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CEO Ambivalence and Responses to Strategic Issues

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We examine how executives' ambivalent evaluation of a strategic issue relates to organizational actions taken in response. Ambivalence occurs when a decision maker evaluates an issue as simultaneously positive and negative, a state that has received scant attention in organizational research. We integrate findings in social psychology with the behavioral theory of the firm to suggest how executives' ambivalence prompts wider and more vigorous search for action responses and enables broader participation. Data from a two-wave survey of 104 German CEOs who evaluated the enlargement of the European Union in 2004 and reported their organizations' responses show that organizations whose CEOs evaluated the event as both positive and negative were more likely to take action when both evaluations were also strongly held. The reported actions were also of greater scope, novelty, and riskiness. The study contributes to research on organizational decision making by theorizing the role of top executives' ambivalence and by providing a first systematic test of how ambivalence affects responses to strategic issues.

Key words: ambivalent evaluations; organizational action; behavioral theory of the firm
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Introduction

Decision-making-based approaches to organizations have so far paid little attention to the phenomenon of ambivalence, which refers to decision makers seeing an issue as simultaneously positive and negative for their firm (Kaplan 1972). Organizational decision-making research acknowledges the importance of framings through which executives interpret changes in the organizational environment for organizational responses (Gioia and Thomas 1996; March and Olsen 1976; Weick 1979, 1995). Much of this work has focused on evaluations of issues as positive or negative. These evaluations are fundamental framings that activate distinct cognitive and behavioral repertoires—for example, those associated with approach and promotion (positive) or withdrawal and prevention (negative) (Cacioppo et al. 1997, Higgins 1997). However, organizational research has usually assumed that executives and other decision makers classify an issue as either positive or negative (Chattopadhyay et al. 2001, Dutton and Jackson 1987, Ocasio 1995, Sharma 2000, Thomas et al. 1993). In contrast, attitude research has shown that issues or events can also be evaluated ambivalently, as positive and negative at the same time (Cacioppo and Berntson 1994, Kaplan 1972, Katz and Hass 1988). Such ambivalence is a distinctive state that prompts deliberation and primes response repertoires associated with positive and negative attitudes simultaneously (Cacioppo et al. 1997, Larsen et al. 2001, Williams and Aaker 2002).

The inattention to ambivalence in decision-based theories of organizations presents a missed opportunity because the link between stimulus evaluation and response repertoires identified in attitude research parallels organizational decision-based theories' tenet that the framing of a problem guides search and matching processes, resulting in particular action routines (Cohen et al. 1972, Ocasio 1995). If ambivalence leads to unique individual behaviors, it can also be expected to be consequential for organizational actions. Although a few studies have discussed situations that provide cues about the relationship between ambivalent evaluations and organizational responses, researchers have not systematically theorized and tested this relationship. March (1994) and March and Olsen (1976), for example, identify the importance of executives' holding competing evaluations as one source of ambiguity and learning in organizations. Gilbert (2006) proposes that a CEO's framing of an environmental shift in positive and negative terms facilitates organizational change.

The theoretical argument for this effect on responsiveness and adaptation is twofold. First, ambivalent evaluations activate a broader set of cognitive approaches associated with, respectively, positive and negative evaluations and propel the search for creative responses through emotional arousal and alertness (Fong 2006, Piderit 2000). Second, executives' ambivalence in evaluating environmental changes invites wider participation in organizational decision making, providing access to a larger pool of knowledge and action routines (Baier et al. 1986, Gioia 2006, March and Olsen 1976). Ambivalent appraisals by executives may, therefore, enhance mindfulness and adaptability (Fiol and O'Connor 2003, Weick et al. 1999), a proposition supported by case research on organizational responses to technological discontinuities (Gilbert 2006).

These recent studies are suggestive about the phenomenon of ambivalent evaluations in organizations' decision making. However, there is no systematic model of the mechanisms by which executives' ambivalence promotes organizational responsiveness, adaptation, and mindfulness, a lack that is at least in part because the concept of ambivalence has not been integrated into existing models of organizational decision making. Moreover, the empirical evidence for the link between ambivalence and organizational action also remains limited. This paper addresses both issues. We elaborate the concept of ambivalent evaluations within a model of organizational decision making in the tradition of the behavioral theory of the firm (Cyert and March 1963). Research in this tradition already contributes a general set of processes that links events in the environment to organizational actions via executives' interpretive framings: Action arises from search processes that match issues ("problems") to specific actions selected from the organization's "solution space" of response routines. In this process, executives' evaluations of an issue guide organizational action through two general pathways. In one pathway, response routines already developed for similarly evaluated issues can be matched with and applied to the current situation (Cyert and March 1963, Ocasio 1997). In the other pathway, evaluations of top executives help or hinder collective mobilization and coalition building, thereby influencing action at the organizational level (Cyert and March 1963, Gilbert 2006, March and Olsen 1976).

Research in the tradition of the behavioral theory of the firm thus allows us to connect the degree of ambivalence in executives' evaluations to the likelihood that their organization will act in response to an issue as well as to predict the type of response in terms of scope, novelty, and perceived risk. At the same time, this integration allows us to address collective cognitive and political processes that are largely absent in individual-level and experimental studies of ambivalence. We develop and test hypotheses about the relationship between CEO ambivalence and organizational action in the empirical setting of the 2004 European Union (EU) enlargement. This event, in which several Eastern European countries joined the single market, received almost universal attention in the German business community and was considered an issue of strategic significance for almost all firms because it opened new markets and heightened competition near the companies' home bases.

The paper's contribution is theoretical and empirical: First, we answer calls to integrate recent advances in social psychology and organization theory into the behavioral theory of the firm (Gavetti et al. 2007). Unpacking the role of executives' ambivalence for organizational action taking expands the microfoundations of decision-theory-based models of organizational action. In addition, we add to a more open systems perspective of organization-environment relations within the behavioral theory of the firm by further unpacking the interplay between external events and internal processes in producing organizational action. Finally, we shed light on the benefits of ambivalence suggested in recent organizational theorizing by testing the relationship between CEO ambivalence and organizational action in what is, to our knowledge, a first larger sample study.

Theory: Ambivalence and Action

How do ambivalent evaluations of strategic issues by top executives trigger and shape organizational action responses? To answer this question, we first expand our discussion of the concept of ambivalence. Based on this micropsychological foundation, we then outline the general mechanisms through which evaluative ambivalence influences organizational decision-making processes, leading to action in response to environmental issues. Ambivalence describes an individual's experience of competing reactions toward an issue or object—for example, when a person simultaneously attaches positive and negative valence to an issue (Boehm 1989, Conner and Sparks 2002, Kaplan 1972, Weigert and Franks 1989).[1] Evaluative ambivalence not only taps into alternative cognitive schemas associated with these evaluations but also attaches corresponding emotional tags of "good" and "bad" to the issue (Fiske and Taylor 1991). Thus, evaluations fuse "cold" analytic assessments with "hot" affective reactions (Shook et al. 2007). Individuals arrive at an overall evaluation by assessing an issue's various attributes and aspects (Petty et al. 2007, Shook et al. 2007). Ambivalence entails seeing some positive and some negative aspects in the same issue, but it is additionally characterized by an overall emotional experience that arises from the integrated, *holistic* assessment of the issue (Cacioppo et al. 1999, Lavine 2001). It is the combination of aspects and the resulting overall sense of the issue that sets in motion the processes associated with ambivalence (Cacioppo et al. 1999).

Prior organizational research on issue evaluations often took as its conceptual starting point the idea that executives classify an issue as simply positive or negative (Dutton and Jackson 1987, Jackson and Dutton 1988). Evaluations of positive and negative are, together with controllability, the dimensions underlying the threat-opportunity labels frequently used in strategic issue diagnosis (Dutton and Jackson 1987, Thomas and McDaniel 1990). Previous research has theorized the effects of threat and opportunity labels on organizational action (Dutton and Duncan 1987, Ocasio 1995). One can understand "strategic issues," as used in interpretive research on strategic issue diagnosis (Barr 1998, Dutton and Jackson 1987), as "problems" in the terminology of the behavioral theory of the firm (Cyert and March 1963).

