

The Impact of CEO Personality on TMT Dynamics:  
One Mechanism by Which Leadership Affects Organizational Performance

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### Abstract

This paper explores one mechanism by which leader personality affects organizational performance. We hypothesize and test the effects of leader personality on the group dynamics of the top management team (TMT), and TMT dynamics on organizational performance. To test our hypotheses we used the group dynamics q-sort method that is designed to permit rigorous, quantitative comparisons of data derived from qualitative sources. Results from independent observations of chief executive officer (CEO) personality and TMT dynamics for 17 CEOs support our hypothesized relationships both between CEO personality and TMT group dynamics, as well as between TMT dynamics and organizational performance.

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Although leadership is one of the most prolific and interdisciplinary research domains in the organizational sciences, scholars have consistently questioned the fundamental importance of leadership for institutional performance. For instance, during the 1970's two influential studies of executive succession (i.e., Lieberman & O'Connor, 1972; Salancik & Pfeffer, 1977) suggested that leadership plays a diminutive role in overall organizational performance (at most accounting for ten percent of performance variability). Several authors (e.g., Brown, 1982; Meindl, Ehrlich, & Dukerich, 1985; Pfeffer, 1977) concluded on the basis of these results that leadership was an unimportant topic. Subsequent reviews, however, illuminated criterion problems (i.e., organizational size) in these early studies and suggested a much greater impact of leadership on organizational performance (in some cases explaining as much as 50% of performance variation)(see Thomas, 1988). Thomas specifically argued that even where leadership does not account for a great deal of the variance between firms, leadership will likely account for much of the variance within firms. Thus after much debate, academic opinion and conventional wisdom are in much closer alignment.

Although determining that leaders exert meaningful influence on the financial performance of their organizations was an important step in organizational leadership research, it is by itself somewhat unsatisfying. While it legitimizes further research in the area, it fails to address or illuminate the many processes that must necessarily mediate the relationship between leaders and organizational performance. A myriad of hypothesized relationships exist; however,

few have received adequate (if any) empirical exploration. For instance, culture, strategy, and structure have all been identified as factors that are likely to have an impact on organizational performance and are susceptible to a leader's influence. Yet, surprisingly little research has examined the relationship between these characteristics and the leadership-organizational performance relationship.

To address this lack of empirical research on intervening processes, we investigated the effect of CEOs dispositions on the functioning of their top management teams (TMT). Consistently, TMT dynamics have been shown to be an important determinant of organizational performance (we briefly review this literature below). By examining factors that facilitate or inhibit the effective functioning of the TMT, we can begin to articulate a process model of the effect of CEO characteristics on organizational performance. In so doing, we contribute to two neglected areas of research on leadership, (1) process models that explain the linkages between leader traits and effectiveness criteria and (2) models that explore the specific CEO-TMT interface. Following is a brief review of each of these areas.

#### A Process Model Linking Leader Traits and Effectiveness

Empirical leadership research began with the search for traits that differentiate leaders from followers, and it remains an important area of study (House, Shane, & Herold, 1996; Judge, Bono, Ilies, & Werner, 2001). As noted by Cowley (1932), "The approach to the study of leadership has usually been and perhaps must always be through the study of traits" (p. 144). However, following the publication of two very influential reviews, Stogdill (1948) and Mann (1959), leadership trait research was virtually abandoned. Both reviews concluded that personality inconsistently predicts leadership (defined primarily in terms of emergence),

suggesting that organizational context plays a major role in determining which personality factors will be important for success. These reviews led many to conclude that the trait approach was overly simplistic and futile (e.g., Conger & Kanungo, 1998).

However, Judge et al. (2001) noted that these reviews were conducted prior to the advent of meta-analysis and at a time when there was little consensus regarding the description and measurement of personality. In both of these critical reviews (Mann, 1959, Stogdill, 1948), consistent trait-effectiveness relationships may have been obscured. In fact, meta-analyses conducted following Stogdill and Mann suggest that this was indeed the case. Lord, De Vader and Alliger (1986), for example, found two personality characteristics consistently predicted leadership emergence (dominance and masculinity-femininity). Moreover, in the most recent meta-analysis of this literature, Judge et al. (2001) found significant and generalizable relationships between each dimension of the five-factor model and either leadership emergence or effectiveness.

While this is extremely encouraging, it merely provides a static picture of leadership. We still know little about the processes by which leader personality affects success and failure of a group or organization. Most leadership trait research has followed a simplistic research model that examines (usually cross-sectionally) the relationship between proximal leader traits and distal performance criteria (e.g., group or unit performance) with little examination of the factors that affect this relationship (Moynihan & Peterson, 2001; Smith, Oreg, & LePine, 2001). It is one thing to know that personality characteristics are an important determinant of leadership effectiveness, it is quite another to know how (i.e., through what processes) personality has an impact on effectiveness. It is important to note that past studies of the effect of leader traits on

organizational performance have rarely even speculated about the mechanism by which such a relationship might emerge, let alone examine any specific processes. No study we know of links specific leader personality traits with particular group processes, or more precisely CEO personality and its effects on top management team dynamics.

### The CEO-TMT Interface

Due, in part, to dissatisfaction with the inconsistent results from leader trait research and, more directly, as a response to purely economic perspectives on organizational strategy (Hambrick, 2002), TMT researchers have largely moved away from the study of the leader to a focus on the team of top executives in an organization. Frequently, no distinction was made in this research between the “leader” and his/her top management team. Rather, they were consolidated into a single category reflecting what Cyert and March (1963) called the dominant coalition and Hambrick and Mason (1984) labeled the upper echelons.

The study of TMTs has proliferated since the publication of Hambrick and Mason’s (1984) influential review. Recent research has demonstrated that TMTs can have a profound impact on the strategic direction and performance of their organizations (for a review see Zaccaro, 2001). TMT characteristics include composition, structure, incentives, and process (Hambrick, 1994). However, the preponderance of TMT research has focused on composition and has employed various versions of demography theory (Pfeffer, 1983). Demography theory suggests that the composition of TMTs with regard to various demographic characteristics (e.g., age, tenure, functional and educational background) can explain the collective behavior of TMTs. As an example, research suggests that TMTs of greater average tenure are more risk-averse (Wiersema & Bantel, 1992).

In addition to the main effects of these various characteristics, demographic dispersion has been studied as a determinant of the collective behavior of TMTs. For instance, Norburn and Birley (1988) found that heterogeneity in educational background was related to organizational performance in a study of TMTs in five industries. However, due to the greater difficulty in collecting appropriate data, much less is known about how decision-making processes affects performance. It is, however, the source of much theoretical work on TMTs (cf. Hambrick, 1994).

