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TOWARD A THEORY OF INTRAORGANIZATIONAL ATTENTION BASED ON DESIRABILITY AND FEASIBILITY FACTORS

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Why would managers in the same firm differ in their attention to opportunity versus threat aspects of the same exogenous shock? Drawing on the attention-based view, strategic issue diagnosis theory, and construal level theory, we propose and test a theoretical model of differentiated attention among managers within a firm driven by desirability (shock distance) and feasibility (capability perception) considerations. Managers more distant from the locus of the shock and managers with stronger ex ante perceptions regarding organizational capabilities to address the shock paid more attention to opportunity aspects and less attention to threat aspects. We also found subordination effects between shock distance and capability perception, and a moderating role of domain-specific experience on the effects of capability perception. Copyright © 2012 John Wiley & Sons, Ltd.

INTRODUCTION

Exploring the relationship between environmental shifts and managerial attention patterns is crucial to understanding how firms behave (Ocasio, 1997). Advances have been made regarding such a relationship both at the industry level (e.g., Hoffman and Ocasio, 2001), and at the firm level (e.g., Kaplan, 2008; Tuggle *et al*., 2010; Williams and Mitchell, 2004). Yet, despite its importance (Simon, 1947), little research has investigated the variation in attention among individual managers within an organization. To the extent that attentional drivers (or structures), which are the mechanisms that regulate managerial attention (e.g., Barnett, 2008), have been examined, they have tended to be 'expressed at a relatively general level' (Cho and Hambrick, 2006: 453).

In addition, prior studies tended to focus on top managers (e.g., Cho and Hambrick, 2006), or on the relationships between top managers' attention and different organizational subunits' attention (Bouquet and Birkinshaw, 2008). Attention by other levels of management remains largely unexplored despite the key role played by managers below the top levels (Ocasio, 1997; Simon, 1947), who can influence organizational agendas by getting those above them to pay attention to an issue (Dutton and Ashford, 1993). Several important questions regarding managerial attention remain unanswered: what are the causes of systematic variation in attention patterns within a firm among individual managers at below top level facing the same exogenous shock? What specific attentional drivers are involved? How do these drivers affect attention patterns within the organization?

This research builds mainly on the attention-based view of the firm (Ocasio, 1997), but

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also on strategic issue diagnosis theory (Dutton, Fahey, and Narayanan, 1983), and construal level theory (Liberman and Trope, 1998). Specifically, we investigate determinants of variation in the way individual managers within a firm focus on opportunity versus threat aspects of a given exogenous shock. Since attention is reflected in interpretation (Cho and Hambrick, 2006; Hoffman and Ocasio, 2001; Kaplan, 2008; Ocasio, 1997), variation in attention to aspects of a shock can result in systematically different interpretations of the shock (Ocasio, 2011). We focus on *opportunity* and *threat* aspects of the shock as these are salient categories in the minds of many managers (Jackson and Dutton, 1988; Ocasio, 1997). In order to capture contemporaneous rather than retrospective cognitions (e.g., Cho and Hambrick, 2006), we test our model with an unusual sample: managers within a large European energy company in the midst of an ongoing, major deregulation.

This study makes several theoretical and empirical contributions to the attention-based view. First, in contrast to past emphasis on variation *across* firms, we propose and test a theoretical model of differentiated attention *within* a given firm. We investigate whether desirability and feasibility considerations regarding an exogenous shock drive differences in the attention managers pay toward opportunity and threat aspects. Second, in contrast to previous reliance on relatively general mechanisms, we examine two novel and specific attentional drivers: shock distance and capability perception. Not only do these correspond, respectively, to desirability and feasibility concerns, they also address the dual emphasis on structure (i.e., the logic of interests) and cognition (i.e., the logic of beliefs) suggested by Simon (1947) and Ocasio (1997).

Third, to our knowledge, this research is the first to propose and test subordinating effects between different categories of attentional drivers. Our findings suggest that desirability considerations (shock distance) direct managerial attention regardless of whether the feasibility factor (capability perception) is high or low. In contrast, feasibility considerations direct managerial attention only when the desirability factor is low (versus high). Finally, this study is among the first to investigate the effect of domain-specific managerial experience on organizational attention processes. Domain-specific experience strengthens the effects of capability perception (the factor related to the logic of beliefs) on managerial attention but does not change the effects of shock distance (the factor related to the logic of interests).

THEORY AND HYPOTHESES

Managerial attention

Managers are bombarded with more information than they can possibly attend to and process (Simon, 1947). According to the attention-based view (ABV) of the firm, where *attention* refers to the noticing and interpreting of available stimuli, managers are necessarily selective regarding the aspects of their environment that they focus on and respond to (Ocasio, 1997). Moreover, the ABV argues that 'although attention and interpretation can be conceptually distinguished, they are so intertwined that a distinction is not meaningful' (Cho and Hambrick, 2006: 454). As noted by Hoffman and Ocasio, not only do attention 'processes (. . .) guide event enactment and interpretation' (2001: 417) but they also 'become the products of the (. . .) interpretation of the event' (2001: 430). Attention involves 'biased interpretation' (Hoffman and Ocasio, 2001: 419) in the sense that the varying weights that different managers give to contradictory aspects of the same stimuli can lead to markedly different interpretations (Cho and Hambrick, 2006). Attention can also be seen as a 'context-specific interpretation' (Kaplan, 2008: 681), in that it depends on characteristics of both the stimuli and the person directing attention (Ocasio, 1997).

An important type of stimulus for organizations is a major exogenous shock, or *critical event* (Hoffman and Ocasio, 2001; Nigam and Ocasio, 2010), such as a major industry regulatory change (Cho and Hambrick, 2006). Managers interpret exogenous shocks by paying attention to salient categories or aspects (and not to other aspects), including whether the shock presents an *opportunity* versus a *threat* (Jackson and Dutton, 1988; Ocasio, 1997). By definition, ambiguous shocks contain both opportunity and threat aspects (Jackson and Dutton, 1988). Which of these is paid more attention to will depend for each manager on his or her existing *attentional drivers* (or structures), that is, the social, economic, cultural, or cognitive factors that shape an organizational decision maker's allocation of time, effort, and attentional focus (Barnett, 2008; Ocasio, 1997).

