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Group Dynamics in Top Management Teams: Groupthink, Vigilance, and Alternative Models of Organizational Failure and Success

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This study explored the heuristic value of Janis' (1982) groupthink and vigilant decision making models as explanations of failure and success in top management team decision making using the Organizational Group Dynamics *Q*-sort (GDQ). Top management teams of seven *Fortune 500* companies were examined at two historical junctures—one when the team was successful (defined as satisfying strategic constituencies) and one when

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the team was unsuccessful. Results strongly supported the notion that a group's decision making process is systematically related to the outcomes experienced by the team. Ideal-type *Q*-sorts organized around Janis' analysis of groupthink and vigilance were substantially correlated with *Q*-sorts of failing and successful groups, respectively. The fit was, however, far from perfect. Ideal-type *Q*-sorts derived from other frameworks correlated better with the failure–success classification than did the Janis-derived ideal types. Successful groups showed some indicators of groupthink (e.g., risk-taking, cohesion, and strong, opinionated leaders), whereas unsuccessful groups showed signs of vigilance (e.g., internal debate to the point of factionalism). The results illustrate the usefulness of the GDQ for developing and empirically testing theory in organizational behavior from historical cases.

No theory of group dynamics has received as much attention in the academic and popular press as groupthink. Citations to Janis' groupthink theory in the *Social Sciences Citation Index* are copious (averaging over 100 per year since 1982). The theory has stimulated dozens of empirical studies and at least a dozen critiques. Groupthink is also widely discussed in textbooks across the social sciences. Even top corporate managers and professionals receive warnings about the dangers of groupthink (Aldag & Fuller, 1993). Just how prevalent is groupthink and how wary should corporate managers be to avoid its dangers? And might the "cures" sometimes be worse than the disease?

In his book *Victims of Groupthink,* Janis (1972, 1982) argued that extreme pressures for unanimity can build in a cohesive group that confronts serious threats (high stress) and lacks norms of deliberative decision making. These pressures cause decision makers to censor any misgivings they may have, ignore outside information, and overestimate the group's chances of success. This pattern of concurrence-seeking, Janis (1982) argued, is a recipe for ineffective decision making that leaves groups open to disaster. It explains how groups of otherwise intelligent and thoughtful people make serious miscalculations which result in disastrous outcomes.

The influence of the groupthink model is reflected in the wide variety of fiascoes that have been attributed to the phenomenon. Groupthink has been named as the chief cause of disaster in numerous political and military decision making episodes suggested not only by Janis (1982), but by others as well (e.g., Esser & Lindoerfer, 1989; Hensley & Griffen, 1986; t' Hart, 1991). Janis (1985) himself argued that corporations can fall prey to groupthink by suggesting that Ford's decision to build the Edsel and The Buffalo Mining Company's decision to ignore warnings about their dam bursting were examples. Other scholars have also named business groups as victims of groupthink (e.g., Manz & Sims, 1982; Huseman & Driver, 1979). Indeed, a cursory read of the group decision making literature could lead one to the conclusion that groupthink is the primary cause of fiasco in the modern world.

Another measure of the success of the groupthink model is the empirical work it has inspired (see Park, 1990). These studies include experimental investigations of group cohesiveness and leader directiveness (i.e., Flowers, 1977), archival analyses of public statements (Tetlock, 1979), case studies of historical events blamed on groupthink (e.g., Esser & Lindoerfer, 1989), and quantitative comparisons of historical case studies (i.e., Tetlock, Peterson, McGuire, Chang, & Feld, 1992).

Yet another measure of success—albeit a perverse indicator—is the amount of criticism directed at the groupthink model. A great deal of attention has been focused on the underlying theoretical contentions of the model. Revisions of the groupthink model have been suggested by Fischhoff and Beyth-Marom (1978), Longley & Pruitt (1980), McCauley (1989). Steiner (1982), Turner, Probasco, Pratkanis, and Leve (1992); t' Hart (1991), and Whyte (1989). Recommendations have included dropping, adding, and clarifying various constructs in the model. More specifically, critics of groupthink have objected to groupthink on the grounds that, (a) key constructs in the model are under- or misspecified, (b) the strong positive relationship between "good" group process and desirable outcomes is grossly overstated, and (c) the facts of important historical episodes have been distorted in the dichotomous classification of groups.

The current study focuses on an issue that has received relatively less attention in the literature—the heuristic value of Janis' (1982) distinction between groupthink as a pathway to failure and vigilant decision making as the antidote to groupthink (and as a general pathway to success) and their application to top management team decision making. A primary goal of this research was to test the usefulness of a variety of theoretical perspectives in explaining success and failure in a wider "conceptual universe" of case studies than that offered by Janis. Key questions become: How instructive is the model for explaining success and failure generally? Is groupthink a widespread cause of organizational failure or is it a special case? Can other theories explain top management team failure better than groupthink and success better than vigilant decision making?

VIGILANT DECISION MAKING

Janis (1982) contrasted the groupthink fiascoes with the successes of groups that employed vigilant decision making (see also Janis & Mann, 1977, 1992). Vigilant decision making was designed to encourage deliberation, use of statistical and technical processes, and extensive processing of information in group decision making. To be "vigilant" in decision making, groups are required to carefully survey their objectives, conduct an extensive and dispassionate search for relevant information, and make contingency plans once an option has been selected. Specific advice for leaders includes both accepting criticism of her or his own judgments openly and displaying impartiality by withholding policy preferences at the outset of the group discussions (Janis, 1982).

Vigilant decision making has been cited as a primary contributor to the Marshall committee's success in planning the rebuilding of Europe after World

War II (Janis, 1982), the Kennedy administration's decision making during the Cuban Missile Crisis (Janis, 1982), and the success of a variety of other American foreign policy decisions (Herek, Janis, and Huth 1987). Janis (1982, 1989) was a strong proponent of the notion that group process and probability of success are powerfully linked. Indeed, the groupthink case studies Janis (1982) presented exhibit a perfect correlation. In a later study with a wider variety of American foreign policy making groups, Herek *et al.* (1987) found that the relationship between aspects of vigilant decision making and success was still remarkably strong, albeit far from perfect ($r = .62$).

Vigilant decision making and other "rational" information processing approaches to group decision making do, of course, have their critics. Strategic management researchers have criticized these normative models in three distinct ways. First, some critics have argued that advocates of vigilant decision making underemphasize the advantages of simple decision rules. Although Tversky and Kahneman (1974) emphasize that people make systematic mistakes, they also argue that the use of heuristics in decision making leads to more efficient use of time. A number of contexts have been discovered where cognitive shortcuts are adaptive. For example, Fredrickson and Iaquinto (1989) found that rational decision making processes work well in stable, predictable, and relatively simple business environments, but that these same procedures worked poorly in unstable, complex, and turbulent environments. Eisenhardt (1989) showed that successful managers in eight microcomputer firms made contingency plans for their decisions, but avoided rigorous analysis of decision alternatives and were likely to move quickly on incomplete information. The fast-paced environment of the computer industry made extensive search for information and discussion of alternatives wasteful. Eisenhardt and Zbaracki (1992) review a number of other such contingencies.

Similarly, several scholars have questioned whether vigilant decision making necessarily increases the likelihood of success. Suedfeld and his colleagues (1992, 1988; Suedfeld & Tetlock, 1992), for example, have argued that vigilant ("integratively complex") decision making is not always superior to more simple strategies. Complex decision making procedures overemphasize the benefits of complexity and ignore or downplay the cognitive and emotional costs associated with engaging in such processes. In this view, people are cognitive *managers* (not misers) who use meta-decision making rules that specify how much energy to invest in a given decision (cf., Payne, Bettman, & Johnson, 1992; Tetlock, 1992). In many contexts, decision makers quickly reach the point of diminishing marginal returns for further information search and analysis. A simple strategy employed toward a well-defined end is, at times, the best strategy (Payne *et al.*, 1992; 1993; Tetlock, 1991).

The second major critique of information processing models of decision making comes from those who argue that mastery of politics and power is the key to successful organizational decision making. This model has its origins in early work by political scientists (e.g., Allison, 1971) who challenge the assumption in the vigilant decision making model that group outcomes can be measured on a single rational dimension. Rather, groups and organizations are made of

people who have different purposes and act in their own self-interest. A "successful" decision is one where your own coalition wins. Therefore, effective decision making is in the eye of the beholder. Support for this perspective is found in the work of Pfeffer and his colleagues (e.g., Pfeffer & Salancik, 1974; Pfeffer & Moore, 1980; Salancik & Pfeffer, 1974; but see Eisenhardt & Zbaracki, 1992, for a detailed review). Their studies of university decision making found that powerful departments get more resources and are more likely to have their ideas implemented and that these effects are particularly strong when resources are scarce. Pfeffer (1992; Pfeffer & Salancik, 1978) further argues that successful management involves protecting important projects and ideas from others who would like to sabotage them rather than establishing a spirit of open inquiry and vigilant information processing.

The strongest critique (e.g., Cohen, March, & Olsen, 1972; Lindblom, 1980; Starbuck, 1985) maintains that there is little or no relationship between how groups make decisions and the likelihood of successful outcomes. This argument takes two interrelated forms. First, Cohen *et al.* (1972) have argued that organizational decision making is a quasi-random process of matching decision makers, problems and opportunities, and potential solutions. From this standpoint, there is no reason to expect systematic relationships between process and outcome in top management team decision making. The process or "independent variable" is too indeterminant. Other critics advance the flipside argument; advocates of vigilant decision making fail to acknowledge the probabilistic nature of the outcomes that elite decision makers attempt to influence (Starbuck, 1985). No group can ever fully anticipate, less still control, events in so complex and stochastic a world. The best laid plans of a group can be easily undone by bad luck or an unforseeable event such as the reduction in air travel after the bombing of the Pan Am flight over Lockerbie, Scotland, or the immediate consumer shift away from larger American automobiles and toward the smaller cars produced by the Japanese after the Arab oil embargo of 1973.