#### The TMT-Organizational Performance Link

Although there are others who are critics of the importance of TMTs (e.g., Pfeffer & Salancik, 1978; Starbuck, 1985), there is growing evidence from organizational scholars that top management team group dynamics are directly related to firm performance (e.g., Eisenhardt & Zbaracki, 1992; and Peterson, Owens, Tetlock, Fan, & Martorana, 1998). Additional support for the importance of TMTs is found in similar process-outcome arguments relating to groups in organizational behavior (Hackman, 1990; Likert, 1967), political science (e.g., Allison, 1971; George, 1980), communication (e.g., Hirokawa, 1985; Poole, 1983) and psychology (Janis & Mann, 1977; Maier, 1963; Zander, 1993). The theoretical aspect of this argument was made most persuasively by Irving Janis, who was a strong proponent of the notion of a strong and positive relationship between elite group decision making and organizational success (Janis, 1985, 1989; Herek, Janis, & Huth, 1987; Janis & Mann, 1977, 1992). When elite decision-making teams are “vigilant” in their decision-making, they are more likely to succeed. Successful decision making teams carefully survey their alternatives, conduct an extensive and dispassionate search for relevant information, and make contingency plans once an option has been selected. Leaders of

successful management teams are also willing to accept criticism openly and without retribution. Given the existence of several reviews of the TMT literature that elaborate on their importance (cf. Cohen & Bailey, 1997; Hambrick, 1994; Zaccaro, 2001), we will not review it in detail here.

Interestingly, although upper echelons research reveals the importance of TMTs, CEO's are rarely distinguished from the TMT as a whole in this research. Hambrick (1994) pointedly noted that,

Perhaps out of a zeal to move away from undue focus on the single top executive, researchers of top groups have been noticeably silent on the distinct role and impact of the group leader. As Jackson (1992) points out, there has been a tendency in TMG research to simply include the CEO as a member of the group, averaging in his or her characteristics in establishing overall group characteristics. Yet, everyday observation and a wealth of related literature indicates that the top group leader has a disproportionate, sometimes nearly dominating influence on the group's various characteristics and outputs. (p. 180)

Zaccaro (2001) also called attention to this gap in the literature, noting that "Although there is a large and growing literature on TMTs, few studies have focused specifically on the relationship between the executive leader and his or her team, and specifically how executive leaders manager or lead their teams" (p. 193). We agree and also believe that an understanding of the full impact of CEOs on organizational performance must be predicated on an examination of the means by which CEOs lead their executive teams (Klimoski & Koles, 2001).

### The General Hypotheses

Simply stated, we suggest that leader personality is significantly related to how senior

management interacts (cf. Hermann & Preston, 1994 on Presidents and their cabinets), and the nature of senior management interaction is significantly related to organizational performance and effectiveness. For example, we would expect leaders who tend toward cooperation (i.e., agreeableness) to be associated with teams that work cooperatively, share critical information, and focus on generating a team solution. Further, we suggest that such a cohesive TMT dynamic should ultimately lead to the smooth implementation of intended goals because all team members are cooperatively focused on decisions. Reciprocally, leaders who are extremely competitive by disposition will be associated with teams that compete with each other to persuade the CEO that their individual opinion is the best solution. This type of TMT dynamic may then lead to implementation problems as TMT members have little incentive to work across functions. In other words, the impact of CEO personality on firm performance is indirectly made through the group dynamic created in the top management team. If we are correct, a higher percentage of variance in organizational (or group) performance could be explained by taking into consideration not only the personality of the leader, but the type and quality of interaction amongst the members of the management team. We think this is likely to be particularly true within elite policy-making groups where the leader has a great deal of power to express and reinforce preferences in team structure.

This prediction is based on two distinct streams of research. The first is the literature on CEO discretion. Hambrick and Finkelstein (1987) theorize that many chief executives do not have a great deal of direct control over broad organizational features such as organizational culture – contrary to the assumption made by much of the existing theory on CEO personality (e.g., Schein, 1992). Instead, CEOs do have a great deal of discretion over issues like staffing

their immediate team of direct reports and establishing how those people will interact with each other. Moreover, they argue that CEO personality itself plays a major role in determining degree of managerial discretion. Managers with greater cognitive complexity and higher levels of aspiration, for example, are hypothesized to have even greater managerial discretion. Thus, CEO personality is expected to play a direct role in creating the group dynamics that top management teams encounter through both selection and training.

We are certainly not the first to hypothesize a relationship between CEO personality and the functioning of the TMT. Kets de Vries and Miller (1986; Miller, Kets de Vries, & Toulouse, 1982), suggested that “executive” personality pervades many aspects of an organization from strategy to structure and culture to its adaptive style. However, Kets de Vries and colleagues focused primarily on the effect of dysfunctional personality characteristics (what they refer to as neuroses) on organizational function suggesting, for instance, that depressive executives will breed cultures of helplessness.

As we have noted, prior research on the relationship between TMTs and organizational performance are generally grounded in demography theory and focus on composition effects. Peterson et al., (1998) is a noted exception. Peterson and colleagues examined the relationship between specific TMT dynamics and various indices of organizational performance. They found that the TMT dynamics outlined in Janis’ (1982) model of groupthink was not a good predictor of unsuccessful groups. In fact, the TMT dynamics of an absolutist cult were the best predictors of poor performance. Unsuccessful groups showed weaker leaders, more factionalism (less cohesion), less rigidity, and greater optimism than the groupthink type would suggest. Additionally, the TMT dynamics described by Kimberly and Miles’ (1980) prime organization

type was a better predictor of group success than were the TMT dynamics suggested by Janis' (1982) vigilant decision making. Although designed as a test of the groupthink model Peterson et al. (1998) provide preliminary support for the contention that TMT dynamics have a meaningful effect on organizational financial performance.

In this study we focus on the effect of personality variables as captured by the five-factor model. The five-factor model represents the current orthodoxy in personality assessment and is a simple, robust, and comprehensive way of understanding fundamental personality differences (Barrick & Mount, 1991; McCrae & Costa, 1996; Hogan, 2002). Although it has its detractors, general consensus suggests that it adequately captures the content domain of personality (see Wiggins, 1995 for an extensive review).

For process variables we focused our attention on a set of group dynamics constructs derived from a similarly comprehensive list. These indicators were developed from extensive feedback from over 20 group dynamics scholars (see Tetlock, Peterson, McGuire, Chang, & Feld, 1992 for a description of the original development of these indicators). The group dynamics process indicators include, (a) Intellectual Rigidity-Flexibility, with higher ratings indicating a greater likelihood of seeing problems in multidimensional ways and changing one's mind in response to new evidence; (b) Sense of Control-Crisis, with higher ratings indicating a sense of urgency or emergency; (c) Optimism-Pessimism, with higher ratings indicating that the group is pessimistic about achieving its goals; (d) Leader Weakness-Dominance, with higher ratings indicating greater leader control over the group and a more directive approach to other group members; (e) Factionalism-Cohesion, with higher ratings indicating a group in which the members get along with each other and work together as a mutually supportive team; (f)

Legalism-Corruption, with higher ratings indicating a group run by backroom deals, nepotism, and self-serving interests; (g) Decentralization-Centralization of Power, with higher ratings indicating a group that is more centrally controlled by a strong leader or by a small subgroup; (h) Risk Aversion-Risk Taking, with higher ratings indicating a group willing to take calculated risks (see Peterson, Owens, & Martorana, 1999a for additional details on these scales specifically in the organizational context).