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To predict drivers of heterogeneous attention inside the firm, we draw on strategic issue diagnosis theory and construal level theory (CLT) in addition to the ABV. Strategic issue diagnosis theory (Dutton *et al*., 1983) suggests two generic determinants of selective attention to exogenous shocks affecting organizations: members' *political interests* and *cause-effect beliefs*, both of which can interact with characteristics of the shock to affect interpretation. By stressing managers' political interests, Dutton and colleagues (1983) view organizations as coalitions of diverse people with conflicting interests (Cyert and March, 1963; March, Schultz, and Zhou, 2000; Narayanan and Fahey, 1982). Important political interests include those related to a focal manager's "access, representation, control, and policy benefits" (March and Olsen, 1989: 76). For instance, managers' political interests become especially relevant when an exogenous shock poses a potential threat to their status, power, and control of resources. When facing a shock, managers will tend to focus their attention on those aspects of the shock that are made salient by their own political interests (Dutton *et al*., 1983).

In addition to this logic of interests, a logic of beliefs can also influence managers' selective attention. Managers use 'belief systems' or mental models to perceive and make sense of their environment and to selectively focus on specific aspects (Swan, 1997). Belief systems consist of concepts and of relationships among concepts (Barr, Stimpert, and Huff, 1992). In strategic decision making, a particularly relevant category of belief system is managers' cause-effect beliefs (Nadkarni and Barr, 2008), defined as understandings regarding the effects of the environment and of strategic inputs on organizational effectiveness (Chattopadhyay *et al*., 1999; Nadkarni and Barr, 2008). Managers are likely to focus on aspects of an external shock that are most salient to their cause-effect beliefs (Dutton *et al*., 1983; Barr *et al*., 1992; Swan, 1997).

A complementary view is offered by CLT, which proposes that the assessment of future events is influenced by individual considerations of both desirability and feasibility (Liberman and Trope, 1998). *Desirability* refers to the valence attributed by an individual to an anticipated end state; *feasibility* refers to the ease with which the end state can be reached.

Both strategic issue diagnosis and CLT can provide important insights into differentiated attention among managers inside a firm. Political interests provide an *a priori* understanding by each organizational member regarding the desirability of the end state associated with possible actions related to the emerging shock. Thus, political interests correspond in an organizational context to the desirability dimension in CLT. Cause-effect beliefs, by which organizational members understand how easy (or difficult) it will be to achieve a particular end state, correspond in an organizational context to the feasibility dimension in CLT. Whereas CLT shows the importance of desirability and feasibility to individuals' assessments of everyday events, the strategic issue diagnosis framework shows how desirability and feasibility dimensions can be important at the level of an organization facing an environmental shock.

How might attention patterns toward opportunity and threat aspects of a given exogenous shock vary among managers within a firm? Most firms will periodically face *major* and *ambiguous* shocks, where major refers to a shock being highly consequential for the firm as a whole and ambiguous means that both opportunity and threat elements are present. The political interests (desirability dimension) and cause-effect understandings (feasibility dimension) of individual managers can lead to positive versus negative early beliefs regarding the shock. In turn, these early beliefs can activate attentional mechanisms that reduce the ambiguity of the event. In particular, a manager's political interests will induce a more positive (versus negative) early attitude toward the shock to the extent that expected outcomes are favorable to those interests. Similarly, a manager's cause-effect understandings will induce a more positive (versus negative) early attitude toward the shock to the extent that reaching the expected outcome seems feasible given those understandings. Early attitudes and beliefs, in turn, trigger selective attention toward aspects of the shock that are consistent with these early attitudes (Doucet, 2004) and beliefs (Dutton and Jackson, 1987). In particular, political interests and cause-effects understandings that activate more positive (negative) early attitudes or beliefs about a shock will tend to make opportunity (threat) aspects more salient.

Next, we argue that two attentional drivers that capture variation in political interests (the desirability dimension) and variation in cause-effect

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beliefs (the feasibility dimension), that is, *shock distance*, and *capability perception*, respectively, can predict how individual managers within a firm focus attention on opportunity versus threat aspects of an ambiguous shock.

The desirability dimension: shock distance

An important driver of managerial attention is structural position, in terms of where within an organization an individual is situated (Bouquet and Birkinshaw, 2008). In large organizations, the structural position of a manager can refer to his or her location in different subgroups or units (e.g., corporate headquarters, specific business units). Structural position is a source of variation in the interests and identities of decision makers and thus 'of *differentiated attention* to different aspects of the organization's environment' (Ocasio, 1997: 198, emphasis added). Depending on their structural positions, due to the interests associated with those positions, decision makers will more heavily weigh some aspects of an ambiguous shock at the expense of others. Multiple logics can, thus, develop in different subgroups, as coalitions of individuals attempt through political processes to advance their *own* groups' interests (Dutton *et al*., 1983; Lyles and Schwenk, 1992), versus *firm*-based interests (Simon, 1947; Polzer, 2004).

Whether managers within a firm more heavily weigh opportunity versus threat aspects of a shock can depend on how strongly group (versus firm) interests are activated in their minds. The group interests of a particular subgroup (versus firm interests) are expected to be more strongly activated when the subgroup is more (versus less) directly and immediately affected by a focal shock. We define *shock distance* as the distance from a manager's structural position (i.e., his or her subgroup) to the locus of direct impact of a given shock.

While attention always involves 'biased interpretation' (Hoffman and Ocasio, 2001:419), managers are expected to attend to opportunity and threat aspects in a less biased way when firms interests dominate. In contrast, when the distance between a shock and a subgroup is very small, managers within that subgroup are expected to act more as engaged players whose interests are at risk and less as relatively neutral observers that pay attention to both threat and opportunity aspects of the shock. Because low shock distance makes possible loss more likely and more salient, managers at low shock distance are also likely to attach greater value to what they currently have and less value to what they could but do not yet have (Samuelson and Zeckhauser, 1988). As a result, managers at low versus high shock distance are likely to form more negative early attitudes toward the shock. Subsequently, due to selective attention, managers at low versus high shock distance are expected to pay more attention to aspects of the shock that are consistent with their early, negative attitude (i.e., to threat aspects), and less attention to aspects that are inconsistent with their early, negative attitude (i.e., to opportunity aspects). Conversely, managers at high versus low shock distance are expected to focus their attention on opportunity aspects more and threat aspects less.

Hypothesis 1: In the presence of an ambiguous, exogenous shock, shock distance relates positively (negatively) to opportunity (threat) interpretation.