THE CURRENT RESEARCH

The primary research goal here was to assess the usefulness of Janis' (1982) analysis of groupthink and vigilant decision making for understanding failure and success of top management teams. Is groupthink a pervasive cause of failure? Is vigilant decision making the "cure-all" for group decision making ills as Janis (1982) argued? Are top management team group dynamics systematically related to the outcomes those teams experience? These questions were addressed by investigating the decision making at the top of seven large corporations. Decision making in each of these seven corporations was investigated during two time periods—one when the top management team was effective and another when the team was ineffective. A strategic constituencies approach to organizational effectiveness was taken in selecting cases to study (cf., Pfeffer & Salancik, 1978). Cases were sought where the top management team was producing outcomes and activities acceptable to all core constituencies or

to none of their core constituencies. Wide scholarly and popular consensus that the companies were flourishing or languishing was required. The cases had to provide evidence that demonstrable consensus held both inside (e.g., rank and file employees) and outside (e.g., Wall Street) of the company.

The teams studied were the CEO and immediate subordinates in the following companies: (a) CBS News in the unsuccessful (1982–1984) Van Gordon Sauter period and in the successful (1978–1979) Richard Salant period, (b) Chrysler in the unsuccessful (1989–1990) Lee Iacocca period and in the successful (1984–1985) Lee Iacocca period, (c) Coca-Cola in the unsuccessful (1978–1979) Paul Austin period and in the successful (1984–1986) Roberto Goizueta period, (d) General Motors in the unsuccessful (1985–1986) Roger Smith period and in the successful (1993–early 1994) Jack Smith (no relation) period, (e) IBM in the unsuccessful (1988–1989) J. Paul Akers period and in the successful (1979–1980) Frank Cary period, (f) KKR/RJR Nabisco leveraged buyout groups[1] in 1988 with the unsuccessful management group lead by F. Ross Johnson and the successful KKR group lead by Henry Kravis, and (g) Xerox in the unsuccessful (1975–1979) C. Peter McColough period and in the successful (1984–1986) David Kearns period. The case histories studied for each of these periods are listed in Appendix A and a brief narrative description of each case is available upon request from the first author.

Two sets of dependent measures were assessed in this study. First were measures of group process. Seven group process indicator scales were developed from the *Q*-sort instrument that measure a wide variety of group dynamics. These scales were, (a) intellectual rigidity–flexibility—higher scores indicate greater likelihood of seeing problems in multidimensional ways and changing one's mind in response to new evidence, (b) sense of control–crisis—higher scores indicate a sense of urgency or emergency, (c) optimism–pessimism—higher scores indicate that the group is pessimistic about achieving its goals, (d) leader weakness–strength—higher scores indicate greater leader control over the organization and a more directive approach to subordinates, (e) factionalism–cohesion—higher scores indicate a group where the members get along with each other and work together as a mutually supportive team, (f) legalism–corruption—higher scores indicate a group increasingly run by back-room deals, nepotism, and self-serving interests, (g) decentralization–centralization of power—higher scores indicate an organization that is more centrally controlled and a management group that is controlled by a strong leader or a small subgroup, (h) risk aversion–risk taking—higher scores indicate group willingness to take calculated risks (see Appendix B for a listing of items in each scale). These seven scales were used to test for systematic differences in group dynamics across the top management teams at successful versus unsuccessful times.

[1]This pair is not one company at two different times. It is the RJR Nabisco management group and the KKR group competing for control of RJR through a LBO under the same tight constraints on time, money, and rules established by the RJR board of directors.

The second set of dependent measures assessed were pattern matches between theory-derived ideal types and the actual groups studied (see Methods for further discussion of how these templates were developed and used). The ideal type for groupthink was derived from Tetlock *et al.* (1992) and Irving Janis' (1982) *Victims of Groupthink* (described earlier). Later revisions of the model were not used in construction of the type.

The vigilant decision making type was drawn primarily from Janis' (1982) prescriptions for preventing groupthink, but also from later work (1989; Janis & Mann, 1977, 1992) as well as the Tetlock *et al.* (1992) ideal type for multiple advocacy (cf., George, 1972). The focus of these prescriptions is to "counteract initial biases of the members, prevent pluralistic ignorance, and eliminate other sources of error that can arise independently of groupthink" (p. 262). Exemplary groups include the Marshall Plan committee and Kennedy administration decision making during the Cuban Missile Crisis (discussed earlier).

Based on a survey of the literature in organizational behavior, ideal types were derived from five influential analyses of top management team success and failure. First, Pfeffer and Salancik's (1978) *The External Control of Organizations* was used to represent the ideal effective decision making team within the "resource dependence" perspective. Here an effective management team reduces dependencies by (a) using symbolism to create a compelling sense of stability, (b) creating organizational slack to cushion the team through lean times, and (c) deflecting demands made by outside constituencies.

Second, the "corporate social responsibility" ideal type was created from Etzioni's (1993) *Spirit of Community* which emphasizes the communitarian responsibilities of corporations, in particular the need for top management and corporate boards to feel accountable not just to shareholders (the neoclassical profit-maximization model) but to diverse stakeholders within the organization (employees) and outside it (e.g., customers, suppliers, surrounding localities).

The third and fourth theoretical ideal types were created from work on organizational life cycles by Kimberly and Miles' (1980), *The Organizational Life Cycle* and Adizes' (1988) work on *Corporate Lifecycles*. Two organizational life cycles that represent the management dynamics in mature organizations were developed. The first is the ideal or "prime organization." This is an organization that has reached maximum productivity by balancing the flexibility of earlier stages of development against the controllability found in complex control systems of mature organizations. In "organization in decline," control systems are highly developed to the point of being oppressive. The organization seeks predictability and safety at the expense of risk taking and flexibility.

The fifth ideal type, "absolutist cult," was derived from historical sources (see Tetlock *et al.*, 1992). This type describes an organization where authority and power are completely centralized in one person who claims to embody the culture and direction of the organization. The best example of this type in our sample is Lee Iacocca's administration of Chrysler Corporation after the company repaid the government-backed loans. Iacocca was so closely identified with Chrysler that most Americans never knew he had already had a long career at Ford. Iacocca himself betrayed his absolutist tendencies by repeatedly

justifying his opinions with the assertion that he had "saved the damn company" (Ingrassia & White, 1994).

In summary, the goals of this paper were twofold. First we tested, the hypothesized relationship between top management team decision making process and organizational performance. The research questions were: Is there any difference in the decision making processes of successful and unsuccessful teams? If so, what is the nature of the relationship? The second purpose was to test the usefulness of a variety of theoretical perspectives in explaining success and failure in an expanded "conceptual universe" of case studies from that offered by Janis. Groupthink has been identified as the cause of fiasco in numerous cases, but how useful is it in explaining general failure? Is vigilant decision making a suitable prescriptive ideal type for corporate success? Or is reducing resource dependency a better strategy for top management team success? Indeed, will any of the theory-derived ideal types discussed provide insight into these cases?

METHODS

This study used the Corporate Group Dynamics *Q*-sort (GDQ) to assess the group dynamics in top management teams of seven *Fortune 500* companies. The *Q*-sort methodology was selected to allow for a systematic approach to studying elite level groups that are normally not open to quanititative study. Such groups are normally accessible only through historical case studies. Data for this study were derived from such historical case studies of top management team decision making. Two case histories were studied for each of seven corporations in successful and unsuccessful times (28 total texts). Each of the selected case histories was translated into the standardized data language of the Organizational GDQ. The 100-item Organizational GDQ assesses a wide variety of possible patterns of Organizational group dynamics. The GDQ provides: (a) a common descriptive language for capturing expert assessments of Organizational group dynamics, (b) a standardized metric for interjudge and intergroup comparisons, and (c) a systematic framework for accumulating insights across case studies (cf. Block (1978) on *Q*-sort methodology in general; see Tetlock *et al.* (1992) for details of the GDQ).

Instrument Development

The Organizational version of the GDQ was developed in three steps. First, the Political GDQ (for information on the development on the original version of the GDQ, see Tetlock *et al.* (1992)) was rewritten to reflect the unique properties of the corporate environment rather than the elite political environment. For example, item 2 in the Political GDQ read:

> There is a widely shared belief that leadership requires technical and scientific knowledge.
>
> versus
>
> Religious or ideological beliefs dominate technical and scientific considerations in making decisions.

The item was rewritten as follows:

> There is a widely shared belief that leadership requires technical or scientific knowledge unique to that industry.
>
> versus
>
> The group has no use for scientific or technical knowledge.

Eight items that were inappropriate for the Organizational version of the GDQ were replaced entirely with items that are critical for understanding the environment in organizations.

Second, a sample of three *Fortune 500* executives and three academics reviewed the GDQ to ensure that the items provided comprehensive coverage of the range of group dynamics in the corporate setting. On the basis of their comments a number of items were modified, added, and deleted.

The final step in development of the Organizational GDQ was in applying the sort to a diverse set of business groups. Five *Q*-sorters read and assessed the top management team group dynamics of Ben and Jerry's Homemade, Inc. (Lager, 1994), Circus-Circus Entertainment (Provost, 1994), Big Eight accounting firms (e.g., Peat, Marwick, Mitchell & Co, and Price Waterhouse — now Big Six) (Stevens, 1984), and the Coca-Cola Company (Pendergrast, 1993). The sorters unanimously agreed that the Organizational GDQ captured the important dynamics of the groups they *Q*-sorted. The final listing of GDQ items is presented in Appendix B (listed by process indicator scales).