In sum, we suggest that the personality of the CEO will be reflected in who is selected to be on the team and how they are encouraged to interact with each other and the CEO<sup>1</sup>. Paul Austin's leadership of Coca-Cola is an excellent example of this process. Paul Austin was CEO of Coca-Cola from 1966-1980; his distinguishing personality characteristic was his extremely low score on agreeableness. Austin was known as the "ice man" and even described his style to a Forbes magazine writer as liking "to pull all the legs off the centipede and see what he's really like" (Allen, 1994). Austin's management style was also described as "austere":

...Austin intentionally terrified his employees. "A certain degree of anxiety and tension has to exist," he insisted, "for people to function at the highest level of their potential," likening this "nervous quickness" to a well-tuned violin string. Normally self-contained, Austin occasionally (and purposely) unleashed a ferocious, quick-flash temper that rendered him still more formidable."  
(Pendergrast, 1993, pp. 28)

The fear Austin communicated to his direct reports was probably transmitted to others down the chain of command, creating a culture where standard operating procedure was never questioned and utter loyalty to company and boss was demanded (i.e., a centralized power structure with

low cohesion). The result of this stifling conformity-oriented culture was an inability to respond to the cultural turbulence of the late 1960s and early 1970s. This ultimately led to disastrous financial performance (even when compared to results of other major corporations in that period) (see Peterson, Owens, & Martorana, 1996b for performance analyses). In short, Austin's low agreeableness contributed to the harsh treatment of his top management team, the creation of a culture of fear, and ultimately poor financial performance.

To summarize, we propose as general hypotheses that (1) CEO personality will be related to TMT group process and (2) TMT group process will be related to organizational financial performance. In what follows, we review specific hypotheses regarding the relationship between each factor in the five-factor personality model and the group dynamics indicator variables described earlier.

#### Specific Hypotheses Linking CEO Personality and TMT Dynamics

Conscientiousness. Conscientiousness reflects the degree to which someone shows dependability, responsibility, perseverance, achievement orientation, and prudence or concern with following established rules. Individuals high in conscientiousness tend to be very task-focused rather than interpersonally or relationship-focused (McCrae & Costa, 1987). We expected, therefore, that TMTs led by highly conscientious CEOs would exhibit greater team-level concern with legalism. That is, we expected CEOs with greater concern for following rules to hold their teams to higher ethical and legal standards (Hogan & Ones, 1997). We also expected that teams led by highly conscientious CEOs would feel a greater sense of control over their environment. The leader's task focus should encourage other team members to also be more attentive to task and engender a sense of knowledge and control over the decisions made

by the team. For example, Frank Cary who was CEO of IBM in the 1970s was widely admired for his willingness to attend to each and every complaint he heard about the company or a manager during his "open door" sessions. Even though the level of detail was far from his daily responsibilities, he would assign a member of his senior team to investigate and report back to him. Highly conscientious people are driven by a need for structure (Hogan & Ones, 1997); they tend to be intolerant of ambiguity and derive satisfaction from having control over their environment (Costa & McCrae, 1988). In other words, in an effort to manage (control) uncertainty, they highly structure their environment. In addition, Miller and Droge (1986) have demonstrated that CEOs high in achievement motivation (part of conscientiousness) prefer to centralize authority. Therefore, we propose:

Hypothesis 1. CEO conscientiousness will be related to TMT's that are concerned with legalism, centralization of power, and control over their environment.

Emotional Instability. Emotional instability or neuroticism reflects the tendency to be anxious, compulsive, defensive, and thin-skinned (McCrae & Costa, 1987). Additionally, emotional instability is related to a poor self-image characterized by low self-esteem and low self-efficacy (Judge et al., 2001), and thus these people are less likely to be perceived as leaders generally – and are more likely to be perceived as weak leaders (Hogan, et al, 1994; House, 1988). Popular myths about successful leaders being neurotic aside<sup>2</sup>, a number of studies suggest that most successful leaders are emotionally stable (Bass, 1990). For example, Barrick, Stewart, Neubert, & Mount (1998) found that teams with more neurotic members tended to be less socially cohesive and more conflictual. This is bolstered by Edmonson's (1999) notion of team psychological safety, an atmosphere safe for interpersonal risk taking in teams. She found

that team psychological safety is generated in large part by the atmosphere that leaders create, and that it was strongly associated with success. We therefore hypothesized that CEO neuroticism will be related to a TMT's risk-aversion, factionalism and intellectual rigidity. For example, Ron Miller, the CEO of Disney in the 1970s, is an excellent example of a CEO who scores highly on neuroticism. He would throw what were perceived to be temper tantrums when he did not get what he wanted. His team thought him so unpredictable that they stopped bringing him any new or innovative ideas, resulting in a low level of risk-taking and creativity. The low-risk culture in the company was strongly reinforced by key people in the team who wanted to be sure that no Disney activity ever offended any parent in any way. We therefore hypothesized that teams lead by more neurotic CEOs will be relatively low in willingness to take risks, cohesion, and intellectual flexibility. Therefore, we propose:

Hypothesis 2. CEO emotional instability will be related to TMT's that are risk averse, intellectually rigid and factional.

Agreeableness. Agreeableness represents the degree to which someone shows personal warmth, a preference for cooperation over competition, and trust and acceptance of others (McCrae & Costa, 1987). We predicted that top management teams with CEOs who are particularly high in agreeableness would encourage especially cohesive and decentralized teams. Highly agreeable leaders may encourage their management groups to work together as a single "team" and share critical information with each other in reaching a group consensus. Thus, status and power differences between individual members are expected to be de-emphasized and power sharing rewarded. This prediction is supported by Tjosvold (1984) who found that leaders high in personal warmth tend to encourage group cohesion, and by Barrick et al., 1998 who found that

teams higher in mean level of agreeableness were more socially cohesive. Stogdill (1974) also reviews a number of studies from the 1950s and 60s that support this argument. As described earlier, Paul Austin at Coca-Cola epitomized the low end of this continuum. He can be compared with his successor, Roberto Goizueta, who was highly agreeable, worked tirelessly to bring everyone in the Coca-Cola TMT together and build good relationships amongst them. This was particularly difficult because the TMT members were accustomed to working as solo operators, and because half of them had also been possible succession candidates. Nevertheless, Goizueta managed to keep all of the team he inherited intact and transformed them from solo to team players. Thus, we predicted that TMTs with CEOs who are particularly high in agreeableness would be associated with especially cohesive and decentralized teams. Therefore, we propose:

Hypothesis 3. CEO agreeableness will be related to TMT cohesion and decentralization.

Extraversion. Extraversion or surgency is characterized by two distinct clusters of traits—(1) sociability, gregariousness, and talkativeness and (2) assertiveness and dominance (McCrae & Costa, 1987). We hypothesized that extraversion should be related to dominance in the team. More extraverted leaders are more interactive and energetic and more forceful in communicating their opinions (Judge et al., 2001). For example, Lee Iacocca, CEO of Chrysler from 1979-1990 is an example of a very public corporate figure who exhibits strong extraversion in that he was one of the most outspoken and dominant CEOs in modern corporate history.