Our conceptual approach differs from this research in that we do not base our analysis on more comprehensive categorical labels of threat and opportunity or on an evaluation continuum from negative to positive. Instead, we examine the degree to which an issue is framed as simultaneously positive and negative—in other words the ambivalence of the evaluation—and explore how that influences organizational action taking.[2] This conceptual approach is supported by findings in attitude research, which identifies evaluative valences as influential "psychological primitives" that come before labels (Russell 2003) and which has also concluded that a bipolar conceptualization of evaluations as ranging from positive to negative is "insufficient" to capture the actual cognitive processes involved in evaluation (Cacioppo et al. 1997, p. 6). Several studies have demonstrated that positive and negative attitudes are correlated but fundamentally orthogonal dimensions because they tap into different cognitive approaches and states (Costarelli and Colloca 2004, Eagly and Chaiken 1998, Hänze 2001, Jonas et al. 1997, Kaplan 1972, Katz and Hass 1988, Thompson and Zanna 1995, Thompson et al. 1995).

Discrepant evaluations of different aspects and ambivalent assessment of the overall issue work in concert to trigger more expansive cognitive processes and shape action. Positive and negative evaluations trigger different cognitive approaches, as in, for example approach versus avoid (Cacioppo et al. 1999, Higgins 1997). Hence when different aspects of the same issue are evaluated as alternatively positive and negative, the search for action responses includes both approaches and accesses a wider space of potential responses. By contrast, the evaluation of different aspects as either all positive or all negative triggers less diverse search approaches, even when the same number of subaspects is considered. Ambivalence in evaluation therefore differs from simply seeing an issue in greater detail. It is distinct because the core action-generation mechanism is tied to the evaluation, not the complexity, of perceptions and because it addresses the question of integration of different subaspects.

This research also suggests that although positive and negative evaluations do co-occur, such ambivalence is rare compared to more routine, clearly positive or negative evaluations (Cacioppo et al. 1999, Larsen et al. 2001, Russell and Carroll 1999, Williams and Aaker 2002). The general unusualness of attitude ambivalence derives from dual processing theories of cognition (Chaiken and Thorpe 1999), which suggest that most issues are processed quickly and result in simple positive or negative evaluations. Ambivalent assessments are exceptions, which is why they create emotional arousal, heightened alertness, and a sense of unusualness that in turn prompt a more creative and deliberate search for responses (Fong 2006). In this light, existing organizational research concerned mainly with unambivalent evaluations (e.g., Dutton and Jackson 1987) can be cast as focusing on more automatic, routine forms of processing, at the expense of a more deliberate form.

Although models of ambivalence in social psychology sharpen our understanding of basic individual cognitive processes, they rarely touch on organizational contexts where issues such as coordination, reliability, and goal alignment are central. To discuss how a CEO's evaluative ambivalence affects organizational actions, we therefore turn to the behavioral theory of the firm and its extensions (Cohen et al. 1972, Cyert and March 1963, March and Olsen 1976, March and Simon 1958, Nelson and Winter 1982, Ocasio 1997). Research in this tradition has been interested not only in organizational action taking per se but also in the nature of the actions that follow events; for example, several studies have examined risk taking and the scope of actions (Audia and Greve 2006; Baum et al. 2005; Greve 1998, 2003; Singh 1986). Cyert and March (1963, p. 214) identify the core of the behavioral theory of the firm as based on the ideas of bounded rationality, imperfect environmental matching, and unresolved conflict. We suggest that the concept of ambivalence can specifically be related to bounded rationality and unresolved conflict.

Decision makers in organizations are confronted with complex environments and large amounts of information but have limited cognitive capacities to search and process information (Simon 1955). Hence individuals cannot process all potential information "rationally," that is, accurately and comprehensively (March and Simon 1958, Simon 1978). As a consequence of this *bounded rationality*, organizations simplify decision making with the help of belief structures and heuristics (Cyert and March 1963, Gavetti and Levinthal 2000, Levitt and March 1996); repertoires of schemas, frames, and categories (Ocasio 1997); and collective behavioral routines (Nelson and Winter 1982). In combination with organizational rules and standard operating procedures, this simplification usually leads to *simple-minded search* (Cyert and March 1963, p. 170), search for responses to a problem that begins (1) close to the problem and (2) close to response alternatives already used to address similar problems.

Framings, such as evaluations, facilitate the activation of action routines in two ways: by bracketing and describing the issue in a more specific way and by linking it to analogous issues for which the same evaluation was used in the past. Framing new issues in terms of commonly used positive and negative evaluations creates a resemblance between the present issue and others stored in organizational memory. This process of matching-by-analogy brings to the fore general approaches and specific action routines associated with experiences of similar valence, be they current (Cyert and March 1963) or learned in the past (March and Simon 1958, p. 160). The initial evaluation of an issue as positive or negative thus influences both the search for action responses and the likelihood of finding matches. Not only do evaluations make salient prior solutions to issues that were evaluated similarly (Cacioppo et al. 1999, Higgins 1997), the emotional tags associated with valences also aid both storage and retrieval (Park et al. 1986). In traditional versions of the behavioral theory of the firm, these mechanisms make understanding a problem and responding to it more routine and less cognitively taxing. Only issues that cannot be readily framed along experiential dimensions trigger search "aimed at discovering alternatives of action" (March and Simon 1958, p. 160). These unusual issues trigger more involved search for special responses.

The concept of ambivalence suggests that unusualness is experienced not only when an issue cannot be understood within existing frames but also when it is framed within existing dimensions but in contradictory terms. How do ambivalent interpretations generate action under bounded rationality? Applying distinct and competing evaluations to an issue leads to the activation of cognitive structures and action approaches associated with both evaluations (Cacioppo et al. 1999, Higgins 1997). At the same time, emotional arousal and a feeling of being in an unusual situation are triggered, which interrupt routine processing and lead to more deliberate and distant search for potential responses (Fong 2006). Evaluations by organizational leaders are also likely to prime other decision makers' assessments so that those exposed to this influence use similarly broad cognitive approaches.

The second core idea of the behavioral theory of the firm is related to the collective politics of organizational action (Cyert and March 1963, March 1962). "The existence of differences in goals or differences in perceptions or both" can cause conflicts between decision makers and larger coalitions (March and Simon 1958, p. 156). These differences are not fully resolved, so pervasive latent conflict persists in organizations (Cyert and March 1963, pp. 214–215). In response, organizations form formal units and informal coalitions that subdivide complex, interrelated problems into a "number of simple problems." This not only reduces the cognitive effort of comprehending and responding to a new issue but also controls latent conflict between coalitions by reducing their interdependence (Cyert and March 1963, p. 165). However, the partial segmentation of the organization into coalitions also means that knowledge, resources, and action routines are distributed across groups and can only be accessed with their cooperation. Therefore, the search for responses to new issues, as well as the implementation of any decisions, requires the mobilization and alignment of coalitions. Different groups need to participate in search and action routines but may well hold conflicting interpretations and interests. Strategic issues are acted on only when collective commitment can be mobilized for a course of action or when the issue can be delegated to a particular unit with coherent views. In this political-cognitive view of organizations, top executives take on the role of political brokers and integrators (Cyert and March 1963, March 1962).

One key mechanism through which top executives' ambivalent evaluations foster organizational action is through increased organizational mobilization and participation. Changes in the organization's environment are likely to be seen as having largely positive implications for some units and more negative implications for others. Ambivalence at the top facilitates broad participation because it is more tolerant of decentralized framings and initiatives. Ambivalent assessments are more likely to accommodate different groups' divergent evaluations. This mechanism is supported, for example, by Gilbert's (2006) study of how different units within a publishing company evaluated and responded differently to digital technology. These differences were enabled by the CEO holding positive and negative evaluations at the same time. A second mechanism has to do with commitment or resistance to the implementation of organizational action (see, e.g., Piderit 2000). The more participatory process of search and consensus building generates a greater sense of ownership of decisions and hence increases commitment to implementation.