Theoretical Ideal Types

Ideal types were created for template matching theory-derived descriptions of group dynamics with actual groups (cf., Bem & Funder (1978) and Block (1978) on template matching with the *Q*-sort methodology). The process of template matching involves *Q*-sorting the group dynamics described by a theory and comparing this with the *Q*-sort of the dynamics in an actual group. The strength of this template matching approach over more impressionistic case study comparisons is that the theory (i.e., the template) and the actual cases are translated into the same data language. This allows for detailed and systematic comparisons between an actual group and the theoretical ideal type of interest. For example, Tetlock *et al.* (1992) pinpointed how Janis overemphasized conformity, optimism, and rigidity in the groupthink cases he studied.

The ideal types were *Q*-sorted from historical and theoretical literature by at least two of the first three authors. Each text from which an ideal type was drawn was double *Q*-sorted (average interrater agreement, $r = .80$, range = .65 to .91). Disagreement was resolved through discussion. These *Q*-sort profiles were matched against actual groups to gauge the resemblance to particular templates (cf. Bem & Funder, 1978). The seven ideal types include three ideal types hypothesized to predict failure, (1) groupthink—an overwhelming desire for consensus (Janis, 1982), (2) absolutist cult—authority and power are totally centralized in one person who claims to embody the culture and direction of the organization (from historical source), and (3) organization in decline—the activities of the organization are rigidly controlled and scripted (Kimberly &

Miles, 1980; Adizes, 1988). Four ideal types hypothesized to predict success were also created, (1) vigilant decision making—complex and detailed information processing (Janis, 1982), (2) corporate social responsibility—corporations should be accountable not just to shareholders, but to stakeholders (Etzioni, 1993), (3) prime organization—the organization balances flexibility and control (Kimberly & Miles, 1980; Adizes, 1988), and (4) resource dependence—managers can make a significant difference by avoiding resource dependencies that severely limit their autonomy and freedom of maneuver (Pfeffer & Salancik, 1978). Extreme items for the ideal types are listed in Appendix C.

Q-Sort Assessment Sources

The raw data for this study were business histories of the seven corporations studied. Only major books published on *Fortune 500* companies that discussed in detail the decision making dynamics of upper management were used. At least two sources were identified for each company at each of two time periods—one time when the top management team was broadly believed to be satisfying core constituencies and one time when the team was widely perceived to be failing. Four independent observers carefully read each source and, based on the information contained in that source and only that source, completed a *Q*-sort that captured as closely as possible the portrayal of the group in the source (i.e., the group was always defined as the Chief Executive Officer and those who reported directly to him). *Q*-sorts were based on the group as portrayed by the author of the text, not the way the *Q*-sorter believed the group to be. *Q*-sorters were also instructed not to carry information contained in one source into another *Q*-sort. The order in which raters read texts was counterbalanced to control for any possible carryover effects. In addition, the *Q*-sorters received standard procedural instructions for how to place the items in a standard quasi-normal distribution (for details see Tetlock *et al.* [1992]). All four *Q*-sorters (one faculty, two graduate students, and one undergraduate student) sorted all 28 sources.

The texts for each historical case, the time period covered, and the chief executive with operating responsibility for the corporation at the time *Q*-sorted are all listed in Appendix A. Cases were selected by the following four criteria:(a) only *Fortune 500* size companies were sorted,[2] (b) all sources had to include sufficient detail about group dynamics to permit hypothesis-blind *Q*-sorters to perform a *Q*-sort of the group (books that focused exclusively on corporate strategy, market share, etc., were excluded), (c) all cases had to have occurred within the past 25 years, and (d) companies to be selected had to have at least two sources for both successful and unsuccessful time periods. This last criterion for selection was included to give comparisons that were controlled

[2]Our sorts included two groups that are not technically on the *Fortune 500* list, (1) CBS News is only one segment of CBS (which was on the list at that time) and (2) Kohlberg, Kravis & Roberts, which, at the time sorted, did own and manage enough operations to be listed had it been counted as a single entity.

for industry and organizational culture. General economic and regulatory climate was controlled to some extent by selection of multiple cases within the same time period. This was accomplished generally by sorting cases within the past 25 years, but more specifically by sorting both positive and negative cases in the same time period (e.g., CBS News successful and Coca-Cola unsuccessful in 1978–1979 and Coca-Cola successful and General Motors unsuccessful in 1985–1986). Time period and leader were allowed to vary among the comparison cases.

In summary, this study addressed the usefulness of the groupthink–vigilance continuum for understanding success and failure of top management teams by (1) selecting a set of case histories of seven corporations, one set when each corporation is experiencing success and another set when each corporation is experiencing failure, (2) asking theoretically neutral assessors to describe group decision making in each of the successful and unsuccessful group histories using the Corporate GDQ, and (3) comparing these *Q*-sorts with one another, with theory-derived ideal types of groupthink and vigilant decision making, and with other ideal types derived from theory in organizational behavior.

RESULTS

Reliability of the Q-Sort Assessments

Three measures of *Q*-sort reliability were computed: (a) interrater agreement (do readers of the same case study interpret the text in similar ways?), (b) intertext agreement (do different historical accounts lead readers to similar conclusions?), and (c) internal consistency of the process indicator scales (do conceptually related items intercorrelate?). Interrater reliability was good with an average Pearson correlation of .77, ranging from .54 to .86 (based on 84 interrater comparisons). These reliabilities are within the normal range for widely used psychological tests and justified proceeding to the next level of analysis: collapsing across raters to create composite *Q*-sorts for each case. Intertext agreement was also good. Fourteen correlation coefficients between *Q*-sort composites were computed from different authors' perspectives on the same group. The average correlation was .83, with a range from .71 to .90. This level of intertext agreement justified collapsing across texts to create supercomposites that could be compared directly to each other and to theoretical ideal types.

The average Cronbach alpha coefficient for the eight process indicator scales was .89. Individual coefficients were .97 for intellectual rigidity–flexibility, .86 for control–crisis, .91 for optimism–pessimism, .83 for leader weakness–leader strength, .85 for factionalism–cohesiveness, .86 for legalism–corruption, .87 for decentralization–centralization of power, and .94 for risk aversion–risk taking.

Process Indicator Scales

Table 1 presents the process-indicator scale scores for all 14 supercomposite *Q*-sorts (collapsed across raters and texts).

TABLE 1

Process Indicator Scores for Group Composite *Q*-Sorts

Group	R–F	C–C	O–P	W–S	F–C	L–C	D–C	A–T
CBS News +	6.6	3.3	1.9	6.1	6.1	2.8	3.5	5.4
CBS News −	4.1	6.0	4.9	6.4	4.8	6.1	6.3	7.9
Chrysler +	4.7	5.1	2.5	8.3	6.1	4.7	6.2	7.4
Chrysler −	2.9	7.8	6.8	6.4	4.7	5.8	6.5	4.6
Coca-Cola +	6.4	4.3	2.5	7.1	6.3	3.7	5.8	8.1
Coca-Cola −	3.5	6.0	5.1	3.8	3.8	5.9	6.4	3.4
General Motors +	7.1	6.3	4.1	6.4	6.3	3.9	3.8	7.7
General Motors −	3.1	5.1	4.1	5.9	5.2	6.0	7.3	7.1
IBM +	6.2	3.4	2.7	6.7	6.0	3.7	5.2	6.8
IBM −	2.9	5.3	4.9	4.8	5.3	5.5	6.7	2.3
KKR/RJR +	6.4	4.9	3.6	6.7	6.3	4.6	6.2	7.5
KKR/RJR −	3.4	6.7	2.7	5.7	4.9	7.0	7.3	6.9
Xerox +	7.1	5.0	3.6	7.1	6.1	3.7	4.2	7.8
Xerox −	3.5	5.1	3.0	4.6	5.5	5.0	6.1	2.6

Note. Scores are collapsed across texts. The higher the score, the greater the second attribute. R–F, intellectual rigidity–flexibility; C–C, control–crisis; O–P, optimism–pessimism; W–S leader weakness–strength; F–C, factionalism–cohesiveness; L–C, legalism–corruption; D–C decentralization–centralization of power; A–T, risk averse–risk taking.

Table 2 presents the correlations among the process indicator scales. The average (absolute value) correlation among the process indicator scales was .54, with particularly high correlations among intellectual rigidity–flexibility, factionalism–cohesiveness, legalism–corruption, and decentralization–centralization of power. The magnitude of these correlations may reflect the universe of groups from which we sampled — large, well-established corporations functioning in reasonably competitive markets and accountable to the rule of law.

Assessing the Relationship between Process and Outcome

A one-way multivariate analysis of variance (MANOVA) detected significant differences between the successful and unsuccessful groups, Wilks' $F(5, 8) =$

TABLE 2

Process Indicator Scale Intercorrelations ($N = 14$)

Scale	1	2	3	4	5	6	7	8
1. Rigidity–flexibility	—							
2. Control–crisis	−.54	—						
3. Optimism–pessimism	−.52	.75	—					
4. Leader weakness–strength	.54	−.20	−.31	—				
5. Factionalism–cohesiveness	.81	−.59	−.64	.66	—			
6. Legalism–corruption	−.86	.72	.53	−.42	−.80	—		
7. Decentralization—centralization	−.83	.45	.35	−.29	−.61	.87	—	
8. Risk averse—risk taking	.59	−.13	−.32	.78	.49	−.23	−.21	—

Note. Scores are collapsed across texts. The higher the score, the greater the second attribute.

18.5, $p < .01$.[3] Discriminant analysis clarified the relative importance of the process indicator scales in differentiating the two categories of groups (standardized discriminant function coefficients in parentheses): intellectual rigidity–flexibility (2.1), leader weakness–strength (1.9), risk aversion–risk taking (1.6), decentralization–centralization of power (1.3), legalism–corruption (−.74), optimism–pessimism (−.61), factionalism–cohesiveness (−.42), and control–crisis (.20). Overall, the discriminant function was significant at the .002 level, χ^2 (9, $N = 14$) = 26.4, and allowed prediction of the successful and unsuccessful outcome groups with 100% accuracy (against a chance accuracy of 50%).