Therefore, we propose:

Hypothesis 4. CEO extraversion will be related to TMT perceptions of leader dominance.

Openness. People who are open to new experiences value intellectual matters, are

interested in unusual thought processes, and are often seen as thoughtful and creative (McCrae & Costa, 1987). We hypothesized that teams lead by a CEO high in openness would particularly reward team behavior that is intellectually flexible and open (McCrae & Costa, 1997). For example, Roberto Goizueta, CEO of Coca-Cola through the 1980s, is an excellent example of openness. He was the leader who challenged existing traditions and did several "unthinkable" things (e.g., using the Coke name on a diet soft drink and buying Paramount pictures). His team not only decided to launch "new Coke," but they were flexible enough to return "old Coke" when it became apparent that this was necessary. We hypothesized that teams lead by a CEO high in openness would reward team behavior that is intellectually flexible and open. Therefore, we propose:

Hypothesis 5. CEO openness will be related to TMT intellectual flexibility and risk-taking.

Given the literature on TMT process-outcome relationships and the exploratory nature of the TMT-organizational performance analyses, we chose not to make formal hypotheses beyond our general hypothesis stated above that TMT group process will be related to organizational financial performance. However, we would expect based on the previous empirical research and in keeping with contemporary theorizing on group dynamics (Hackman, 1990) that four TMT variables would be related to organizational performance. First, we expected intellectual flexibility to be related to organizational performance based on Janis' (1989) work suggesting that when elite decision making teams are intellectually open in their decision making, they are more likely to succeed. Second, we expected cohesiveness to be related to organizational performance based on Edmonson's (1999) work suggesting that "psychological safety" or the

freedom to dissent without retribution is critical to effective team functioning. Third, we expected optimism to be related to organizational performance based on Staw and Barsade's (1993) work suggesting that managers who are more positive in disposition tend to be more successful. Fourth, we expected decentralization of power to be related to organizational performance based on Janis' (1985, 1989) and Peterson's (1997) work suggesting that elite teams that are lead by someone who is generally open to the influence of others on the team tend to perform better.

Similar to House, Spangler, and Woycke (1991), we used archival data to examine the relationship between CEO personality and TMT group dynamics. We describe these data collection methods in greater detail in the following section.

## METHOD

Two independent data sources were used in this study. First, CEO personality data were gathered from archival sources (e.g., published biographies, interviews, etc.) and readers used the California Adult Q-Set (CAQ)(Block, 1978) to describe the personality of each leader. Second, TMT group dynamics were also measured from archival sources (e.g., memoirs, books written by financial reporters, etc.) using the Organizational Group Dynamics Q-sort (GDQ) (Peterson, Owens, & Martorana, 1999a). The archival sources for the CEO personality and top management team dynamics data sets were independent of each other, no overlapping archival data or cross-citations were allowed.

### Case Selection

We sought to find all available cases that fit the following two criteria: (a) all sources had to include sufficient detail about group dynamics or CEO personality to permit hypothesis-blind

q-sorters to perform a q-sort (books that focused exclusively on corporate strategy, market share, etc., were excluded), and (b) all cases had to occur within the past 25 years. Sources had to directly describe TMT dynamics or CEO personality in detail to be considered for inclusion. Sources needed to contain at least five separate, detailed discussions of aspects of TMT dynamics or CEO personality to be included. Discussions varied in length from a number of paragraphs to entire chapters. Sources that provided only a cursory discussion of group member interactions or CEO personality were excluded from the analysis. The cases selected include a wide variety of types of leaders and financial performance. General economic and regulatory climate was controlled to some extent by selecting cases within the last 25 years, but more specifically by sorting both relatively successful and unsuccessful cases in the same time period (e.g., CBS News successful and Coca-Cola unsuccessful in 1978-79 and Coca-Cola successful and General Motors unsuccessful in 1985-86). Finally, where possible we also found opposing normative perspectives on these groups where perceptions of the relative failure or success of those groups changed over time. In other words, we tried to select cases with very different views on the relative success or failure of the management team. This selection process was done to safeguard against the selective reporting of information based on the author(s) preconceived opinions about the groups (see the Discussion section for quantitative tests of alternative explanations). The final sample includes nine firms. More information regarding our final sample and the firms represented can be seen in Appendix A).

The raw data for measures of CEO personality were derived from published information detailing the personal history and management philosophy of each CEO. The data were primarily first-order information derived directly from the subject using qualitative text analysis of primary

sources rather than interpretation through another author (Miles & Huberman, 1994). An extensive package of information was developed for each of the 17 CEOs studied (at least 20 published pages), which included every direct interview with each CEO we could find using Lexis-Nexis (e.g., Business Week), the writings of the CEOs on their management philosophy (e.g., Horton, 1986) including company documents where available, and autobiographies or professional biographies when available (e.g., Iacocca: An autobiography, Iacocca, 1984). The sources for these assessments did not overlap with the sources used to assess the top management team group dynamics (explained below). No cross-citation of sources was allowed. On the rare occasion where we found an interview had been cited by a book used to assess top management team dynamics, the interview was removed from the package containing the sources of information used to assess CEO personality.

The CEO personality data were gathered using the California Adult Q-Set (CAQ)(Block, 1978). The CAQ is a 100-item instrument developed by Block (1978) to make comprehensive assessments of individual personality. It includes items such as “Is critical, skeptical, not easily impressed”; “Tends to arouse liking and acceptance”; and “Is uncomfortable with uncertainty and complexities.” Block and Hann (1971) developed their q-sort methodology as a means of bringing together data from diverse information sources to yield a common personality description. The q-sort serves as a useful tool to quantitatively code qualitative data. For this study q-sorters performed text analyses of the archival sources (Miles & Huberman, 1994). Our use of the q-sort is similar to that employed in the Berkeley Intergenerational Studies (reported in Staw, Bell, and Clausen, 1986) and similar to the text analysis of inaugural addresses for McClelland’s motives employed by House, Spangler, and Woyke (1991). At least three

independent observers of the four who were trained (one faculty with detailed knowledge of personality research, one graduate student, and two undergraduates) carefully read the package of all sources of information for each CEO and completed the CAQ based on the information in that package. The q-sorters were instructed to base their sorts only on the package of information provided, not on any other information the rater may have had prior to the rating. Q-sorters were further instructed not to include information from outside the provided package or from another CEO's package of information. These instructions were continuously emphasized and reinforced when any question arose over the sorting process. Q-sorters also received standard procedural instructions for how to place the items in a standard quasi-normal distribution (for details see Block, 1978).

