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STRATEGIC DECISION MAKING IN COMPLEX ORGANIZATIONS(U)  
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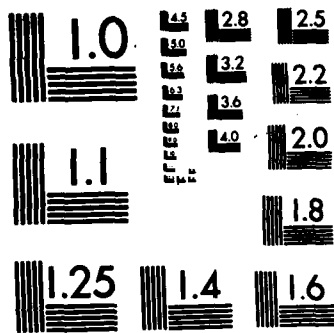
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A set of twenty one papers reviews the empirical and theoretical literature on strategic decision making in complex organizations. They present an inventory from diverse disciplines such as psychology, sociology, economics and political science so that one can map this area and identify possible avenues of future research. The entire set provides a rich array of treatments of five critical issues, i.e. the process versus outcome of strategic choices, the unit of analysis (e.g. individual, group or organization), the interdisciplinary nature of pertinent research, description versus p.t.o.		

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Effectiveness, Strategy Formulation, Strategy Implementation, Re-Orientation, Strategic Change, Modus Operandi, Planning, Business Policy, Public Policy, Design.

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prescription (including normative pronouncements on decision designs) and alternative modes of research orientation. The first paper and the four concluding ones serve as integrative devices for the diversity of treatments as they surface from the eight pairs of papers.

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## FINAL REPORT

Office of Naval Research  
(October 31, 1982-October 31, 1983)

Johannes M. Pennings

### Symposium on Strategic Decision Making in Complex Organizations

The symposium was conceived to stimulate new lines of thinking of research and practice on strategic decision making. The authors, invited to participate in the symposium, were requested to address five issues which pervade the area of strategic decision making. These issues included the process versus content of decisions, the proper unit of analysis, the interdisciplinary nature of pertinent research, the feasibility of developing normative pronouncements based on theory and research and preferred modes of research orientation. They were asked to discuss these issues from their own vantage point. In the aggregate they would provide a fairly good synopsis of the way a select set of scholars examines these issues in the 1980s.

Altogether, there were eight pairs of authors, where the first member of each pair presented a paper which was subsequently discussed by the second member of each pair. In addition, a panel of three members tried to integrate the various contributions and to discern issues of convergence and divergence. This was a major task as the various contributors had been selected on their diverse disciplinary backgrounds and had been invited to represent their own discipline. Finally, as principal investigator I presented an introduction and a set of concluding comments which will serve as the beginning and concluding chapter of the book which will disseminate the symposium's proceedings.

Appendix I provides an overview of the symposium as it was held at the Arden House campus, Harriman, N.Y. belonging to Columbia University. The symposium was held from 9-11 November 1983. In addition to the presentators, there was a small group of attendees from other universities, from the Department of the Navy, and some management consulting firms. Summaries of the various papers follow.

In the leading paper Johannes M. Pennings of the Wharton School, University of Pennsylvania developed the theme for the symposium. He first elaborates on the various definitions of strategic decision making and reviews the state of the art in the theoretical and empirical literature. The general conclusion is that the field has little cumulative knowledge. There is a diversity of disciplines, there is a cleavage between those who deal with the outcomes and those who deal with the process of strategic decision making and there is confusion about future avenues of research. Since the symposium sought to articulate those avenues of research, the chapter raises five critical issues which the authors of the subsequent papers were expected to discuss. These issues included the process versus outcome aspects of strategic decision making, the proper unit of analysis, the interdisciplinary nature of pertinent research, description versus prescription and preferred modes of research orientation. The expectation is expressed that the subsequent papers allow us to extract position statements on these issues and to map the area of strategic decision making as it surfaces from those position statements. By also dealing with their very own research, its present status and future potential, these chapters would also permit us to see how their work gives concrete indications about the future research and theory of strategic decision making.

Andrew M. Pettigrew of the University of Warwick, Coventry, U.K. provided an analysis of strategic decision making at Imperial Chemical Industries. He traced strategic decision making over an extended period of time to discern certain continuities in the process of strategic change internal to the organization. Such internal strategic changes are examined in reference to changing 'environmental contexts' which create different power configurations which in turn generate new cultural frames of action. The researcher ought to simultaneously consider the content of strategic change, the context in which the organization evolves and the concomitant processes that unfold. These three core elements become politically merged into a holistic sequence of events that display a certain persistence of change. The momentary power dynamics or political agility of handling certain change periods is less important than the visionary change leadership that enjoys a certain long term continuity and which manages to merge the organization's culture with its contexts as they evolve over time.

