Strategic Management Journal, Vol. 18:3, 187–206 (1997)

PERCEIVED MANAGERIAL DISCRETION: A STUDY OF CAUSE AND EFFECT

MASON A. CARPENTER
Department of Management, College of Business Administration, University of Texas at Austin, Austin, Texas, U.S.A.

BRIAN R. GOLDEN
Richard Ivey School of Business, University of Western Ontario, London, Ontario, Canada

The notion that managers encounter differing levels of discretion across industries and organizations is becoming central to discussions of strategy formulation and implementation. However, discretion can be exercised or created only to the extent it is perceived, and theories of cognition and decision making suggest that managers' perceptions of discretion may vary significantly. Despite the importance of perceptions to Hambrick and Finkelstein's (1987) theoretical model of managerial discretion, no empirical tests examining perceived discretion have been published to date. Drawing on theories of issue interpretation and impression management, we find that managers differ systematically in the amount of discretion they perceive. Specifically, we find support for the predicted relationship between locus of control, a stable personality difference, and perceptions of managerial discretion. We also find that perceived discretion predicts managerial power, but only in situations in which the manager actually has little discretion. The dynamic model presented and tested here suggests that managers, in part through impression management activities and their ability to attend to critical contingencies, may both increase their power and enlarge their latitude for action. Implications for strategy formulation and implementation are discussed. © 1997 by John Wiley & Sons, Ltd.

Strategic issues are often characterized as having greater complexity, equivocality, and uncertainty than other organizational issues (Mintzberg, Raisinghani, and Theoret, 1976). For the manager, the appropriateness of taking specific strategic actions, or any action at all, is therefore highly ambiguous. Indeed, even before strategic choices can be made or strategic actions are taken, managers must first determine which organizational issues are within their domain, or discretionary set, and which issues are beyond their latitude of action (Hambrick and Finkelstein, 1987). In their initial discussion of the circumstances under which managers may matter most and least, Hambrick and Finkelstein (1987) introduced the notion of managerial discretion. They theorized that managerial discretion, which refers to executives' ability to affect important organizational outcomes, is a function of the task environment, the internal organization, and managerial characteristics. To date, empirical research has been limited to these first two categories. For example, Finkelstein and Hambrick (1990) reported that managerial discretion moderated the association between top management tenure and both strategic continuity and firm performance. More recently, Hambrick and Abrahamson (1995) developed a methodology to assess managerial discretion across multiple industries. They determined, for example, that the computer equipment and motion pictures industries may typically provide managers with high discretion, whereas the petroleum and natural gas production industries typically afford managers little discretion.

Importantly, while researchers have focused their efforts on identifying the indicators of

Key words: managerial discretion; power; managerial cognition; locus of control; strategic decision making

CCC 0143–2095/97/030187–20

Received 12 April 1995
Final revision received 12 April 1996

discretion, as determined by factors exogenous to the manager, they have not examined whether managers' *perceptions* of discretion vary within similar organizations or industries. Consequently, they also have not examined the sources of such variation. Given the field's position, to which we subscribe, that managers frequently have the ability to (more or less) influence the fate of their organizations, it is clear that studying perceived managerial discretion is important. Consider, for example, the situation in which the manager has little discretion to act (according to exogenous factors) yet is unaware of these limits. In this case, he or she may simply waste critical managerial resources. Similarly, there may be significant, negative consequences for firm performance when managers fail to recognize their ability to respond to competitors' market incursions under conditions of intensifying competition. As a final illustration, such managers may consider their (perceived) inability to influence their environment as a threat (cf. Dutton and Duncan, 1987), thus triggering consequential organizational responses such as restricted information search (Staw, Sandelands, Dutton, 1981). While outcomes such as threat rigidity may result from other stimuli, we refer to the illustrations above to suggest that a manager's perception of his or her discretion may have significant implications for personal and firm success.

Our goal here is to extend research on managerial discretion and, more generally, to enrich our understanding of why managers and organizations may, for example, respond differently when confronted with similar strategic opportunities. Previous, cognitively oriented explanations in the literature have attributed managers' perceptions to industry conditions (Huff, 1982; Spender, 1989) and organizational performance (Dutton and Duncan, 1987). In contrast, we examine the effect of a personality characteristic, locus of control, on managers' perceptions of their discretion. Further, and complementing our attempt to predict systematic variation in perceptions of managerial discretion, our model also examines an important consequence of such perceptions—the amount of power others attribute to the manager (i.e., perceived power). Our examination of the perceived discretion–power relationship is based on both the strategic contingency view of power, and research on impression management. In short, we argue that managers who perceive great discretion may be most likely to attend to critical contingencies or create the impression of doing so, and that such actions may be interpreted by others as consequential.

The following section reviews the literature on managerial discretion and introduces the notion of perceived managerial discretion. We then present our argument relating the personality construct, locus of control, to perceived managerial discretion. Next, we extend Hambrick and Finkelstein's (1987) arguments by examining the relationship between power and perceived discretion. The research design and methodology are then presented. The design of this study is based on a complex and intensive strategic management behavioral simulation. Our empirical results follow, and their implications for practice and future research are discussed.

THEORY DEVELOPMENT

Managerial discretion and perceived managerial discretion

Some circumstances provide managers greater discretion than do others (Child, 1972; Finkelstein and Hambrick, 1996; Hambrick and Finkelstein, 1987; Pfeffer and Salancik, 1978; Thompson, 1967). This proposition has high face validity, and has support in the empirical literature (Finkelstein and Hambrick, 1990; Hambrick, Geletkanycz, and Fredrickson, 1993; Salancik and Pfeffer, 1977; see Davis-Blake and Pfeffer, 1989, for a review). For example, Finkelstein and Hambrick (1990) reported that managerial discretion moderated the relationship between executive characteristics and both strategy and performance. Further, in a study of mayoral influence on city budgets, Salancik and Pfeffer (1977) found that administrator impact was greatest for issues not directly subject to the constraints established by powerful interest groups; some issues provided the mayors with great latitude, while other issues presented the mayors with significant constraints. These studies, as well as others of managerial discretion (Abrahamson and Hambrick, 1994; Haleblian and Finkelstein, 1993; Hambrick and Abrahamson, 1995; Hambrick *et al.*, 1993), have focused attention on the measurable characteristics of industry or firm context as determinants of managerial discretion. Such emphasis has generally been justified by the argument that 'by

starting with the broadest and most fundamental origins of discretion—those in the external environment—we have laid a basis for eventual creation of measures to tap various forms of latitude of action, or discretion, available to senior executives' (Hambrick and Abrahamson, 1995: 1440).

Despite the merits of focusing on situational determinants of discretion, we suggest that the situational approach is accompanied by an important limitation—that is, managers may differentially interpret common strategic situations. Moreover, the literature on cognition and decision making has provided much evidence for this likelihood. This literature is based on the observation that individuals are limited information processors (Simon, 1958). Coupled with the abundance of information faced by managers, limited information processing results in selective perception and biased filtering of information (cf. Nisbett and Ross, 1980). Thus, situations are enacted such that they represent cognitive constructions of the objective situation (Weick, 1979). Consequently, 'identical' situations may be interpreted differently (Dearborn and Simon, 1958; Starbuck, 1976; Weick, 1979).

The literature on the issue interpretation process has examined both the antecedents and consequences of this process.[1] With respect to the determinants of varying interpretations, research has shown that managerial perceptions are systematically associated with qualities of the issues themselves, such as their complexity, or their 'framing' (Kahneman and Tversky, 1979). Varying interpretations have also been shown to be a function of decision-maker characteristics. For example, Dearborn and Simon (1958) reported that managers' interpretations of issues reflected their functional work backgrounds. Similar findings are reported by Waller, Huber, and Glick (1995). With regard to the consequences of the issue interpretation process, issue interpretation is held to impact subsequent behaviors such as prioritization, information search, and the allocation of time and money to resolve issues (Dutton and Duncan, 1987; Dutton, 1988; Fredrickson, 1985; Gioia and Chittipeddi, 1991; Golden, Dukerich, and Hauge, 1993; Thomas, Clark and Gioia, 1993). Thus, central to this literature is the notion that managers tend not to respond instinctively to stimuli. Rather, cognitions are thought to mediate stimulus–response relationships (cf. Neisser, 1967; Walsh, 1995).

Locus of control and perceived managerial discretion

We adopt a 'personality–situation interactionism' perspective (Weiss and Adler, 1984) in the following discussion. Fundamental to this perspective is the recognition that situations vary in their relative 'strength' (Mischel, 1977). Strong situations are those which result in relatively common interpretations of an issue, and induce a common understanding regarding appropriate responses. That is, strong situations have 'widely accepted rules of conduct which constrain and direct behavior' (Weiss and Adler, 1984: 20). In contrast, weak situations allow various interpretations and responses to identical issues. Personallty researchers (Mischel, 1977; Monson, Hesley, and Chernick, 1982; Weiss and Adler, 1984) have argued that situation strength moderates the extent to which personality differences affect individual behavior, including decision making. Specifically, weak situations are those in which personality differences are most likely to influence decision making and behaviors.