The feasibility dimension: capability perception

Whereas traditional strategy models assume internal context to be independent from external environmental assessment (e.g., the SWOT [strengths, weaknesses, opportunities, and threats] matrix), the ABV argues that firm resources and capabilities regulate managers' attention to and interpretation of external events (Ocasio, 1997). Specifically, firm resources and capabilities are expected to focus managers' attention on different aspects of an exogenous shock. However, while managers within a firm will all refer to the same set of resources and capabilities (the firm's set), they are likely to vary in their *capability perceptions*, defined as the extent to which each manager perceives his or her firm as having the resources and capabilities to successfully address the shock (Dutton and Duncan, 1987). Perceptions can vary significantly among managers within a firm (King and Zeithaml, 2001), with some managers perceiving high firm capabilities vis-a-vis a particular shock while other managers perceive low firm capabilities. Individuals vary in their cause-effect understandings or mental models (e.g., Barr *et al*., 1992), with different cause-effect understandings resulting in differentiated perceptions (Swan, 1997). Differentiated capability perceptions reflect

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differentiated cause-effect understandings or mental models about resources and capabilities.

Perceptions shape early beliefs about the specific situation (Swan, 1997), such that managers with *higher* versus *lower* capability perceptions will form more *positive* early beliefs regarding (the feasibility of addressing) the shock. Due to selective attention (Barr *et al*., 1992; Dutton and Jackson, 1987), these early beliefs will, in turn, direct a manager's attention toward belief-congruent aspects of the shock (i.e., toward opportunity aspects) and away from belief-incongruent aspects of the shock (i.e., toward threat aspects). Faced with the same shock, managers with *lower* capability perceptions will form more *negative* early beliefs about the shock than their colleagues. In consequence, they will tend to focus on threat versus opportunity aspects.

Hypothesis 2: In the presence of an ambiguous, exogenous shock, capability perception relates positively (negatively) to opportunity (threat) interpretation.

The moderating role of domain-specific experience

Based on specific patterns of selective attention, we have predicted a positive (negative) relationship between shock distance and opportunity (threat) interpretation, and a positive (negative) relationship between capability perception and opportunity (threat) interpretation. Now, we extend past research on managerial experience and modes of attention (Ocasio, 1997), by proposing that domain-specific experience can moderate the effects on shock interpretation of capability perception (the feasibility dimension) but not of shock distance (the desirability dimension).

The managerial cognition and social cognition literatures suggest that managers' specific experience in a domain can indirectly affect their attention to new information (Walsh, 1995), as individuals with more experience in a specific domain tend to have greater confidence in their beliefs related to that domain (Einhorn and Hogarth, 1985; Fischer and Budescu, 2005). Confidence refers to 'the strength of belief in the goodness, accuracy, and appropriateness of one's judgments' (Budescu and Yu, 2007: 154). The positive relationship between experience and confidence results from more versus less experienced individuals (i.e., experts versus novices) tending not only to have more knowledge but also to have more structured knowledge, that is, fewer knowledge categories but more information units within each category (Lurigio and Carroll, 1985). It is important to note that the 'organization of knowledge is at least as important as amount of knowledge in differentiating experts from novices (Sternberg, 1997: 153), as shown, for example, by Chi, Feltovich, and Glaser (1981) and Day and Lord (1992). A manager's greater knowledge in a domain, and better organization of such knowledge, relates positively to greater confidence in beliefs relating to that domain, which can be either positively or negatively valenced.

Because relevant experience tends to be specific to relatively narrow domains (McDonald, Westphal, and Graebner, 2008), such as an industry or product-market (e.g., Kroll, Walters, and Wright, 2008), a manager can be an expert in one industry but a novice in another. We refer in this paper to managerial experience relating to the domain (industry) associated with the focal shock as *domain-specific experience*. Within a diversified firm, it is likely that different managers will have specific experience relating to different industries in which the firm operates.

Due to the positive relationship between domain-specific experience and confidence in beliefs relating to that domain, we argue that domain-specific experience can indirectly affect managers' attention patterns toward opportunity and threat aspects of a given shock. In particular, due to its impact on belief confidence, domain-specific experience should magnify the effect on opportunity (threat) interpretation of drivers that are *related* to managers' *beliefs* regarding a specific domain, that is, industry. However, we do not expect any moderating effect of domain-specific experience on the relationship between opportunity (threat) interpretations and drivers of opportunity (threat) interpretation that are *not* related to managers' beliefs regarding a specific industry.

We have argued for the importance of two main attentional drivers. Shock distance captures variation in political interests. Capability perception captures variation in managerial (cause-effect) beliefs. The two logics—of interests and of beliefs—are distinct. Domain-specific experience is expected to moderate the effect on opportunity (threat) interpretation of a driver based on

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beliefs relating to that domain: capability perception. Therefore, the positive effect of capability perception on *opportunity* interpretation of an exogenous shock should be stronger for managers who have (versus do not have) domain-specific experience. Likewise, the negative effect of capability perception on *threat* interpretation should also be stronger for managers who have (versus do not have) domain-specific experience. In both cases, specific experience strengthens the effects of beliefs regarding firm capabilities to address an external shock.

In contrast, domain-specific experience is not expected to moderate the effect on opportunity (threat) interpretation of shock distance. Shock distance affects threat versus opportunity interpretation because of its effects on managers' desirability attitudes regarding the shock (i.e., their political interests). The additional confidence that specific experience might bring to a manager's *beliefs* regarding the domain is not expected to affect the manager's political *interests* inside the firm. That is, the extent to which a shock affects a manager's interests (relating to his or her position inside the firm) is not expected to depend on whether the manager is more or less confident in his or her beliefs about the domain. Thus, we do not predict a moderating role of domain-specific experience on the relationship between shock distance and opportunity (threat) interpretation of the shock.

Hypothesis 3: The positive (negative) relationship between shock distance and opportunity (threat) interpretation will not differ between managers with domain-specific experience and managers without domain-specific experience.

Hypothesis 4: The positive (negative) relationship between capability perception and opportunity (threat) interpretation will be stronger for managers with domain-specific experience than for managers without domain-specific experience.

Subordination effects

We have predicted independent effects of shock distance and capability perception on opportunity versus threat interpretation within the firm. However, the ABV suggests that attention structures might also depend on each other in predicting attention inside the firm (Ocasio, 1997). We draw on Liberman and Trope's (1998) CLT and psychological research on attention to predict important dynamics between shock distance and capability perception effects in predicting opportunity and threat interpretation.

Due to bounded rationality (Simon, 1947), managers focus on some aspects of their environment at the expense of other aspects, with selective attention patterns depending on the activation of specific attentional drivers (Ocasio, 1997). However, individuals tend to process information in a hierarchical or sequential manner. Whereas some attentional drivers exert their pressure earlier, other drivers are activated only later and conditional on the output of the early stage (Hubner, Steinhauser, and Lehle, 2010; Schneider and Shiffrin, 1977; Treisman, 1969). We expect that such hierarchical attention processing will lead to what CLT calls subordination effects: the effects of some key variables are independent of the value of other key variables while the effects of the latter are dependent on the effects of the former.