#### Top Management Team Group Dynamics

The raw data for this part of the study were business histories of the corporations studied, many of which were reported in Peterson, Owens, & Martorana (1999b). We used only major books published by large, reputable publishing houses offering detailed accounts of the decision making of upper management by authors with direct access to the top management team (in many cases by a member of the top management team itself). We identified sources for each company at each of two time periods studied. We found more than one book when possible, although it was not possible in five cases (See Appendix A). At least three independent observers carefully read each source and, based on the information contained in that source and only that source, completed the Group Dynamics Q-sort (see Peterson, et. al., 1999a) to capture as closely as possible the portrayal of the group in the source (i.e., the group was always defined as the CEO and those who reported directly to that person). Q-sorters were instructed to disregard their

preconceived beliefs and opinions of the group and to base their q-sorts 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. When more than one source was used, the order in which raters read texts was counterbalanced to control for possible carryover effects. In addition, the q-sorters received standardized procedural instructions for how to place items in a standard quasi-normal distribution. A total of eight people (one faculty expert in the area of group dynamics, four graduate students, and three undergraduates) sorted top management team cases (only two of which overlapped as CAQ sorters).

## RESULTS

### Reliability and Validity of Q-Sort Data

The CAQ. Prior to aggregating the CAQ ratings from the three raters to form a composite, we calculated several indices of reliability, consistency, and agreement (Bliese, 2000). Specifically, we calculated the average interrater correlation between the three 3 raters of each CEO,  $r_{wg}$  (James, Demaree, & Wolf, 1984), and ICC(1) and ICC(2) (Bliese, 2000; Shrout & Fleiss, 1976). Based on classical test theory, the average interrater correlation provides an assessment of the amount of variance in ratings that are a function of “true score” variance versus measurement error (this model assumes that raters are essentially parallel forms of a test).  $r_{wg}$  is perhaps the most frequently reported measure of agreement in the organizational literature (Bliese, 2000). In the present case,  $r_{wg}$  represents a comparison of the variance in judges’ ratings of a CEO’s personality to an expected variance based on random responses (as is normal with  $r_{wg}$ , we assumed a uniform distribution of ratings to generate the expected variance). ICC(1) is

an alternative form of interrater reliability that represents the reliability associated with single assessment of the group mean of ratings. ICC(2) represents the reliability of the group mean (or mean of raters).

For the CAQ, the average interrater correlation was .78 with a range of .65 to .86 (based on 51 comparisons). The average item-level  $r_{wg}$  was .83. Klein and Hanges (2001) note that  $r_{wg}$  values exceeding .70 are generally interpreted as adequate to justify aggregation. They also noted that it is common to report an average item-level  $r_{wg}$  value to justify aggregation. The average ICC(1) was .49. This substantially exceeds the median value of ICC(1) reported in the organizational literature (i.e., average = .12, James, 1982). The average ICC(2) was .75. Taken together, these results provide compelling justification for collapsing across raters and creating a composite rating of each CEO.

To obtain scores on the five factors of personality, we computed factor scores for each of the personality dimensions using McCrae, Costa, & Bush's (1986) factor loadings for the CAQ. The composite ratings for each CEO are included in Table 1.

The GDQ. With one exception, we assessed the reliability, consistency and agreement of GDQ ratings following similar procedures to those employed with the CAQ. In addition to average interrater reliability,  $r_{wg}$ , ICC(1) and ICC(2), we also calculated intertext agreement (that is, do different historical accounts lead readers to similar conclusions?). The average interrater correlation was .77, ranging from .54 to .86 (based on 90 comparisons). The average item level  $r_{wg}$  was .79. The average ICC(1) was .43, while the average ICC(2) was .71. Taken together, these results support creating composites 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 when there was more than one text for a case. The average correlation was .83, with a range from .71 to .90. The composite ratings for each TMT are included in Table 2.

Next, we tested the reliability of the process indicator scales derived from the GDQ. The average Cronbach's alpha for the eight process indicator scales was .90. Individual scale coefficients were .97 for intellectual rigidity-flexibility, .86 for sense of control-crisis, .91 for optimism-pessimism, .85 for factionalism-cohesiveness, .86 for corruption-legalism, .87 for decentralization-centralization of power, .94 for risk aversion-risk taking, and .95 for leader weakness-strength.

Organizational Performance. Barber and Lyon (1996) suggest that the choice of accounting-based performance measures tends to make little difference in the study of organizational performance because they are all highly correlated. We collected several measures of organizational performance (including growth in sales, return on investment, and return on assets), that were all highly correlated in this study as well. Indeed, we obtain the same pattern of results if we use income growth, sales growth, or change in return on investment. However, we decided to report income growth after consulting with additional experts on the analysis of corporate performance. Our rationale was two-fold. First, we wanted to focus on only one measure to simplify reporting of data. Second, comparisons across firms require a metric that both adjusts for firm size as well as captures changes in firm performance. Income growth captures changes in firm performance, and we controlled for firm size by using assets. In addition, income growth is a better predictor than growth in sales because certain industries (e.g., television – CBS) do not measure performance in terms of sales of products or services.

### Personality – TMT Dynamics Hypothesis Tests

As an omnibus measure of the relationship between CEO personality and TMT dynamics, we calculated a canonical correlation between the two sets of variables. The canonical correlation was .81 ( $\chi^2_{(40)}=68.44$ ;  $p<.001$ ) suggesting a strong relationship between CEO personality characteristics and TMT group dynamics. The total redundancy given the personality variables was 68%, while the total redundancy given the group dynamics variables was 36%.

Table 3 shows the correlations between the big five factor scores for CEO personality and the top management team process indicator scale scores. Most of our hypotheses concerning CEO personality and top management team dynamics were supported. Supporting hypothesis 1, CEO conscientiousness was significantly related to team-level concern for legalism and sense of control over the environment<sup>3</sup>. Supporting hypothesis 2, CEO emotional stability was significantly related to team cohesion, intellectual flexibility, and leader dominance. However, CEO neuroticism was not significantly related to team level risk taking. Supporting hypothesis 3, CEO agreeableness is significantly related to team-level cohesion and decentralization of power. Supporting hypothesis 4, CEO extraversion was significantly related to our group process measure of leader strength or dominance. Finally, hypothesis 5 was supported as CEO openness was significantly related to team risk-taking and team intellectual flexibility.

The table also reveals, however, a number of unexpected relationships. For example, CEO agreeableness was significantly related to concern for legalism (perhaps due to the covariation that is usually observed between agreeableness and conscientiousness, in the current sample, .64) and emotional stability was significantly related to intellectual rigidity (perhaps a

function of the extreme self-confidence that is implied by high emotional stability).

#### TMT Dynamics-Organizational Performance Hypothesis Tests

Table 4 presents the correlations between TMT Dynamics and income growth corrected for attenuation due to the unreliability of the GDQ data. Although we did not make formal hypotheses regarding the relationship between TMT dynamics and organizational performance, several GDQ scales were correlated with income growth and largely corresponded with our initial expectations. TMT's characterized by intellectual flexibility, optimism, and cohesiveness (but not centralization of power) all experienced significantly greater income growth. Rather more unexpectedly, TMTs associated with responsible risk taking were marginally more likely to experience significant income growth.