With respect to our interest in perceived managerial discretion, we suggest that strategic issues are often encountered in weak situations (i.e., according to the distinction made above). This suggestion is based on numerous accounts of the ambiguity and uncertainty surrounding the strategy formulation/formation process (cf. Donaldson and Lorsch, 1983; Mintzberg *et al.*, 1976). Thus, while managers may converge generally in their interpretations of strategic issues (e.g., the negative impact of regulation), room for variation in interpretations remains (e.g., regulation as a short-term inconvenience to be accommodated or exploited, or as a radical and permanent hindrance to competition). In summary then, the personality–situation interactionism perspective suggests that managerial and situational characteristics may interact to affect the discretion managers perceive themselves to have over strategic issues. And although Hambrick and Finkelstein did not specifically evoke this perspective, it is consistent with their suggestion that aspiration level, commitment, tolerance for ambiguity, cog-

[1] A comprehensive review of this literature is beyond the scope of this paper, but can be found in Walsh (1995).

nitive complexity, and locus of control may all contribute to 'the degree to which the chief executive is personally able to envision or create multiple courses of action' (1987: 379).

We focus in this study on the personality characteristic *locus of control* (Rotter, 1966), and suggest that one's locus of control may affect the extent to which managers perceive themselves to have discretion in a variety of situations. Locus of control reflects individuals' generalized perceptions of the degree to which they control, or are controlled by, their environment (Rotter, 1966). 'External' individuals tend to believe that the events in their lives are beyond their control; in their view, luck or destiny determine their fate. In contrast, 'internals' tend to view their fate as primarily under their control. We examine locus of control because it is theoretically pertinent to discussions of perceived discretion. For instance, Hambrick and Finkelstein comment:

> One might expect CEOs to be uniformly 'internal', because they are socialized and selected according to their beliefs in intentionality. However, at least one study has found that senior executives vary substantially in their locus-of-control orientation (Miller, Kets de Vries, and Toulouse, 1982). If so, we would expect CEOs with an internal locus to have a greater discretionary set, because they will ***translate*** their ***perceived*** control into purposive involvement in many domains and the generation of multiple courses of action (Hambrick and Finkelstein, 1987: 387, boldface and italics ours).

Locus has also been the subject of much recent research in social psychology (e.g., Ashkanasy and Gallois, 1994; Kinicki and Vecchio, 1994; Smith, 1989; Smith and Dechter, 1991; Zika and Chamberlain, 1987) and management (e.g., Boone and DeBrabander, 1993; Govindarajan, 1988, 1989; Lau and Woodman, 1995; Lewin and Stephens, 1994; Miller, Kets de Vries, and Toulouse, 1982; Miller and Toulouse, 1986; Phillips and Bedeian, 1994; Roth, 1995).[2] In top management team research, for example, Boone and DeBrabander (1993) report that CEO locus of control is predictably associated with risk-taking behaviors. Their review of the literature on CEO characteristics also reveals that firms led by internal CEOs perform better than those managed by external CEOs. Additionally, Schwenk's (1984) discussion of control biases raises the possibility that locus may be a predictor of perceived managerial discretion. Although he does not explicitly employ the locus concept, he comments that managers, in general, 'may overestimate the extent to which the outcomes of a strategy are under their personal control and may assume that through additional effort they can make their strategy succeed should problems arise' (1984: 121).

It is important to note that much research has shown that locus of control is a stable, individual difference which has been shown *not* to vary across situations (Kinicki and Vecchio, 1994; Miller and Rose, 1982; Mitchell, Smyser, and Weed, 1975; Pederson *et al.*, 1989; Phares, 1976; Rotter, 1966; Spector, 1982). That is, locus of control is context independent, and not related to organizational or other situational variables (Boone and DeBrabander, 1993).[3] Thus, internals tend to remain internals throughout their lives, and externals remain externals—regardless of the manager's experiences or situation (Anderson, 1977; Andrisani and Nestel, 1976). In contrast, managerial discretion is situation specific and highly variable (Hambrick and Finkelstein, 1987; Hambrick *et al.*, 1993); certain situations provide much discretion, whereas others provide relatively little (Hambrick and Abrahamson, 1995). Importantly, then, locus of control and managerial discretion are conceptually distinct constructs.

Hambrick and Finkelstein's (1987) proposition that locus of control is a predictor of (*not a proxy for*) perceived managerial discretion has gone untested, perhaps due to their speculation that the direct measurement of discretion will be extremely difficult. Nevertheless, it is important to future research on top management discretion, and managerial personality characteristics more generally, to examine this proposition. Thus, we

[2] Although the locus-of-control construct was introduced nearly three decades ago, it continues to be of great interest to social psychologists. For instance, recent discussions of locus of control research indicate that such research 'continues at approximately the same high rate as it did 20 years ago' (Rotter, 1990: 489; see Lefcourt, 1992, for similar comments). Our more recent literature review revealed that since 1985, 363 articles have examined the locus of control construct, of which 45 percent and 35 percent were management or social/personality psychology-related, respectively.

[3] Boone and DeBrabander (1993) contrast the generalized locus of control construct, which is the focus of our study, and firm-specific control expectancies. Firm-specific control expectancies refer to organization-level phenomena and are situation specific. They find locus of control and firm-specific control to be both conceptually and empirically distinct.

test here the hypothesis that locus of control affects managers' interpretations of the discretion afforded them in a given situation. Specifically, we predict that internals tend to perceive greater discretion than do externals when faced with identical situations. Recognizing that Rotter's locus of control scale ranges from low (internal locus) to high (external locus), we hypothesize:

Hypothesis 1: Locus of control is negatively associated with the amount of discretion managers perceive.

As past research has shown, managers encounter a variety of high and low discretion environments (Hambrick and Abrahamson, 1995; Finkelstein and Hambrick, 1990). Given this observation, a critical management skill is 'reading' the setting (e.g., accurately perceiving when one does or does not have the discretion to act). For instance, a manager who masters this skill may be less likely to act when it is fruitless, or to refrain from acting when they can and should act. Moreover, such a skill may also be critical to the managers' ability to successfully 'sell issues' (Dutton and Ashford, 1993) to others. Accordingly, we extend Hypothesis 1 to consider the more exploratory question of whether internal and external managers are equally likely to sense variations in objective discretion levels. Our interest in this question derives from early research which indicates that locus of control predicts patterns of information gathering and processing (Phares, 1965, 1976; Roth, 1995; Rotter, 1966; Spector, 1982; Strickland, 1965).

Specifically, internals, in contrast to externals, have been shown to be more alert to those aspects of a situation which provide useful information about the future (Rotter, 1966; Phares, 1976; Spector, 1982). Internals have also been shown to engage in more social interaction (Phares, 1965; Strickland, 1965), and thus may be more sensitive to acceptable limits of behavior. These studies, though not directly addressing the issue of managerial discretion, indicate that internals may be most aware of exogenous factors which influence the degree of discretion characterizing a situation. Thus, while internals may tend to perceive more discretion in all settings than do externals (Hypothesis 1), they may be most likely to adjust their assessments according to differences among situations. In contrast, we expect externals to both exhibit constancy in perceived managerial discretion and to perceive relatively little discretion regardless of context. Based on past research which has established the relationship between locus of control and information seeking behavior, we predict:

Hypothesis 2: Internals are more likely to perceive differences between high and low discretion contexts than are externals.

Perceived discretion and managerial power

Thus far, we have argued that locus of control, an individual difference, may affect how managers come to view their discretion in particular situations. Here we suggest that this relationship is both interesting and practically important to the extent that variation in perceived discretion is systematically related to consequential managerial or organizational outcomes. One such outcome is managerial power, defined as the ability to influence others. Managerial power is important because its use is especially likely at the strategic apex of the firm due to the ambiguity and uncertainty surrounding strategic issues (Eisenhardt and Bourgeois, 1988; Finkelstein, 1992; Tushman, 1977). Moreover, and as a consequence, managerial power is likely to be an important predictor of both managerial efficacy and the firm's strategic choices (Child, 1972; Finkelstein, 1992). Extending previous discussions of managerial power, we suggest below that managerial power is partially affected by perceived managerial discretion.

Noteworthy about our conceptualization of power, and consistent with prior research (cf. Finkelstein, 1992; Hickson *et al.*, 1971; Pfeffer, 1981), a manager must be *recognized* by others as powerful in order to influence these others (Pfeffer, 1981, 1992). This condition is significant since it conceptualizes managerial power as theoretically and practically distinct from perceived managerial discretion. For example, managers may perceive themselves as having much discretion and as powerful. However, if *others* do not recognize them as powerful, they are not powerful (i.e., able to influence these others). Thus, managerial power is an *inter*person phenomenon, whereas perceived discretion is an *intra*person phenomenon.

