follow the decision procedure suggested by the model. It has been argued that the excessive analysis prescribed by the model would stifle creativity, and so the alternatives chosen would lie within the paradigm even when this would be inappropriate.

But more potent criticisms are, in my view, that the model does not raise decision makers' awareness to the subconscious filtering and constraining effects of their existing beliefs on the whole decision process, and of political influences on the consideration of alternatives and selection of courses of action. It also gives the impression that it is indeed feasible to address comprehensively and sequentially alternatives and consequences, whereas in real decision situations there are time and financial pressures, as well as cognitive limitations on human

information-processing capacities, which make the above highly unlikely.

Having said all this, however, it is worth addressing briefly why the *appearance* of rationality is such a popular characteristic of individual and group actions. One very potent reason is the emphasis in our culture on rationality, the requirement that actions be seen as appropriate means to desired ends. We learn at a very young age to demonstrate means-ends thinking and acting, and are rewarded for it. Individuals demonstrating means-ends rationality rise to powerful positions.

As one outcome of this, actions which are justified as having arisen from a rational decision-making process are legitimized and the appearance of rationality can protect the initiators from criticism[17]; but not always, however, as rationality is relative to one's point of view (which is ignored by the rational model, assuming an objective rationality).

A company, for example, can justify its decision to lay off employees by constructing a rational argument which refers, among other things, to rationalization to meet increased competition, thus ensuring its competitiveness, while a militant trade union can also argue rationally for the action being another sign of management's treatment of employees as mere factors of production to be disposed of when not needed any more.

The field of management, however, has a special relationship with rationality. The popularity of the model owes much to Frederick Taylor's writings on "scientific management" and Henri Fayol's "general principles" of management, which have significantly influenced managerial perception of their proper roles and the organization of work. Subsequent research has highlighted the inadequacy of such notions, both in describing managerial work and in prescribing appropriate managerial actions (see, e.g. [18,19]).

A last reason is that delays in deciding and acting on an issue can always be justified by reference to an extensive search for relevant information on possible alternatives and their consequences, thorough evaluation, etc. (a "rational" procedure).

Conditions for Effective Decision Making

I will refer to structural and processual aspects of the decision-making group and cultural attributes of the organization as a whole which can contribute to more effective decision making[20].

In general, beneficial effects arise when there is constructive consideration of diverse points of view[21], within higher-level values of respect for learning and others' opinions, which prevent the diversity becoming destructive. One of the key tasks of leaders is to create such learning cultures, providing unifying identities for their members.

There is ample advice elsewhere on how leaders can shape organizational cultures, as well as psychological explanations for these leadership effects, so the issue will not be elaborated here[22]. One key but neglected consideration in the field of management, however, is the potency of communication as symbolic action on changing ways of thinking[26].

Structural Aspects

Some structural aspects of the decision-making group which can create the conditions for more effective decision making are shown below:

- Ensure that the decision-making group is composed of individuals with varying backgrounds. This will ensure the consideration of an issue from different viewpoints and leads to high "interpretive potential" of a group.
- The group can be divided into subgroups, which can debate an issue independently and then come together to share their views, or different task groups where various specialisms are represented to work independently on an issue and then report to top management.
- Outside consultants may be employed from time to time, as they can see a problem from an independent angle not influenced by the organizational paradigm.
- The role of devil's advocate can be rotated among members of the group. This will counteract tendencies of escalating commitment to a course of action without conscious and systematic consideration of arguments against it. A credible and empathetic individual may also take on the role of facilitator, helping members of the group to see others' points of view during discussions.

Processual Aspects

Some processes within the group and the organization aiding more effective decision making are:

- Debate should be encouraged and not suppressed. A leader can demonstrate his/her commitment to debate by, for example,

consciously and systematically asking others to comment critically on his/her point of view.

- A leader should not state his/her preferred outcomes at the outset, as this will bias the decision-making process. Decisions should be allowed to emerge rather than being imposed.
- Alternative scenarios should be considered so that the decision process is more informed and, if rapid reactions are needed, top management will be able to respond more swiftly.
- Interaction with organizational members outside the decision-making group and consideration of their views should be encouraged, and a more organic organizational structure (rather than a mechanistic, bureaucratic one) will foster this.
- Suitable information systems can ensure that the organizational environment is continually monitored. The responsibility for the effective strategic utilization of such information, however, lies with management. Top management must realize that its role is not fire fighting or day-to-day monitoring of deviations from plan, but to give direction to the organization, and suitable training for fulfilling this crucial role must be provided[28].

Cultural Aspects

Some desirable cultural attributes of the organization are given below:

- The organizational culture must value learning, and top management must strive to create a learning organization. One definition of a learning organization is: “an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights”. Such organizations are said to be skilled at five main activities: “Systematic problem solving, experimentation with new approaches, learning from their own experience and past history, learning from the experiences and best practices of others, and transferring knowledge quickly and efficiently throughout the organization”[30].
- The organizational culture must encourage the exchange of diverse views, and members of this culture must consciously realize the constraining and filtering effect of their subconscious ways of thinking on their interpretations and actions and consequently

on the decision process itself. This realization will lead to higher receptivity to new ideas which are not part of the group’s existing repertory.