CLT makes a crucial distinction between high-level and low-level construals. High-level construals are representations of future events that focus on more central, essential features of those events. Low-level construals are representations of future events that emphasize more peripheral, less essential features of those events (Liberman and Trope, 1998). Research has shown that when considering distant events, individuals give greater importance to event features associated with high-level construals (the 'superordinate' variables) than to event features associated with low-level construals (the 'subordinate' variables). Specifically, there is an asymmetry in the conditional importance of these two kinds of event features (Eyal *et al*., 2004). Several studies about individuals' assessments of everyday events have shown the existence of such asymmetric conditional importance (i.e., of subordination effects) when one considers high versus low levels of superordinate and subordinate variables (e.g., Eyal *et al*., 2004; Liberman and Trope, 1998; Sagristano, Trope, and Liberman, 2002). *Superordinate* event features are important *regardless* of the value of subordinate event features, such that a change (from low to high level) in the *superordinate* variable has a significant effect, regardless of whether the *subordinate* variable is low or high. In contrast, the importance of *subordinate* features is *dependent* on the value of superordinate features. A change (from low to high

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level) in the *subordinate* variable only has a significant effect in some cases, that is, depending on whether the *superordinate* variable is low or high.

The subordination effects predicted by CLT correspond to the sequential processes that have been proposed for managerial attention patterns (e.g., Treisman, 1969). Similar subordination effects or sequential processing are expected to apply to our two attentional drivers: shock distance and capability perception. According to CLT, superordinate variables include those related to *desirability* of end states, that is, 'why' questions (Liberman and Trope, 1998). Shock distance is therefore a superordinate variable as it reflects desirability considerations (i.e., managers' interests). According to CLT, subordinate variables include those related to the *feasibility* or difficulty of reaching end states, that is, 'how' questions (Liberman and Trope, 1998). Capability perception is therefore a subordinate variable as it reflects feasibility considerations (i.e., managers' beliefs regarding the firm's ability to deal with the shock).

If there is subordination (i.e., a sequential processing of attention), we should observe an asymmetric conditional importance of shock distance and capability perception on (opportunity or threat) interpretation, based on the priority of attention given to the superordinate versus the subordinate driver. Specifically, changes in shock distance (the superordinate variable, relating to desirability) will affect (opportunity/threat) interpretation regardless of the level of capability perception (the subordinate variable, relating to feasibility). For both managers with *low* capability perception and for managers with *high* capability perception, *high* versus *low* shock distance should increase attention to opportunity aspects and decrease attention to threat aspects. That is, a transition from low to high shock distance (the superordinate driver) should produce a positive attention shift towards opportunity aspects (and a negative attention shift to threat aspects) *regardless* of whether the capability perception (the subordinate driver) is low or high. Accordingly,

Hypothesis 5: (a) Managers with high *shock distance and* low *capability perception will have higher (*lower*) opportunity (*threat*) interpretation than managers with* low *shock distance and* low *capability perception; (b) Managers with* high *shock distance and* high *capability perception will have higher (*lower*) opportunity (*threat*) interpretation than managers with* low *shock distance and* high *capability perception*.

On the other hand, if there is subordination, the effect on issue interpretation of a change from low to high capability perception (the subordinate driver) will *depend* on whether the level of shock distance (the superordinate driver) is low or high. Specifically, a transition from low to high capability perception should only produce a positive attention shift toward opportunity aspects (and a negative attention shift toward threat aspects) when shock distance is *low*. In such cases, in the early stage, attention to opportunity (threat) aspects driven by shock distance is low (high), so a transition from low to high capability can still increase (reduce) attention to those opportunity (threat) aspects in the late stage. Thus, of managers with *low* shock distance, only those with *high* capability perceptions will pay more attention to opportunity aspects (and less to threat aspects) than those with *low* capability perceptions. In contrast, a transition from low to high capability perception should *not* produce a positive attention shift toward opportunity aspects (and a negative attention shift toward threat aspects) when shock distance is *high*. In such cases, the high level of shock distance means that from an early stage, a high (low) level of attention is already channeled to opportunity (threat) aspects. Given this already high (low) level of attention to opportunity (threat) aspects, there is little room at later stages for further increase (reduction) in attention to opportunity (threats) aspects, regardless of a change from low to high capability perceptions. Therefore, among managers with *high* shock distance, those who hold *high* capability perceptions are not expected to differ in their attention to opportunity (threat) aspects from those who hold *low* capability perceptions.

Hypothesis 6: (a) Managers with low *shock distance and* high *capability perception will have higher (lower) opportunity (threat) interpretation than managers with* low *shock distance and* low *capability perception; (b) Managers with* high *shock distance and* high *capability perception will not have a higher (lower) opportunity (threat) interpretation than managers with* high *shock distance and* low *capability perception*.

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METHODS

Our hypotheses were tested with a sample of middle managers from a single, multidivisional organization, which we call Energy Co., for several important reasons. First, using a single organization enabled the study of intraorganizational differences (given our interest in capability perception variation), while controlling for external contexts and actual capabilities of firms. Second, the survey was administered when the firm was facing a significant exogenous shock (deregulation of the natural gas industry within the European Union [EU]), avoiding the methodological problems that retrospective accounts would raise (Cho and Hambrick, 2006). Third, as Energy Co. was a multidivisional, European energy company, operating in both oil and natural gas businesses, different parts of the organization were at different distances from the exogenous shock posed by natural gas industry deregulation. Fourth, by allowing free (bidirectional) expansion inside the EU, the deregulation involved both opportunity and threat aspects.

Supported by an official endorsement of the questionnaire from the senior vice president for human resources, we invited all 116 managers at the level *below top management* (business, divisional, and functional managers) to respond to the questionnaire on a confidential and anonymous basis. Eighty-three managers returned completed responses (a response rate of 72 percent). On average, respondents were 45.7 years old. About 98.8 percent (82) had completed an undergraduate degree and 22.9 percent (19) had completed a master's degree. About 19.3 percent (16) were from gas business, 56.6 percent (47) from oil business, and 24.1 percent (20) from corporate headquarters. According to the vice president for human resources, these proportions were representative of Energy Co.'s complete set of managers.