Edward V. Bowman, the Wharton School of the University of Pennsylvania tries to place the Pettigrew approach into a more encompassing framework, containing for example descriptive and normative treatments. He argues that Pettigrew is highly descriptive and fails to derive prescriptive statements from his research. He also stresses the necessity to consider performance as a contextual antecedent for strategic change. Performance changes often have the function of triggering changes in the strategic momentum of an organization as shown in various empirical studies which have been conducted by Bowman.

David J. Hickson and the members of his research team at the University of Bradford in the United Kingdom have developed a radically different approach toward the study of strategic decision making. One could label this approach comparative as they collected data on 150 decisions in a

wide variety of organizations including both for-profit and not-for-profit organizations. Theirs is really an ambitious effort, covering a period of over ten years to examine strategic decisions with respect to their duration, their antecedent conditions and outcomes and the very processes that make up such decisions. Their study permits unprecedented conclusions about the most likely types of decisions and whether they tend to be political, rational, incremental or otherwise. Decisions are defined in relatively discrete terms to allow for such a comparative analysis of typical processes.

John M. Dutton of New York University argues that an organizational form might render the analysis incomplete. The researcher has to tend to cognitive, attitudinal but also cultural and economic factors which shape the strategic decision making process. His own research reflects this multi-level approach and he makes a strong advocacy statement for conducting research along those lines.

Kenneth R. MacCrimmon of the University of British Columbia, Canada, reviews three holistic models of collective decisions in order to analyse two strategic decisions, i.e. the so-called Cuban Missiles Crisis and Rolls Royce's decision to sign a contract with Lockheed. He contrasts the mechanistic model (routine, rule based decision making) with the super rational model (decision making with perfect foresight and complete information processing capabilities) and with the so-called machiavel model (decision making with manipulations of the decision situation). The three models highlight different aspects of the two real situations and indicate that different perspectives might be required to expose different dimensions of the decision process. Unlike Hickson and his colleagues' empirically derived classification schemes, his models are a priori derived. MacCrimmon's a priori models force us to view organizations as monolithic units, even if strategic decisions are the results of actions taken by many individuals or groups of individuals.



Sidney G. Winter of Yale University takes issue with the somewhat one sided view of the mechanistic model of decision making. He argues that MacCrimmon goes too far in pointing out its deficiencies such that two alternative and complementary models have to be advanced. Rather, we can soften our interpretation of mechanistic models so that they become more amenable to the description and analysis of strategic choice. As he and Nelson point out "routines are the skills of an organization" (Nelson and Winter, 1982), and represent its repertoire of capabilities as accumulated over the history of its existence. These capabilities can be an unassailable source of strategic power even though they also constrain the firm's scope of choice.

Michael E. Porter of Harvard University presents an economic perspective toward strategic decision making. He proposes to incorporate the Bain/Mason paradigm of industrial organization economics which has been further developed by authors such as Scherer (1970) and Caves (1980). By translating the assumptions and concepts of industrial organization so that they become not only amenable to market structure analysis but also to the analysis of individual firms, Porter feels that it can greatly enhance the theoretical and practical value of strategy research.

David J. Teece of the University of California, Berkeley does not discard the value of the industrial organization paradigm, but feels that it has limited value and that it has been superseded by more promising lines of economic research. These newer traditions include the market failures theory (e.g. Williamson, 1975) and evolutionary theory (e.g. Nelson and Winter (1982)). He also presents a set of normative pronouncements ('principles') which derive from the market failures theory such as those that pertain to contractual difficulties. For example, firms are better off if they vertically integrate under conditions of high levels of committed investments or when know-how licensing leads to substantial spillovers to non-affiliated enterprises. Teece

discusses also the important contributions of Nelson and Winter (1982) which seek to identify a firm's distinctive capabilities. The scope of strategic choice is fostered and impeded by those capabilities and serves as another concept for integrating market structure and individual firm behavior. These contributions are also conducive to a greater synthesis between content and process of strategic decision making.

Richard Normann, associated with the Service Management Group, Paris, provides a framework for organizational learning and strategic management capability. Borrowing elements of the learning theories of Bateson (1972) and Argyris and Schon (1978) he suggests that strategy and strategic change can be viewed at three levels: (1) problem solving, (2) learning to solve problem, and (3) learning to learn problem solving. If organizations learn to learn they can reorient themselves continuously whenever conditions in a particular domain are modified. The domains which he reviews are interpersonal skills, analytical language, organizational skills and ecological positioning. Learning in these domains will be conducive to the growth of strategic management capabilities. These capabilities manifest themselves in innovativeness or to use one of his well known terms, 'reorientation'. The role of the chief executive is of tantamount importance in generating the learning that will develop such capabilities. Normann employs the term 'statemanship' to indicate the conditions of high level learning. The chief executive should be concerned with ground rules for how power is exercised and with the design of arenas for conflict resolutions. In other words he sets the preconditions for other people's actions. Such an approach to strategic decision making requires clinical methodology in order to arrive at a theory of action which is internally consistent and which make the observed actions of the decision makers make sense.