- In order for the exchange of diverse views to be constructive and not get out of hand, higher-level values of respect for others’ points of view[33] and a unifying organizational identity should exist, nurtured by effective leaders.

The above points are portrayed in Figure 2. The arrows indicate that cultural, structural and processual aspects are, in practice, interrelated. A culture cannot encourage learning, for example, without the necessary structural (e.g. organic) and systemic (e.g. information systems) arrangements to enable such learning to occur and be diffused throughout the organization.

Conclusion

The applicability of the rational decision-making model is limited to relatively simple problems, where objectives are clear, unambiguous and agreed, and cause-effect relations are clearly known. Such situations are limited to classical management science optimization problems, traditionally handled by hard systems approaches.

In the real world of multiple decision makers, complex problems, fast moving markets, unpredictability and uncertainty, however, “objective” rationality becomes inapplicable and decision making is influenced by what may be called “conditioned rationality”. The main conditioning influences, as discussed above, are social, political and cognitive.

What we can do is realize that in these situations, while the manifestations of problems (e.g. on the bottom line) may be more or less clear, their causes are not, and this is where these influences are more potent. While the rational decision-making model is not “wrong”, in such situations it is clearly inadequate in both a descriptive and a prescriptive sense.

What we can do to improve the quality of our decision making is to try and understand the effects of social, political and cognitive factors on how we make decisions, retain the beneficial ones – such as aiming for high interpretive potential and integration of diverse views – and avoid the detrimental ones, like groupthink. We must aim at creating appropriate cultural, structural and processual conditions to achieve this. Some progress has already been made in this direction.