Dependent variables

Jackson and Dutton (1988) initially proposed three main dimensions relevant to categorization of issues as opportunity versus threat: potential gain/loss implications, positive/negative event, and controllable/uncontrollable. Later research showed that the controllability dimension should not be included in the opportunity categorization (e.g., Julian and Ofori-Dankwa, 2008). Thus, *opportunity* (*threat*) *interpretation* was measured using three items (Denison *et al*., 1996) related to 'gain (loss) implications,' 'positive (negative) event,' and 'opportunity (threat).' Participants responded to a seven-point Likert scale, ranging from 1 (completely disagree) to 7 (completely agree). Cronbach alpha reliabilities were 0.86 for the opportunity scale and 0.76 for the threat scale.

Independent variables

Energy Co. had two core businesses: natural gas and oil. Thus, our respondents were from three distinct units: corporate headquarters, natural gas business, and oil business. Given the nature of the shock (a natural gas deregulation), the natural gas unit is the unit closest to the locus of the direct impact of the shock. The corporate headquarters unit is the unit most distant from the shock. As explained to us by senior executives of the firm, the oil unit occupies an intermediate position between the other two units due to some commonalities (e.g., common customers) with gas units. Thus, managers' shock distance (high, intermediate, or low) depends on which unit they belong to. In order to test Hypotheses 1 to 4, we measured *shock distance* as an ordinal variable with three categories (e.g., Green, Li, and Nohria, 2009): managers belonging to the gas unit were assigned to category 0 (low distance), managers belonging to the oil unit were assigned to category 1 (intermediate distance), and managers belonging to corporate headquarters were assigned to category 2 (high distance). Thus, higher value of the variable indicates higher shock distance.

Capability perception was measured using two (seven-point Likert) items from Denison and colleagues (1996) to capture how strongly each participant perceived the firm as having the resources and capabilities, respectively, required to deal with the coming natural gas deregulation. Cronbach alpha for this scale was 0.73. Since we test moderating effects in Hypothesis 4, the capability perception variable was mean-centered (Aiken and West, 1991).

Hypotheses 5 and 6 involve comparing subgroups of managers, based on both their shock distance and levels of capability perception. For this purpose, in addition to the three categories of shock distance previously mentioned, we also

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classify managers according to their capability perception level. Managers with scores equal to or above the sample median are classified as high, whereas all others are classified as low capability perception. A dummy variable was created for each of the six possible (nonoverlapping) subgroups that managers can belong to ('1' when the manager belongs to the focal subgroup, and '0' otherwise). These are as follows: 1) *high shock distance and high capability perception* dummy; 2) *high shock distance and low capability perception* dummy; 3) *low shock distance and high capability perception* dummy; 4) *low shock distance and low capability perception* dummy; 5) *intermediate shock distance and high capability perception* dummy; and, 6) *intermediate shock distance and low capability perception* dummy.

Control variables

As our focus is on differences in interpretation among managers from the same organization, we attempted to control for major sources of individual differences previously identified in the literature on managerial interpretation and beliefs. For *age*, participants indicated to which of eight sequential age brackets they belonged (Hitt and Tyler, 1991). For *educational level*, we considered three main groups: formal education in business-economics only, formal education in engineering only, and all others (Hitt and Tyler, 1991; Thomas, Shankster, and Mathieu, 1994). Dummy variables were created for the first group, *business education*, and the third group, *mixed education*, with the second group (engineering only) as the omitted category or reference group (Hair *et al*., 2006). Chattopadhyay and colleagues (1999) found that working in production and operations influenced managerial beliefs. So we created a dummy variable, *production and operations*, to identify managers working in this functional domain. We hypothesized that domain-specific experience can have a moderating role in our model. Our specific experience variable simply refers to a manager having versus not having experience in a domain. It does not attempt to address in any way the valence of the experience (e.g., was it positive or negative?). Relevant experience tends to be specific to relatively narrow domains, such as an industry (e.g., Kroll *et al*., 2008; McDonald *et al*., 2008). Since we defined domain-specific experience as managerial experience relating to the specific domain (industry) associated with the focal shock (natural gas, in our case), a dummy variable was created for *domain-specific experience* (1 if the manager has experience in the gas business, and 0 otherwise).

Preliminary procedures

A Harman's single factor test, usually performed in these kinds of studies (e.g., Mesquita and Brush, 2008), suggested that our data was not subject to common method variance, consistent with *ex ante* design procedures followed to minimize potential concerns, such as respondent anonymity protection, item ambiguity reduction (through prior discussion with the firm's senior managers), and psychological separation (through the inclusion of many other unrelated items). Moreover, most of our variables rely on objective managerial characteristics or positions, and our analysis included interactions between some of the involved variables, which are unlikely to be subject to such concerns (e.g., Bouquet and Birkinshaw, 2008). We also checked the existence of potential multicolinearity problems, and found that variance inflation factors for all variables were well below the acceptable cut-off of 10 (Hair *et al*., 2006) in all performed regressions.

Analyses

To test Hypotheses 1 and 2, we performed multiple regression analyses of each dependent variable on shock distance and capability perception. To test Hypotheses 3 and 4, each dependent variable was regressed on the independent variables, and also on the interactions between each of the independent variables and domain-specific experience.

Hypotheses 5 and 6 predict differences in opportunity and threat interpretation between specific pairs of the six subgroups of managers. Our hypotheses focus on the four subgroups combining high (or low) shock distance and high (or low) capability perception. In each regression model, only three out of the four dummies (corresponding to these subgroups) should be included because one of them should be omitted to represent the comparison group, that is, the group against which the effects are being measured (Hair *et al*., 2006). For example, when comparing the threat/opportunity interpretations of the 'high shock distance and low capability perception

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Table 1. Descriptive statistics and correlations

	Mean	Std. dev.	1	2	3	4	5	6	7
1. Age	4.64	1.29	1.00						
2. Business education	0.33	0.47	−0.16	1.00					
3. Mixed education	0.29	0.46	−0.05	−0.44***	1.00				
4. Production and operations	0.25	0.44	0.14	−0.35**	0.12	1.00			
5. Domain-specific experience	0.45	0.50	−0.07	0.05	0.07	−0.13	1.00		
6. Shock distance	1.05	0.66	−0.04	0.22*	−0.01	−0.21†	−0.21†	1.00	
7. Capability perception ([1])	4.86	1.16	0.09	0.02	0.05	0.07	0.02	0.09	1.00

n = 83.
† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; ([1])Uncentered variable.

group (Group 2) versus the 'low shock distance and low capability perception group (Group 4) (as in Hypothesis 5a), because the latter represents the comparison group, its dummy should be omitted from the regression. As a result, the coefficient of the dummy 'high shock distance and low capability perception in that regression will represent the difference in threat/opportunity interpretation between the two groups.

