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The Organizational Pervasiveness of Entrepreneurial Orientation

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While 30 years of entrepreneurial orientation (EO) research has demonstrated that EO provides critical insights into questions of organizational-level strategy and performance, how EO manifests inside organizations has received little attention. Instead of assuming that EO is homogenous, we examine the questions of how and why EO might pervade organizations heterogeneously along three dimensions: vertically across hierarchy levels, horizontally across business units, and temporally as an organization develops. We then present three models for how EO can dynamically pervade organizations and discuss how examining the pervasiveness of EO can further our understanding of entrepreneurship as an organizational phenomenon.

Introduction

Entrepreneurial orientation (EO) is one of the most important and established concepts within the field of entrepreneurship. Since the seminal work of Miller (1983) almost 30 years ago, the attitudes and behaviors related to EO have been positioned as organizational phenomena that capture firm-level entrepreneurial patterns and processes (e.g., Covin & Slevin, 1989, 1991; Lumpkin & Dess, 1996, 2001). Foundational work in this area theorizes that as an organizational construct, EO is manifest within firms such that entrepreneurial attitudes and behaviors "pervade the organization at *all* levels" (Covin & Slevin, 1991, p. 7, emphasis added). This idea of EO being an organizationally pervasive phenomenon has been re-iterated by a number of authors (e.g., Atuahene-Gima & Ko, 2001; Covin, Green, & Slevin, 2006; Wiklund & Shepherd, 2003, 2005).

Although prior research has clearly embraced EO as an organizational phenomenon, there has been little consideration of how EO manifests within organizations. The need for further consideration of EO's pervasiveness is demonstrated by the increasing number of studies exploring the relevance of internal processes and behaviors related to EO, such as the organizational antecedents of EO (Green, Covin, & Slevin, 2008; Rutherford & Holt, 2007), the organizational outcomes of EO (Anderson, Covin, & Slevin, 2009; Monsen &

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Boss, 2009), and internal behaviors as moderators of the EO-firm performance relationship (Covin et al., 2006; De Clercq, Dimov, & Thongpapanl, 2010). Together, these studies suggest that EO pervades organizations and that the manner in which EO is manifest within firms may influence EO's ability to fulfill its promise as a driver of firm performance outcomes. While these studies have contributed a great deal to the literature on EO, they have only begun to scratch the surface of the pervasiveness of EO as an organizational phenomenon.

Recent revelations that the organizational manifestation of EO may be of consequence to the performance of the firm emphasize the need for re-examining Covin and Slevin's (1991) notion of EO as a pervasive phenomenon in organizations. In this re-examination, we do not challenge the traditional approach of surveying top-level managers to examine EO; rather, we build upon and extend past theorizing by suggesting that the manifestation of EO across organizational sub-units, from large strategic business units to small individual departments, also matters. To this end, we argue that the pervasiveness of EO might be manifested in organizations in a heterogeneous manner such that how EO is exhibited might vary among departments and units. Understanding the variance in EO across these differing levels and units of analysis can provide novel insights into the effective organizational exhibition of EO.

Covin et al. (2006) contend that "intellectual advancements pertaining to EO will likely occur as a function of how clearly and completely scholars can delineate the pros and cons of alternative conceptualizations of the EO construct and the conditions under which the alternative conceptualizations may be appropriate" (p. 80). In line with these guidelines and the small but growing literature exploring the manifestation of EO within the firm, we attempt to provide answers to two important questions: (1) why might EO pervade organizations differently? and (2) how is EO typically manifest within organizations? Consequently, we examine why and how the attitudes and behaviors associated with EO can manifest in different heterogeneous manners along three dimensions: vertically (i.e., from top-level management to middle managers and to nonmanagerial workers), horizontally (i.e., across business units and functional areas), and temporally (i.e., across time and developmental states of the firm).