Past theorizing about managerial power sug-

gests that while the determinants of power are numerous, its sources can be characterized as either formal or informal (Grimes, 1978; House, 1988; Mintzberg, 1983). One obvious, and frequently cited, formal determinant of power is the manager's hierarchical position in the organization (French and Raven, 1959; Katz and Kahn, 1966). Thus, for example, senior vice presidents tend to be viewed as more powerful than vice presidents. More interesting explanations of power, however, are found in considerations of informal sources. For example, power has also been shown to result from individuals' ability to reduce organizational uncertainty, and to attend to critical organizational contingencies (Hickson *et al.*, 1971; Pfeffer and Salancik, 1978). Although this ability may be associated with one's formal position, a 'strategic contingency theory' of power allows for the likelihood that power is partially independent of the manager's position. Such an explanation of power suggests that perceived managerial discretion may be causally associated with managerial power. Specifically, we propose here that managers who perceive themselves to have little discretion are less likely to involve themselves in important organizational issues, or to attend to critical contingencies. In contrast, managers who perceive themselves to have much discretion are more likely to affect change, or seek to otherwise influence critical organizational contingencies. (cf. Miller *et al.*, 1982). That is, confidence in one's potential encourages action, and such action (and outcomes) is associated (by others) with power. Thus, based on Hambrick and Finkelstein's (1987) proposition that locus of control will influence a manager's degree of purposive involvement in the firm, we suggest that perceived discretion will increase a manager's likelihood of attending to important organizational issues, and therefore their likelihood of being perceived as powerful.

In addition to the preceding argument, organizational theorists have suggested a complementary explanation for the impact of perceived managerial discretion on managerial power. Specifically, managerial power has been theorized to be socially constructed (Pfeffer, 1992; Pfeffer and Salancik, 1978) and thus, to be subject to impression management activities (cf. Goffman, 1959; Tedeschi and Melburg, 1984). Theoretical support for power as a social construction is found, for example, in Tedeschi and Melburg's (1984) discussion of the outcomes associated with individuals' voluntary investment of time, effort, and skills on critical organizational issues. They suggest that employees who make such investments are likely to be viewed as powerful, regardless of the substantive effect of their behaviors. Moreover, research in social psychology has indicated that individuals in organizations tend to be recognized as powerful to the extent that they initiate innovative suggestions, talk more than others, and are visible (Bass, 1949; Gintner and Lindskold, 1975; Riecken, 1958; Stein and Heeler, 1979). Thus, individuals who test the limits of their influence may be perceived as more influential than those who shy away from opportunities to influence others or situations. At a minimum, such assertive individuals are less likely to ignore latent opportunities to act.

We propose that the impression management process is particularly important in the upper echelons of the organization. At the level of the top management team, managerial actions often are performed in ambiguous situations (e.g., where agreement about legitimacy in authority may be lacking or incomplete), and where the boundaries of one's discretionary set may be fluid; managers continually negotiate with others about what they may and may not do and, more generally, about their 'identity' in the organization (Tedeschi and Melburg, 1984). Based on our assumption that perceived managerial discretion is positively associated with involvement in management actions, we expect that individuals who perceive a high degree of discretion are likely to be viewed as relatively powerful—independent of their formal position. In contrast, those who perceive little discretion may avoid operating beyond their formally delineated domain. As a consequence, they may limit their visibility and thus fail to develop an *image* of power.

In summary, the two explanations of power creation proposed above suggest that power can result from both an individual's substantive behaviors, and others' perception of such behaviors. Managers who perceive little discretion are less likely to attend to critical organizational issues or, as suggested by Hambrick and Finkelstein (1987) and Thompson (1967), may simply attend to less important or trivial issues over which they have discretion. In contrast, those who perceive the latitude to act are more likely

to affect important changes and to create an impression of potency. Therefore, we argue that when individuals do not consider themselves to have discretion, they will be less likely to act, and will therefore be perceived as less powerful. Based on the reasoning above we suggest that, controlling for legitimate authority, managers' perceptions of their discretion are systematically associated with the managerial power others ascribe to them:

Hypothesis 3: Controlling for legitimate authority, a manager's perception of his or her own discretion is positively related to others' perceptions of that manager's power.

RESEARCH METHOD

Overview

The hypotheses were tested with data collected during eight administrations of a complex and intensive management behavioral simulation, based in the food products industry, using a total of 98 practicing managers and experienced MBA students. Management simulations were one of three methods recommended by Hambrick and Finkelstein (1987) as most appropriate for studying managerial discretion. They commented that, unlike field settings, management simulations permit the manipulation of hypothesized antecedents and consequences of discretion.

Participants

Two administrations of the simulation were conducted with 20 practicing managers (14 males, 6 females; 11.4 average years of work experience) who participated as part of a continuing education program for experienced managers. The managers were generally considered to be 'fast-trackers' in their firms, often with product group responsibilities. They were enrolled in a monthly, yearlong program to update and further develop their managerial skills. Six additional administrations of the simulation were conducted with a total of 78 second-year MBA students (46 males, 32 females; 3.2 average years of work experience). The simulation was conducted in conjunction with an MBA elective on strategy implementation. As indicated in the Results section, the MBA students did not differ from the experienced managers with respect to any of the variables of interest. With regard to the issue of generalizability, it is notable that while all participants had industry experience, none had extensive experience in the food products industry. The lack of industry-specific experiences is in fact desirable since it eliminates a possible alternative explanation for our findings, i.e., that experience (and not locus of control) is related to perceived discretion. Thus, the design of this study is similar to much research on managerial cognitions in which a subject is exposed to a common stimulus (e.g., an organizational situation) and perceptions of the stimulus are associated with predictor variables (e.g., locus of control).

Management behavioral simulation

Behavioral simulations have recently been used to study strategic processes such as strategic decision making, strategy formulation, and strategy implementation (Dukerich, Milliken, and Cowan, 1990; Dutton and Stumpf, 1991; Stumpf and Dunbar, 1991; Thorelli, 1994). In general, an advantage of behavioral simulations is that they allow researchers to measure variables at multiple levels of analysis, control or measure context, control for history effects, and capture process differences across issues (Dutton and Stumpf, 1991). In many cases, such as the present research, simulations allow researchers to establish causality that would otherwise be obfuscated in field settings.

The particular simulation used here, Foodcorp Inc., is set in a diversified consumer food products company with sales of $2.7 billion. The simulation was developed jointly by food industry executives and university faculty in management. Each administration of the simulation consists of 14 members of the top management team (President, Chief Operating Officer, Chief Financial Officer, Senior Vice Presidents, and Vice Presidents). Foodcorp's organization chart is presented in the Appendix. The actual simulation recreates a day in the life of a top management team with much of the complexity, interaction, and potential for conflict that such a day may entail (Dutton and Stumpf, 1991). Participants assume the positions of the top management team, and receive information about the industry, Foodcorp background information, and both strategic

and operational issues that would typically arise in this type of company. Over the course of a day, participants manage the corporation and make strategic decisions concerning, among other things, diversification (product and geographic), distribution, divestitures, acquisitions, and stakeholder relations. Like the strategic context facing most organizations and experienced by most top management teams, participants' actions are based in part on their interpretations of the situations facing them (cf. Daft and Weick, 1984). In the present study, participants relied on their interpretations of the various managerial issues as they made judgements about their discretion across such issues.

Each of the strategic issues is based on actual events experienced by the industry experts who helped develop the simulation. Specifically, 24 industry executives (senior brand managers to Chief Executive) from each of six firms (General Foods, Pillsbury, Campbell Foods, Beatrice, Quaker Oats, and Union Carbide) participated in the development of the simulation. Union Carbide executives were relied upon because of their firm's extensive international distribution experiences. With the exception of the Union Carbide executives, each of the 24 executives had at least 15 years of experience in the food products industry. In addition, the 24 executives relied heavily on other managers in their firms to identify the strategic and operational issues. Subsequent to the development of the simulation, executives from Kraft and Phillip–Morris participated in several administrations of the simulation in order to assess the reality of the simulation, and to update its contents to reflect current industry conditions.

Satisfying the conditions necessary to test our hypotheses, the industry experts designed the simulation so that each participant faced two types of situations: situations for which the panel of industry experts unanimously determined that the participant would typically either have, or not have, the discretion to act successfully. This was done for each management position and, as expected, a participant's formal position figured prominently in the experts' determination of discretionary sets. Thus, the President and CFO might have discretion over the acquisition of another company, while a Vice President of Production would not. As discussed below, the data revealed that the study participants (on average) were able to distinguish between the high and low discretion issues as determined by the industry experts.