### DISCUSSION

Overall, results of this study suggest two interrelated ideas. First, our results provide broad support for our general hypothesis that CEO personality affects TMT group dynamics and that TMT group dynamics are related to organizational performance. Although a number of authors have posited such a relationship (e.g., Miller, Kets de Vries, & Toulouse, 1982), there is little research empirically examining this critical nexus between leader personality and organizational performance. A number of recent studies examine the effect of leader personality on general "leader effectiveness"; however, we know of no studies that examine the effects of specific CEO personality traits on top management team dynamics. The second and closely related contribution of our study is the potential usefulness of the q-sort method in researching these types of questions. The q-sort method allowed us to conduct, a) systematic comparisons between specific CEO traits, specific top management team dynamics, and organizational

performance, in addition to, b) quantitative analyses based on qualitative first-order data. This method permitted us to test the impact of CEO personalities and TMT dynamics on organizational performance on a population and in a rigorous quantitative manner that would be difficult or impossible using other research methods. By combining the q-sort methodology with qualitative text analysis of historic cases, we were able to identify issues that would have eluded our detection using other forms of analysis. Our analysis involved detailed accounts of complex group dynamics that are not easily captured nor readily shared with researchers. By combining the rich, detailed, personal information found in our sources with the quantitative power of the q-sort method, we were able to test the effects of complex dynamics and subtle personality characteristics. This study demonstrates the numerous advantages of combining qualitative text analyses with quantitative q-sorts to test the antecedents of organizational performance (House, Spangler, & Woyke, 1991). In short, we were able to answer some difficult theoretical questions because of our use of an alternative research methodology.

There are a number of significant theoretical and practical implications that flow from the results of this study. The primary implication for researchers is to consider how the relationship between CEO personality and organizational performance is mediated by the decision-making environment of the top management team. Another important implication of this research is that it affirms the relationship between some personality characteristics and organizational performance. It also reminds scholars who study personality that personality effects can be indirect and mediated by social psychological variables measures (i.e., an input-process-output model). This study further suggests that personality scholars ought to look for leader personality effects in a variety of different kinds of teams – such as elite political decision making bodies

(cf. Hermann, 1984; Kowert, 1996), artistic organizations, or even cross-functional task teams in management.

More generally, questions of how team member personalities interact to determine team effectiveness is a relatively understudied area (Barrick, et al., 1998; Moynihan & Peterson, 2001). We found that CEOs and TMTs interact to create organizational performance. Accordingly, the selection of CEO and TMT members must consider CEO and TMT relationships in addition to each individuals' tenure (Pfeffer, 1983), the emotional disposition of the team (Staw, Bell, & Clausen, 1986), and the demography of the TMT (Hambrick, 1994, Hambrick & Mason, 1984, Zaccaro, 2001). Although the findings presented here will assist in the selection of CEOs and TMT members who are mutually effective and jointly increase organizational performance, continued research is needed to elucidate other relationships among group members. Very little is known about the relationship between the five-factor personality dimensions and group process variables. Why were top management teams led by a CEO high in agreeableness more likely to demonstrate ethical behavior? One could make the argument that an agreeable CEO might not want to confront an unethical teammate, which would allow corrupt behavior to continue. Alternatively, one might ask why we found that CEOs who are more open to new experiences are perceived to be strong leaders. One might expect that open leaders who are more willing to take risks and try new things might also be perceived as weak and vacillating (cf. Tetlock, et al., 1993). These are the kinds of questions that need a great deal of further exploration.

This study also has implications for scholars who study top management teams. This study is consistent with the notion that CEOs have tremendous managerial discretion over group

process and culture issues, and that personality plays a role in how team process unfolds (Hambrick & Finkelstein, 1987). CEO personality was related to a number of TMT group processes, implying that CEOs have a great deal of discretion in creating an atmosphere conducive for the other top managers to succeed. This research suggests that CEOs should be attentive to how their own personality interacts with the members of their TMT. CEOs should select TMT members to create their desired dynamic within their team.

Similarly, this study suggests important implications for the practice of management – it points to the tremendous impact CEOs can have on the decision making environment of the organization and relationships among senior managers. A CEO who believes that managers should always be concerned about whether they will be fired the following day (e.g., Paul Austin at Coca-Cola) is likely to encourage distrust and double-dealing among top management team members. Conversely, a CEO who allows managers to make occasional and reasonable mistakes without fear of being fired (e.g., Frank Cary at IBM) is likely to encourage moderate risk-taking and collaboration among team members. From the standpoint of corporate governance, this study suggests that boards of directors should play a greater role in monitoring the climate of the TMT created by the CEO (at least, to ensure that maladaptive behaviors are not inhibiting TMT functioning). Organizations frequently monitor managers from lower levels in the organization – in fact, the process of 360-degree assessment has made this commonplace. It seems counterintuitive to place CEOs above scrutiny given the magnitude of the impact they, and the TMT can have on the organization. Furthermore, this study suggests another viewpoint from which to judge CEO selection.

### Limitations of This Study

As always is the case, there are reasons to exercise caution in generalizing from any one study. There are a number of limitations that should be noted. The first reason to exercise caution in generalizing from this research involves the type of organizations studied. All of the organizations we studied were large American companies that caught the public eye in recent history. It is unknown whether these results will replicate with smaller, less visible companies in the United States or elsewhere during other time periods. That remains for future research to elucidate. Second, the GDQ data reported here are largely generated from second or third order sources (i.e., 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 GDQ allows systematic and quantitative comparisons across top management teams that would otherwise be essentially impossible to study due to access restrictions.

The third reason to exercise caution in generalizing from this study is potentially the most serious, but also amenable to testable hypotheses. Specifically, it is possible that the q-sort raters read differences into the group process and personality measures based on their preconceived notions of successful and unsuccessful people or groups (cf. Guzzo, Wager, MacGuire, Herr, & Hawley, 1986). Although the raters were hypothesis-blind, it was not possible to shield them completely from the relative success or failure of the organizations they rated. While there is no way to completely dismiss this interpretation without recreating old debates about social construction, there is evidence to suggest that this is not the cause of the results reported here (also see Peterson et al., 1999a for a more detailed defense of these kind of data). Personality

sorters were asked to sort their “prototypically successful CEO” and “prototypically unsuccessful CEO.” While the successful CEO prototype was strongly correlated with the successful CEOs (average  $r = .79$ ), the unsuccessful CEO prototype was actually negatively correlated with the unsuccessful CEOs (average  $r = -.30$ ). Also, group dynamics sorters 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 composite "success" sort was more strongly correlated with successful groups (average  $r = .51$  with a range from .23 to .79), but still not strongly enough to fully account for the findings reported here.