Because a *different* dummy variable will be omitted in the focal regression depending on the comparison group involved in each hypothesis, the meaning of the coefficients of the included dummy variables in each regression will differ. In order to avoid misspecification, the two dummies relating to the intermediate shock distance subgroups should be included in the regressions. This ensures that the omitted group only involves members of the intended comparison group and not those belonging to the intermediate shock distance subgroups.

RESULTS

Table 1 reports the means, standard deviations, and correlations of the variables.

Tables 2 and 3 present the results for Hypotheses 1 through 4 for opportunity and threat interpretations, respectively. Models 1 and 7 include the control variables only. Shock distance is added in Models 2 and 8. Capability perception is added in Models 3 and 9. In Models 4 and 10, both shock distance and capability perception are included in order to test Hypotheses 1 and 2. Models 5 and 11 report the tests of Hypothesis 3 with the inclusion of the interaction between shock distance and domain-specific experience. Models 6 and 12 include the interaction between capability perception and domain-specific experience in order to test Hypothesis 4.

Hypothesis 1 predicts that managers with higher shock distance will have a) higher opportunity interpretation, and b) lower threat interpretation. The estimated coefficient for shock distance in Model 4 is positive and significant, supporting the hypothesized relationship between shock distance and opportunity interpretation. The coefficient for shock distance in Model 10 is negative and significant, providing support for the hypothesized relationship between shock distance and threat interpretation. Thus Hypothesis 1 is supported.

Hypothesis 2 states that managers with higher capability perception will have a) higher opportunity interpretation, and b) lower threat interpretation. The coefficient for capability perception in Model 4 is positive and significant. The coefficient for capability perception in Model 10 is negative and significant. Thus Hypothesis 2 is supported both for opportunity interpretation and for threat interpretation.

Hypothesis 3 proposes that domain-specific experience does not moderate the relationship between shock distance and interpretation. In Model 5, the coefficient of the interaction between shock distance and domain-specific experience is not significant (p-value = 0.83). In Model 11, the coefficient of the same interaction term is also not significant (p-value = 0.98). Thus, Hypothesis 3 is supported both for opportunity interpretation and for threat interpretation.

In contrast, Hypothesis 4 predicts that domain-specific experience reinforces a) the positive relationship between capability perception and opportunity interpretation, and b) the negative relationship between capability perception and

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Table 2. Results of regression analyses predicting opportunity interpretation (Hypotheses 1 to 4)

	Model 1 (Baseline)	Model 2	Model 3	Model 4 (Hypotheses 1 and 2)	Model 5 (Hypothesis 3)	Model 6 (Hypothesis 4)
Constant	5.73***	5.05***	5.93***	5.29***	5.37***	5.32***
	(0.53)	(0.53)	(0.50)	(0.51)	(0.64)	(0.49)
Age	−0.02	−0.02	−0.05	−0.05	−0.05	−0.05
	(0.10)	(0.09)	(0.09)	(0.08)	(0.09)	(0.08)
Business education	−0.43	−0.64*	−0.51†	−0.69*	−0.69*	−0.88**
	(0.30)	(0.29)	(0.29)	(0.28)	(0.28)	(0.27)
Mixed education	−0.29	−0.42	−0.36	−0.47†	−0.47†	−0.50†
	(0.30)	(0.28)	(0.28)	(0.27)	(0.27)	(0.25)
Production and operations	−0.06	0.11	−0.13	0.04	0.03	−0.02
	(0.29)	(0.28)	(0.28)	(0.27)	(0.27)	(0.26)
Domain-specific experience	−0.20	0.02	−0.22	−0.02	−0.13	−0.01
	(0.24)	(0.23)	(0.23)	(0.22)	(0.54)	(0.21)
Shock distance		0.64***		0.58***	0.51	0.63***
		(0.18)		(0.17)	(0.40)	(0.17)
Capability perception			0.32**	0.29**	0.29**	0.03
			(0.10)	(0.09)	(0.09)	(0.13)
Shock distance × domain-specific experience					0.09	
					(0.43)	
Capability perception × domain-specific experience						0.51**
						(0.18)
R^2	0.04	0.17	0.16	0.27	0.27	0.34
F	0.62	2.64*	2.34*	3.89**	3.36**	4.70***
Adj. R^2		0.11	0.09	0.20	0.19	0.27
R^2 change		0.13	0.12	0.23	0.00	0.07
F change		12.26***	10.58**	11.63***	0.05	7.88**
Stats change vs.		Model 1	Model 1	Model 1	Model 4	Model 4

Standard errors are reported in parentheses.
† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

threat interpretation. In Model 6, the coefficient of the interaction between capability perception and domain-specific experience is positive and significant. In Model 12, the coefficient of the interaction between capability and domain-specific experience is negative and significant. Thus, Hypothesis 4 is supported both for opportunity interpretation and for threat interpretation.

Tables 4 and 5 present the results of our tests of Hypotheses 5a through 6b for opportunity and threat interpretation, respectively. Testing the subordination effects involves comparing specific subgroups of managers in terms of their interpretations. In order to test Hypotheses 5a and 6a, Models 13 and 16 (for opportunity and threat, respectively) omit the dummy 'low shock distance and low capability perception' (which represents the relevant comparison group for those hypotheses). In order to test Hypothesis 5b, Models 14 and 17 omit the dummy 'low shock distance and high capability perception.' Finally, in order to test Hypothesis 6b, Models 15 and 18 omit the dummy 'high shock distance and low capability perception.'

Hypothesis 5a states that managers with high shock distance and low capability perception will have i) higher opportunity interpretation, and ii) lower threat interpretation than managers with low shock distance and low capability perception (the comparison group). The coefficient for 'high shock distance and low capability perception' in Model 13 (Table 4) is positive and significant, providing support for Hypothesis 5a for opportunity interpretation. The coefficient for 'high shock distance and low capability perception' in Model 16 (Table 5) is negative and significant, providing support for

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Table 3. Results of regression analyses predicting threat interpretation (Hypotheses 1 to 4)