Importantly, while the experts agreed unanimously in their designations of high or low discretion issues, and although we expected the participants to recognize these differences, we *also* expected variation in the participants' perceptions of discretion to be a function of their locus of control. Such variation is likely because the Foodcorp simulation was designed to present participants with relatively 'low strength' situations (Mischel, 1977) in which participants determine for themselves the extent to which they can act (regardless of whether or not the industry experts agree with the participants' assessments). As described earlier, low strength situations are those for which varied interpretations and multiple understandings of appropriate actions are likely.

Procedures and measures

Locus of control

The simulation was conducted over a $1\frac{1}{2}$-day period. Participants received general background information on the organization (e.g., annual report, current organization chart, memos) 3 days before the simulation. At that time, the locus of control questionnaire was administered. Locus was measured using the Rotter I–E scale which contains 29 paired statements (including six dummy pairs which are not used in the scoring), and has received extensive support for its reliability, and convergent and discriminant validity (cf. Boone and DeBrabander, 1993; Miller *et al.*, 1982; Rotter, 1966). Specifically, participants were presented with a series of paired statements and asked to identify which statement of each pair they considered to be more true. Each 'external' response was counted as one point and the points were summed. This measure is represented by a single score, and scores range from 0 (internal locus) to 19 (external locus). As reported in Table 1, locus of control was not significantly associated with an individual's choice of higher or lower hierarchical positions.

Perceived managerial discretion

The evening before the simulation, participants chose their positions in the organization and

Table 1. Descriptive statistics and intercorrelations

	Mean	S.D.	Range	1	2	3	4	5	6
1. Locus of control	9.11	3.52	0–19.00						
2. Perceived discretion	4.36	0.92	1.93–6.47	–0.24*					
3. Perceived discretion for high discretion issues	4.85	0.95	2–6.90	–0.17	0.91***[a]				
4. Perceived discretion for low discretion issues	3.43	1.31	1–6.40	–0.27**	0.78***[a]	0.45**			
5. Managerial power	3.83	2.33	0–9.50	–0.05	0.26**	0.12	0.38**		
6. Hierarchical level[b]	1.35	0.75	0–1.00	–0.14	0.52***	0.39***	0.54***	0.26***	
7. Committee membership	1.82	0.56	1–3.00	–0.15	–0.00	0.06	–0.09	0.11	–0.29**

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; two-tailed test; $n = 98$.
[a]Since perceived discretion is calculated as the weighted average of the high and low discretion scores, these coefficients should not be interpreted.
[b]Dummy variable. Participants classified into two groups according to hierarchical position. Highest positions coded as 1.

reviewed additional memos pertinent to their Foodcorp positions.[4] At that time, they were also given a perceived discretion questionnaire which they filled out and returned the morning of the simulation. This questionnaire, designed specifically for this study, measured the degree to which participants believed they had discretion over specific strategic organizational issues. The instrument was comprised of 15 items, and was customized for each position based on the industry experts' determinations of high and low discretion situations. Specifically, the industry experts designated for each managerial position 10 issues for which the individual had much objective discretion, and five items for which he or she had little discretion. Participants were then asked to evaluate how much discretion they believed they would have to attend to each issue. Each item was scored on a 7-point Likert-type scale ranging from 'Little/No Discretion' to 'Much Discretion', with 7 indicating much discretion.

Based on this instrument, three perceived managerial discretion measures were calculated. The first measure, *High Discretion*, was calculated as the average of Likert scale responses to the 10 items over which the participant would have discretion (according to the panel of experts). *Low Discretion* was calculated as the mean response for the five items over which the participant would not have discretion. *Total Discretion*, which measured perceived discretion for all 15 issues, was calculated as the mean of the 15 responses. Since managerial discretion is context specific, the timing of the survey ensured participants' full familiarity with Foodcorp's context (i.e., the company, its industry, their position, and the issues the organization was facing). The timing of the discretion survey also mitigated any external contamination by preventing interaction among participants and outsiders, which could have changed the simulated organizational context.

It should be noted that the creation of the *High Discretion* and *Low Discretion* measures indicates only that we have determined the *relative* degrees of discretion characterizing the multiple situations. This is consistent with others (e.g., Finkelstein and Hambrick, 1990; Salancik and Pfeffer, 1977) who have shown that certain situations provide more latitude to act than do others. Importantly, the test of our hypotheses does not require that we attach a precise 'objective discretion' measure to a theoretical construct which has no unequivocal physical manifestation. Instead, our research design requires only that we (a) rely upon the industry experts' unanimously determined, dichotomous classifications of relative discretion, and then (b) examine whether these classifications are similarly recognized by the study participants.[5]

[4] The only instruction given to the participants regarding position selection was that the President should be chosen first. Otherwise, participants were free to choose their roles however they wished.

[5] These comments raise the broader philosophical issue of whether it is possible to characterize situations as having some measure of 'objective discretion'. Following Pfeffer and

Managerial power

On the morning of the simulation, participants were provided in-basket memos with additional issues and challenges. From 8:00 in the morning until 3:00 in the afternoon, participants responded to their memos, engaged in various meetings, and made decisions concerning the future of Foodcorp International. Following the simulation, participants filled out a series of questionnaires that were used to provide feedback about the effectiveness of their implementation of Foodcorp's strategy. In one of the questionnaires, respondents indicated which of their fellow participants were among the three most influential managers on each committee (mean committee size of six, with participants serving on one to three committees). The effect of unequal committee membership was eliminated by adjusting for the number of committee memberships held by each participant. For example, a respondent received an overall power score of 5 if he or she was rated as among the three most influential committee members by four participants for the Acquisitions Committee, and six participants for the Executive Committee; thus, this individual's total score represents the sum of 4 and 6 divided by the number of committees on which this participant served (i.e., two committees in this example, although this number varied depending on the participant's organizational role).

Control variables

Hypotheses 1 and 2 predict an association between locus of control and both perceived discretion and sensitivity to variations in discretion, respectively. Since individuals chose their management position in the simulation, and because chosen hierarchical position could be associated with locus of control, managerial discretion, and power, we controlled for hierarchical position. Specifically, a dummy variable was created which discriminated between Executive Committee members and all others. This decision rule reflects other researchers' conceptualizations of the top team's inner circles (e.g., Hambrick, 1994). It also avoids the arbitrariness of classifying the COO, for example, as superior to the SVPs.[6] Since committee membership varied with position, we also controlled for the number of committees of which each participant was a member. Similarly, in our examination of the hypothesized effect of perceived managerial discretion on managerial power (in committees), we controlled for both position and committee membership. Descriptive statistics and zero-order correlations are presented in Table 1.

RESULTS

To reiterate, this study examined the relationship among three constructs (i.e., locus of control, perceived discretion, and perceived managerial power). Additional validation of the Rotter I–E scale was not conducted here since the Rotter I–E scale has been extensively validated over the past 30 years (cf. Boone and DeBrabander, 1993; Miller *et al.*, 1982; Rotter, 1966). However, we calculated Cronbach alphas for each of the three perceived discretion measures. *Total Discretion*, which is our measure of perceived discretion across all of the strategic issues, was calculated as the average of the 15 items (Cronbach alpha = 0.82). Cronbach coefficient alpha levels above 0.70 are generally considered acceptable (Nunnally, 1978). As expected, there was much variation among individuals' interpretations of their discretionary limits (mean = 4.36, S.D. = 0.92). Two additional scales allow us to determine the extent to which participants distinguished between high and low discretion issues (as defined by the industry experts). *High Discretion*, which consisted of the 10 issues for which industry experts considered the manager in that

[5](continued) Salancik's (1978) discussion of resource environments and Weick's (1979) theorizing about enacted environments, we take the position that situations possess characteristics which hinder or facilitate one's ability to act, but that many of these characteristics are potentially changeable. This position is compatible with our hypotheses that individuals vary in their perceptions of discretion according to their degree of locus of control, and subsequent managerial actions.

Also, it should be noted that it is not necessary that the experts be absolutely 'correct' in their judgements of discretion. Rather, in order to examine our predictions, it is simply necessary that the experts' assessments are in agreement, and that the experts are knowledgeable about the situations (to enhance validity). These conditions were met, thus allowing us to test our locus of control-perceived discretion hypothesis.

[6] We also examined the effects of using three dummy variables to reflect four hierarchical positions. No substantive effects of this change were observed. And, at the extreme, the fixed-effects model (see footnote 7) essentially controls for all 14 positions in the firm.

position to have much discretion, had a Cronbach alpha of 0.78. The Cronbach alpha for *Low Discretion*, calculated as the average of the remaining five items for which the manager in a particular position would not have discretion, was 0.74.

In order to assess the construct validity of the perceived discretion measure, each of the respondents was asked to write out a definition of managerial discretion after completing the scaled items. Specifically, our goal here was to examine the extent to which the participants understood the concept of discretion as it was described by Hambrick and Finkelstein (1987). Four strategic management doctoral students, familiar with the managerial discretion construct, independently rated the responses on a Likert scale of 1 (very low correspondence with definition of discretion) to 7 (very high correspondence with definition of discretion). Analysis revealed an average score of 5.7, and an acceptable interrater reliability coefficient of 0.92 (Nunnally, 1978). Thus, it appears that the participants understood the discretion construct as it had been characterized by Hambrick and Finkelstein (1987).