Bounded rationality and unresolved conflict point to the more fundamental place of ambivalence within theories based on the behavioral theory of the firm. The ideas of bounded rationality and unresolved conflict both suggest that the principle of separation reduces the complexity of organizations. This separation is both temporal (e.g., sequential attention) and spatial (e.g., specialized subunits and cognitive subtasks). However, organizations, at some point, need to (re-)integrate these components because conflict resolution and cognitive simplification through a separation of tasks remain incomplete. The concept of ambivalence addresses key processes at this point of integration, where conflicting evaluations are brought in contact. Integration can be aided through complex routines such as corporate planning, but it is also central to the work and structural role of general managers and executives (Merton 1976). Before developing hypotheses about how a CEO's ambivalence influences specific action dimensions through the general mechanisms associated with bounded rationality and coalition dynamics, we provide a brief description of the empirical setting of our study.

Empirical Setting: European Union Enlargement

In May 2004, Cyprus, Malta, and eight Central European countries—Hungary, the Czech Republic, Slovakia, Poland, Slovenia, Estonia, Latvia, and Lithuania—gained member status in the EU. In joining the EU, the 10 new member states accepted the *acquis communautaire*, the treaties and regulations passed by the European Union institutions and judgments defined by the Court of Justice. As a consequence, most prior existing restrictions between the new and the old member states have been eliminated. Goods and capital markets were liberalized, barriers to foreign direct investment were abolished, and the free flow of goods and services across borders became possible. Firms from both old and new member states could invest in, import, and export to all 25 member states without limitations.

In 2003 and 2004, the EU enlargement was a salient strategic issue that almost all key decision makers in German firms followed closely. It was extensively discussed in the media and the business press, and its implications for businesses provided the subject of numerous high profile industry association studies and conferences. On the one hand, some people saw the high growth among the acceding states, coupled with liberalized markets, as creating export opportunities for German firms' products and services. The acceptance of higher environmental standards and the necessary modernization of many facilities in the new member states were expected to stimulate demand. At the core of this demand would be high quality capital goods and services that were specialties of many German firms. On the other hand, others emphasized that the opening of domestic markets would intensify competition with firms from the new member states that paid lower wages and were located close to Germany. Whatever the net effect for a specific firm, the 2004 EU enlargement was a salient issue of major immediate and long-term strategic implications for German firms. It is highly unlikely that executives did not pay attention to this issue.

Firms responded to the EU enlargement in a variety of ways. Some of the firms that we studied acquired former competitors in the new member states; others built production plants or began to source materials from these markets to take advantage of lower factor costs or brace themselves for low-cost competition. Many companies also wanted to intensify their sales activities in these countries and formed strategic alliances with firms in Eastern European countries, opened local sales offices, or licensed their products and services to firms that were well established in these new markets.

Hypotheses

CEO Issue Ambivalence and the Likelihood of Organizational Action

Top executives' evaluations of an issue are of particular importance for the organization. Not only do executives hold power over organizational resources required to take action, but also their framings also provide important cues for the sensemaking efforts of other decision makers (Barr 1998, Dutton 1993, Dutton and Jackson 1987, Gioia 2006, Gioia and Chittipeddi 1991, Hambrick and Mason 1984, Thomas et al. 1993). Because top-level executives exercise a formal leadership role and are a focus of attention, their framings are contagious to other members of the organization. This is important because the overall stock of experience and potential action responses to an issue is usually distributed across a broad set of people (Cohen 1994). As discussed above, matching the framing of the current issue with analogous framings of past and parallel issues facilitates action responses. It follows that a CEO's simultaneous evaluation of an issue as positive and negative makes available for consideration a broader set of potential knowledge and responses not only in herself but also in others who take cues from her behavior. Activating partially competing cognitive approaches leads to divergent search strategies and causes emotional arousal (Cacioppo et al. 1997, Festinger 1957, Priester and Petty 2001, Williams and Aaker 2002). The resultant combination of emotional energy and breadth of approaches in the search for action responses increases the chance that the CEO herself, or others influenced by her, will initiate organizational responses. Organizational research on seasoned executives in fast-moving decision environments similarly suggests that when urgency to act is high, decision makers may reap the benefit of the broader response repertoire activated by ambivalence without a potential loss from indecision in the face of too many alternatives (Eisenhardt 1989).

Organizations also consist of different subunits that often do not share the same goals or perceptions (Cyert and March 1963, March and Simon 1958). In light of their goals, subunits may hold different evaluations of a strategic issue—positive, negative, or ambivalent—that may then lead to the selection of diverse response initiatives. Holding an ambivalent overall evaluation enables a CEO to accept the existence of divergent evaluations. Ambivalence prevents her from confronting subunits with diverging views and from suppressing response alternatives that could have been considered. Even when each unit applies unambivalent framings and sees the issue as simply positive or negative, conflict and tensions are less likely to arise at the point of integration in corporate management. Ambivalence thus averts friction over issue framings between subunits and the CEO and empowers subunits to develop their own responses.

Executives' ambivalence about an issue makes collective commitment easier in the face of contrasting evaluations among coalitions (March and Simon 1958, p. 156). Each unit can retain a framing that it developed against the background of its goals and can follow the response alternatives that it selected. Ambivalence allows subunits to become more proactive and committed to issue framings and actions and enables initiatives based on different approaches to coexist. As a result, the CEO gains access to a larger set of collective responses, which increases the chance that one or more action routines will be seen as matching the problem in hand. The organization benefits from more people contributing their knowledge and potential action solutions (Baier et al. 1986, Bartunek et al. 1983, Gilbert 2006).

In combination, these arguments suggest that ambivalent evaluations of an issue enable executives to consider a broader action repertoire, prompt others to do the same, reduce potential conflicts, and achieve wider participation of different subunits. This leads us to hypothesize the following:

Hypothesis 1 (H1). *The more ambivalently the CEO evaluates an issue, the more likely the firm is to act on it.*

The general mechanisms that link CEO ambivalence to the likelihood of organizational responses also affect the properties of the action taken. The combination of more diverse search approaches, a sense of unusualness, access to broader response repertoires, and wider participation by more diverse groups affects the scope of action as well as its perceived risk and novelty. Examining those qualities of action can, therefore, provide some proximate support for the mechanisms discussed above.

CEO Issue Ambivalence and the Scope of Action

If the degree of ambivalence affects the likelihood of action by widening the set of responses considered, broadening participation in search processes, and fostering commitment to multiple local solutions, these mechanisms ought to influence the scope of action in a parallel fashion. CEOs that see a strategic issue ambivalently access competing search and response routines—based, e.g., on action responses for both approach and avoidance (Cacioppo et al. 1999). Hence a wider space of potential responses becomes available. Evaluating a strategic issue simultaneously as positive and negative also lets executives experience a feeling of unusualness and arousal (Aaker et al. 2008, Williams and Aaker 2002). Executives that see some positive and some negative aspects in a strategic issue bring into contact contrasting evaluations and action repertoires that are usually separated (Jonas et al. 1997). This experience results in an increase of cognitive effort and motivates deliberate, and often more distant, search (Fong 2006, Jonas et al. 1997). As ambivalent evaluations trigger more diverse cognitive and behavioral approaches and motivate distant search and action taking, the likelihood of finding multiple responses that match the issue increases, just as the likelihood of finding one match does. The same argument applies at the collective level to others influenced by the CEO's framings.