It is particularly with respect to these latter comments that Lawrence B. Mohr of the University of Michigan disagrees. For Mohr it is virtually impossible to ascertain the reasons for individual actions. Those actions can have been induced by a variety of motives, sometimes even conflicting motives or motives which are far removed from an actor's currently accessible memory. It would therefore be futile to impute meaning to an actor's actions or to trace his goals in establishing the causes of his behavior. Mohr presents therefore a rather pessimistic perspective on the feasibility of research on strategic decision making.

Irving L. Janis of Yale University presents major additions to his previous work on 'group-think' and other defective coping patterns which characterize many cases of strategic decision making. Essentially Janis tries to delineate the positive and negative consequences of stress on the quality of decision making. He examines several 'fiasco's' which are ill-conceived and poorly executed decisions. The reason for such poor decisions are associated with the motivation to avoid stress which is generated by difficult and agonizing choices. In the chapter of this book he does not limit himself to public policy or international fiasco's such as Watergate and the Bay of Pigs Invasion, but also includes fiasco's that strike business firms. Furthermore he presents a complement to the discussion of group-think and the way it can be embedded into current thinking on organizational decision making as illustrated by the so-called Japanese style of management. He indicates that group think can have detrimental effects on strategic, non-routine decision making, while it can have positive effects for non-strategic decisions. Group-based modes of decision making are most conducive to the obtainment of commitment to strategic decisions and foster the smoothness of implementing them. Janis presents also suggestions for future opportunities of research and theory on strategic decision making, including the possibility of

complementing case studies with hypothesis testing research designs (e.g. correlational analysis and experimental research).

Deborah Gladstein and James Brian Quinn of Dartmouth College begin to challenge Janis on his quest for expanding the repertoire of research methodologies including their commensurate conceptual developments and theoretical maturity. One cannot excel in the different means of research and theory. Furthermore they argue that group-think might be an important concept, but its theoretical and empirical, or normative value might differ under variable strategic decision making conditions. They proceed to classifying decision making in terms of decision rationality (outcome oriented) and action rationality (involvement and commitment oriented). They criticize Janis for having relegated 'implementation' and the necessary associated involvement and commitment to the final phase while in fact, the involvement might often be established during the earlier stages of the decision making process, even prior to the actual onset of implementation. Commitment, which is a key concept in the theory of group-think and a central causal explanatory term for explaining its deleterious effects on decision making can thus be viewed in a more positive mode. Actions, which promote loyalty, serve to rally the organization behind certain strategic moves -- moves what would not materialize if the commitment was absent. In an incremental spiral mode the organization will over time merge action rationality and decision rationality and learn from the numerous iterations of commitment and involvement as it moves along.

William H. Starbuck of the University of Wisconsin at Milwaukee presents an ethnomethodological perspective on strategic decision making. He is particularly concerned with documenting an organization's misperception of itself and the environment in which it resides. He presents a framework for delineating the factors which contribute to the systematic distortions and

which might contribute to decision failures and organizational decisions. The framework is integrated with his theory of organizations as 'action generators' (Starbuck, 1983) which are 'programs' such as assignments, imposed deadlines, calendars, etc. and which trigger actions. Actions, triggered by environmental stimuli, or by other signals and which require appropriate novel responses are relatively rare. Thus Starbuck provides also a rather pessimistic view on the value of strategic planning and the extent organizations learn from such planning.

This view is criticized by Paul R. Lawrence of Harvard University, who presents several arguments in favor of planning. Planning, focuses the attention on specific areas, it induces the organizations to undertake search, both internally and externally and fosters greater self-awareness and self-knowledge than would have been possible in the absence of planning. Strategic decision making is therefore not haphazard and ill conceived, but can be designed such as to establish greater adaptiveness.

Richard J. Hermon-Taylor of the Boston Consulting Group presents a practitioner's view of strategy and strategic decision making. This chapter, as that of Norman, complements the chapters of the 'academicians'. Hermon-Taylor, as did Norman, seeks to identify the conditions for 'framebraking' through which an organization can transcend its cultural, cognitive 'cage'. Organizations require a certain tradition, a set of standard operating procedures, a culture, a way of viewing the environment which becomes highly legitimized. Challenges to such a cultural cage are inappropriate, in fact there is a elaborate set of undiscussables which prevent an organizations from frame braking. He then proceeds to advocate an 'informed' consensus mode of decision making which may help in overcoming the resistance to change. His change model separates the strategic frame from the organizational frame; the first deal with what the organization should do, the second with what it can do.