We argue that greater knowledge of the organizational pervasiveness of EO matters for several reasons. While organizations may at times benefit from a relatively homogeneous distribution of entrepreneurial attitudes and behaviors throughout the firm, the varying strategic requirements of differing organizational levels, areas, and time periods may give rise to the need for a more heterogeneous manifestation of EO. In fact, internal strategic diversification is a well-established practice among large and growing firms (Galbraith & Kazanjian, 1986; Kazanjian & Drazin, 1987). Furthermore, strategic heterogeneity and change have long been promoted as a source of competitive advantage in both the strategic management (Dooley, Fowler, & Miller, 1996) and entrepreneurship literatures (Zahra, Sapienza, & Davidsson, 2006). Moreover, assumptions of universal homogeneity serve to obscure much of the variability associated with the manifestation of EO as an organizational phenomenon. In line with Covin et al. (2006), we suggest that the ability of EO to fulfill its promise as a driver of firm performance may depend upon the various manners in which the phenomenon is exhibited across organizational levels, areas, and stages of development. A finer-grained understanding of the manners in which EO pervades organizations promises to uncover many of the intricacies related to the research and effective management of entrepreneurship in organizations.

Additionally, the need for more fine-grained analyses of entrepreneurial organizations is reinforced by prior calls for EO to be examined within smaller more homogeneous organizational subunits. For instance, Zahra, Jennings, and Kuratko (1999) conclude that the field would benefit from a greater emphasis on the divisional (strategic business unit [SBU]) level of analysis rather than on the firm as a whole. Indeed, prior researchers have considered EO at the SBU level (Lumpkin & Dess, 1996; Miller & Camp, 1985), and recent empirical evidence has demonstrated that the level and composition of business-unit-level EO can in fact vary substantially across a large organization (Kemelgor, 2002; Monsen, 2005; Monsen & Boss, 2004, 2009). The present research builds on and extends the logic of this call.

Further, our exploration into the variable pervasiveness of EO extends beyond current discussions around the precise measurement of EO (Lyon, Lumpkin, & Dess, 2000) or testing the EO-performance relationship (Rauch, Wiklund, Lumpkin, & Frese, 2009) and provides a framework for a more systematic conversation about the manifestation of EO inside and throughout an organization. In doing so, we adopt a descriptive perspective, examining why and how EO may manifest itself differently. Moreover, we propose and discuss three distinct dynamic models of how EO can pervade an organization: Continuous Morphing, Ambidextrous, and Cyclical Wave. Integrating ideas from the broader literatures on strategic management and organizational change (Mintzberg & Westley, 1992; Raisch, Birkinshaw, Probst, & Tushman, 2009; Rindova & Kotha, 2001), these models provide frameworks for richer conceptual theorizing, more rigorous empirical research, and a greater practical understanding of the different manners in which EO can be manifested within organizations.

This article is structured as follows. We first define pervasiveness and discuss why it is an important concept for EO research. We then describe reasons for the potential heterogeneity of EO inside an organization along vertical, horizontal, and temporal dimensions. Building on these dimensional observations, we present three models for how EO dynamically can manifest itself throughout an organization. Finally, we discuss how our multidimensional conceptualization of pervasiveness opens up new avenues for future EO research.

The Variable Pervasiveness of EO

The pervasiveness of EO reflects the manner and degree to which EO attitudes and behaviors are manifested throughout an organization. To date, researchers have commonly assumed that as an organizational phenomenon, EO pervades organizations homogenously across all hierarchical levels and organizational subunits, providing little or no greater theoretical justification to support this assumption (Covin & Slevin, 1991; Krauss, Frese, Friedrich, & Unger, 2005; Wiklund, 1999). We question this basic supposition and claim that EO may in fact be exhibited in different manners and to different degrees across an organization (cf. Kemelgor, 2002; Monsen & Boss, 2009).[1] We further claim that a closer examination of this variability can advance our understanding of how EO is typically manifested within organizations that will, in turn, help to inform how entrepreneurship can be managed more successfully inside the firm for both the firm and its employees (Monsen & Boss, 2009).

1. Our claim goes beyond the presumption that different hierarchical levels and different business units perceive the same core EO differently, as is the case in the analogy of the elephant and the blind men (Gartner, 2001). We further suggest that the level of EO and the relative composition of its sub-dimensions may in fact differ in terms of their exhibition and impact across the organization. We thank one of our anonymous reviewers for raising this point.