Her ambivalent evaluation of the issue also allows the CEO to reconcile divergent evaluations by different subunits and facilitate the exchange of information. By doing so, the top decision maker avoids exclusion of any unit, facilitates information sharing, and allows wider participation (Gilbert 2006). If more groups and subunits see a chance to develop their own framings and solutions to the issue, the overall scope of the action response is likely greater than without their input because more specialized units are involved. For example, a company may not only open sales offices in the new EU member countries but also look for sourcing and manufacturing opportunities and combine these efforts with local alliances. Another likely result of more active and wider participation is stronger support and commitment for actions that are ultimately decided on. The likely scope of the overall response increases with the number of potential action responses considered and the commitment to effectively implementing them. CEO ambivalence is beneficial for both. These arguments lead to the following hypothesis, parallel to H1:

Hypothesis 2 (H2). *The more ambivalently the CEO evaluates an issue, the greater the scope of actions taken in response.*

CEO Issue Ambivalence and the Perceived Riskiness and Novelty of Action

According to Cyert and March (1963, pp. 121–122) decision makers search for solutions to a problem in the vicinity of other problems that were framed analogously. Individuals and organizations thus access common solutions when faced with common situations that are clearly positive or negative (Ocasio 1995). At the individual level, this commonality of unambivalent situations manifests itself in the development of distinct cognitive and behavioral routines for those common framings (Cacioppo et al. 1999). At the organizational level, it manifests itself in performance programs of routines and strategic orientations designed either to fend off competitive threats or to take advantage of opportunities (Dutton and Jackson 1987, March and Simon 1958, Miles 1982, Ocasio 1995, Pentland 1995). Because action generation involves the search for solutions that match the problem, CEOs with an unambivalent evaluation of an issue can access a repertoire of responses previously applied to issues evaluated in similarly positive or negative terms. A response that has been used before is associated with expected outcomes. As a consequence, the CEO is more likely to perceive an action taken in response to a clearly positive or clearly negative event as less risky.[3]

More ambivalent evaluations prevent decision makers from relying on prior experiences because response routines for *both* approach and avoidance are elicited and the situation is seen as *unusual*. Ambivalent evaluations of an issue may therefore trigger "increasingly complex (distant) search" (Cyert and March 1963, p. 170) processes, either for novel combinations in the current knowledge structure or for totally new solutions. In addition, as described before, the CEO's evaluative ambivalence not only triggers arousal and the associated search for novel solutions but also allows more people to explore and express their understanding of the issue and to participate in finding solutions. As a result, the organization collectively has access to more diverse solutions and to more unusual combinations of action responses (Cohen et al. 1972, March and Olsen 1976). On balance, the organization moves from an exploitation mode, relying on existing routines to address the issue, toward a greater degree of exploring new actions and combinations (March 1991). Not only are any resulting responses likely to be seen as more novel for the firm, but also they are likely to be perceived as involving greater risk because experiential knowledge about the success of this type of action is rare. Because perceptions of risk and novelty in the implemented actions are both driven by the same mechanisms, we expect CEO ambivalence to have a corollary effect on both:

Hypothesis 3A (H3A). *The more ambivalently the CEO evaluates the issue, the more risky he or she perceives the actions taken in response to be.*

Hypothesis 3B (H3B). *The more ambivalently the CEO evaluates the issue, the more novel he or she perceives the actions taken in response to be.*

Method

Data and Sample

We tested the hypotheses with survey data. Consistent with prior research, we focused on the CEO as the focal point because in a firm he or she is most responsible for taking or initiating actions in response to strategic issues (Chattopadhyay et al. 2001, Denison et al. 1996, Hambrick and Mason 1984, Thomas and McDaniel 1990). We collected two waves of data to reduce the possibility of reverse causality. During the first phase, in May and June 2004, we used a structured questionnaire to obtain data on the CEO's evaluation of the EU enlargement in 2004 and on the control variables. With the use of a random-factor generator, we initially selected 1,100 firms from the Hoppenstedt database.[4] We then contacted each executive by telephone and asked for his or her participation. In all, 853 managers agreed to participate and received the survey instrument by mail. After the initial mailing and one follow-up round, we received 355 completed questionnaires. Twelve of the received surveys were excluded because they were not filled out by the CEO or were incomplete. The first phase resulted in a sample of 343 usable questionnaires, representing a 32 percent response rate. We mailed the second survey in September and October 2005 to the 343 CEOs who had responded with usable questionnaires in 2004. In this survey, we asked the executives about their firms' actions initiated specifically in response to the EU enlargement. Based on a two-wave mailing process, we received 109 completed questionnaires. Five questionnaires were incomplete, so the final sample of this study consists of 104 questionnaires, a 30% return rate over the initial sample.

The participating firms had on average 2,237 employees and had existed for 48 years. They ranged in size from 14 to 51,314 employees and in age from 3 to 227 years. Approximately one-half of the sampled firms was involved in manufacturing; the other half was involved in service activities. To test for nonresponse bias, we compared responding and nonresponding firms in each of the two phases on firm size and age in 2003. The results of a t-test showed that in each phase the two groups were not significantly different regarding these characteristics. Finally, we analyzed whether the responding and nonresponding firms in the second wave differed in their evaluation of the EU enlargement in 2004. Again, the results of a t-test revealed that the two groups did not differ with respect to the analyzed variables. The data used in hypotheses tests was therefore broadly representative of the sample of firms we originally asked to participate.

Measurement

Both survey instruments included single and multi-item scales with seven-point Likert response formats. The scales were adopted or adapted from previous studies. They were originally worded in English and translated into German. Two German researchers translated items from English into their native tongue, an approach based on the assumption that these individuals have great facility with their native language and can identify discrepancies in translation resulting either from differences in word meanings or from grammar-based misunderstandings in the translated versions.

The first survey instrument was pretested in two steps. During the first step, we directly presented the questionnaire to 10 CEOs from seven different industries. We asked them to examine the face validity of the questions and to comment on the clarity of the survey instrument's language. Based on their feedback, we made minor changes to the questionnaire. In the second step, we selected 100 firms from the Hoppenstedt database with the use of a random-factor generator. We send the questionnaire to 74 executives after asking them for participation. These informants were also asked to comment on the face validity of the questions and to provide feedback about the clarity of the language. Based on their feedback and the analysis of the pretest data, we again made minor modifications. The data collected during the pretest was not used in the test of the hypotheses in the main study. The measures used in the final survey instrument and their factor loadings are presented in the appendix.

Ambivalence. We measured the degree of positive and negative evaluations of the EU enlargement in the first survey with two items each, adopted from the work of Thomas and McDaniel (1990). The interitem reliability (Cronbach's alpha) was 0.91 for the positiveness scale and 0.80 for the negativeness scale.

In the social psychological literature on attitudinal and emotional ambivalence, ambivalence is most commonly conceptualized as the additive term of two dimensions: similarity and intensity (Fong 2006, Priester and Petty 1996, Thompson et al. 1995). The similarity-intensity model (SIM) captures the degree to which opposing evaluations of an issue are similar in magnitude (similarity) while also taking into account how strong the combined evaluations are on both dimensions (intensity). Ambivalence is greater when positive and negative evaluations of an issue are about the same and when these evaluations are stronger. This measure has been popular because it appears to correspond well to subjectively experienced levels of ambivalence under most conditions (Priester and Petty 1996, 2001). When used as a dependent variable, the two dimensions are usually combined into a single similarity-intensity measure, calculated as $A = (D + C)/2 - (D - C)$, where D is the dominant evaluation (positive or negative) and C is the competing evaluation (positive or negative). Because we use ambivalence as an independent variable, we decided to use the two component measures of similarity, $-(D - C)$, and intensity, $(D + C)/2$, instead.[5] This approach is preferable because it imposes fewer constraints on the hypothesized pattern of coefficients while retaining the theoretical dimensions and allowing for a test of the overall similarity-intensity construct (Edwards and Parry 1993). In terms of mechanisms, the similarity component primarily concerns the cognitive activation of both approach and avoidance response repertoires, whereas the intensity component taps more into the emotional sense of "torn-ness" and unusualness. We also tested a multiplicative functional form by creating interaction terms between the two dimensions. This allowed us to examine differences in the effect of similarly positive and negative evaluations at low and high levels of intensity. We mean-centered both variables to create the interaction term. The interaction term's correlation with the two main effects is 0.33 and 0.14, respectively.

Dependent Variables

In the second survey instrument, we asked the executives whether their firms took any actions specifically in response to the EU enlargement, and we created a categorical variable where any action was coded as 1 and no action was coded as 0. If the CEO's firms had acted in response to the EU enlargement, we asked the respondents to further describe those actions. With one item each, we assessed the scope of the action (ranging from 1, very small, to 7, very large), as well as its perceived riskiness (ranging from 1, very small, to 7, very high) and novelty for the firm (ranging from 1, continued existing activities, to 7, completely new). The items are reported in the appendix.

Although we used single items to assess scope and perceived risk, we could confirm at least the face validity of the measures with reference to the free-format descriptions of actions also reported in the survey. For example, actions reported as large in scope (scores of 6–7) typically included the creation of several new country subsidiaries, significant increases in local manpower, major investment in facilities, and the creation of entirely new supplier bases and distribution channels. Companies that reported medium scope actions (scores of 3–5) listed the acceleration or expansion of existing activities in the new member countries (distribution, supply networks), the creation of alliances, and modified pricing strategies. Actions reported as small in scope (scores of 1–2) included market research, the development of new informal connections, and limited expansions of manpower and activities in new member countries.