	Model 7 (Baseline)	Model 8	Model 9	Model 10 (Hypotheses 1 and 2)	Model 11 (Hypothesis 3)	Model 12 (Hypothesis 4)
Constant	3.26***	3.96***	3.11***	3.79***	3.78***	3.77***
	(0.59)	(0.60)	(0.59)	(0.60)	(0.76)	(0.60)
Age	0.02	0.02	0.04	0.04	0.04	0.04
	(0.11)	(0.10)	(0.11)	(0.10)	(0.10)	(0.10)
Business education	−0.28	−0.06	−0.22	−0.02	−0.02	0.11
	(0.34)	(0.33)	(0.34)	(0.33)	(0.33)	(0.33)
Mixed education	0.11	0.24	0.16	0.28	0.28	0.29
	(0.33)	(0.32)	(0.33)	(0.32)	(0.32)	(0.31)
Production and operations	−0.36	−0.54†	−0.31	−0.48	−0.48	−0.44
	(0.33)	(0.32)	(0.33)	(0.32)	(0.32)	(0.31)
Domain-specific experience	0.23	0.01	0.25	0.03	0.04	0.02
	(0.27)	(0.27)	(0.27)	(0.26)	(0.65)	(0.26)
Shock distance		−0.65**		−0.62**	−0.61	−0.65**
		(0.21)		(0.21)	(0.48)	(0.21)
Capability perception			−0.24*	−0.20*	−0.20*	−0.02
			(0.12)	(0.11)	(0.11)	(0.16)
Shock distance × domain-specific experience					−0.01	
					(0.51)	
Capability perception × domain-specific experience						−0.36†
						(0.22)
R^2	0.04	0.15	0.09	0.18	0.18	0.21
F	0.56	2.15†	1.18	2.38*	2.06*	2.45*
Adj. R^2		0.08	0.01	0.11	0.09	0.12
R^2 change		0.11	0.05	0.14	0.00	0.03
F change		9.81**	4.19*	6.73**	0.00	2.60
Stats change vs.		Model 7	Model 7	Model 7	Model 10	Model 10

Standard errors are reported in parentheses.
† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Hypotheses 5a for threat interpretation. Hypothesis 5b states that managers with high shock distance and high capability perception will have i) higher opportunity interpretation, and ii) lower threat interpretation than managers with low shock distance and high capability perception (the comparison group). The coefficient for 'high shock distance and high capability perception' in Model 14 (Table 4) is positive and significant. Hypothesis 5b is thus supported for opportunity interpretation. The coefficient for 'high shock distance and high capability perception' in Model 17 (Table 5) is negative and significant. Hypothesis 5b is thus supported for threat interpretation.

Hypothesis 6a states that managers with low shock distance and high capability perception will have i) higher opportunity interpretation, and ii) lower threat interpretation than managers with low shock distance and low capability perception (the comparison group). The coefficient for 'low shock distance and high capability perception' in Model 13 (Table 4) is positive and significant. Hypothesis 6a is thus supported for opportunity interpretation. The coefficient for 'low shock distance and high capability perception' in Model 16 (Table 5) is negative and significant. Hypothesis 6a is thus supported for threat interpretation. Hypothesis 6b states that managers with high shock distance and high capability perception will not differ from managers with high shock distance and low capability perception (the comparison group) in terms of their i) opportunity interpretation, and ii) threat interpretation. The coefficient for 'high shock distance and high capability perception' in both Model 15 (Table 4) and Model 18 (Table 5) is not significant (p-value = 0.68 in Model 15 and

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Table 4. Results of regression analyses predicting opportunity interpretation (Hypotheses 5 and 6)

Variables	Model 13 (Hypotheses 5a and 6a)	Model 14 (Hypothesis 5b)	Model 15 (Hypothesis 6b)
Constant	4.51***	5.85***	6.50***
	(0.70)	(0.66)	(0.67)
Age	−0.06	−0.06	−0.06
	(0.09)	(0.09)	(0.09)
Business education	−0.76*	−0.78*	−0.78*
	(0.30)	(0.30)	(0.30)
Mixed education	−0.47†	−0.47†	−0.47†
	(0.27)	(0.27)	(0.27)
Production and operations	0.09	0.09	0.09
	(0.28)	(0.28)	(0.28)
Domain-specific experience	−0.03	−0.03	−0.03
	(0.30)	(0.30)	(0.30)
Intermediate shock distance and high capability perception	1.60**	0.27	−0.38
	(0.50)	(0.43)	(0.47)
Intermediate shock distance and low capability perception	1.14*	−0.19	−0.84†
	(0.54)	(0.46)	(0.49)
High shock distance and high capability perception	2.19***	0.85*	0.20
	(0.55)	(0.45)	(0.49)
High shock distance and low capability perception	1.99***	0.65†	
	(0.56)	(0.49)	
Low shock distance and high capability perception	1.34**		−0.65†
	(0.52)		(0.49)
Low shock distance and low capability perception		−1.36**	−1.99***
		(0.52)	(0.56)
R^2	0.27	0.27	0.27
F	2.64**	2.64**	2.64**
Adj. R^2	0.17	0.17	0.17

Standard errors are reported in parentheses.
† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

p-value = 0.80 in Model 18). Thus, Hypothesis 6b is supported both for opportunity interpretation and for threat interpretation.

In addition, we tested whether managers at each of the three levels of shock distance (low, intermediate, and high) differ in their opportunity/threat interpretations from managers at other shock distance levels. Models 4 (opportunity) and 10 (threat) were rerun after replacing the shock distance variable by two of the three dummies that represent each shock distance level. The findings show that (a) managers at low shock distance significantly differ from managers at high shock distance (p-value = 0.001 for opportunity interpretation and p-value = 0.002 for threat interpretation), (b) managers at an intermediate shock distance significantly differ from managers at high shock distance (p-value = 0.019 for opportunity interpretation and p-value = 0.044 for threat interpretation), and (c) managers at low shock distance significantly differ from managers at an intermediate shock distance (p-value = 0.079 for opportunity interpretation and p-value = 0.082 for threat interpretation).

DISCUSSION

Our study makes several contributions to the ABV. First, whereas prior studies demonstrated variation *across* firms in managerial attention and interpretation (e.g., Cho and Hambrick, 2006), and/or in relation to *different* exogenous shocks (e.g., Hoffman and Ocasio, 2001), we extend this line of research with a theoretical model that explains why managers within the *same* firm and faced with the *same* shock differ in their opportunity versus threat interpretations. Our findings show that divergent desirability and feasibility considerations inside the firm can drive

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Table 5. Results of regression analyses predicting threat interpretation (Hypotheses 5 and 6)

Variables	Model 16 (Hypotheses 5a and 6a)	Model 17 (Hypothesis 5b)	Model 18 (Hypothesis 6b)
Constant	4.80***(0.81)	3.27***	2.58**
		(0.77)	(0.78)
Age	0.04	0.04	0.04
	(0.10)	(0.10)	(0.10)
Business education	0.11	0.11	0.11
	(0.35)	(0.35)	(0.35)
Mixed education	0.30	0.30	0.30
	(0.32)	(0.32)	(0.32)
Production and operations	−0.54†	−0.54†	−0.54†
	(0.32)	(0.32)	(0.32)
Domain-specific experience	−0.01	−0.01	−0.02
	(0.34)	(0.34)	(0.34)
Intermediate shock distance and high capability perception	−1.66**	−0.14	0.56
	(0.58)	(0.50)	(0.55)
Intermediate shock distance and low capability perception	−1.55*	−0.02	0.67
	(0.63)	(0.54)	(0.57)
High shock distance and high capability perception	−2.36***	−0.84†	−0.14
	(0.63)	(0.53)	(0.57)
High shock distance and low capability perception	−2.22***	−0.70	
	(0.65)	(0.57)	
Low shock distance and high capability perception	−1.52**		0.70
	(0.60)		(0.57)
Low shock distance and low capability perception		1.52**	2.22***
		(0.60)	(0.65)
R^2	0.22	0.22	0.22
F	2.00*	2.00*	2.00*
Adj. R^2	0.11	0.11	0.11

Standard errors are reported in parentheses.
† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

variation in attention to opportunity versus threat aspects of a given shock.