Instead of defining pervasiveness as a simple unidimensional construct that can be either high or low, we view pervasiveness as a richer multidimensional description of how the distribution of EO is manifested throughout an organization and over time. For conceptual comparison, consider how a statistical distribution can be described not only by its mean but also by its standard deviation, skewness, and kurtosis. Similarly, EO-related attitudes and behaviors may vary spatially and temporally in how they are manifested and expressed inside an organization. This variance implies that it would not be appropriate to conceive the strength of EO as a function of its degree of pervasiveness, nor would it be appropriate to claim that the pervasiveness of EO characterizes whether a firm is more or less entrepreneurial. The pervasiveness of EO simply describes *how* an organization manifests and expresses its entrepreneurial attitudes and behaviors.

It is also important to clarify that our intention is not to question the theoretical underpinnings of EO as an organizational phenomenon. To suggest that organizations can heterogeneously manifest EO attitudes and behaviors is not a subversion or misapplication of the EO construct any more than the statement that organizations can be entrepreneurial (Covin & Slevin, 1991). Rather, as will be argued, our assertion is based on the observation that organizations, as sets of individuals and units working together toward a common goal, can manifest differing attitudes and behaviors across different levels and areas and over time. It is our goal to elucidate that viewing EO as a heterogeneous set of organizational processes and practices enhances the research and practice of EO and entrepreneurship.

Finally, it is important to distinguish the notion of EO pervasiveness from that of organizational culture as there appear to be a number of conceptual overlaps between them. Within organizations, culture is traditionally described as a pattern of shared basic assumptions held by organizational members concerning appropriate ways to think, perceive, and act when approaching problems that arise from either a need for organizational members to integrate internally or adapt externally (Schein, 1992). Similarly, EO is traditionally described as "the processes, practices, and decision-making activities that lead to new entry" (Lumpkin & Dess, 1996, p. 136). The conceptual closeness of these two constructs has unfortunately resulted in ambiguity regarding EO and culture in the literature with the concepts at times being discussed interchangeably (Kaya & Seyrek, 2005; Lee, Lee, & Pennings, 2001).

In the original context of EO, Covin and Slevin (1991) specifically argue that culture represents a nonbehavioral attribute of the organization separate from the activities that define it as entrepreneurial. Dess and Lumpkin (2005) refer to EO as "a frame of mind and a perspective about entrepreneurship that are reflected in a firm's ongoing processes and corporate culture" (p. 147). Viewed as such, EO and its pervasiveness and organizational culture are separate phenomena: EO represents the organizational members' strategy-making practices and processes directed at the creation of venture opportunities, while organizational culture is the context in which EO activities occur (Lumpkin, Wales, & Ensley, 2007). This distinction between organizational culture as norms and values and EO as the corresponding strategic actions and behaviors is important because while EO and organizational culture are two distinct constructs, they are dynamically linked. As such, we can expect certain similarities in how EO and culture vary across an organization.

For instance, we argue herein that the pervasiveness of EO can be viewed as a multi-layered and multi-faceted phenomenon as opposed to a monolithic constant across theorganization in its entirety (cf. Martin, 2002). Therefore, "just as organizational culture has varied levels . . . that differ in salience for different groups within the organization at different times," EO as a behavioral aspect of an organization's identity can be "interpreted differently and [has] different salience for organizational groups at different times" (Corley, 2004, p. 1150). As such, in the same manner that an organization can simultaneously have many levels and facets of culture (i.e., an organizational culture and business unit subcultures), EO can manifest itself as an organization-level and as a unit-level phenomenon.

With these clarifications in mind, in this section, we examine how and why EO can pervade organizations and how it can be distributed differently along three principal dimensions: vertically (hierarchical levels), horizontally (organizational subunits), and temporally (strategic change and organizational lifecycle).

Vertical Dimension: Variance in EO Across Organizational Levels and Managerial Groups

Applying earlier research on the role of top-management teams, middle managers, and nonmanagerial employees in the strategic decision-making and implementation processes of established (Floyd & Lane, 2000) and entrepreneurial firms (Bartlett & Ghoshal, 1993) and building on recently proposed conceptual models for entrepreneurial firms (e.g., Hayton, 2005; Ireland, Covin, & Kuratko, 2009; Kuratko, Ireland, Covin, & Hornsby, 2005), we first examine both how and why EO heterogeneously pervades and manifests itself within and across "vertical" hierarchical levels.