A fourth and closely related limitation revolves around the historical documents from which the q-sorts were derived. Many of these texts were from the popular press and so may have been subject to social construction of leaders based on cultural stereotypes. The case study authors themselves were not blind to the success or failure of the group at the time each 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. While the extreme version of this alternative explanation is again impossible to dismiss, there is considerable 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 and their long-term effects that one might reasonably expect to change their interpretation of the TMT group

dynamics. Such differences in outcome knowledge exist in three of the cases (Chrysler, IBM, and GM<sup>4</sup>). The average intertext reliability for these sources ( $\bar{r} = .81$ ) is not significantly different from those of the other cases ( $\bar{r} = .84$ ). Another test of this criticism is whether authors of cases who were participants in groups wrote cases that are somehow different from those of outside observers. No such differences were 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 ( $\bar{r} = .78$ ) was not significantly different from those with only outside sources ( $\bar{r} = .85$ ). In four cases the normative tone of the two texts used were polar opposites (Chrysler under Lee Iacocca; IBM under Frank Cary, and both CBS cases), yet the intertext reliability for these cases ( $\bar{r} = .80$ ) was not different from the rest of the cases ( $\bar{r} = .85$ ). Texts written from opposing normative perspectives agree strongly on the physical detail of events, even if they disagree on the social meaning of those events (see Peabody, 1967 on a similar effect for description of personality). While there is no way to completely eliminate the possibility that author participation or outcome knowledge has some effect on retrospective accounts of group decision making, the analyses presented here do provide evidence that this was not the case. Critics would need to explain not only the wide agreement among textual perspectives, but also the complex correlational patterns reported here.

Lastly, we hypothesized simple linear relationships between CEO personality and TMT dynamics and did so without considering potential additional moderator variables or the possible interactive effects of different combinations of personality characteristics. First, it is quite

plausible to suggest that different personality characteristics could interact in their effect on TMT dynamics. Many such hypotheses exist in the personality literature (particularly the literature on the five-factor model, cf. Witt, Burke, Barrick, & Mount, 2002), although such interactive effects have seldom been found. Additionally, it is equally plausible to suggest that some of the relationships could be curvilinear. For instance, a moderate level of conscientiousness could be adaptive for a TMT in that it promotes attention to detail and legalism, while extreme conscientiousness promotes rigidity that is maladaptive. Unfortunately, the small sample size of the current study did not permit us the necessary statistical power to assess interactive or curvilinear effects. We offer these suggestions as directions for future programmatic research.

There are also, of course, any number of business or situational factors exogenous to our model that one might reasonably expect to affect TMT dynamics and firm performance. One might imagine, for example, that any threat to the viability of the team (e.g., economic downturn, unexpected new entrant in the marketplace, etc.) might well produce intellectual rigidity in the team and make the crisis even worse (cf. Staw, Sandelands, & Dutton, 1981) on the threat-rigidity effect). Indeed, any number of potential factors could run through our data. Our focus, however, was on testing the general model of CEO personality, TMT dynamics, and organizational performance. In fact, we encourage researchers to elaborate and build on our findings to further elucidate how contextual factors may moderate the relationships we found between CEO personality, TMT dynamics and organizational performance.

All of these limitations should not be overstated, however. Our study both replicates several findings already in the literature, and confirms hypotheses derived from the existing

research on the role of personality in groups. Beyond that, this study suggests that group dynamics ought to receive greater attention as a process model linking leader personality to organizational performance.

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Table 1CEO Scores on Big 5 Personality Dimensions (rescaled to 9 point scales)

CEO (company)	Neuroticism	Extraversion	Openness	Agreeableness	Conscientiousness
Akers, J. Paul (IBM)	4.0	8.3	4.0	4.3	5.4
Austin, Paul (Coca-Cola)	5.5	7.0	5.8	1.0	5.4
Cary, Frank (IBM)	3.4	7.7	4.4	5.0	6.2
Eisner, Michael (Disney)	4.7	8.0	4.6	3.1	5.4
Fisher, George (Kodak)	3.5	7.6	6.0	5.4	6.1
Goizueta, Roberto (Coca-Cola)	3.3	7.8	6.1	3.9	6.5
Iacocca, Lee (Chrysler)	3.7	8.7	4.9	3.8	5.9
Johnson, F. Ross (RJR Nabisco)	4.7	8.5	4.8	2.3	4.1
Kearns, David (Xerox)	3.5	7.7	4.4	5.0	6.2
McColough, C. Peter (Xerox)	3.5	8.0	5.8	5.3	6.0
Miller, Ron (Disney)	7.2	5.1	3.2	3.5	3.6
Salant, Richard (CBS)	3.6	7.2	4.8	5.0	6.2
Sauter, Van Gordon (CBS News)	4.7	8.6	5.4	2.6	3.7
Smith, Jack (General Motors)	3.8	7.1	5.4	5.1	6.0
Smith, Roger (General Motors)	5.4	6.4	4.9	2.0	5.3
Sticht, J. Paul (RJR)	3.5	7.7	4.7	4.0	6.3
Kay Whitmore (Kodak)	3.8	6.8	3.3	5.7	5.8

Table 2

TMT Scores on Process Indicator Scales (9 point scales)

Company (CEO)	R-F	C-C	O-P	W-D	F-C	L-C	D-C	A-T
CBS News (Richard Salant )	6.6	3.3	1.9	6.1	6.1	2.8	3.5	5.4
CBS News (Van Gordon Sauter)	4.1	6.0	4.9	6.4	4.8	6.1	6.3	7.9
Chrysler (Lee Iacocca, 1984)	2.9	7.8	6.8	6.4	4.7	5.8	6.5	4.6
Chrysler (Lee Iacocca, 1990)	4.7	5.1	2.5	8.3	6.1	4.7	6.2	7.4
Coca-Cola (Paul Austin)	3.5	6.0	5.1	3.8	3.8	5.9	6.4	3.4
Coca-Cola (Roberto Goizueta)	6.4	4.3	2.5	7.1	6.3	3.7	5.8	8.1
Disney (Michael Eisner)	6.1	4.1	2.7	7.3	6.2	3.7	4.4	7.0
Disney (Ron Miller)	2.7	5.9	3.6	2.7	5.4	5.2	5.9	2.5
General Motors (Jack Smith)	7.1	6.3	4.1	6.4	6.3	3.9	3.8	7.7
General Motors (Roger Smith)	3.1	5.1	4.1	5.9	5.2	6.0	7.3	7.1
IBM (J. Paul Akers)	2.9	5.3	4.9	4.8	5.3	5.5	6.7	2.3
IBM (Frank Cary)	6.2	3.4	2.7	6.7	6.0	3.7	5.2	6.8
Kodak (George Fisher)	6.0	5.0	4.0	7.5	6.0	4.4	3.7	6.4
Kodak (Kay Whitmore)	2.3	6.7	4.8	3.7	5.0	5.7	6.6	2.6
RJR (J. Paul Sticht)	6.0	4.2	4.1	6.0	6.0	3.7	5.2	4.0
RJR (F. Ross Johnson)	3.4	6.7	2.7	5.7	4.9	7.0	7.3	6.9
Xerox (C. Peter McColough)	3.5	5.1	3.0	4.6	5.5	5.0	6.1	2.6
Xerox (David Kearns)	7.1	5.0	3.6	7.1	6.1	3.7	4.2	7.8

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-D, leader weakness-dominance; F-C, factionalism-cohesiveness; L-C, legalism-corruption; D-C, decentralization-centralization of power; A-T, risk averse-risk taking.