These multivariate tests were followed with analysis of variance (ANOVA) planned comparisons that revealed significant differences on all eight of the process indicator scales. Successful decision making groups showed, (a) more intellectual flexibility, $F(1, 12) = 70.8$, $p < .0001$, $\eta^2 = .86$ ($M = 6.4$ vs 3.4); (b) less consciousness of crisis, $F(1, 12) = 6.6$, $p < .03$, $\eta^2 = .36$ ($M = 4.6$ vs 6.0); (c) less pessimism (more optimistic), $F(1, 12) = 6.3$, $p < .03$, $\eta^2 = .34$ ($M = 3.0$ vs 4.5); (d) greater leader strength, $F(1, 12) = 11.1$, $p < .01$, $\eta^2 = .48$ ($M = 6.9$ vs 5.4); (e) more cohesiveness, $F(1, 12) = 35.7$, $p < .0001$, $\eta^2 = .75$ ($M = 6.2$ vs 4.9); (f) less corruption (more concerned with observing correct rules and procedures), $F(1, 12) = 36.0$, $p < .0001$, $\eta^2 = .75$ ($M = 3.9$ vs 5.9); (g) less centralization, $F(1, 12) = 13.0$, $p < .004$, $\eta^2 = .52$ ($M = 5.0$ vs 6.7); and (h) more risk taking, $F(1, 12) = 5.7$, $p < .04$, $\eta^2 = .32$ ($M = 7.2$ vs 5.0). Figure 1 presents these differences.

Exploratory ANOVAs were also conducted to identify which of the 100 *Q*-sort items most clearly differentiated successful and unsuccessful groups. The conservative Scheffe test was used to control for Type I error. Fourteen items proved to be significant predictors even by this conservative estimate: Item 11, $F(1, 12) = 34.0$, $p < .05$, $M = 7.1$ vs 4.6 (successful groups were characterized by a stronger feeling of "common fate"); Item 18, $F(1, 12) = 55.5$, $p < .05$, $M = 6.1$ vs 3.0 (successful groups were more open and candid); Item 19, $F(1, 12) = 37.0$, $p < .05$, $M = 7.1$ vs 2.9 (successful groups were more likely to adjust failing policies in a timely fashion); Item 35, $F(1, 12) = 66.2$, $p < .05$, $M = 2.8$ vs 5.0 (successful groups were more likely to be genuinely committed to solving the problems of the group); Item 36, $F(1, 12) = 33.0$, $p < .05$, $M = 3.3$ vs 6.5 (successful leaders were more explicit about their policy preferences); Item 40, $F(1, 12) = 32.8$, $p < .05$, $M = 6.9$ vs 3.0 (successful groups encouraged more dissent in private meetings); Item 54, $F(1, 12) = 42.3$, $p < .05$, $M = 3.5$ vs 6.5 (successful groups could act more decisively in emergencies); Item 55, $F(1, 12) = 53.5$, $p < .05$, $M = 7.4$ vs 5.0 (successful groups showed more team spirit); Item 58, $F(1, 12) = 51.5$, $p < .05$, $M = 3.1$ vs 7.3 (successful groups were more attuned to changes occurring around them); Item 59, $F(1, 12) = 81.3$, $p < .05$, $M = 6.9$ vs 3.5 (successful groups are more likely to be focused

[3]A causal conclusion that group process produced organizational success or failure should not be drawn from these data. It is also plausible that the process differences are a result of experiencing success or failure.

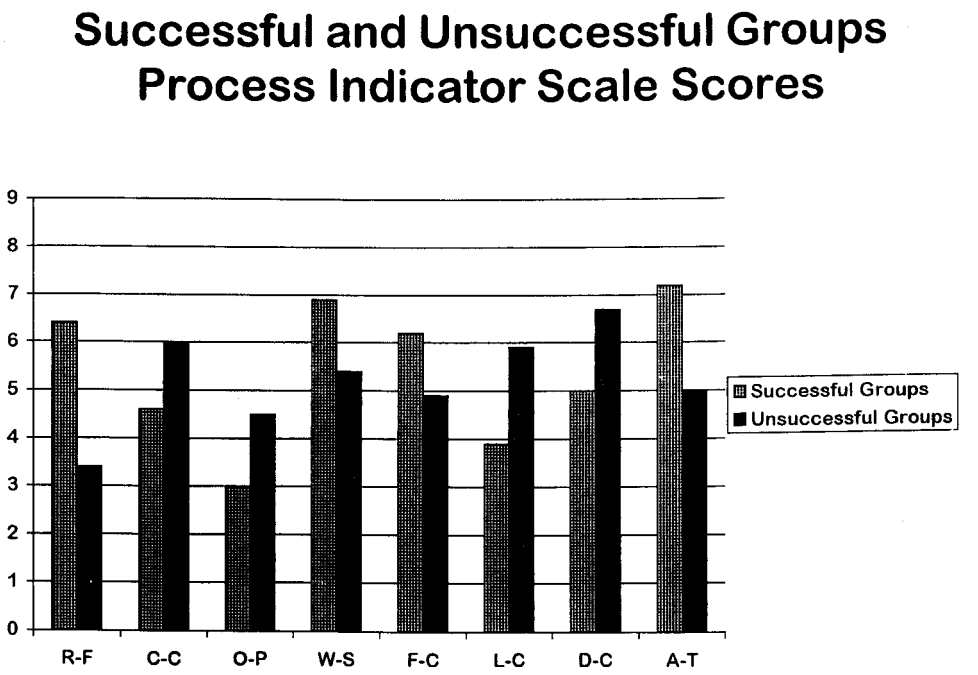

FIG. 1. Process indicator scale scores for successful and unsuccessful group ($n = 7$).

on achieving shared goals); Item 74, $F(1, 12) = 61.3$, $p < .05$, $M = 3.8$ vs 7.0 (successful groups are more likely to realize that painful and divisive tradeoffs cannot be avoided); Item 75, $F(1, 12) = 68.1$, $p < .05$, $M = 3.1$ vs 6.2 (successful groups are more likely to be good at improvising solutions to unexpected events); Item 78, $F(1, 12) = 34.6$, $p < .05$, $M = 3.6$ vs 6.9 (successful groups are more likely to demonstrate a capacity for "double-loop learning"); and Item 98, $F(1, 12) = 35.9$, $p < .05$, $M = 4.1$ vs 6.9 (successful groups are more likely to assume that policy decisions require a fluid process).

Comparison of Cases with Theoretical Ideal Types

Table 3 presents the correlations between the theoretical ideal types. The average correlation among the types is .39 for the failure types with a particularly high relationship between groupthink and absolutist cult (e.g., extremely

TABLE 3

Ideal Type Intercorrelations

Scale	1	2	3	4	5	6	7
1. Groupthink	—						
2. Absolutist cult	.63	—					
3. Organization in decline	.32	.21	—				
4. Vigilant decision making	−.31	−.55	−.44	—			
5. Corporate social responsibility	−.17	−.52	−.15	.67	—		
6. Prime organization	.01	−.17	−.24	.68	.47	—	
7. Resource dependence	.03	−.17	−.21	.62	.49	.70	—

TABLE 4

Supercomposite Correlations with Theoretical Ideal Types

	Ideal type						
	Negative types			Positive types			
Group	GT	AC	OD	VDM	CSR	PO	RD
CBS News +	.04	−.21	−.13	.64	.61	*.73*	.56
CBS News −	.35	*.53*	−.17	−.23	−.24	.00	−.02
Chrysler +	.50	*.54*	−.08	−.01	−.07	.47	.38
Chrysler −	.34	*.54*	.28	−.61	−.45	−.42	−.28
Coca-Cola +	.25	.14	−.29	.47	.25	*.68*	.55
Coca-Cola −	.16	*.37*	*.37*	−.51	−.24	−.33	−.27
G. Motors +	.11	−.15	−.50	*.63*	.36	.58	.49
G. Motors −	.40	*.53*	.42	−.54	−.44	−.29	−.30
IBM +	.23	.09	−.11	.44	.30	*.66*	.52
IBM −	.38	.36	*.77*	−.49	−.25	−.33	−.27
RJR/KKR +	.22	.20	−.32	.38	.13	*.49*	.47
RJR/KKR −	.38	*.52*	.20	−.49	−.44	−.35	−.25
Xerox +	.07	−.07	−.49	.65	.42	*.71*	.62
Xerox −	.30	.19	*.69*	−.26	−.11	−.19	−.13

Note. GT, groupthink; AC, absolutist cult; OD, organization in decline; VDM, vigilant decision making; CSR, corporate social responsibility; PO, prime organization; RD, resource dependence. The best match for each composite *Q*-sort is underlined.

high leader strength). The success types had an average correlation of .60 with high correlations among the vigilance, prime organization, and resource dependence types (e.g., rigorous information search). Despite the overlap, there were significant differences in how well each theoretical ideal type matched with the actual groups. Table 4 presents the correlations between the supercomposite *Q*-sorts for each decision making episode and each of the seven theoretical ideal types. The prime organization type was the best predictor for five of the successful groups (CBS News, Coca-Cola, IBM, KKR, and Xerox) and was a significantly better match to the successful groups than vigilant decision making,[4], $t(6) = 2.5$, $p < .05$ ($M = .62$ vs .46), resource dependence, $t(6) = 5.7$, $p < .01$ ($M = .62$ vs .51), and corporate social responsibility, $t(6) = 6.4$, $p < .01$ ($M = .62$ vs .29). Vigilant decision making was a significantly better match than corporate social responsibility, $t(6) = 4.7$, $p < .01$ ($M = .46$ vs .29). For failure types, absolutist cult was a marginally better match to the cases studied than groupthink, $t(6) = 2.3$, $p < .06$ ($M = .43$ vs .33).[5]

Twenty-one correlation coefficients among the successful case supercomposites (collapsed across raters and texts) were also computed. The average correlation was .60, with a range from .28 to .82. This third-order composite (collapsed

[4]Block (1961, 1978) argues that differences in fit between two ideal types should be assessed by treating the correlations between ideal types and subjects (in this instance cases) as scores and conducting paired *t* tests.