Top-Level Managers and EO. Prior research has generally accorded top management a special role in the pervasiveness of EO within an organization. In congruence with the upper-echelons perspective (Hambrick & Mason, 1984), Covin and Slevin (1991) conceptualize EO as firms exhibiting entrepreneurial behavioral patterns that "reflect the top managers' overall strategic philosophy on effective management practice" (p. 7). The majority of EO research similarly assumes that top-managerial views are representative of organizational values (e.g., Covin & Slevin, 1989; Lumpkin & Dess, 2001; Wiklund & Shepherd, 2003). Krauss et al. (2005) noted that researchers have even occasionally removed firms from longitudinal analyses when top managers were replaced over the course of the study. In this sentiment, Wiklund (1999) stated that "it seems perilous to attribute outcomes of a firm to an individual no longer working there" (p. 41).

From this perspective, the pursuit of new business opportunities are driven by the top-managerial team and are reflected in organizational members' behaviors (Burgelman). Top managers develop their firm's entrepreneurial strategy, communicate it within their organization, and watch as entrepreneurial behavior begins to blossom throughout their firm. A top-down approach, however, overlooks the critical observation that in addition to managerially induced entrepreneurial attitudes and behaviors, entrepreneurial initiatives may also emerge autonomously within the firm (Burgelman). Autonomy has long been recognized as an important component of EO (Lumpkin, Cogliser, & Schneider, 2009; Lumpkin & Dess, 1996), and many researchers have conceded that top managers are not always the principal drivers of a firm's strategic orientation (Mintzberg & Waters, 1985). In an organizational environment in which autonomy is encouraged, variance in EO attitudes and behaviors across organizational levels can occur as result of "grass-roots" strategies emerging at lower levels. Thus, irrespective of top-managerial imperatives, actors at lower levels within the firm may independently exhibit attitudes and behaviors that can with time proliferate to guide the behavior of the organization as a whole (Stopford & Baden-Fuller, 1994). In this bottom-up view, managers are tasked with recognizing and nurturing as much as directing and encouraging.

Therefore, while top managers are clearly essential to the development and manifestation of EO, there are other relevant actors at lower organizational levels whose EO-related attitudes and behaviors should likewise be considered, including middle managers and nonmanagerial employees.

Mid-Level Managers and EO. Research into the role of mid-level managers in strategic decision making and implementation describe these organizational actors as the bridge between top-level decision makers and the employees who have to implement a strategy (Bartlett & Ghoshal, 1993; Floyd & Lane, 2000). As such, studying the perceptions of organizational managers at various levels of the organization is necessary to explore the manifestation and effects of EO as a pervasive organizational phenomenon. For instance, prior research suggests that mid-level managers play an important role in the development of entrepreneurial initiatives and outcomes (Hornsby, Kuratko, & Montagno, 1999; Hornsby, Kuratko, & Zahra, 2002; Kuratko et al., 2005). Moreover, middle managers often face the extra challenge of articulating "the link between an idea and the organization's existing goals" and "facing the fact that the idea diverges from the current official strategy" (Floyd & Wooldridge, 1999, p. 136).

In addition, there are noteworthy differences between managerial levels in terms of organizational strategy and social identity. First, individuals at different levels of an organization's hierarchy are involved in the strategy-making process to a greater or lesser degree (Floyd & Lane, 2000). For example, regarding the deployment of competencies in a firm, top management focuses on directing, middle management focuses on implementing, and operating management focuses on conforming (Floyd & Lane). Second, these roles can differ slightly depending on an organization's overall level of EO. In more conservative firms, top-level managers focus on making effective strategic decisions, middle-level managers focus on communicating information from top-level to operating-level managers, and operating-level managers focus on responding to middle-level managers (Floyd & Lane). In more entrepreneurial organizations, for example, these roles become less reactive and more proactive: top managers are the "creator[s] of purpose and challenger[s] of status-quo," middle managers are the "horizontal information broker[s] and capability integrator[s]," and front-line managers are the "entrepreneur[s] and performance driver[s]" (Bartlett & Ghoshal, 1993, p. 44).