Regarding the possibility of 'hypothesis guessing', several aspects of the study design are noteworthy: (1) the participants had not been informed of their locus scores; (2) the open-ended responses were elicited after the discretion data were collected; and (3) the participants had not previously been introduced to the concept of managerial discretion. Taken together, in conjunction with the timing of the data collection (e.g., locus was measured 2 days in advance of other constructs) such efforts significantly reduced the threat of hypothesis guessing.

We next examined whether the MBA students differed significantly from the managers on any of the variables of interest. We conducted a MANOVA, with locus, perceived discretion, and perceived managerial power as the dependent variables. Type of subject (practicing manager vs. graduating MBA student) was the independent variable. The overall *F*-statistics were not significant, indicating that the two groups of subjects did not differ with regard to these characteristics. Further, to guard against either group's dominance in the results, we examined if there were systematic differences for the constructs of interest across the eight administrations of the simulation. No significant differences were detected. Moreover, we also examined the possibility of other background effects. Again using MANOVA, we found no differences in outcomes due to age, gender, functional background, and years of work experience. Together these results provide strong justification to pool the data of the manager and MBA student simulation administrations, and to conclude that our results are not affected by participant status.

Finally, before proceeding to the direct tests of the hypotheses, we examined the proposition that managers differ in their perceptions of discretion. We conducted a repeated-measures analysis to compare participants' perceived discretion in high vs. low objective discretion issues. As expected, the results of this analysis indicated that subjects were able to discriminate between the two types of issues ($F_{1,93} = 143.82$; $p < 0.001$). Participants perceived greater discretion (mean = 4.87) over those issues for which they were considered to have discretion, than over those issues for which they were not so considered (mean = 3.42). These findings also provide support for the industry experts' designation of high and low discretion issues.

Hypothesis tests

Hypothesis 1

Hypothesis 1 predicts that locus of control (a stable personality difference) influences individuals' perceptions of their discretion over particular issues (a situation-specific variable). Support for Hypothesis 1 would be indicated by a significant negative association when locus is regressed on the perceived discretion scale, controlling for one's hierarchical position and committee membership. As seen in Table 2 (Model 2), Hypothesis 1 was supported in the multiple regression equation ($p < 0.05$) and the change in adjusted R^2 was significant. Specifically, the more internal an individual's locus of control, the more discretion they perceived themselves to have.

Interestingly, the zero-order correlation matrix (Table 1) indicates that locus of control is significantly correlated with perceived discretion on low discretion issues ($p < 0.01$), but not with perceived discretion on high discretion issues. This indicates that the finding revealed by the regression analyses may be influenced primarily by the effect of locus on perceived discretion for

Table 2. Regression coefficients of locus and hierarchical level on perceived managerial discretion

	Model 1 Perceived discretion		Model 2 Perceived discretion for high discretion issues		Model 3 Perceived discretion for low discretion issues	
	1	2	1	2	1	2
Locus of control		–0.05*		–0.03		–0.07*
		(0.02)		(0.02)		(0.03)
Hierarchical level	1.00***	0.93***	0.76***	0.71***	1.47***	1.36***
	(0.16)	(0.16)	(0.18)	(0.19)	(0.24)	(0.24)
Committee membership	0.18	0.11	0.18	0.13	0.19	0.07
	(0.15)	(0.15)	(0.16)	(0.17)	(0.21)	(0.22)
Constant	3.55***	4.13***	4.14***	4.57***	2.36***	3.25***
	(0.32)	(0.43)	(0.35)	(0.48)	(0.46)	(0.63)
Adjusted R^2	0.28***	0.32***	0.14***	0.15***	0.29***	0.34***
Change in R^2		0.04**		0.01		0.05**

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; standard errors in parenthesis; $n = 98$.

low discretion issues. Thus, we conducted two additional sets of regressions. In the first analysis, we regressed locus of control, hierarchy, and committee membership, on perceived discretion when discretion is high (according to the industry experts). In the second analysis, we regressed these same independent variables on perceived discretion when discretion is low. The results, reported in the last four columns of Table 2, are consistent with the zero-order correlations. Specifically, when individuals have much discretion, the individual difference locus of control appears to have little impact on perceptions of discretion (Model 2). However, locus of control is significantly associated with perceptions of managerial discretion for low discretion situations (Model 3).[7]

Hypothesis 2

Hypothesis 2 predicts that internals, in contrast to externals, are more sensitive to varying degrees of objective discretion. To test this prediction we conducted a repeated-measures analysis, comparing the responses of internals and externals for the 10 issues for which they had much discretion vs. the five issues for which they had little or no discretion. Following others (Anderson, 1977; Ashkanasy and Gallois, 1994; Mitchell *et al.*, 1975; Runyon, 1973), we used a median split for the locus scale in order to classify participants as either internals or externals.[8] As before, the results indicated that internals perceived greater discretion than did externals (means = 4.63 and 4.12, respectively; $p < 0.01$). However, the interaction between locus of control and discretion (high vs. low) was not significant, indicating that internals were no more, nor no less, sensitive than externals to variance in objective levels of discretion. That is, internals and externals distinguished between high and low discretion issues to the same degree. Thus, Hypothesis 2 was not supported.

[7] A trade-off with the subgroup analyses described above is that this technique essentially interacts all independent variables (e.g., hierarchical position and committee membership) with the high and low discretion categories. However, we are only interested here in the possible interaction between locus of control and expert determined discretion. Thus, we conducted additional analyses. Because we collected data of perceptions of 15 issues per participant, this analysis required us to estimate a fixed-effect model (Greene, 1990; Haveman, 1993), whereby the value of each dependent variable is subtracted from its mean across all observations for each manager, while suppressing the intercept. This is equivalent to introducing one dummy variable for each manager. As a result, the fixed effects (i.e., fixed per person for locus, hierarchy, committees) drop out of the model, allowing us to isolate only the effects of interactions. Consistent with the subgroup analysis, the interaction between locus and issue type was indeed significant ($p < 0.001$), and was again driven by the low discretion issues. We have only reported the regression analysis results here since these allow us to independently examine and present the relationship among the fixed effects and perceived discretion.

[8] Mitchell *et al.* (1975) and Runyon (1973) did not include subjects in their analysis if their subjects' locus scores were within one standard deviation of the median. Since we included all subjects, our test is more conservative. Moreover, we obtained identical results using MANCOVA.

Hypothesis 3

Hypothesis 3 predicts that perceived managerial discretion is positively associated with managerial power. This prediction is based on the proposition that those who perceive themselves to have relatively great discretion are most likely to act on critical organizational issues. Causality can be demonstrated in the present study since perceived discretion was measured prior to the commencement of the simulation (although after each subject had been fully exposed to the information about the firm and their role). Thus, no social interaction, which could affect participants' perceptions of others' power, had yet occurred. Hypothesis 3 was tested by regressing perceived managerial discretion on managerial power (as reported by others), controlling for both the number of committees to which each participant belonged and their hierarchical position. Controlling for hierarchy and committee membership permits us to rule out the possibility that power was either attributed to the individual solely by virtue of his or her role in the organization, or that it was simply a result of serving on multiple committees.

In the first regression analysis (Table 3, Model 1), we did not distinguish between high and low objective discretion issues and the results revealed no relationship between power and perceived discretion. However, our earlier results showed that individuals were generally able to differentiate between high and low discretion issues. Based on those findings, we considered the likely possibility that individuals engage in different behaviors depending on whether they perceive themselves to have much or little discretion. Accordingly, we made this distinction in the subsequent analysis (Model 2 of Table 3). These results indicate that perceived discretion is not related to power for issues over which the participant had much discretion, but that it is a significant predictor of managerial power for the low discretion issues ($p < 0.01$).[9] In addition, Table 3 reveals that hierarchy is no longer associated with power when perceived discretion is entered into the final equation, thus suggesting the possibility that perceived discretion mediates the expected hierarchy–power relationship.

Table 3. Regression coefficient of perceived discretion and hierarchical level on managerial power

	Model 1	Model 2
Perceived discretion	0.39	
	(0.30)	
Perceived discretion for high discretion issues		–0.27
		(0.28)
Perceived discretion for low discretion issues		0.62**
		(0.21)
Hierarchical level	1.14**	0.80
	(0.56)	(0.56)
Committee membership	0.81†	0.82†
	(0.14)	(0.42)
Constant	0.08	1.09
	(1.42)	(1.43)
Adjusted R^2	0.10**	0.16***
Change in R^2 from Model 1		0.06**

†$p < 0.10$; *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; standard errors in parenthesis.