[5]The marginal difference is reported because the power in these tests is extremely low and even a marginal effect requires a large effect size.

across raters, texts, and cases) was developed for comparison with the vigilant decision making ideal type. The third-order composite of successful groups differed from vigilance in showing greater leader strength (2.3), more centralization of power (2.0), greater rigidity (1.8), more willingness to take risks (1.5), less legalism (1.4), and more optimism (1.4). These differences are shown in graphic form in Fig. 2.

Twenty-one correlation coefficients among the unsuccessful case supercomposites were also computed. The average correlation was .43, with a range from .00 to .79. This third-order composite was developed for comparison with the groupthink ideal type. The third-order composite of unsuccessful groups differed from groupthink in showing greater factionalism (2.4), less leader strength (1.6), less optimism (1.5), and less rigidity (1.1). The differences are shown graphically in Fig. 3.

DISCUSSION

The discussion is divided into three sections that explore (a) limitations of the study, (b) the validity and usefulness of the Organizational GDQ, and (c) the implications of the findings for the groupthink and vigilant decision making models.

Limitations of the Study

There are at least two potential alternative interpretations for the data presented. First, it could be that the raters read differences into the group

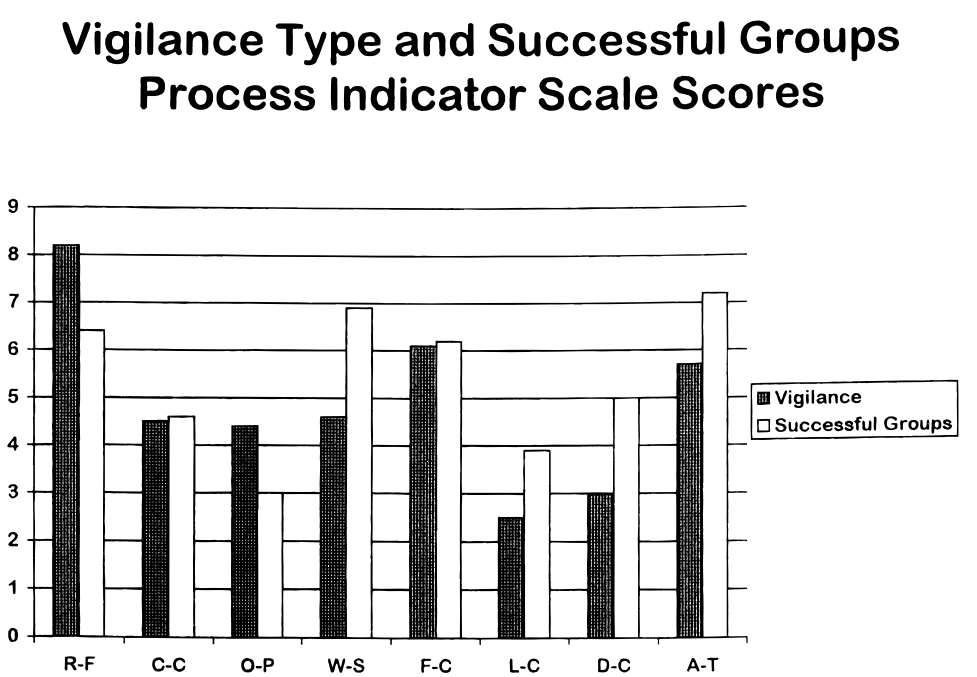

FIG. 2. Process indicator scale scores for successful groups and vigilant decision making.

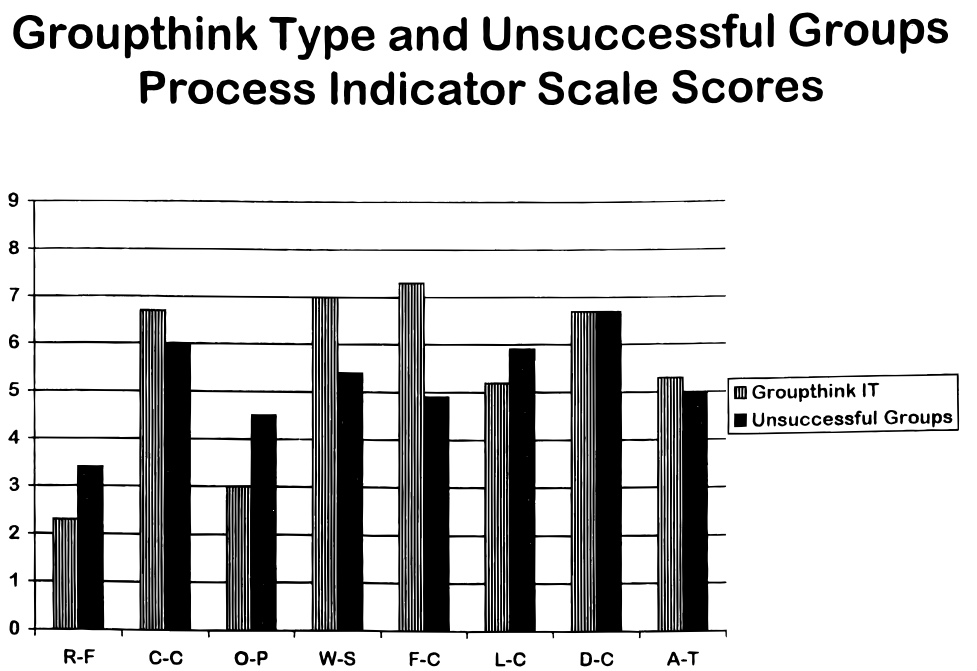

FIG. 3. Process indicator scale scores for unsuccessful groups and groupthink.

processes based on their preconceived notions of successful and unsuccessful groups. Although the raters were hypothesis-blind, it was not possible to shield them from the relative success or failure of the groups they rated. While there is no way to completely dismiss this interpretation, there is evidence to suggest that this is not the cause of the results reported here. All four raters for this study were asked to sort a "prototypical group that is most likely to fail to achieve its objectives" and a "prototypical group that is most likely to achieve its objectives." The analysis yielded a composite "failure" sort that was only moderately correlated with unsuccessful group sorts (average $r = .40$ with a range from .19 to .63). The process indicator scale scores for the composite failure ideal type diverged significantly from average scores of the unsuccessful groups, however. The unsuccessful groups demonstrated greater cohesion (1.3), less corruption (1.6), and more flexibility (1.0) than the composite failure sort. The composite "success" sort was more strongly correlated with successful groups (average $r = .51$ with a range from .23 to .79). The process indicator scale scores for the composite success sort differed significantly from average scores of the successful groups, however. The successful groups showed greater rigidity (1.6), stronger leadership (1.2), more corruption (1.1), and greater centralization of authority (1.7) than the composite success sort. Given these differences, it seems reasonable to conclude that the preconceptions of the *Q*-sorters did not cause the differences detected.

The second and related alternative explanation revolves around the historical texts from which *Q*-sorts were derived. The case study authors themselves were not blind to the success or failure of the group at the time the case was written. Perhaps they fell prey to the certainty of hindsight effect and allowed

outcome knowledge to contaminate their assessments of group process. They may have looked selectively for decision-making precursors of success and failure in the appropriate groups. Again, there is evidence to suggest that this does not explain the results of the study reported here. In a number of instances one author had only immediate outcome knowledge (based on date of publication) and the other author had longer term knowledge of events that one might expect to change interpretation of group dynamics. For example, one of the texts used to sort Chrysler Motors in 1984–1985 was published in 1985 while the other was published in 1994 (after the problems at Chrysler during the 1980s become public in 1990). If knowledge of the eventual outcome of the group changes the portrayal of the group, then one would expect the 1994 source to portray the 1985 group dynamics at Chrysler in much more negative terms than the one published in 1985. This did not occur ($r = .84$). Such differences in outcome knowledge exist in three of the seven successful cases (Chrysler, IBM, and GM[6]). The average intertext reliability for these sources ($r = .81$) is not significantly different from those of the other successful cases ($r = .85$), or those of the unsuccessful cases ($r = .83$). Another testable hypothesis is that authors of cases who were participants in unsuccessful groups might also have written cases that are somehow different from those of outside observers. These differences were not found. In three cases, one of the texts was written by a member of the decision making group — David Kearns was President and later CEO of Xerox, Ed Joyce was Vice President of CBS News during the time studied, and Bill Leonard was Vice President of CBS News during the time studied. The intertext reliability for these cases ($r = .78$) was not significantly different from those with only outside sources ($r = .85$).

There is, of course, no way of completely dismissing the possibility that author participation or outcome knowledge has some effect on retrospective accounts of group decision making. The analyses presented here do shift the burden of proof to those who still hold such suspicions. Such critics would need to explain not only the wide agreement among textual perspectives, but also the complex correlational patterns reported here. More specifically, why did the actual successful groups differ so systematically from the vigilant decision making type (e.g., greater leader strength and more cohesion) and the "success" stereotypes of the *Q*-sorters (e.g., greater rigidity and centralization of authority)? Also, why did unsuccessful groups differ so systematically from the groupthink type (e.g., more factionalism and lower leader strength) and the "failure" stereotypes of the *Q*-sorters (e.g., less corruption and rigidity along with greater factionalism)?

Beyond the potential alternative explanations, there are two closely related limitations that should be recognized. The first is the type of organizations studied here. All seven of the organizations are large, American companies that caught the public eye in recent history. It is unknown whether the results

[6]In 1995, after *Comeback* was written, GM experienced a slacking of energy and negative results that are reported in *Collision Course*.

will replicate to smaller, less visible companies in the United States or elsewhere. Second, the data reported here are all generated from second or third-order sources (managers' accounts of process or the accounts of authors who interviewed top management team members). The implications of this limitation are also unknown. However, this limitation should be weighed against the benefits of the methodology—the Organizational GDQ allows systematic comparisons across top management teams that would not otherwise be open to quantitative study.