Therefore, individuals' perceptions of how organizational strategy is manifested can be biased by the degree to which they are involved in creating the strategy, how accurately it is communicated to them, as well as how reactive or proactive they are in the process. Furthermore, in line with the social identity perspective,[2] research on organizational identity has shown that individuals at different levels in an organization's hierarchy can perceive an organization's identity in different ways (Corley, 2004). Given that an organization's strategic orientation is one aspect of its identity and that both are socially constructed, it is logical to expect that reports of a firm's strategic orientation would vary depending on an individual's place in the organization's hierarchy (Corley). For

2. Social identity theory posits that individuals partly define themselves in terms of salient group memberships or social categories. Social identity theory therefore argues that people do not behave as isolated individuals but as members of social groups and organizations (Hogg & Terry, 2000; Tajfel & Turner, 1986).

example, Hornsby et al. (2002) found that on average, upper-middle management reported more entrepreneurial perceptions on five different corporate-entrepreneurship dimensions than middle and lower-middle management.

Furthermore, following the complementary logic that middle managers' entrepreneurial decision-making processes (Kuratko et al., 2005) as well as their role within the organization (Ireland et al., 2009) are different than those of top-level managers, one can logically expect that middle managers' cognitions, behaviors, and the outcomes of those cognitions and behaviors are different than those of top-level management. For example, Kuratko et al.'s dynamic model suggests that middle-level managerial entrepreneurial behavior depends on individual perceptions of organizational antecedents, future personal and organizational outcomes, and perceptions of relationships between behaviors. Concretely speaking, to measure the pervasiveness and impact of EO at deeper levels within the organization, intermediary outcomes, such as the undertaking of exploratory initiatives, projects, and experiments that lead to the organization launching new products and services, need to be considered.

Nonmanagerial Employees and EO. Among other responsibilities, an organization's employees have the task of implementing the strategies of upper-level managers (Floyd & Lane, 2000), recognizing new opportunities (Mintzberg & Waters, 1985), and driving the performance of the organization (Bartlett & Ghoshal, 1993). As such, they are a key element in the causal link between organizational strategy and performance and should therefore receive more attention from EO researchers. As nonmanagerial employees focus even more on day-to-day operations than mid-level managers (Floyd & Lane), one can expect that the differences in how EO is perceived and manifested by nonmanagerial employees and top-level managers are even greater than the differences between mid-level and top-level managers.

As a result of these hierarchical differences, managers and staff members often report different perceptions of firm-level entrepreneurial strategies. Two studies in particular find that employees report lower levels of EO than their managers. First, in Kemelgor's (2002) study of English and Dutch mangers and staff, in six out of eight companies studied, employees reported lower EO scores than their managers. Second, in Monsen and Boss's (2009) study of 1,975 managers and staff in 110 departments of a diversified healthcare organization, staff members reported lower levels of risk taking, innovativeness, and proactiveness than their managers. This is consistent with Corley's (2004) arguments regarding different perceptions of organizational identity across organizational levels and Hornsby et al.'s (2002) findings of systematic differences between different levels of middle management.

A second and complementary rationale for variations in reports of EO between managers and staff members draws on Mosakowski's (1998) and Hayton's (2005) applications of agency theory to argue that organizational members who are unable to mitigate or diversify the risk associated with entrepreneurial activities will be more risk averse than those who can. Therefore, the lower an individual's position in the organizational hierarchy, the fewer options he/she has to diversify risks and the more negatively he/she could perceive and react to risk-taking strategies dictated from above. This idea is reflected in Åmo and Kolvereid's (2005) study, which revealed that in a sample of 634 Norwegian employees, line employees are less likely to behave innovatively than middle- and top-level managers. In short, if employees take fewer risks and behave less entrepreneurially, they will also perceive and respond to EO differently than managers. Moreover, if they face and perceive different levels and sources of risk, they are also likely to engage in different strategies to manage that risk (cf. Janney & Dess, 2006), which could also lead to the emergence of different manifestations of EO at lower organizational levels.

In summary, having reviewed the literature on top-level managers, mid-level managers, and nonmanagerial employees, we conclude that EO can indeed vary "vertically" across hierarchical levels depending on the workers' differing organizational roles and responsibilities.