We also chose to use subjective assessments of actions over external measures, such as reported financials or prespecified categories, because what constitutes meaningful action may vary widely by company size, history, industry, and reference group. It seems difficult to establish either a general threshold for action per se or for the quality of action as wide in scope, novel, and risky without detailed knowledge of every firm. In addition, we needed to capture action that was directly connected to the event versus initiatives or financial measures shown in reports but not clearly attributed to EU enlargement.

Control Variables

Performance. A firm's current performance level compared to others is likely to affect the intensity of search processes and dimensions of action taking (Greve 1998). In the first survey wave, we used a perceptual measure of how the CEO assesses the organization's performance relative to its peers. We relied on a subjective measure of performance because archival data for nonpublic firms is lacking and because subjective comparative performance assessments offer a more immediate and firm specific measure of aspirations and the perceived need for action than accounting measures. The two survey items measuring firm performance were adapted from the work of Venkatraman and Ramanujam (1987) and Bowman and Ambrosini (1997); they asked respondents to rate their company's sales growth and profitability (ROA, ROI) relative to their main competitors. The coefficient alpha for the scale was 0.81.

Slack Resources. Available slack provides the organization with resources to take actions (Singh 1986). To measure a firm's available slack resources, we used a scale developed by Chattopadhyay and his colleagues (2001). The coefficient alpha for this scale was 0.75.

Strategy. A firm's strategic orientation influences organizational actions (Chattopadhyay et al. 2001, Gioia and Thomas 1996). The six items measuring firm strategy were adapted from the work of Thomas and McDaniel (1990) and Gioia and Thomas (1996), based on the strategy framework of Miles (1982). We reworded the items to make them applicable to the diverse industries in our sample; originally, the items were framed for hospitals (Thomas and McDaniel 1990) and higher education institutions (Gioia and Thomas 1996). Higher scores indicate a more domain-offensive strategy. Two items were eliminated because of low factor loading. The scale has a coefficient alpha of 0.87.

Sense of Controllability. Thomas and colleagues (1993) outlined the importance of managers' perceptions of an issue as controllable for subsequent organizational actions. We assessed managers' sense of controllability based on the study of Jackson and Dutton (1988) and subsequent work (Denison et al. 1996, Thomas et al. 1993, Thomas and McDaniel 1990). We used three items to measure how controllable the firm perceived the strategic issue to be. The coefficient alpha for the scale is 0.90.

Firm's International Experience. We controlled for an organization's international experience because related experience influences organizations' actions (e.g., March 1991). The three survey items were based on the work of Sullivan (1994) and Zou and Cavusgil (2002). Higher scores indicate greater international experience of the organization. The scale has a coefficient alpha of 0.87.

Issue Importance. We also included a variable for executives' perceptions of the importance of the EU enlargement. The perceived importance of the issue may influence whether a firm responds. Respondents were asked to indicate on a seven-point scale the extent to which the EU enlargement was important to their firm.

Firm Age and Size. Both firm size and age may influence organizational actions. We measured the size of the company as the number of all full-time employees and its age as years since founding. Both variables were normalized using the natural logarithm. Data concerning age and size of the firm were obtained from the Hoppenstedt database.

Industry. We controlled for the economic sector of a firm's primary activity with a dummy variable to indicate whether the firm was primarily engaged in manufacturing (0) or in service (1). Manufactured goods traditionally are more highly exposed to international markets than are services. In analyses not reported for the sake of brevity, we also tested fixed effects for the narrower industries represented in the sample, based on companies' NACE code. NACE is the classification system used by Eurostat, the Statistical Office of the European Union, and falls at a level of aggregation between two- and three-digit NASIC classifications. We obtained NACE codes from the Hoppenstedt database. Because our sample contained NACE categories with few observations, including the full set of dummy variables would have reduced the degrees of freedom for detecting substantive effects within those smaller categories. We therefore entered each industry category individually for models with all remaining controls. None of the dummy variables was significant.

Location. We tested a variable for the location of the firm because firms in the former German Democratic Republic (GDR) are geographically closer, and historically more closely connected, to the Eastern European countries that joined the EU in 2004 than are the companies located in the former Federal Republic of Germany (FRG). We used a dummy variable indicating whether the firm was headquartered in the former FRG (1) or the former GDR (0).

CEO Risk Orientation. We assessed executives' risk orientation with a single item adapted from MacCrimmon and Wehrung (1986). Participants were asked to rate, in comparison to other decision makers in the firm, their willingness to engage in projects with a high risk. The answers ranged from 1 (very little) to 7 (very high).

Analyses and Results

We first verified the measurement model with a confirmatory factor analysis (CFA) of all multi-item variables (Anderson and Gerbing 1988). Common goodness of fit indices were acceptable (CFI $= 0.97$, IFI $= 0.97$, RMSEA $= 0.05$).[6] As recommended by Anderson and Gerbing (1988, p. 416), we also performed additional tests on discriminant validity by constraining the correlations between each pair of construct to one. Chi square tests found support for discriminant validity among all factors, including the positive and negative dimensions of evaluations. Appendix I shows all survey items and factor loadings. Summary statistics and correlations for the sample are reported in Table 1.

Test of the Hypotheses. We used logit models with robust standard errors to test H1, whether greater ambivalence is associated with a greater or lesser propensity to take action. Table 2 shows the results of these analyses.

Table 1 Descriptive Statistics and Correlations

	Descriptive statistics and correlation coefficients*																	
Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Action response to issue (binary)	0.55	0.50																
2. Scope of action	3.47	1.85	—															
3. Riskiness of action	2.95	1.57	—	0.39														
4. Novelty of action	2.85	1.78	—	0.18	0.36													
5. CEO's issue ambivalence (similarity, $t-1$)	−2.58	1.66	0.02	−0.14	0.08	0.20												
6. CEO's issue ambivalence (intensity, $t-1$)	3.11	0.84	0.14	0.16	−0.20	−0.20	−0.40											
7. Performance assessment ($t-1$)	4.91	1.00	−0.03	0.11	−0.04	−0.24	−0.02	−0.11										
8. Organizational slack ($t-1$)	3.99	1.61	0.01	−0.06	0.03	0.03	−0.01	0.01	0.27									
9. Strategic orientation ($t-1$)	5.20	1.31	0.05	−0.06	−0.03	−0.28	−0.11	0.09	0.30	0.23								
10. Organizational sense of control ($t-1$)	5.25	1.28	0.07	0.25	−0.14	−0.17	−0.08	0.10	0.26	0.08	0.30							
11. Organization's international experience ($t-1$)	3.86	2.08	0.26	0.28	−0.06	−0.32	−0.29	0.30	0.14	0.03	0.30	0.42						
12. CEO issue importance ($t-1$)	−0.03	1.06	0.33	0.64	0.32	−0.12	−0.29	0.43	0.16	0.02	0.10	0.23	0.34					
13. Organizational age (logged)	3.79	0.97	−0.19	−0.07	−0.20	0.01	0.15	−0.17	−0.11	0.12	−0.08	−0.17	−0.23	−0.27				
14. Organizational size (logged)	5.26	1.99	0.11	0.05	−0.03	−0.29	−0.22	0.07	0.26	0.25	0.33	0.42	0.42	0.19	0.02			
15. Sector (1 = manufacturing)	0.50	0.50	−0.13	−0.14	−0.01	−0.24	−0.09	0.09	−0.09	−0.05	−0.10	−0.20	0.20	0.04	0.14	0.04		
16. Location (1 = West Germany)	0.87	0.33	−0.13	−0.07	−0.32	−0.14	−0.02	−0.04	0.13	0.12	−0.05	−0.02	0.12	−0.08	0.32	0.17	0.22	
17. CEO's risk orientation	4.16	1.20	0.28	0.36	0.06	−0.11	0.10	0.17	0.00	−0.05	−0.07	0.12	0.19	0.27	−0.04	0.02	0.06	−0.13

Notes. For $N = 104$: Correlations > 0.24 are significant at $p < 0.01$, >0.19 significant at $p < 0.05$, and >0.16 significant at $p < 0.1$. For $N = 58$: Correlations > 0.33 are significant at $p < 0.01$, >0.27 significant at $p < 0.05$, and >0.22 significant at $p < 0.1$.