Based on these findings, it appears that for low discretion issues, the theorized manifestations of perceived discretion (e.g., impression management behaviors, increased organizational involvement) may have affected others' perceptions of an individual's power—independent of the individual's formal position. Additionally, coworkers may perceive individuals as influential to the extent that these individuals involve themselves in areas in which they ostensibly have little discretion. In contrast, we can speculate that individuals may not actively and publicly involve themselves in those issues over which they both have much discretion *and* recognize this discretion—perhaps because they believe such interpersonal behaviors are unnecessary.

Overall, the initial regression analysis results indicated support for the theorized relationship between locus of control and perceived discretion (Hypothesis 1). Subsequent subgroup and fixed-effects analyses revealed that this effect was dominated by the relationship between locus of control and perceived discretion for low discretion issues. Similarly, conditional support was observed for Hypothesis 3, which predicted a

[9] One anonymous reviewer correctly concluded that simultaneous consideration of Hypothesis 1 and Hypothesis 3 suggests that perceived discretion may mediate the relationship between locus of control and power. However, following the four-step analytical process outlined in Baron and Kenny (1986), we found no statistical support for such mediated effects. This post hoc finding can be explained by the great likelihood that factors beside locus of control (e.g., industry or other manager characteristics) also influence individuals' perceptions of discretion.

positive relationship between perceived discretion and managerial power. And, as with Hypothesis 1, this hypothesis was supported when we discriminated between high and low discretion issues. Specifically, individuals' perceptions of discretion tended to affect the power others attributed to them, but only in those situations in which the individual was purported to have had little discretion.

DISCUSSION AND CONCLUSION

Executives define the identity of their firms and impact firm performance through their decisions and actions. Indeed, this perspective lies at the core of upper echelons theory (cf. Hambrick, 1994) and of Child's (1972) early strategic-choice arguments. And because flawed decision making and 'false starts' are not costless to either managers or firms, managers are naturally expected to consider whether they have the freedom to act, and in what situations such actions are likely to be most successful. Therefore, an understanding of the determinants and consequences of perceived managerial discretion is critical to strategic management research.

Accordingly, we attempted in this study to examine and extend the managerial-level predictions outlined in Hambrick and Finkelstein's (1987) model of managerial discretion. Specifically, this empirical study has shown that (1) individuals discriminate between high and low discretion issues; (2) in low discretion contexts, individuals with an internal locus of control tend to perceive greater discretion than do individuals with an external locus of control; and (3) in low discretion contexts, individuals' perceptions of their discretion are positively and causally associated with the power others ascribe to them. These results offer preliminary support for Hambrick and Finkelstein's (1987) prediction that individual differences, such as locus of control, influence the degree of discretion that managers may recognize and to which they respond.

The results of this study have several implications and insights for future research and management practice. First, senior managers have the responsibility of interpreting environmental events, both mundane or novel, and determining whether their organization should attempt to influence them. The results of our study indicate that managers may vary significantly in their judgments about whether they have the latitude to act on such issues. As predicted, our findings show that this variation is partially a consequence of the manager's locus of control. Because locus of control is a stable individual difference (Rotter, 1966), it is independent of one's organizational position and the objective qualities of a situation. Our findings therefore provide one explanation for managers' varied responses to similar industry and organizational events (e.g., the opening of new geographic markets, restructuring opportunities). This explanation also complements past research which suggests that industry conditions (e.g., membership in strategic groups) leads managers to share common interpretations of their environments (Huff, 1982; Spender, 1989). While our research does not contradict these earlier findings, our results indicate that qualities of the manager may also influence the issue interpretation process.

Further, our findings also suggest that a manager's 'fit' with an industry or firm may depend on their personality characteristics.[10] For example, our findings reveal that an external locus orientation may be most functional in highly deterministic, or low discretion, environments and organizations (e.g., in regulated firms). In contrast, this orientation may be less functional in either highly discretionary or fast moving markets in which managerial action is particularly valuable. An implication of these propositions, and worthy of further inquiry, is the possibility that firm performance may be affected by the locus of control characterizing the firms' most senior managers. This finding thus provides another, and complementary explanation for Boone and DeBrabander's (1993) reports of a locus–firm performance relationship. Additionally, managers who by virtue of their locus of control are not in alignment with the demands of their industries or firms, may be expected to have relatively short tenures in these organizations. Our findings about locus of control thus suggest the need to study a broader range of managerial personality characteristics which could influence perceptions of discretion. More broadly, our findings may provide preliminary encouragement for other researchers to further examine both managerial characteristics

[10] See Govindarajan (1989) and Szilagyi and Schweiger (1984) for discussions of manager–strategy alignment.

and cognitions, and their effects on organizational outcomes.

An additional issue raised by our findings and the speculation above is whether senior managers are permanently 'handicapped' by their locus of control orientation or by other personality differences. While locus of control has been shown to be stable over an individual's lifetime (Rotter, 1966; Smith and Dechter, 1991), this does not imply that managers cannot acknowledge this bias, nor that they cannot be trained to recognize the degree of discretion surrounding a situation. For example, the industry experts who aided in the design of this study were able, by virtue of their experiences, to form relatively common interpretations of the 15 issues studied here. This suggests that experience and education have the effect of 'strengthening' a situation, to use Mischel's (1977) terminology. Thus, externals, through either experience or formal training, may be educated about what aspects of the high discretion computer industry (cf. Hambrick and Abrahamson, 1995) are within their latitude of action. This may be achievable, even though their generalized external locus orientation is not likely to change. Similarly, internals, despite their tendency to perceive relatively great discretion, can be educated about the limits of discretion provided by the environment (within the firm or beyond). For example, training may lead a manager to recognize that regulatory approval is required before a new service can be implemented (e.g., in the case of a highly regulated, low discretion industry). Industry-specific experience may also result in this same manager's recognition that his or her actions are likely to evoke the responses of competitors. Such training and experiences, while not cost free, may enable otherwise capable managers to better fit the changing demands of their positions.

Perhaps the most interesting findings of this research concern the relationship between individuals' perceived discretion and their managerial power, even after controlling for committee membership and hierarchy. With regard to the hierarchy control measure, we observed that when perceived discretion was entered into the final regression equation, hierarchical level was no longer associated with others' perceptions of the manager's power. A simple explanation for this is that hierarchy and perceived discretion covary. A richer explanation of this finding, however, is that perceived discretion may mediate the relationship between hierarchy and perceived power. Thus, power is not attributed to the manager merely by virtue of his or her position in the organization. Rather, managers may perceive their discretion *partially* as a function of their position (in addition to locus of control), and these perceptions of discretion may result in behaviors which influence others' perceptions of the manager's power. Future researchers will have to directly measure managerial behaviors in order to examine this interesting possibility.

The regression results also indicate that when individuals had little discretion, the degree to which they perceived themselves to have discretion positively impacted the power conferred on them by others. Moreover, this power may have stemmed, in part, from individuals who initiated behaviors outside their exogenously determined discretionary set. Or, individuals may have simply portrayed an image which suggests that they have much discretion, thereby leading others to defer to them. A consequence of this in ongoing organizations is that high *perceived* discretion individuals may actually enlarge their discretionary sets. This possibility is consistent with Hambrick and Finkelstein's proposition that management expertise may be 'defined in part as the ability to perceive, create, and enact discretion' (1987: 374).

Related to our observations about power, this research raises important questions regarding the degree to which organizational and environmental determinants of discretion are absolute and immutable. For example, we began this line of research by relying on 24 expert raters' unanimous determinations of whether managers would typically have discretion over a variety of issues. While it is clear that managers will have limited careers if they do not accurately perceive the approaching freight train as they lie on the tracks, it is unclear what happens when managers, due to cognitive biases or errors of judgment, do not accurately recognize organizational conditions. And although Hambrick and Finkelstein's (1987) comments indicate that organizational conditions may constrain the manager's actions, many organizational situations are likely more forgiving than are freight trains. Such a likelihood is consistent with our findings regarding power which suggest that 'erroneous' assessments of discretion may be overcome as managers act as if they have discretion, thereby influencing other's impressions of

them. This possibility also complements Mischel's observation that, when considering personality differences, 'it is necessary to consider how the environment influences behavior, and how behavior and the people who generate it in turn shape the environment in an endless interaction' (1977: 338). Thus, future research could consider the intriguing implications of joint support for *both* Hypotheses 1 and 3. Such a scenario of discretion *creation* would entail examining the organizational consequences of executives who expand their perceived discretionary set as a consequence of an individual difference (and not the objective situation), and in doing so, enhance their power. This dynamic view of discretion creation seems particularly interesting given our findings that locus of control appears to have the greatest impact on perceptions of discretion for low discretion strategic issues.