Implications for the GDQ

Beyond its role in assessing links between process and outcome in group decision making or the usefulness of Janis' (1982) groupthink and vigilant decision making models, the Organizational GDQ represents a bridge methodology between qualitative and quantitative approaches to studying businesses and organizations. It blends the richness of the case study approach (by asking a wide variety of questions) with the rigor of the quantitative approach (cf. Tetlock *et al.*, 1992). In this study, systematic, quantitative, and reliable assessments of group dynamics were made across (1) different writers on the same group, (2) the same group across time, and (3) different groups. For example, differences in author perspectives on the same group were pinpointed. Ed Joyce (1988) portrayed CBS News as more in crisis (1.3) and having a less centralized power structure (1.1) than did Peter Boyer (1988). The increasing pessimism (2.5 to 6.8), risk aversion (7.4 to 4.6), and sense of crisis (5.1 to 7.8) was tracked in Lee Iacocca's administration of Chrysler between 1985 and 1990. Direct comparisons between different groups were also made. The most similar cases, for example, were the successful sorts on General Motors and Xerox ($r = .82$), followed by the unsuccessful sorts for Xerox and IBM ($r = .79$). The Corporate GDQ also permitted systematic comparisons of real groups to theory-derived ideal types. Rather than relying on impressionistic comparisons of overall group or team functioning, the Organizational GDQ could pinpoint specific differences between real groups and the theoretical ideal type of interest. For example, the case most similar to the ideal type for groupthink was the successful Chrysler case ($r = .50$). However, Chrysler still differed from groupthink by showing greater flexibility (2.3), more willingness to take risks (2.1), and a greater sense of control (1.6) than the ideal type.

Although there are clear advantages to the GDQ, the method is not perfect. The GDQ has two limitations. First, the GDQ does not allow for strong causal conclusions like those that can be drawn from controlled experiment. The second limitation is that reliability (which the *Q*-sorts presented clearly possess) is no guarantee of validity. These reliabilities could be the product of shared misconceptions among authors of business history or among readers who translate texts into *Q*-sorts. The limitations of the GDQ should not, however, be exaggerated. Confidence in the method can be justified by the convergence of theory and history. Ideal type *Q*-sorts derived from theories purporting to identify the group-dynamics ingredients of success were associated with

successful groups, whereas ideal types derived from theories purporting to identify the sources of failure were associated with unsuccessful groups in predicted ways. In other words, the patterns of match and mismatch mesh nicely both with existing theory and current evidence derived from laboratory experiments, field investigation, and case studies.

Implications for the Groupthink and Vigilant Decision Making Models

The current study provides strong supportive evidence of Janis' (1982) position that a relationship exists between group process and outcome in decision making. This claim rests on two features of the results reported: (a) hypothesis-blind readers of independent historical sources reached quite similar conclusions about the group dynamics of the groups we studied (reflected in high interrater and intertext reliabilities), and (b) there were significant differences in the composite *Q*-sorts for successful and unsuccessful groups (as demonstrated in the discriminant analysis, the overall MANOVA, and ANOVA tests on the process indicator scales).

Although the results generally support Janis' (1982, 1989) claims that vigilant processing of information leads to favorable outcomes in group decision making, the case should not be overstated. The results diverge from Janis' (1982) work in three important ways. First the unsuccessful groups showed weaker leaders, more factionalism (less cohesion), less rigidity, and greater optimism than the groupthink type would suggest. These results square nicely with those found by Tetlock *et al.* (1992), who found that Janis (1982) overstated the role of group cohesion and sense of crisis when compared with other historical observers. Groupthink provided the best fit to none of the seven unsuccessful groups studied. The absolutist cult type was a consistently better match to the unsuccessful groups than groupthink. Moreover, the different predictive abilities of these two ideal types are not an artifact of trivial differences between them. Groupthink is related to absolutist cult in its focus on leader strength and cohesiveness, but differs in greater flexibility (1.8), greater sense of control (2.1), and greater risk taking (1.8), (r = .61). In sum, the results reported here suggest that groupthink may not be as common a phenomenon as implied by the high level of attention that groups researchers have paid to the groupthink model (cf., t' Hart, Stern, & Sundelius, 1997). Other theoretical perspectives, especially absolutist cult, may better capture what can go wrong at the top levels of corporations.

The second way in which our results diverge from those of Janis (1982, 1989) is in the successful groups' greater leader strength, more centralization of authority, greater rigidity, more willingness to take risks, less legalism, and more optimism than the ideal type for vigilant decision making. Vigilance was the best fit for only one of the seven successful groups (General Motors, r = .64). It is also worth noting that, although the leadership and group membership remained unchanged, this group experienced serious setbacks shortly after the time period studied. Moreover, the prime organization type was a significantly better match to the groups studied here than vigilant decision making. These

two ideal types are by no means redundant. Like vigilance, prime organization encourages dissent and flexibility, but differs in its emphasis on can-do confidence and buoyant optimism (2.6), (r = .67). As with groupthink and the negative ideal types, other models appear to provide a better explanation for the success of the top management teams studied than the one proposed by Janis (1982). In particular, the prime organization type appears to be a better model of success. Vigilant decision making is clearly not the only path, and may not be the best path, to corporate success.

The third way in which our results differ from Janis' (1982) work is in its implications for leader strength. Janis (1982) argued that effective leaders should be "impartial" and withhold their opinions from the group at the outset of discussion. Leaders should also refrain from exerting undue pressure on their fellow group members. These recommendations were made to encourage an atmosphere of "open inquiry" and reduce the likelihood of conformity to a leader's views. Results reveal that successful decision making groups had strong leaders who were *more* likely to try to persuade others in the organization of their views than leaders of unsuccessful groups. Moreover, leaders of successful groups were more likely to be explicit about their policy preferences with others (item 36). At first blush these results seem to oppose a number of other findings reported here that support successful groups as more intellectually flexible and decentralized. This combination of findings is consistent, however, with those reported by Peterson (1997) (see also Peterson, June 1997). In a study of leader directiveness in elite political and experimental groups, the quality of group process and outcomes was not affected by the degree to which the leader advocated a position (i.e., high outcome directiveness). Group process and outcome quality depended only on whether the leader was open to dissent (i.e., high process directiveness). Item 40 in this study found that successful leaders were also more open to dissent.

APPENDIX A

Historical Cases and Texts Used (Unsuccessful Case Listed First)

Group	Time	Leader/CEO	Texts
CBS News			
U	1982–1984	Van Gordon Sauter	Boyer, P. J. (1988). *Who killed CBS? The undoing of America's number one news network*. New York: Random House. Joyce, E. (1988). *Prime times, bad times*. New York: Doubleday.
S	1978–1979	Richard Salant	Boyer, P. J. (1988). *Who killed CBS? The undoing of America's number one news network*. New York: Random House. Leonard, B. (1987). *In the storm of the eye: A lifetime at CBS*. New York: G. P. Putnam's Sons.

APPENDIX A—*Continued*

Group	Time	Leader/CEO	Texts
Chrysler			
U	1989–1990	Lee Iacocca	Ingrassia, P., & White, J. B. (1994). *Comeback*. New York: Simon & Schuster. Levin, D. P. (1995). *Behind the wheel at Chrysler*. New York: Harcourt Brace.
S	1984–1985	Lee Iacocca	Gordon, M. M. (1985). *The Iacocca management technique*. New York: Levin, D. P. (1995). *Behind the wheel at Chrysler*. New York: Harcourt Brace.
Coca-Cola			
U	1978–1979	Paul Austin	Allen, F. (1994). *Secret formula*. New York: HarperCollins. Pendergrast, M. (1993). *For God, country and coca-cola*. New York: Macmillan.
S	1984–1986	Roberto Goizueta	Allen, F. (1994). *Secret formula*. New York: HarperCollins. Pendergrast, M. (1993). *For God, country and coca-cola*. New York: Macmillan.
General Motors			
U	1985–1986	Roger Smith	Ingrassia, P., & White, J. B. (1994). *Comeback*. New York: Simon & Schuster. Lee, A. (1988). *Call me Roger*. Chicago: Contemporary Books.
S	1993–1994	Jack Smith	Ingrassia, P., & White, J. B. (1994). *Comeback*. New York: Simon & Schuster. Maynard, M. (1996). *Collision course*. New York: Birch Lane Press.
IBM			
U	1988–1989	J. Paul Akers	Carroll, P. (1993). *Big blues: The unmaking of IBM*. New York: Crown. Ferguson, C. H., & Morris, C. R. (1993). *Computer wars: The fall of IBM and the future of global technology*. New York: Random House
S	1979–1980	Frank Cary	Carroll, P. (1993). *Big blues: The unmaking of IBM*. New York: Crown. Sobel, R. (1981). *IBM: Colossus in transition*. New York: Times Books
KKR/RJR Nabisco			
U	1988	F. Ross Johnson	Burrough, B.,& Helyar, J. (1990). *Barbarians at the gate*. New York: Harper & Row. Lampert, H. (1990). *True greed*. New York: New American Library.

APPENDIX A—*Continued*

Group	Time	Leader/CEO	Texts
S	1988	Henry Kravis	Burrough, B.,& Helyar, J. (1990). *Barbarians at the gate.* New York: Harper & Row Lampert, H. (1990). *True Greed.* New York: New American Library.
Xerox			
U	1977–1979	C. Peter McColough	Jacobson, G., & Hillkirk, J. (1986). *Xerox: American samurai.* New York: Macmillan. Kearns, D. T., & Nadler, D. A. (1992). *Prophets in the dark: How Xerox reinvented itself and beat back the Japanese.* New York: HarperCollins.
S	1985–1986	David Kearns	Jacobson, G., & Hillkirk, J. (1986). *Xerox: American samurai.* New York: Macmillan. Kearns, D. T., & Nadler, D. A. (1992). *Prophets in the dark: How Xerox reinvented itself and* beath *back the Japanese.* New York: HarperCollins.