*$N = 104$, except for variables (2)–(4), where $N = 58$.

Table 2 Logit Regressions: Action

	Logit estimates dependent variable: Action taking		
Model	(1)	(2)	(3)
CEO's issue ambivalence (similarity, $t-1$)		0.59 (0.26)**	0.29 (0.33)
CEO's issue ambivalence (intensity, $t-1$)		−0.50 (0.34)	−1.08 (0.48)**
Ambivalence interaction: similarity × intensity			1.10 (0.47)**
Performance assessment ($t-1$)	−0.35 (0.31)	−0.64 (0.28)**	−0.83 (0.33)**
Organizational slack ($t-1$)	0.15 (0.17)	0.20 (0.18)	0.25 (0.20)
Strategic orientation ($t-1$)	0.00 (0.18)	−0.04 (0.20)	−0.01 (0.21)
Organizational sense of control ($t-1$)	−0.47 (0.27)*	−0.56 (0.26)**	−0.47 (0.26)*
Organization's international experience ($t-1$)	0.39 (0.20)**	0.47 (0.23)**	0.54 (0.31)*
CEO issue importance ($t-1$)	0.68 (0.26)***	1.09 (0.29)***	1.05 (0.30)***
Organizational age (logged)	−0.22 (0.29)	−0.20 (0.27)	−0.28 (0.30)
Organizational size (logged)	0.08 (0.16)	0.10 (0.18)	0.07 (0.20)
Sector (1 = manufacturing)	−1.44 (0.66)**	−1.40 (0.69)**	−1.77 (0.85)**
Location (1 = West Germany)	−0.37 (0.74)	−0.38 (0.77)	−0.22 (0.74)
CEO's risk orientation	0.28 (0.20)	0.24 (0.21)	0.36 (0.24)
Log likelihood	−52.52	−48.91	−46.21
Wald Chi square	21.83**	32.79***	35.36***
Observations	104	104	104

Note. Robust standard errors are in parentheses.
*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$; two-tailed tests.

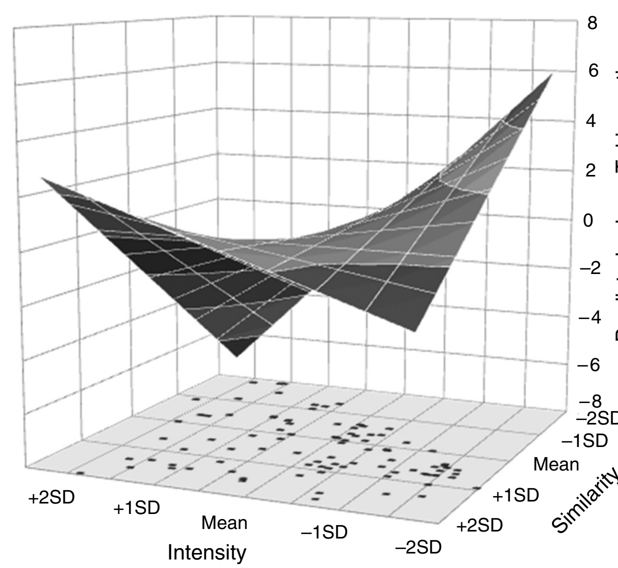
We first specified a model with the entire set of control variables before adding the two variables measuring the components of ambivalence, similarity and intensity (model 2 in Table 2), and then tested the interaction term between the similarity and intensity dimensions (model 3 in Table 2).

In H1, we predicted that the more ambivalently the CEO evaluates an issue, the more likely the firm will act on it. This prediction was supported. The coefficient of the similarity dimension of ambivalence was significant and positive in model 2 of the logit regression. The pattern of coefficients in model 3, however, suggests that this effect held only for high levels of intensity (highly positive and highly negative evaluations). The three coefficients that constitute this effect are jointly significant in model 3 ($p = 0.015$), as are simple slope analyses of the moderating effects (Aiken and West 1991). At low levels of intensity, *less* ambivalent evaluations (more clearly positive or negative) were more likely to be associated with subsequent action. Figure 1 shows a surface plot that graphically represents this relationship. For the plot, we converted the raw scores into standard deviations and restricted the range on the axes to values observable in the sample. The actual observations' values for similarity and intensity are shown on the floor of the plot. Figure 1 illustrates that greater ambivalence is associated with action when evaluations are truly both positive and negative (high similarity and high intensity), as opposed to occasions when they are neither very positive nor very negative (high similarity and low intensity). Note that the seeming positive relation between low similarity and high action propensity at low levels of intensity shown in the surface plot occurs in an area outside the range of observations in our sample.

To analyze the scope, riskiness, and novelty of actions taken, we used Tobit models. These models correct for left censoring of the dependent variable in the 48 cases where no action was taken; hence the scope as well as the riskiness and novelty of the reported action was censored at zero.[7] We used nonparametric resampling techniques to check the robustness of our results to distributional assumptions. Results were unchanged, and we report standard tobit estimates in Table 3.

In H2, we expected a positive relationship between ambivalence and the scope of action, parallel to H1.

Figure 1 Plot of Interaction: Similarity × Intensity → Action



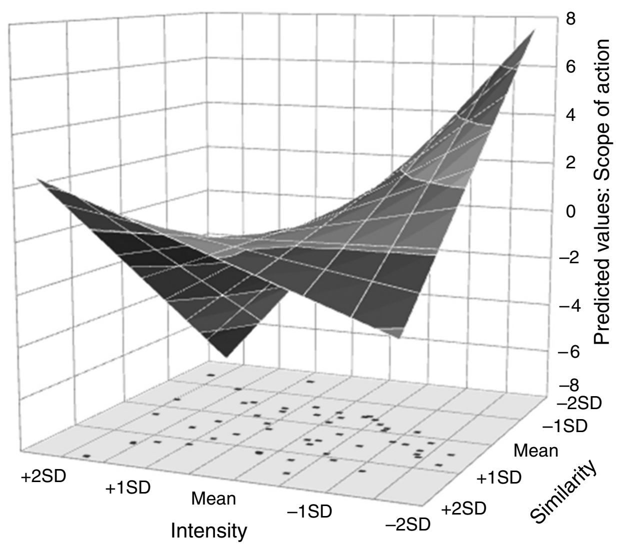
Note. Surface is based on predicted values from the logit model 3 in Table 2; floor shows observations used in the estimation.