By explaining systematic patterns of heterogeneous attention inside the firm, we can increase our understanding of why firms respond differently to shocks. Past research implicitly assumed heterogeneity in actions *across* firms and homogeneity in attention *inside* each firm. Our model suggests that heterogeneity in actions across firms can also result from the interplay among heterogeneous patterns of desirability and feasibility concerns within each firm. This highlights additional insights that can be obtained by complementing past research at the industry and firm levels of analysis with research at the within-firm, individual level.

Second, this research proposes and tests two novel and specific attentional drivers: shock distance and capability perception. Thus, our approach follows Simon's (1947) dual emphasis on structure and cognition, which was later applied in the ABV (Ocasio, 1997). On the one hand, *shock distance*, which stresses the role of varying interests inside the firm (the desirability dimension), is a specific mechanism by which structural positions can regulate attention. Bouquet and Birkinshaw (2008) suggested that the attention paid by senior executives to a particular firm subunit depends on that subunit's 'weight,' in terms of its structural position in the corporate system. Our model complements this in at least two ways. First, we show that an additional structural aspect that affects attention within a firm is the distance of a subunit to a focal exogenous shock; that is, *shock distance*. Second, the focus in our research is on the attention paid externally by managers within a subunit, rather than how attention is paid to a subunit by managers external to it.

On the other hand, the role of *capability perception* (the feasibility dimension) in our findings emphasizes the importance of considering

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cognitive drivers in addition to the attentional drivers previously suggested (Ocasio, 1997). Recent research has argued for the need to complement the traditional structural view of attention with a more cognitive perspective. As stated by Barnett, 'the mental model of the individual decision maker is not considered' and, in consequence, past research assumed that 'one person would respond the same as any other to the ways in which a firm's attention structures and channels distribute attention to him or her' (2008: 611). This paper begins to address that important gap. In addition to a structural attentional driver, *shock distance*, we also consider a cognitive attentional driver, *capability perception*. Cognitions refer to 'the belief systems [or mental models] that individuals use to perceive, construct and make sense of their world' (Swan, 1997: 185), and past research argued that the resulting perceptions can shape individuals' attention (Barr *et al*., 1992; Swan, 1997). In this research, 'capability perception' captures perceptions generated by differentiated cause-effect beliefs (about resources and capabilities), which are a relevant mental model in strategy research (Nadkarni and Barr, 2008). In fact, our results show that the homogeneity assumption implicit in the past literature, and referred to by Barnett (2008), should indeed be reconsidered: different managers inside the same firm can hold different (capability) perceptions, and this cognitive heterogeneity can induce differentiated attention toward crucial aspects of an exogenous shock.

Third, our findings shed preliminary light on the interplay between different categories of attentional drivers, an issue anticipated but not yet explored in the field (Barnett, 2008; Ocasio, 1997). Specifically, our results show the existence of subordinating effects between shock distance and capability perception. A change from low to high in shock distance (the superordinate factor) produces a significant attention shift toward opportunity aspects (and away from threat aspects) regardless of the magnitude of capability perception. In contrast, a change from low to high in capability perception (the subordinate factor) produces a significant effect only when shock distance is low (i.e., when shock distance is not driving attention toward opportunity aspects and away from threat aspects). These findings suggest that attentional drivers related to the 'why' (desirability) questions, such as those relating to managerial interests, are important irrespective of 'how' (feasibility) questions. In contrast, the attentional drivers related to the 'how' (feasibility) questions are consequential only when attentional drivers related to the 'why' (desirability) questions are at low levels.

Fourth, this study increases our understanding of the role that managerial experience can play in directing organizational attention. Whereas research in the strategy field has long acknowledged the importance of managerial experience in organizational processes (Walsh, 1995), few efforts have been made to integrate the role of managerial experience into the ABV of the firm (c.f., discussion of controlled versus automatic processing in Ocasio, 1997). Our findings show that *domain-specific experience* moderates the effects of capability perception on managerial attention but not the effects of shock distance. That is, domain-specific experience appears to influence the impact of feasibility considerations (where there is a logic of beliefs) but not the effect of desirability considerations (where the logic of interests dominates). These results not only provide support for the argument that experience can influence a manager's confidence in their beliefs (but not their interests) but also highlight possible important asymmetries in the role played by moderators in managerial attention models based on desirability and feasibility variables.

This study has limitations that might be investigated in future research. First, in order to control for firm and industry effects, we limited our analysis to a single firm in a single industry. Future research should attempt to replicate these findings in other settings. Second, we tested our hypotheses in a large, multibusiness firm (albeit with all businesses operating in the same industry). It would be interesting to see whether our findings still hold either in smaller and more focused firms (as in the case of a single-business firm) or, alternatively, in more industry-diversified firms (as in the case of conglomerates). Third, a boundary assumption of our theory is that it addresses *major* exogenous shocks, that is, shocks that are highly visible and consequential for the firm as a whole, such as an industry deregulation. Future research should investigate whether our theory still holds for shocks that are more limited in their effect, in terms of being visible and consequential to only a subset of the firm.

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CONCLUSION

Past research on organizational attention to exogenous shocks tended to assume homogeneity in attention patterns inside the firm. This study suggests that managers in the same firm may differ in their attention to opportunity versus threat aspects of the same exogenous shock. Our analysis of managerial interpretation in the midst of an ongoing, major deregulation shows that crucial predictors of heterogeneous intraorganizational attention to opportunity versus threat aspects include shock distance, which corresponds to desirability considerations, and capability perception, which relates to feasibility considerations. Our study suggests that using an individual level of analysis, and considering both the logic of interests and the logic of beliefs, can improve our understanding of managerial attention patterns.

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