Note. U, unsuccessful groups; S, successful groups.

APPENDIX B

Organizational Group Dynamics Q-Sort: Process Indicator Scales

Intellectual Rigidity–Flexibility

19. The group refuses to abandon failing or unsound policies in response to serious setbacks (i.e., an aversion to serious self-criticism).

vs

***The group adjusts failing policies in a timely fashion (i.e., the group recognizes shortcomings and attempts to cut its losses by making midcourse changes).

37. There is a great deal of xenophobia or suspiciousness toward outsiders within the group.

vs

***The group is open to a wide range of cultural and intellectual influences.

40. Dissent is not acceptable even within private group meetings; the group ostracizes dissenters and punishes them severely.

vs

***Private criticism within group meetings is not only acceptable, it is actively encouraged as a way of improving decision making.

58. ***Group members are highly attuned to their environment and major changes occurring around them.

vs

Members are extremely slow to recognize the major changes occurring around them.

***Direction of Q-sort item that measures the extreme end of the right-hand side of the scale.

APPENDIX B—*Continued*

65. Key group members are megalomaniacs who have lost all sense of their limitations.

vs

***Key group members are balanced people who know the limits of their own skills and usefulness to the organization.

66. ***The group places heavy emphasis on consultation and soliciting expert advice.

vs

The group places little emphasis on consultation and expert advice.

68. The group leader is insulated from criticism.

vs

***The leader is exposed to a wide range of views and arguments. (Note: Item refers to whether the leader is exposed and *not* whether leader responds [see items 92 and 40].)

71. ***Key members are open, confident people who are willing to consider that they might be wrong.

vs

Key members of the group are defensive, insecure people who respond sharply to any criticism.

74. ***The group recognizes that painful and divisive choices cannot be avoided.

vs

The group believes that trade-offs can be avoided (i.e., that it will be possible to achieve everything on their wish list).

78. ***The group demonstrates a capacity for "double-loop learning" (i.e., the capacity not just to monitor performance with respect to established indicators, but also to undertake periodic reassessments of performance indicators to ensure that they are measuring the right things).

vs

The group has no capacity for self-reflective learning (i.e., group shows no interest in rethinking indicators of success that are customary to the organization).

81. The group leader is insensitive to other points of view within the group and society at large.

vs

***The leader is a good listener (i.e., pays careful attention to what others say, is good at understanding divergent viewpoints).

88. The group subscribes to a rigid, dichotomous view of the world (i.e., there are good guys and bad guys and nothing in between).

vs

***The group has a flexible multidimensional world view (i.e., good guys are not always good, bad guys are not always bad, and reasonable people can often disagree over what counts as good or bad).

98. ***The group assumes that most policy decisions require a fluid process, weighing competing values and making subtle trade-off judgments (i.e., decisions are made in many ways depending on the circumstances).

vs

The group assumes that there are clear right and wrong, good and bad ways of making decisions (i.e., the process by which decisions are made is rigid).

Sense of Control–Crisis

10. ***The group focuses exclusively on short-term concerns (e.g., next quarter profits or current public image).

vs

Long-term concerns loom large in group decision making.

21. ***The group cannot act decisively without the stimulus of a crisis.

vs

The group is capable of decisive action before problems deteriorate into crises. (Note: Item implies a capacity to both anticipate events and mobilize resources to shape those events.)

31. ***The group perceives a serious external threat to its continued existence (e.g., unfriendly takeover, government regulators, tough competitors, creditors, etc.).

vs

The group perceives the business environment to be placid and relatively benign (the environment may even be supportive).

APPENDIX B—*Continued*

38. The group can easily cope with existing problems and challenges.

vs

***The group is under enormous pressure or stress (i.e., challenges far exceed capabilities).

46. The group can afford to make a variety of mistakes (i.e., the group/organization can draw upon enormous resources—financial, reputational, etc.).

vs

***The group cannot afford to make mistakes (i.e., the group/organization is on the precipice of ruin, even one mistake can ruin them).

54. The group can act decisively in emergencies.

vs

***Even in emergencies, the group cannot act decisively.

56. ***The group cannot reconcile the conflicting demands of important constituencies.

vs

The group has no difficulty satisfying all important constituencies.

75. The group has formidable problem-solving skills and is adept at improvising solutions to unexpected events.

vs

***The group has no problem-solving skills (i.e., clueless when something out of the ordinary happens).

93. ***The group's legitimate authority has been utterly discredited.

vs

The group's legitimacy is widely accepted. (Note: Item refers to perceptions of others, not to group's perception of its legitimacy [see item 22].)

Optimism–Pessimism

8. There is an infectious can-do spirit within the group.

vs

***The group's spirit is broken (i.e., apathy, despair, and defeatism prevail).

17. ***The group has lost faith in its capacity to control events.

vs

The group feels fully in control of events.

22. The group is confident in its legitimacy (i.e., it assumes there is widespread acceptance of its "right" to lead).

vs

***The group is very unsure and self-conscious of its legitimacy (Note: Item refers to group's perception of its legitimacy, not to the perceptions of others, [see item 93])

64. ***The group suffers from an inferiority complex.

vs

The group displays enormous confidence in itself and its traditions.

76. ***The group has suffered serious setbacks (i.e., injuries to its collective self-esteem).

vs

The group is "riding high" as a result of past successes (i.e., a euphoric atmosphere in group meetings).

Leader Weakness–Strength

32. ***The leader has complete control over who is admitted to the group.

vs

The group consists of individuals with autonomous bases of power (i.e., group members do not owe their positions to the leader).

39. The leader is passive and withdrawn (i.e., has apparently lost interest in the job and in achieving original goals).

vs

***The group leader is an extremely forceful and ambitious personality.

APPENDIX B—*Continued*

60. The leader is often ignored or even overruled by group members.

vs

***The group displays automatic and unquestioning obedience toward the leader. (Note: Code as neutral if the group leader can generally expect deference but does not have license to rule arbitrarily.)

63. Members harbor serious doubts about the leader's effectiveness.

vs

***Group members are convinced that the leader possesses skills that are critical for achieving group goals.

83. ***No member of the group comes even close to matching the skills and stature of the leader.

vs

The leader is overshadowed or eclipsed by other group members.

97. ***The group leader makes major efforts to persuade others to redefine their goals and priorities.

vs

The leader places little emphasis on persuading others (i.e., works within or around current opinion).

Factionalism–Cohesion

1. ***The group requires absolute loyalty (i.e., members must show 100% dedication to the group and/or organization or they are out).

vs

The group places no importance on loyalty (i.e., members are loyal either only to themselves or to external constituencies whom they represent.)

3. ***Group members make good faith efforts to implement the leader's policies, even when they do not agree with those policies.

vs

Influential members of the inner decision-making circle are blocking the group leader's policies.

7. Group members are acerbic and confrontational in their dealings with each other.

vs

***Members are tactful and accommodative in their dealings with each other.

11. Group members see their own success as inextricably tied to the failure of other group members (i.e., members have individual, subgroup, or divisional agendas).

vs

***Group members assume that they share a "common fate" (i.e., either they will succeed together or fail together).

23. Relations among group members are charged with hostility and/or rivalry.

vs

***Relations among group members are warm and friendly. (Note: Code as neutral if relations among group members tend to be affectively neutral and businesslike.)

41. ***The group is united on the pace of change.

vs

There is a serious rift within the group between the forces of organizational change and forces supporting the traditions, privileges, and understandings of the past.

47. Authority within the group is highly fragmented, with different facets of policy becoming the autonomous provinces of different individuals.

vs

***Authority is highly centralized; policy in different domains is tightly controlled and integrated.

51. The group consists of representatives of various interest groups and bureaucratic constituencies.

vs

***The group consists of "generalists" who are not obliged to represent any particular power base.

APPENDIX B—*Continued*

55. The group shows no team spirit and group solidarity.

vs

***The group shows strong team spirit.

59. Group members devote virtually all their time to playing self-serving political games (e.g., claiming expensive perks, redefining criteria for success, etc.).

vs

***Group members have no time for gamesmanship; their focus is on achieving shared goals.

70. ***The group leader demonstrates intense loyalty to close supporters and advisors (i.e., keeps them aboard long after they have become political liabilities).

vs

The leader shows no loyalty to close supporters and advisors (i.e., abandons them at the earliest signs of trouble).

72. ***The group never acts unless unanimity has been achieved.

vs

The group frequently undertakes decisions that a substantial fraction of the group opposes.

73. There is intense pressure to forget disagreements and forge a common front.

vs

There is little external pressure to forge a common front.

96. ***The group leader is charismatic and inspiring (i.e., gives subordinates something to believe in and to shoot for).

vs

The leader is bland and uninspiring at best (an embarrassment at worst).

99. There is an atmosphere of suspicion and fear within the group (i.e., no one knows who will be next to fall out of favor and into oblivion).

vs

***There is an atmosphere of trust and mutual support among group members.

Legalism–Corruption

16. There is a pervasive belief that standards of appropriate conduct should apply to everyone.

vs

Corruption is rampant; cronyism, nepotism, favoritism, and backroom deals are accepted as a natural part of life.

18. ***False appearances and deceptive manipulation are so common as to be a way of life (i.e., nothing can be taken at face value).

vs

Group members are remarkably open and candid in their dealings with one another.

67. The group is always careful to act within the law.

vs

***The group is unconstrained by law or common conceptions of morality.

79. ***There is a pervasive lack of accountability within the group (e.g., when key projects fail, resignations or censure of responsible decision-makers do not follow.)

vs

Group members feel strictly accountable for their job performance (i.e., when they fail, they take full responsibility).

89. ***The group blatantly discriminates against disliked ethnic, racial, or religious groups.

vs

The group bends over backward to display its ethnic, racial, and religious impartiality.