Table 3 Tobit Models: Scope and Riskiness of Action

	Tobit models of type of actions								
	Scope of action response			Riskiness of action response			Novelty of action response		
Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent variable									
CEO's issue ambivalence (similarity, $t-1$)		0.19 (0.19)	0.05 (0.20)		0.28 (0.18)	0.19 (0.19)		0.20 (0.21)	0.07 (0.22)
CEO's issue ambivalence (intensity, $t-1$)		−0.78 (0.41)***	−1.32 (0.45)***		−1.01 (0.38)**	−1.41 (0.44)***		−0.86 (0.45)*	−1.39 (0.51)***
Ambivalence interaction: similarity × intensity			1.26 (0.49)***			0.90 (0.48)**			1.26 (0.54)***
Performance assessment ($t-1$)	−0.51 (0.32)	−0.67 (0.32)**	−0.85 (0.32)**	−0.60 (0.32)*	−0.79 (0.30)**	−0.91 (0.31)***	−0.72 (0.35)**	−0.90 (0.35)**	−1.05 (0.35)***
Organizational slack ($t-1$)	0.20 (0.19)	0.24 (0.19)	0.26 (0.19)	0.31 (0.20)	0.36 (0.18)*	0.38 (0.18)**	0.37 (0.21)*	0.41 (0.21)**	0.44 (0.20)**
Strategic orientation ($t-1$)	−0.18 (0.25)	−0.18 (0.24)	−0.17 (0.23)	0.07 (0.25)	0.07 (0.23)	0.07 (0.22)	−0.21 (0.27)	−0.21 (0.26)	−0.20 (0.26)
Organizational sense of control ($t-1$)	−0.48 (0.27)*	−0.46 (0.26)*	−0.38 (0.26)	−0.79 (0.28)***	−0.76 (0.25)***	−0.71 (0.25)**	−0.44 (0.30)	−0.43 (0.29)	−0.34 (0.29)
Organization's international experience ($t-1$)	0.56 (0.18)***	0.66 (0.18)***	0.65 (0.17)***	0.40 (0.18)**	0.52 (0.17)***	0.52 (0.17)***	0.40 (0.20)**	0.50 (0.20)**	0.49 (0.19)**
CEO issue importance ($t-1$)	1.47 (0.32)***	1.80 (0.34)***	1.81 (0.34)***	0.99 (0.32)***	1.44 (0.33)***	1.45 (0.33)***	0.67 (0.35)*	1.03 (0.37)***	1.03 (0.37)***
Organizational age (logged)	−0.20 (0.35)	−0.23 (0.33)	−0.27 (0.33)	−0.52 (0.36)	−0.54 (0.32)*	−0.57 (0.32)*	−0.40 (0.38)	−0.44 (0.37)	−0.47 (0.36)
Organizational size (logged)	0.06 (0.18)	0.03 (0.18)	0.01 (0.17)	0.12 (0.18)	0.08 (0.17)	0.07 (0.17)	0.02 (0.20)	−0.01 (0.19)	−0.03 (0.19)
Sector (1 = manufacturing)	−1.98 (0.63)***	−1.95 (0.60)***	−2.07 (0.59)***	−1.23 (0.63)*	−1.15 (0.57)**	−1.22 (0.57)**	−1.93 (0.70)***	−1.90 (0.67)***	−1.98 (0.66)***
Location (1 = West Germany)	−0.33 (0.90)	−0.33 (0.87)	0.00 (0.86)	−0.79 (0.90)	−0.82 (0.82)	−0.62 (0.82)	−0.40 (0.99)	−0.39 (0.95)	−0.09 (0.94)
CEO's risk orientation	0.44 (0.26)**	0.38 (0.25)	0.41 (0.24)*	0.27 (0.26)	0.17 (0.24)	0.19 (0.24)	0.14 (0.28)	0.08 (0.27)	0.11 (0.27)
Log likelihood	−153.13	−149.87	146.44	−149.46	−143.25	−141.38	−156.43	−153.27	−150.44
Chi square	54.03***	60.56***	67.41***	35.51***	47.49***	51.68***	24.23**	30.56***	36.23***
Pseudo R square	0.15	0.17	0.19	0.11	0.14	0.16	0.07	0.09	0.11
Observations	104	104	104	104	104	104	104	104	104

Note. Robust standard errors are in parentheses.
$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$; two-tailed tests for controls, one-tailed tests for directional hypotheses.

Figure 2 Plot of Interaction: Similarity × Intensity → Scope of Action



Note. Surface is based on predicted values of the latent variable Y^* from the tobit model 3 in Table 3; floor shows only observations with noncensored outcomes.

Model 3 in Table 3 parallels the pattern found for the binary variable of action and lends support to H2. Ambivalence is positively associated with the scope of action at high levels of intensity and negatively at low levels (joint significance of interaction coefficients was $p = 0.008$). In H3A and H3B, we expected that more ambivalent evaluations of the issue would lead to actions subjectively perceived as more risky and more novel. Parallel to the pattern found for the other outcomes, this expectation was confirmed for high levels of intensity but not for low levels (joint significance of interaction coefficients in model 6 was $p = 0.003$ and in model 9, $p = 0.015$). Figure 2 illustrates that the relationship between the two components of ambivalence and the scope of action parallels that found for action taking in Table 2 and Figure 1. Because the respective coefficients for perceived riskiness and novelty yield highly similar patterns, we do not show the corresponding plots.

Discussion

Our study was designed to examine the role of evaluative ambivalence in organizational decision making. Although recent studies in attitude and emotion research have demonstrated the importance of ambivalence in individual cognition and behavior, organizational researchers have paid less attention to ambivalence in organizational decision-making processes. Previous research has suggested that executives' competing evaluations of environmental changes are consequential for organizational responsiveness, search, and mindfulness but provided little systematic discussion about the organizational mechanisms through which CEOs' ambivalence affects organizational responses. Empirical evidence for this proposed link has also been scant. We addressed both issues. We provided a more complete theoretical account of how ambivalent evaluations affect organizational action taking by integrating insights into ambivalence gleaned from psychological research into models of organizational responsiveness in the tradition of the behavioral theory of the firm. In addition, we added empirical support for the relevance of ambivalence for organizational action as well as for scope, novelty, and perceived risk of the action.

Our empirical findings suggest that a CEO's more ambivalent evaluation of the EU enlargement as both positive and negative facilitated rather than hindered organizational action responses to the event when both evaluations were strongly held. Thus, organizational responses to the strategic issue of EU enlargement became more likely the more similar and the more intense the CEO's evaluation—the condition that most clearly captures the notion of ambivalence as "both and" rather than "neither nor" (Kaplan 1972, Thompson et al. 1995). This finding is consistent with the similarity-intensity model (SIM) of ambivalence and underlines the dual processes of activating diverse issue approaches and creating emotional arousal and alertness.

Our finding suggests that a top executive's ambivalence about an issue does not get in the way of reacting to the issue and that activating response routines for both approach (positive) and avoidance (negative) behaviors does not necessarily paralyze organizational action responses. To the contrary, the simultaneous occurrence of strong positive and strong negative evaluations not only promotes organizational action taking per se but also increases the scope of action. Actions taken under these conditions also appeared to respondents to entail greater risk and novelty. We interpret the finding that ambivalence led executives to attribute greater novelty and risk to the responses taken as indicating support for some of the key mechanisms we hypothesized to connect ambivalent issue evaluations with action responses: the search for solutions outside the organization's routine experience base and an affective sense of facing an unusual situation. In addition to the advantages of ambivalence suggested by cognitive theories, a CEO's ambivalent overall evaluation may also enable subunits to pursue different agendas based on their own evaluations and hence encourage broader participation in action responses. The role of effective executives in enabling organizational responses to strategic issues can perhaps best be described as setting the organization's agenda by directing attention to specific issues and tolerating diverse decentralized issue framings, rather than imposing clear, corporation-wide framings that may restrict actions considered by subunits.

The presence of alternative evaluations of similar strength activates different types of experiences and action repertoires from memory (breadth of search) but at the same time creates emotional energy for taking action (urgency to act) (Cacioppo et al. 1999). This combination corresponds to the situations depicted by Eisenhardt (1989) and Weick (1998) in arguments for why seasoned executives rarely seem to suffer from decision paralysis in the face of ambivalence. The high correlation between the intensity dimension of ambivalence and issue importance (0.43) may similarly suggest that simultaneously positive and negative evaluations are associated with greater attention to, and engagement with, an issue. One way to reconcile our findings with theories that suggest advantages of unambiguous issue framings (Levinthal and Rerup 2006, Porac and Rosa 1996) is therefore that clearly positive evaluations are good enough to prompt action in "cold cognition" routine situations but are counterproductive in "hot cognition" situations of higher stakes, complexity, and challenge. These emotional aspects of search processes are fertile ground for future research in organizational decision making.

We also found that organizations with a CEO who perceived that his or her organization has control over an issue—the second dimension underlying threat and opportunity labels—are less likely to devise action in response. Executives who feel in control may not experience strong emotional arousal and an urge to respond to the issue. These results are consistent with the model presented by Julian and Ofori-Dankwa (2008), who suggest that perceiving control over the environment and sensing an ability to influence issues lowers urgency and organizational responsiveness. In addition, executives who saw EU enlargement as controllable perceived their organization's actions as less risky and novel. These CEOs may believe that their organization not only has control over the issue but also has control over the outcome of its actions.

Overall, our study takes a first step to heed the call of Gavetti et al. (2007) to extend and update research in the tradition of the Carnegie School by integrating recent findings in psychology, specifically around models of emotion and cognitive processing styles. By embedding ambivalence in a coherent body of theory about organization-level cognition and action, we sharpen our understanding of more complex interpretive framings in organization theory. But the theoretical cross-fertilization goes both ways. Organizational theories supply an enhanced understanding of the organizational context of cognition and action, such as division of labor, routines, and coalitions, that affect the mobilization of coordinated action.