Our findings, their interpretation, and subsequent discussion must be considered in the context of the study's limitations. These limitations center mainly around the trade-off between the advantages and disadvantages of a behavioral simulation methodology. With regard to the advantages, the simulation offered a novel methodology with which to recreate a realistic, yet controlled business setting. Specifically, it permitted us to isolate the effects of locus of control on perceived discretion. In addition, the simulation provided an opportunity to test the causal predictions in our model. Causality was demonstrated in this study since locus of control, an enduring personality difference, was measured prior to organization position selection, perceived managerial discretion was measured prior to the simulation, and mangerial power was measured after the simulation. In addition, the management simulation used in this research allowed us to avoid the mono-method biases often associated with an experimental design. Specifically, we collected data at three different times from multiple individuals (e.g., about an individual's power).

The above advantages notwithstanding, it should be noted that, in many cases, discretion is defined and negotiated based on a series of experiences within the organization or top management team. Thus, a possible limitation of the simulation is that participants assessed their perceptions of discretion absent prior social interaction. Although we find no reason to expect that the relationship between locus of control and perceived discretion is an artifact of the methodology, it is likely that unexamined factors besides locus of control will affect perceived discretion in field settings. Additionally, because of the absence of prior social interaction, our findings may speak most to situations in which a new management team has been formed (e.g., following a spin-off, acquisition, merger, or reorganization), or when an outsider becomes a new member of the top management team. Lastly, it is possible that the lack of an organizational history may have created an unusually low situation strength setting (Mischel, 1977). Consequently, while this condition may characterize management life at the strategic apex of the firm, our findings may not be generalizable to high situation strength settings in which ambiguity and uncertainty are minimal. In order to extend the scope of this study, future research should be conducted with senior managers who are part of intact management groups. In doing so, researchers will enhance our understanding of the experience effects of both managers and management groups on managerial cognitions.

In conclusion, the findings of this study provide preliminary empirical support for Hambrick and Finkelstein's (1987) theorizing that individual differences are associated with differences in managerial discretion. More specifically, this study establishes the importance of the 'perceived discretion' construct, and begins to identify important consequences of perceived discretion. We hope that future researchers will now extend this examination of managerial differences in an effort to better understand the broader issue of how managers differentially identify, interpret, and respond to identical information.

ACKNOWLEDGEMENTS

The authors gratefully acknowledge the contribution of Janet Dukerich to this research as well as the helpful comments of Sydney Finkelstein and Jim Fredrickson. We also appreciate suggestions provided by reviewers of the *Strategic Management Journal*.

REFERENCES

Abrahamson, E. and D. Hambrick (1994). 'Attentional and strategic homogeneity in industries: The oppos-

ing effects of discretion', working paper, Columbia University.
Anderson, C. R. (1977). 'Locus of control, coping behaviors, and performance in a stress setting: A longitudinal study', *Journal of Applied Psychology*, **62**, pp. 446–451.
Andrisani, P. J. and G. Nestel (1976). 'Internal–external control as contributor to and outcome of work experience', *Journal of Applied Psychology*, **61**, pp. 156–165.
Ashkanasy, N. and C. Gallois (1994). 'Leader attributions and evaluations: Effects of locus of control, supervisory control, and task control', *Organizational Behavior and Human Decision Processes*, **59**, pp. 27–50.
Baron, R. and D. Kenny (1986). 'The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations', *Journal of Personality and Social Psychology*, **51**, pp. 1173–1182.
Bass, B. (1949). 'An analysis of the leaderless group discussion', *Journal of Applied Psychology*, **33**, pp. 527–533.
Boone, C. and B. DeBrabander (1993). 'Generalized vs. specific locus of control expectancies of chief executive officers', *Strategic Management Journal*, **14**(8), pp. 619–625.
Child, J. (1972). 'Organization structure, environment and performance: The role of strategic choice', *Sociology* **6**, pp. 1–22.
Daft, R. and K. Weick (1984). 'Toward a model of organizations as interpretation systems', *Academy of Management Review*, **9**, pp. 284–295.
Davis-Blake, A. and J. Pfeffer (1989). 'Just a mirage: The search for dispositional effects in organizational research', *Academy of Management Review*, **14**, pp. 385–400.
Dearborn, D. and H. Simon (1958). 'Selective perceptions: A note on the departmental identification of executives', *Sociometry*, **21**, pp. 140–144.
Donaldson, G. and J. Lorsch (1983). *Decision Making at the Top*. Basic Books, New York.
Dukerich, J., F. Milliken and D. Cowan (1990). 'In-basket exercises as a methodology for studying information processing', *Simulation and Gaming*, **21**, pp. 397–411.
Dutton, J. (1988). 'Discerning threats and opportunities', *Administrative Science Quarterly*, **3**, pp. 370–388.
Dutton, J. and S. Ashford (1993). 'Selling issues to top management', *Academy of Management Review*, **18**, pp. 397–428.
Dutton, J. and R. Duncan (1987). 'The creation of momentum for change through the process of strategic issue diagnosis', *Strategic Management Journal*, **8**(3), pp. 270–295.
Dutton, J. and S. Stumpf (1991). 'Using behavioral simulations to study strategic processes', *Simulation and Gaming*, **22**, pp. 149–173.
Eisenhardt, K. and L. Bourgeois (1988). 'Politics of strategic decision making in high-velocity environments: Towards a midrange theory', *Academy of Management Journal*, **31**, pp. 737–770.
Finkelstein, S. (1992). 'Power in top management teams: Dimensions, measurement, and validation', *Academy of Management Journal*, **35**, pp. 505–538.
Finkelstein, S. and D. Hambrick (1990). 'Top-management-team tenure and organizational outcomes: The moderating role of managerial discretion', *Administrative Science Quarterly*, **35**, pp. 484–503.
Finkelstein, S. and D. Hambrick (1996). *Strategic Leadership: Top Executives and their Effects on Organizations*. West, Minneapolis, MN.
Fredrickson, J. (1985). 'Effects of decision motive and organizational performance level on strategic decision processes', *Academy of Management Journal*, **28**, pp. 821–843.
French, J. and B. Raven (1959). 'The bases of social power'. In D. Cartwright (ed.), *Studies in Social Power*. University of Michigan Press, Ann Arbor, MI, pp. 118–149.
Gintner, G. and S. Lindskold (1975). 'Rate of participation and expertise as factors influencing leader choice', *Journal of Personality and Social Psychology*, **32**, pp. 1085–1089.
Gioia, D. and K. Chittipeddi (1991). 'Sensemaking and sensegiving in strategic change initiation', *Strategic Management Journal*, **12**(6), pp. 433–448.
Goffman, E. (1959). *The Presentation of Self in Everyday Life*. Doubleday, Garden City, NY.
Golden, B., J. Dukerich and F. Hauge (1993). 'The interpretation and resolution of resource allocation issues in professional organizations', paper presented at the 1993 Academy of Management Meetings, Atlanta, GA.
Govindarajan, V. (1988). 'A contingency approach to strategy implementation at the business-unit level: Integrating administrative mechanisms with strategy', *Academy of Management Journal*, **31**, pp. 828–853.
Govindarajan, V. (1989). 'Implementing competitive strategies at the business unit level: Implications of matching managers to strategies', *Strategic Management Journal*, **10**(3), pp. 251–269.
Greene, W. (1990). *Econometric Analysis*. Macmillan, New York.
Grimes, A. (1978). 'Authority, power, influence and social control: A theoretical synthesis', *Academy of Management Review*, **3**, pp. 726–748.
Haleblian, J. and S. Finkelstein (1993). 'Top management team size, CEO dominance, and firm performance: The moderating roles of environmental turbulence and discretion', *Academy of Management Journal*, **36**, pp. 844–863.
Hambrick, D. C. (1994). 'Top management groups: A conceptual integration and reconsideration of the "team" label'. In B. M. Staw and L. L. Cummings (eds.), *Research in Organizational Behavior* (Vol. 16). JAI, Greenwich, CT, pp. 171–213.
Hambrick, D. C. and E. Abrahamson (1995). 'Assessing the amount of managerial discretion in different industries: A multi-method approach', *Academy of Management Journal*, **38**, pp. 1427–1441.
Hambrick, D. C. and S. Finkelstein (1987). 'Managerial discretion: A bridge between polar views of organizational outcomes', In B. M. Staw and L. L. Cum-

mings (eds.), *Research in Organizational Behavior* (Vol. 9). JAI, Greenwich, CT, pp. 369–406.

Hambrick, D. C., M. Geletkanycz and J. Fredrickson (1993). 'Top executive commitment to the status quo: Some tests of its determinants', *Strategic Management Journal*, **14**(6), pp. 401–418.

Haveman, H. (1993). 'Organizational size and change: Diversification in the savings and loan industry after deregulation', *Administrative Science Quarterly*, **38**, pp. 20–50.

Hickson, D. J., C. A. Lee, R. E. Schneck and J. M. Pennings (1971). 'A strategic contingencies' theory of intraorganizational power', *Administrative Science Quarterly*, **16**, pp. 216–229.