95. ***Group members are opportunists guided only by calculations of personal self-interest.

vs

Members are strongly committed to the norms, roles, and goals of the organization (i.e., want to do the “right thing” for the “right reasons”).

APPENDIX B—*Continued*

Decentralization–Centralization of Power

4. ***The group deeply dislikes delegating power and sharing responsibility (i.e., control must be all or nothing).

vs

The group appreciates the value in delegating power and living with fluid, power-sharing relationships.

5. ***The group believes in a top-down, pyramidal, and control-oriented style of management (i.e., lots of rules, checks, and surveillance).

vs

The group believes in a bottom-up style of management that encourages initiative and self-control among employees with minimal reliance on formal rules and surveillance.

6. The group is aware of and believes that it should be responsive to community concerns.

vs

***The group is oblivious to or ignores community concerns.

12. ***The group cloaks its deliberations in the highest secrecy.

vs

The group is remarkably open about its deliberations with those outside the group.

53. ***Power is concentrated within a small subgroup.

vs

Power is dispersed across a wide range of constituencies and interest groups.

82. The group believes that it should be responsive to employee concerns.

vs

***The group is oblivious to employee concerns (in extreme cases may even be hostile to employee concerns).

Risk Aversion–Risk Taking

25. ***Advocates of a more risk-taking business strategy hold the upper hand within the group.

vs

Advocates of a more cautious strategy hold the upper hand within the group.

29. ***The group consists of visionaries driven to achieve extremely ambitious objectives.

vs

The group consists of "satisficers" content with adopting any acceptable option that comes along.

50. The group attaches great importance to preserving traditional arrangements and understandings.

vs

***The group attaches no importance to preserving traditional arrangements and understandings.

62. ***The group pursues bold or high-risk initiatives.

vs

The group acts in highly cautious or risk-averse ways.

84. The leader has positioned himself/herself in the middle of the continuum of opinion within the group.

vs

***The leader is identified with an extremist wing of the group.

87. ***There is a radical atmosphere in the group (i.e., rethink old approaches, adopt new strategies and goals).

vs

There is a conservative (don't-rock-the-boat) atmosphere in the group.

APPENDIX B—*Continued*

Additional Q-Sort Items

2. There is a widely shared belief that leadership requires technical or scientific knowledge unique to that industry.

vs

The group has no use for technical or scientific knowledge.

9. Communication within the inner circle of decision-makers is highly formal, with few breaches of protocol.

vs

Group meetings are raucous informal affairs, with frequent and loud interruptions (Note: Code as neutral if the meetings are orderly but relaxed.)

13. Group members devote enormous attention to detail.

vs

Group members are oblivious to detail.

14. The group believes in sophisticated and sensitive means of monitoring trends, problems, and performance throughout the organization.

vs

The group does not place a priority on keeping in touch with important trends and problems within the organization.

15. Members in good standing of the group must conform to strict norms in their personal lives (i.e., group membership implies holding certain attitudes).

vs

The group tolerates a wide range of lifestyles among its members (i.e., how group members live is their own business).

20. The group places enormous importance on public relations (i.e., appreciates the need to manipulate public perceptions of the group, the organization, and its products).

vs

The group is oblivious to these concerns.

24. Group members compete in obsequious and sycophantic ways for the attention of the leader (i.e., members of the group have become fawning "yes-men").

vs

The group consists of a number of dominant (and approximately equally dominant) personalities.

26. The group has achieved a balance of expertise from different functional domains critical to organizational survival (e.g., marketing, product design, manufacturing, finance, law).

vs

One functional division of the organization dominates decision-making (i.e., key areas of expertise are unrepresented).

27. The group abandons well-reasoned policies at the first hint of trouble or controversy (i.e., no capacity to stay the course).

vs

The group sticks by well-reasoned policies even in the face of adversity.

28. The group single-mindedly focuses on maximizing "bottom-line" or financial performance indicators.

vs

The group tries to balance many objectives in decision-making (i.e., profitability is but one of many concerns).

30. Group members represent a variety of constituencies and points of view.

vs

The group is remarkably homogeneous.

33. Peculiar, even pathological, conduct by the leader is tolerated.

vs

Peculiar or pathological conduct is not tolerated.

34. Interaction among group members is confined to official meetings and work-related gatherings.

vs

Group members know each other well and socialize together.

APPENDIX B—*Continued*

35. There is a genuine common commitment to solving problems confronting the group (i.e., a no-nonsense task-oriented feeling to the group).

vs

Group members invest little energy in their work.

36. The group leader makes no secret of his/her policy preferences.

vs

Members are often in doubt as to exactly where the group leader stands on important issues.

42. The group attaches remarkably little importance to maximizing efficiency. (Note: This is *not* the same as profitability.)

vs

The group places enormous importance on maximizing efficiency.

43. The group is amazingly tolerant of lackadaisical and shoddy performance.

vs

The group demands maximum effort and exceptional performance from executives, managers, and workers.

44. The leader closely monitors the work of other group members.

vs

The leader has a laissez-faire governing style (i.e., leader allows wide lattitude in completion of responsibilities; pays no attention to how other group members manage their responsibilities).

45. The group lavishes rewards upon a select few.

vs

The group has little tolerance for income inequality within the organization (i.e., tries to minimize the gap between best and poorest paid employees).

48. Group members have no financial stake in the success or failure of the organization.

vs

Group members' personal fortunes are completely linked to the success or failure of the organization.

49. The group has a bewildering array of information at its disposal; the amount and complexity of incoming information strains the capacity of even brilliant managers (e.g., a very rapidly changing business environment).

vs

The group has remarkably little to do (e.g., the industry is relatively static).

52. The group functions like a think-tank (i.e., people pursue whatever projects interest them, with no central coordination).

vs

The group functions like a Prussian military unit (i.e., everyone is assigned a well-defined project that fits into a well-defined master plan).

57. The group leader fails to deal with the succession problem.

vs

The leader has personally designated a successor or specified a procedure for identifying one.

61. The leader behaves in a stable, predictable manner.

vs

The group leader behaves in an unpredictable, even mercurial, manner.

69. The group has a chaotic, seat-of-the-pants managerial style and structure (i.e., no rules, blurry lines of responsibility).

vs

The group has a crisp, organized managerial style and structure (i.e., explicit rules, clear lines of responsibility).

77. The group acts impulsively (i.e., the group responds emotionally and rarely makes contingency plans).

vs

The group acts in a methodical and deliberate manner.

80. A new generation of leadership has recently come to power.

vs

A new, fresh cohort of leaders is being systematically excluded.

APPENDIX B—*Continued*

85. The group can plausibly blame others for current woes (i.e., even outside observers agree that responsibility lies elsewhere).

vs

The group must accept responsibility for current woes (i.e., the group is being held accountable for their problems).

86. The group consists of innovative pioneers (i.e., people who have created new technologies, opened up new markets, etc.).

vs

The group consists of professional managers and bureaucrats (i.e., people who have experience in keeping large organizations on steady trajectories).

90. The most influential members of the group are poorly educated (i.e., little formal education or narrow technical training).

vs

The most influential members are extremely well-educated (i.e., advanced degrees from major universities).

91. The group is confident that, even if its current plans fail, it will be "bailed out" by powerful protectors (i.e., the group believes there will be guaranteed rescue from its own ineptitude; little incentive to take on unpleasant tasks). (Note: protection could come from large cash reserves, government action, reputation, etc.)

vs

The group realizes it is "on its own" (i.e., success or failure depends on its own efforts and failure could lead to bankruptcy or the folding of the organization).

92. The leader respects the concerns and feelings of other group members and honors private understandings with them.

vs

The leader shows contempt for other group members (i.e., may attempt to bully or intimidate them).

94. The relationship between the group leader and other group members is remarkably easygoing and relaxed (i.e., people feel free to speak their minds, even to joke).

vs

The relationship is formal and tense (e.g., no spontaneity or humor).

100. Virtually all we know about the group is based on speculative reconstruction of fragmentary evidence.

vs

There is a great deal of reliable evidence about the internal functioning of the group.

APPENDIX C

Extreme Items for the Theoretical Ideal Types

Ideal type	Category	Item Nos.
Groupthink	1	1, 40, 72, 73, 88
	2	4, 8, 24, 31, 36, 37, 53, 68
	8	30, 34, 39, 60, 64, 66, 98, 99
	9	11, 38, 55, 74, 78
Absolutist cult	1	1, 24, 33, 37, 83
	2	4, 12, 32, 53, 68, 88, 96, 99
	8	26, 58, 61, 64, 66, 74, 78, 98
	9	16, 39, 43, 60, 92
Organization in decline	1	9, 22, 43, 50, 88
	2	5, 10, 19, 21, 40, 42, 46, 79
	8	6, 7, 29, 54, 58, 69, 77, 78
	9	25, 62, 64, 86, 87

APPENDIX C—*Continued*

Ideal type	Category	Item Nos.
Vigilant decision making	1	16, 35, 66, 92, 98
	2	13, 26, 29, 30, 71, 74, 75, 78
	8	18, 19, 36, 37, 53, 68, 95, 99
	9	11, 40, 59, 81, 88
Corporate social responsibility	1	6, 16, 30, 67, 92
	2	14, 20, 22, 26, 50, 51, 66, 98
	8	12, 18, 24, 45, 53, 81, 88, 93
	9	4, 5, 28, 32, 89
Resource dependence	1	20, 58, 74, 85, 98
	2	22, 26, 31, 42, 54, 71, 78, 96
	8	10, 11, 17, 56, 63, 64, 77, 93
	9	19, 21, 65, 88, 91
Prime organization	1	8, 35, 58, 75, 98
	2	1, 13, 14, 16, 22, 54, 74, 78
	8	4, 11, 19, 21, 55, 64, 88, 93
	9	17, 28, 69, 95, 99

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