The general model of how executives' ambivalence may lead to organizational actions in response to environmental events may also inform the study of related phenomena, such as strategic change, resilience, mindfulness, and learning, that combine cognitive evaluation and action. The cognitive and political processes we theorized are also relevant to work on the affect of performance on strategic change, because performance may also be evaluated in an ambivalent way. For instance, a firm's performance can be below its past performance and at the same time above the performance of comparable others. So far only one study (Greve 1998) has investigated firms' reactions toward such a situation. Greve (1998, p. 64) suggests that decision makers facing such an outcome may shift their attention between aspiration levels following a "fire alarm" or self-enhancing rule. Thus only performance relative to one aspiration level would influence organizational action. However, our discussion of the role of ambivalence for organizational actions suggests the possibility that decision makers simultaneously evaluate performance relative to two or more aspiration levels, with multiple reference groups and on diverse metrics, resulting in ambivalence at the level of holistic performance assessment. Our study would imply that simultaneous attention to performance below the firm's past performance and above performance of comparable others might lead to unique risk behaviors.

Like any research, our study has limitations that suggest empirical extensions. First, although our study is probably the first to examine the role of ambivalence for the initiation of organizational actions and for the characteristics of these actions in a larger cross-industry sample, the number of observations is still limited. This is especially true when it comes to the influence of ambivalent understandings on specific characteristics of action. Future research may, therefore, try to solidify our analysis with a larger number of observations and examine moderating variables and boundary conditions that are difficult to ascertain in a single study with limited degrees of freedom. Second, although having some face validity in light of qualitative survey responses, our measures of action and action characteristics are single-item measures that may gloss over the internal structure of these constructs and may have imperfect psychometric properties. The choice of single item measures in our second survey was driven by the desire to increase the response rate. Studies using a larger initial sample may be able to use more elaborate survey instruments. Third, our findings are based on two surveys of German executives who first reported their evaluation of the enlargement of the European Union in 2004 and then in 2005 reported the actions their organizations initiated in response. It remains to be seen if our findings generalize to other national or industry contexts, to other types of strategic issues and to multiple strategic issues that are considered in parallel. And although the lag between the two waves reduces the chance of reverse causality, we cannot be certain whether some firms may have taken action much earlier or later. Fourth, we theorized, but did not directly test, the mechanisms through which a CEO's ambivalence about an issue affected organizational action responses. We treated political coalition processes and the matching of action response repertoires to a specific issue as theoretical mechanisms, derived from the paradigm of the Carnegie School of organization theory. Further in-depth studies are desirable to verify and assess the relative importance of different micromechanisms underlying the relationships observed in our study. For example, we theorize that ambivalence triggers wider and more distant search and find a positive relationship between high intensity ambivalence and the likelihood, scope, perceived risk, and novelty of action responses. Future research should more directly examine the relationship between the breadth of search and organizational action because this relationship might be contingent on environmental factors or follow an inverted U-shape. Further in-depth studies may also verify whether organizations are more likely to respond to strategic issues when their CEO developed an evaluation of low intensity and low similarity. Although implicit in the results of our regression analysis, this potential pattern extrapolates the relationship between ambivalence and action beyond our data set and runs counter to the theoretical arguments that are supported by observations within our sample. Finally, the evidence of ambivalence being consequential for organizational responsiveness suggests renewed research into the antecedents of individual and organizational ambivalence.

Conclusion

A growing number of studies points to ambivalent evaluations of issues as important for action taking and responsiveness in organizations. However, a systematic empirical study of consequences of leaders' ambivalence has been lacking, as has a thorough grounding of these relationships in organization theory. Our study begins to fill both gaps. First, it provides needed empirical evidence for the consequentiality of ambivalence on organizational action. Second, the general model of how CEO ambivalence can lead to organizational action responses can serve as a springboard for future research on related organizational processes, such as organizational change, learning, and resilience.

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Appendix

Measures[a] and item loadings

Construct	Operational measure	Factor loading			
Positive evaluation	To what extent do you agree with the following statements?				
1	Our company will benefit from the EU enlargement.			0.86	
2	The EU enlargement comprises a potential gain for our company.			0.87	
Negative evaluation	To what extent do you agree with the following statements?				
1	The EU enlargement is something negative for our company.		0.71		
2	There is a high probability of losing a great deal because of the EU enlargement.		0.78		
Firm performance	In our primary business our company performs (1, much worse than our competitors, 7, much better than our competitors) with respect to…				
	Sales growth.	0.82			
	Profitability (e.g., ROI, ROA, etc.).	0.85			
Available slack resources	To what extent do you agree with the following statements in reference to your company's resources?				
1	Our company keeps in general high levels of financial resources (e.g., cash, short-term credit) to assure a steady flow of production.				0.86
2	Our company has easy access to these financial resources for growth and expansion.				0.87

Appendix (Cont'd.)

Measures[a] and item loadings

Construct	Operational measure	Factor loading		
Strategy	To what extent do you agree with the following statements?			
1	Our company…always tries to be the first in the industry to offer new solutions.	0.82		
2	…is usually among the first users of new product design technologies.	0.70		
3	…always endeavors to develop new products.	0.89		
4	…responds rapidly to early signs of market opportunities.	0.83		
Controllability interpretation	To what extent do you agree with the following statements?			
1	Our company can manage the changes resulting from the EU enlargement.			0.86
2	The EU enlargement is something controllable for our company.			0.74
3	Our company has the capability to address the EU enlargement.			0.79
Firm's international experience	To what extent do you agree with the following statements?			
1	A high percentage of our sales is generated outside of Germany.		0.84	
2	Our company cooperates with various foreign trading partners.		0.85	
3	Our company has got a lot of experience in selling to foreign markets.		0.80	

Measures of organizational action

Construct	Operational measure	
	Please describe the action that your company specifically initiated in response to the EU enlargement with the use of the following statements. All in all, the action…	
Scope of the action	was of a very small scope (1).	was of a very large scope (7).
Riskiness of the action	contained a very small risk for our firm (1).	contained a very high risk for our firm (7).
Novelty of the action	continued current activities of our firm (1).	was completely new to our firm (7).

Note. For visual clarity, factor loadings below 0.4 are not reported.
[a]The response format for all items was 1, small extent, to 7, large extent (indicated where not applicable).

Endnotes

[1]This is in contrast to the more general notion of ambiguity, which also subsumes vagueness and uncertainty of evaluations and other framings. An ambivalent evaluation does not indicate that the valence of an issue is vague or unknown, which would imply that no specific cognitive structures (schemas, scripts, response routines) are activated. Rather, ambivalence refers to the application of distinct and competing evaluations to an issue so that cognitive structures associated with both evaluations are activated.

[2]The other dimension of the threat/opportunity label, sense of controllability, is a unipolar concept and therefore cannot be analyzed in terms of ambivalence. We control for this dimension statistically.

[3]This rationale does not mean that the likelihood of action is greater for unambivalent issues. Although these routine issues may foster access to more proximate response repertoires, they do not trigger the same motivational urgency to act as ambivalent issues. The commonality of unambivalent issues stems from the frequency with which they occur, not from the likelihood they are acted on.

[4]The Hoppenstedt database includes data sets of approximately 200,000 German firms that have at least 20 employees or more.

[5]These measures are based on unstandardized positive and negative scales prior to calculating the difference. Using measures based on z-scores of each dimension yields the same results.

[6]Although the results of the CFA suggest good fit of the measurement model, our sample size of 104 is rather small, and several variables are measured with only two items. Both make the results of the CFA less reliable and estimates less consistent. Although indicative, our conclusions about the measurement model are therefore not conclusive.

[7]Note that the survey responses report the scope and perceived risk and novelty of the specific action taken, not of the over-

all approach to EU enlargement. Scope, risk, and novelty are direct attributes of that action. Taking no action thus by definition means no novelty, does not pose any action-specific risk, reflects below minimum scope, and can be treated as lower-bound censoring at zero for all three variables.

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