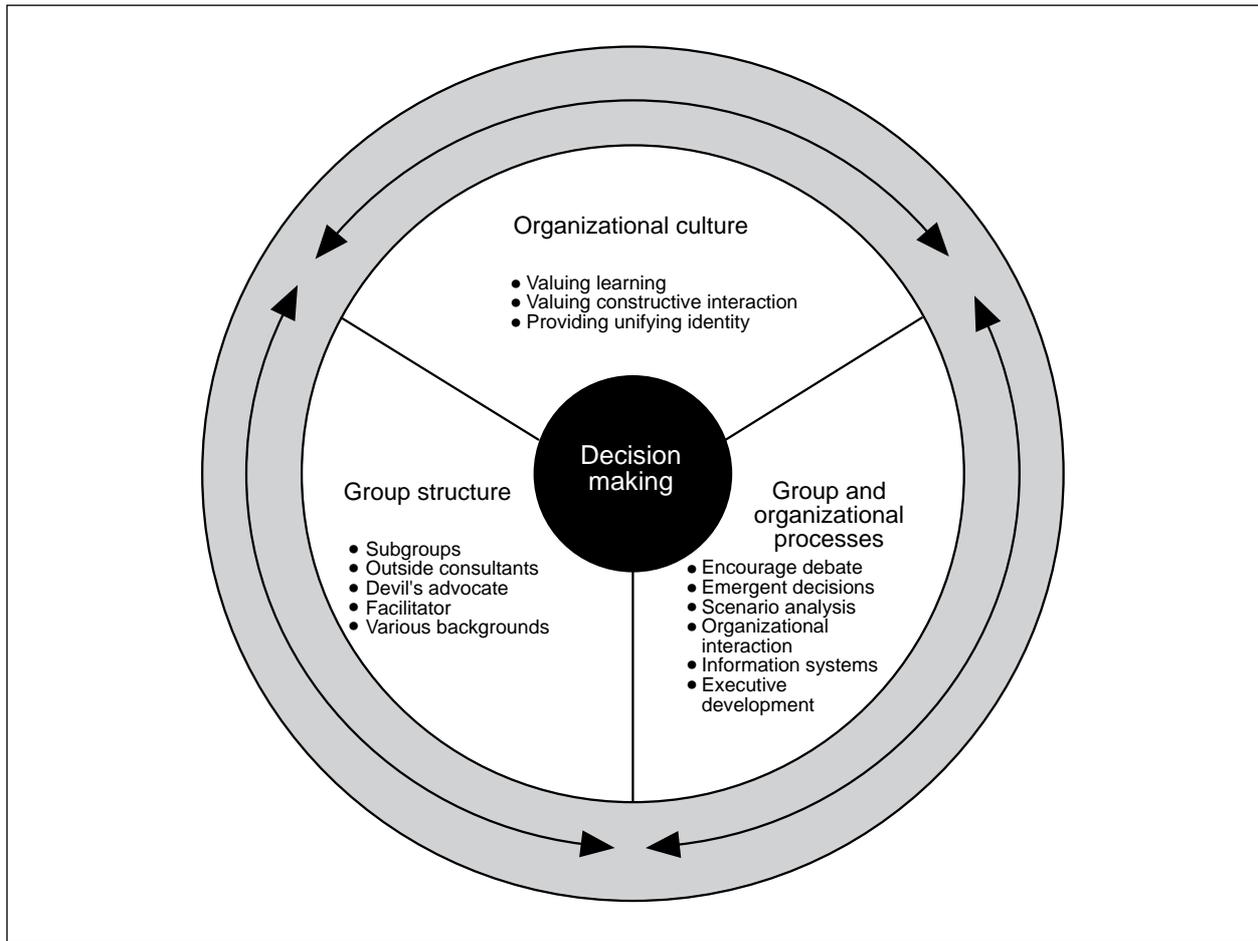


Figure 2.
Some Factors Fostering Effective Decision Making

Notes and References

1. For criticisms of the rational model see Lindblom[2] and March[3].
2. Lindblom, C.E., "The Science of Muddling Through", in Pugh, D.S. (Ed.), *Organization Theory*, Penguin, Harmondsworth, 1990.
3. March, J.G., "The Technology of Foolishness" in Pugh, D.S. (Ed.) *Organization Theory*, Penguin, Harmondsworth, 1990.
4. Janis[5] defined groupthink as a "concurrency-seeking tendency among moderately or highly cohesive groups" and identified several structural and situational conditions leading to groupthink tendencies.
5. Janis, I.L., "Sources of Error in Strategic Decision Making", in Pennings, J.H. (Ed.), *Organizational Strategy and Change*, Jossey-Bass, San Francisco, CA, 1985.
6. Johnson and Scholes[7, ch. 2], describe actual strategic decision-making processes in more detail.
7. Johnson, G. and Scholes, K., *Exploring Corporate Strategy*, Prentice-Hall International, Hemel Hempstead, 1993.
8. Bounded rationality refers to human limitations of computational ability and of the organization and utilization of memory, leading to satisficing rather than optimizing behaviour (see [9]).
9. March, J.G., "Bounded Rationality, Ambiguity, and the Engineering of Choice", in March, J.G., *Decisions and Organizations*, Blackwell, Oxford, 1989.
10. An in-depth explanation of the organizational paradigm as an interpretive scheme and a guide to action is provided by Johnson[11, ch. 7].
11. Johnson, G., *Strategic Change and the Management Process*, Blackwell, Oxford, 1987.
12. There is evidence that fundamental paradigm change in a relatively short period is possible only when there is a situation of perceived

- crisis in an organization (see e.g. [13,14]). Such changes can also be seen as higher-level learning[15] or double-loop learning[16].
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 14. Pettigrew, A.M., "Context and Action in the Transformation of the Firm", *Journal of Management Studies*, Vol. 24 No. 6, 1987, pp. 570-81.
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 16. Argyris, C. "Double Loop Learning in Organizations", *Harvard Business Review*, September-October 1977, pp. 115-25.
 17. Another interesting outcome being that actions motivated by non-acceptable objectives and employing non-acceptable means are usually subsequently rationalized with reference to legitimate means and ends.
 18. Mintzberg, H., "The Manager's Job: Folklore and Fact", *Harvard Business Review*, July-August 1975, pp. 49-61.
 19. Kotter, J.P., "What Effective General Managers Really Do", *Harvard Business Review*, November-December 1982, pp.156-67.
 20. In referring to effective decision making, I mean decisions which are beneficial both for the organization in terms of competitiveness, and for its members in terms of quality of working life.
 21. Janis's[5] suggestions on avoiding groupthink will be drawn on here.
 22. See, e.g., Schein's[23] writings on leaders' influences on organizational culture, Smircich and Morgan[24] on leadership as the management of meaning, and Johnson[25] on the potency of managers' symbolic actions.
 23. Schein, E., *Organizational Culture and Leadership*, Jossey-Bass, San Francisco, CA, 1985.
 24. Smircich, L. and Morgan, G., "Leadership: The Management of Meaning", *Journal of Applied Behavioral Science*, Vol. 18 No. 3, 1982, pp. 257-73.
 25. Johnson, G., "Managing Strategic Change: The Role of Symbolic Action", *British Journal of Management*, Vol. 1, 1990, pp. 183-200.
 26. See Heracleous[27] for an integrative account of such a process, drawing from organization theory, sociology and social psychology.
 27. Heracleous, L., "Discourse, Cognition, Action and Interaction: Notes towards a Theory of Intersubjective Reality Construction in Social Organisations", Research Papers in Management Studies No. 12, Judge Institute of Management, University of Cambridge, 1994.
 28. See Garratt[29] on the necessity of director development and useful suggestions for creating a learning organization.
 29. Garratt, B., *Creating a Learning Organisation*, Director Books, London, 1990.
 30. For a useful discussion of building a learning organization, see Garvin [31]. For a discussion of learning as a necessity for organizational survival, see Garratt[32].
 31. Garvin, D.A., "Building a Learning Organisation", *Harvard Business Review*, July-August 1993, pp. 78-91.
 32. Garratt, B., "Learning Is the Core of Organisational Survival: Action Learning Is the Key Integrating Process", *Journal of Management Development*, Vol. 6 No. 2, 1987, pp. 38-44.
 33. For an elaboration of this point see Crossan *et al.*[34].
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