TABLE 3

Correlations between top management team dynamics and CEO personality factors (N=17)

TMT Dynamics	CEO Personality				
	Neuroticism	Extroversion	Openness	Agreeableness	Conscientiousness
Rigidity - Flexibility	<u>-.50*</u>	.18	<u>.42+</u>	.34	.56*
Control - Crisis	.28	.05	-.12	-.22	<u>-.41+</u>
Optimism - Pessimism	.13	.05	-.09	-.18	-.14
Leader Weakness - Dominance	<u>-.59*</u>	<u>.63*</u>	.45*	.14	.43+
Factionalism - Cohesiveness	<u>-.49*</u>	.07	.04	<u>.61*</u>	.52*
Legalism - Corruption	.48*	.03	-.21	-.58*	<u>-.69*</u>
Decentralization - Centralization	.35	.05	-.23	<u>-.52*</u>	-.47*
Risk Averse - Risk Taking	<u>-.25</u>	.35	<u>.47*</u>	-.12	.10

+ =  $p < .10$  \* =  $p < .05$ 

Note. Positive correlations mean the second attribute is positively associated with the personality factor. Hypothesized relationships are underlined.

Table 4

Correlations between top management team dynamics and income growth (N=17)

TMT Dynamics	Income Growth
Rigidity-Flexibility	<u>.48*</u>
Control-Crisis	-.15
Optimism-Pessimism	<u>-.53*</u>
Leader Weakness-Dominance	.29
Factionalism-Cohesiveness	<u>.45*</u>
Legalism-Corruption	-.23
Decentralization-Centralization	<u>-.33</u>
Risk Averse-Risk Taking	.44+

+ =  $p < .10$  \* =  $p < .05$ 

Note. Positive correlations mean the second attribute is positively associated with the personality factor. Expected relationships are underlined.

## APPENDIX A

## Historical Cases and Texts Used for Assessment of TMT Dynamics

Company (Years Studied)	Leader/CEO	Texts
CBS News (1978-79)	Richard Salant	Boyer, P. J. (1988). <u>Who killed CBS? The undoing of America's number one news network</u> . New York: Random House.  Leonard, B. (1987). <u>In the storm of the eye: A lifetime at CBS</u> . New York: C
CBS News (1982-84)	Van Gordon Sauter	Boyer, P. J. (1988). <u>Who killed CBS? The undoing of America's number one</u> House.  Joyce, E. (1988). <u>Prime times, bad times</u> . New York: Doubleday.
Chrysler (1984-85)	Lee Iacocca	Gordon, M. M. (1985). <u>The Iacocca management technique</u> . New York: Bar  Levin, D. P. (1995). <u>Behind the wheel at Chrysler</u> . New York: Harcourt Bra
Chrysler (1989-90)	Lee Iacocca	Ingrassia, P. & White, J. B. (1994). <u>Comeback</u> . New York: Simon & Schust  Levin, D. P. (1995). <u>Behind the wheel at Chrysler</u> . New York: Harcourt Bra
Coca-Cola (1978-79)	Paul Austin	Allen, F. (1994). <u>Secret formula</u> . New York: HarperCollins.  Pendergrast, M. (1993). <u>For God, country and Coca-Cola</u> . New York: Macr

Coca-Cola (1984-86)	Roberto Goizueta	Allen, F. (1994). <u>Secret formula</u> . New York: HarperCollins.
Disney (1985-87)	Michael Eisner	Pendergrast, M. (1993). <u>For God, country and Coca-Cola</u> . New York: Mac Flower, J. (1991). <u>Prince of the magic kingdom</u> . New York: John Wiley.
Disney (1980-84)	Ron Miller	Flower, J. (1991). <u>Prince of the magic kingdom</u> . New York: John Wiley.
General Motors (1993-94)	Jack Smith	Ingrassia, P. & White, J. B. (1994). <u>Comeback</u> . New York: Simon & Schus Maynard, M. (1996). <u>Collision course</u> . New York: Birch Lane Press.
General Motors (1985-86)	Roger Smith	Ingrassia, P. & White, J. B. (1994). <u>Comeback</u> . New York: Simon & Schus Lee, A. (1988). <u>Call me Roger</u> . Chicago: Contemporary Books.
IBM (1993-94)	J. Paul Akers	Carroll, P. (1993). <u>Big Blues: The unmaking of IBM</u> . New York: Crown. Ferguson, C. H., & Morris, C. R. (1993). <u>Computer wars: The fall of IBM ar</u> New York: Random House.
IBM (1979-80)	Frank Cary	Carroll, P. (1993). <u>Big blues: The unmaking of IBM</u> . New York: Crown. Sobel, R. (1981). <u>IBM: Colossus in transition</u> . New York: Times Books.

Kodak (1994-96)	George Fisher	Swasy, A. (1997). <u>Changing focus</u> . New York: Times Books.
Kodak (1990-93)	Kay Whitmore	Swasy, A. (1997). <u>Changing focus</u> . New York: Times Books.
RJR (1980-81)	J. Paul Sticht	Sticht, J. P. (1983). <u>The RJR Story: The evolution of a global enterprise</u> . Ne
RJR (1987-88)	F. Ross Johnson	Burrough, B., & Helyar, J. (1990). <u>Barbarians at the gate</u> . New York: Harper Lampert, H. (1990). <u>True greed</u> . New York: New American Library.
Xerox (1977-79)	C. Peter McColough	Jacobson, G. & Hillkirk, J. (1986). <u>Xerox: American samurai</u> . New York: M Kearns, D. T., & Nadler, D. A. (1992). <u>Prophets in the dark: How Xerox reir Japanese</u> . New York: HarperCollins
Xerox (1985-86)	David Kearns	Jacobson, G. & Hillkirk, J. (1986). <u>Xerox: American samurai</u> . New York: M Kearns, D. T., & Nadler, D. A. (1992). <u>Prophets in the dark: How Xerox reir Japanese</u> . New York: HarperCollins.

Footnotes

<sup>1</sup> We believe these are the most likely mechanism – other related mechanisms include TMT and organizational accommodation to new members, adjustment in a desire to retain a particular CEO, and adaptation of the CEO and TMT to each other.

<sup>2</sup> This popular notion of great leaders as neurotic may well be supported by evidence suggesting that charismatic leaders are often neurotic and highly effective in crisis situations.

<sup>3</sup> We used a lower test threshold ( $p < .10$ ) for significance testing for relationships that were theoretically predicted and/or replications of past findings. We did this primarily because the statistical power of these tests is small, making them harder to find (see Sedlmeier & Gigerenzer, 1989; and Keppel & Zedeck, 1989 for an explanation).

<sup>4</sup> In 1995, after Comeback was written, GM experienced a slacking of energy and negative results that are reported in Collision Course.