Chris Argyris of Harvard University complements this reasoning and in fact incorporates the ideas of Hermon-Taylor into his theory of learning. This theory revolves around the concepts of theories in use and espoused theories. Argyris indicates how the ideas of Hermon-Taylor can be cast into his learning theory, especially how the creation of strategic change in the sense of frame braking comes rather close to his treatment of the conditions whereby organizations move from single-loop learning (in which organizations simply respond to situations that fit and strengthen their preconceptions) to double loop learning (in which organizations distance themselves from their theories in use, whether 'espoused' or not and reach a level of experimentation and flexibility in which no theory remains undiscussable).

Finally, the three chapters by William H. Newman of Columbia University, Andrew H. van de Ven of the University of Minnesota and Peter Lorange of the Wharton School of the University of Pennsylvania present a set of discussion points in which they highlight the differences and similarities, the acts of commission and omission, the parallel and complementary views that can be extracted from the various chapters.

In the concluding chapter, Johannes M. Pennings, the editor returns to the issues which were raised in this chapter and reviews all chapters with respect to their success in having effectively dealt with them. Major conclusions which derive from this comparison include the observations that most authors have focussed on the process of strategic decision making, that they differ widely in defining the unit of analysis, and in the discipline background that characterizes them. On the other hand, there is an interesting balance with respect to chapters having a positive or normative bias, while most of them have a strong affinity to conducting research in the process mode.

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Appendix I

STRATEGIC DECISION MAKING IN COMPLEX ORGANIZATIONS

A SYMPOSIUM  
(FINAL SCHEDULE)

Sun Room, Arden House, Columbia University  
November 9-11, 1983

Wednesday, November 9, 1983

5:00 p.m.  
WARMING-UP SESSION  
6:00 p.m. Cocktail Party  
6:30 p.m.  
Dinner

7:45 p.m.  
INTRODUCTION  
Johannes M. Pennings, University of Pennsylvania

8:15 p.m.  
CULTURE AND POLITICS IN STRATEGIC DECISION MAKING  
Andrew M. Pettigrew, University of Warwick; Presentor  
Edward Bowman, University of Pennsylvania; Discussant

Thursday, November 10, 1983

7:30 a.m.  
Breakfast

8:30 a.m.  
ORGANIZATION THEORY AND TOP DECISION MAKING  
David J. Hickson, University of Bradford; Presentor  
John M. Dutton, New York University; Discussant

10:30 a.m.  
INDIVIDUAL MODELS OF STRATEGIC DECISION MAKING  
Kenneth R. MacCrimmon, University of British Columbia; Presentor  
Sidney Winter, Yale University; Discussant

12:30-1:30 p.m.  
Luncheon

1:30 p.m.  
INDUSTRIAL-ECONOMIC FACTORS IN STRATEGIC DECISION MAKING  
David Teece, University of California, Berkeley; Presentor/Discussant

3:00 p.m.  
INTERMEZZO: What have we learned thus far?

3:30 p.m.  
SOURCES OF ERROR IN STRATEGIC DECISION IN GROUPS  
Irving L. Janis, Yale University; Presentor  
Deborah Gladstein and James Brian Quinn, Dartmouth College;  
Discussants



6:00 p.m.  
Cocktails

6:30-7:30 p.m.  
Dinner

8:00 p.m.  
LEARNING PROCESSES ORGANIZATIONS GO THROUGH IN STRATEGIC  
DECISION MAKING  
Richard Normann, Service Management, Stockholm; Presentor  
Lawrence B. Mohr, University of Michigan; Discussant

Friday, November 11, 1983

7:30 a.m.  
Breakfast

8:00 a.m.  
PRACTICAL BUSINESS WORLD REALITIES OF STRATEGIC DECISION MAKING  
Richard J. Hermon-Taylor, The Boston Consulting Group; Presentor  
Chris Argyris, Harvard University; Discussant

10:30 a.m.  
ORGANIZATION THEORY PERSPECTIVE TO STRATEGIC DECISION MAKING-  
AN ACTION PERSPECTIVE  
William H. Starbuck, University of Wisconsin, Milwaukee; Presentor  
Paul R. Lawrence, Harvard University; Discussant

12:00-1:00 p.m.  
Luncheon

1:00-2:00 p.m.  
INTEGRATION OF MULTIPLE PERSPECTIVES  
William H. Newman, Columbia University  
Andrew H. van de Ven, University of Minnesota  
Peter Lorange, University of Pennsylvania

Conclusion  
Johannes M. Pennings, University of Pennsylvania

3:00 p.m.  
Bus Leaves

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