House, R. J. (1988). 'Power and personality in complex organizations'. In B. Staw and L. Cummings (eds.), *Research in Organizational Behavior* (Vol. 10). JAI, Greenwich, CT, pp. 307–357.

Huff, A. S. (1982). 'Industry influences on strategy reformulation', *Strategic Management Journal*, **3**(2), pp. 119–131.

Kahneman, D. and A. Tversky (1979). 'Prospect theory: An analysis of decisions under risk', *Econometrica*, **47**, pp. 263–291.

Katz, D. and R. Kahn (1966). *The Social Psychology of Organizations*. Wiley, New York.

Kinicki, A. and R. Vecchio (1994). 'Influence on the quality of supervisor–subordinate relations: The role of time-pressure, organizational commitment, and locus of control', *Journal of Organizational Behavior*, **15**, pp. 75–82.

Lau, C. and R. Woodman (1995). 'Understanding organizational change: A schematic perspective', *Academy of Management Journal*, **38**, pp. 537–554.

Lefcourt, H. (1982). *Locus of Control: Current Trends in Theory and Research* (2nd ed.). Erlbaum, Hillsdale, NJ.

Lefcourt, H. (1992). 'Durability and impact of locus of control construct', *Psychological Bulletin*, **112**, pp. 411–414.

Lewin, A. and C. Stephens (1994). 'CEO attitudes as determinants of organizational design: An integrated model', *Organization Studies*, **15**, pp. 183–212.

Miller, J. Z. and R. J. Rose (1982). 'Familial resemblance in locus of control: A twin-family study of the internal–external scale', *Journal of Personality and Social Psychology*, **42**, pp. 535–540.

Miller, D., M. Kets de Vries and J. Toulouse (1982). 'Top executive locus of control and its relationship to strategy-making, structure, and environment', *Academy of Management Journal*, **25**, pp. 237–253.

Miller, D. and J. Toulouse (1986). 'Chief executive personality and corporate strategy and structure in small firms', *Management Science*, **32**, pp. 1389–1409.

Mintzberg, H. (1983). *Power in and Around Organizations*. Prentice-Hall, Englewood Cliffs, NJ.

Mintzberg, H., D. Raisinghani and A. Theoret (1976). 'The structure of unstructured decision processes', *Administrative Science Quarterly*, **21**, pp. 246–275.

Mischel, W. (1977). 'The interaction of person and situation'. In D. Magnusson and N. S. Endler (eds.), *Personality at the Crossroads: Current Issues in Interactional Psychology*. Erlbaum, Hillsdale, NJ, pp. 333–437.

Mitchell, T. R., C. Smyser and S. Weed (1975). 'Locus of control: Supervision and work satisfaction', *Academy of Management Journal*, **18**, pp. 623–631.

Monson, T. C., J. W. Hesley and L. Chernick (1982). 'Specifying when personality traits can and cannot predict behavior: An alternative to abandoning the attempt to predict single act criteria', *Journal of Personality and Social Psychology*, **43**, pp. 385–399.

Neisser, U. (1967). *Cognitive Psychology*. Appleton-Century-Crofts, New York.

Nisbett, R. and L. Ross (1980). *Human Inference: Strategies and Shortcomings of Social Judgment*. Prentice-Hall, Englewood Cliffs, NJ.

Nunnally, J. (1978). *Psychometric Theory*. McGraw-Hill, New York.

Pederson, N. L., M. Gatz, R. Plomin, J. R. Nesselroade and G. E. McClearn (1989). 'Individual differences in locus of control during the second half of the life span for identical and fraternal twins reared apart and reared together', *Journal of Gerontology*, **44**, pp. 100–105.

Pfeffer, J. (1981). *Power in Organizations*. Pitman, Marshfield, MA.

Pfeffer, J. (1992). *Managing with Power: Politics and Influence in Organizations*. Harvard Business School Press, Boston, MA.

Pfeffer, J. and G. Salancik (1978). *The External Control of Organizations*. Harper & Row, New York.

Phares, E. (1965). 'I–E control as a determinant of amount of social influence exerted', *Journal of Personality and Social Psychology*, **2**, pp. 642–647.

Phares, E. (1976). *Locus of Control in Personality*. General Learning Press, Morristown, NJ.

Phillips, A. and A. Bedeian (1994). 'Leader–follower exchange quality: The role of personal and interpersonal attributes', *Academy of Management Journal*, **37**, pp. 990–1001.

Riecken, H. (1958). 'The effect of talkativeness on ability to influence group solutions of problems', *Sociometry*, **21**, pp. 309–321.

Roth, K. (1995). 'Managing international interdependence: CEO characteristics in a resource-based framework', *Academy of Management Journal*, **38**, pp. 200–231.

Rotter, J. (1966). 'Generalized expectancies for internal versus external control of reinforcement', *Psychological Monographs: General and Applied*, **80**, pp. 609–621.

Rotter, J. (1990). 'Internal versus external control of reinforcement', *American Psychologist*, **45**, pp. 489–493.

Runyon, K. (1973). 'Some interaction between personality variables and management styles', *Journal of Applied Psychology*, **57**, pp. 288–294.

Salancik, G. and J. Pfeffer (1977). 'Constraints on administrator discretion: The limited influence of mayors on city budgets', *Urban Affairs Quarterly*, **12**, pp. 475–498.

Schwenk, C. (1984). 'Cognitive simplification processes in strategic decision-making', *Strategic Management Journal*, **5**(2), pp. 111–128.

Simon, H. (1958). *Administrative Behavior*. Macmillan, New York.

Smith, H. and A. Dechter (1991). 'No shift in locus of control among women during the 1970's', *Journal of Personality and Social Psychology*, **60**, pp. 638–640.

Smith, R. (1989). 'Effects of coping skills training on generalized self-efficacy and locus of control', *Journal of Personality and Social Psychology*, **56**, pp. 228–233.

Spector, P. (1982). 'Behavior in organizations as a function of employee's locus of control', *Psychological Bulletin*, **3**, pp. 482–497.

Spender, J. C. (1989). *Industry Recipes: An Inquiry into the Nature and Sources of Managerial Judgment*. Basil Blackwood, Cambridge, MA.

Starbuck, W. (1976). 'Organizations and their environments'. In M. Dunnette (ed.), *Handbook of Industrial and Organizational Psychology*. Rand McNally, Chicago, IL, pp. 1069–1123.

Staw, B., L. Sandelands and J. Dutton (1981). 'Threat rigidity effects in organizational behavior: A multilevel analysis', *Administrative Science Quarterly*, **26**, pp. 501–524.

Stein, R. and T. Heeler (1979). 'An empirical analysis of the correlations between leadership status and participation rates reported in the literature', *Journal of Personality and Social Psychology*, **37**, pp. 1993–2002.

Strickland, B. (1965). 'The prediction of social action from a dimension of internal–external control', *Journal of Social Psychology*, **66**, pp. 353–358.

Stumpf, S. and R. Dunbar (1991). 'The effects of personality types in choices made in strategic decision situations', *Decision Sciences*, **22**, pp. 1047–1073.

Szilagyi, A. D. and D. M. Schweiger (1984). 'Matching managers to strategies: A review and suggested framework', *Academy of Management Review*, **9**, pp. 626–637.

Tedeschi, J. and V. Melburg (1984). 'Impression management and influence in the organization'. In S. Bacharach and E. Lawler (eds.), *Research in the Sociology of Organizations* (Vol. 3). JAI Press, Greenwich, CT, pp. 31–58.

Thomas, J., S. Clark and D. Gioia (1993). 'Strategic sensemaking and organizational performance: Linkages among scanning, interpretation, action, and outcomes', *Academy of Management Journal*, **36**, pp. 239–270.

Thompson, J. (1967). *Organizations in Action*. New York, McGraw-Hill.

Thorelli, H. (1994). 'Thirty-something years of international business simulations', *Simulation and Gaming*, **25**, pp. 261–265.

Tushman, M. L. (1977). 'Approaches to organizations: A review and rationale', *Academy of Management Review*, **2**, pp. 206–216.

Waller, M., G. Huber and W. Glick (1995). 'Functional background as a determinant of executives' selective perception', *Academy of Management Journal*, **38**, pp. 943–974.

Walsh, J. (1995). 'Managerial and organizational cognition: Notes from a trip down memory lane', *Organization Science*, **6**, pp. 280–321.

Weick, K. (1979). *The Social Psychology of Organizing* (2nd ed.). Addison-Wesley, Reading, MA.

Weiss, H. M. and S. Adler (1984). 'Personality and organizational behavior'. In B. M. Staw and L. L. Cummings (eds.), *Research in Organizational Behavior* (Vol. 6). JAI Press, Greenwich, CT, pp. 1–50.

Zika, S. and K. Chamberlain (1987). 'Relations of hassles and personality to subjective well-being', *Journal of Personality and Social Psychology*, **53**, pp. 155–162.

APPENDIX