Horizontal Dimension: Variance in EO Across Organizational Divisions and Areas

Galbraith and Kazanjian (1986) define organizational structure "as the segmentation of work into roles such as production, finance, marketing, and so on; the recombining of roles into departments or divisions around functions, products, regions, or markets; and the distribution of power across this role structure" (p. 6). The reason for dividing and segmenting work is to facilitate managers' need to separate tasks into meaningful groupings, while also integrating the efforts of such groupings in order to ensure overall organizational effectiveness and efficiency (Tushman & O'Reilly, 1996). As such, organizational divisions enable a firm to successfully pursue its mission and achieve its goals (Kazanjian & Drazin, 1987). The pervasiveness of EO is evident throughout various subunits and functional areas because, as Zahra, Jennings, et al. (1999) noted, a "great many entrepreneurial activities occur at the level of organizational divisions" (p. 55). Due to differences across divisions and functional areas, EO is likely to manifest heterogeneously across these various organizational units. In this section, we first consider the possible variance in EO created through the internal diversification of business units from the perspective of the strategy/structure literature. We then consider the potential for heterogeneity in the manifestation of EO as a result of the fit between organizational strategy and business unit characteristics. Finally, we consider the question of variance in EO due to the segmentation of work into different functions and roles from the perspective of job design.

Strategy, Structure, and Horizontal Variation of EO. In the pursuit of new opportunities for revenues and growth, firms often adopt a multi-divisional form, creating new, self-contained business units which focus on particular products, processes, and markets (e.g., customers, industries, and geographies) (Kazanjian & Drazin, 1987). These individual business units are typically identified as having independent resources, discrete markets, and different products (Pitts & Hopkins, 1982). The opportunities for diversification are often entrepreneurially motivated and include, for example, "product line extension, refinement, and repositioning; introduction of new products related to an existing competence of the firm; and development of truly new-to-the-world products not related to the firm's core business" (Kazanjian & Drazin, p. 342). Classical rationales for internal diversification include the reduction of transaction costs (Jones & Hill, 1988), functional-level relatedness and/or diversity (e.g., process, product, and market) (Kazanjian & Drazin), as well as information asymmetries and economies of scope (Nayyar & Kazanjian, 1993).

As a strategic orientation, EO may differ across business units for a number of similar reasons, as has been suggested in the entrepreneurship literature. To begin, as new business units are often formed to explore and/or exploit different industry sectors (cf. Kazanjian & Drazin, 1987), differences in the manifestation of EO may occur as a result of business units facing differing environmental and market contingencies based on their industry and their geography (Lumpkin & Dess, 1996). As the work of Covin and Slevin

(1989) suggests, varying levels of environmental hostility may require differing levels of EO to achieve superior performance. Ensuing evidence has similarly been presented from other single-business contexts (e.g., Wiklund & Shepherd, 2005), which suggests that the task environments of differing business units may prompt differential manifestations of EO. Moreover, differences in EO across business units may arise as a result of the firm's choice of international structure and governing systems, such as global versus multi-domestic roles (Birkinshaw, Hood, & Jonsson, 1998; Gupta & Govindarajan, 1991). In brief, EO as an expression of business strategy may vary substantially across organizational divisions and subunits for a number of well-established reasons.

Strategic Fit and Horizontal Variation of EO. The *fit* between organizational strategy and business unit characteristics is an additional potential source of horizontal variance in EO. For instance, differing manifestations of entrepreneurial behavior and outcomes are a central premise of three recent contingency models of corporate venturing and strategic renewal. First, Miles and Covin (2002) explore how internal or external a venture should be relative to the core business and how direct or indirect control of that new venture should be based on the fit between the corporate venture's strategic objective and business unit managers' needs and preferences. Second, Baden-Fuller and Volberda (1997) similarly make recommendations for four approaches to strategic renewal based on the fit between the strategic goals of the renewal effort and the method of managing change. Third, Volberda, Baden-Fuller, and Van den Bosch (2001) likewise observe four methods for strategic renewal depending on the fit between the reactive vs. proactive stance of individual business unit managers. Thus, this research suggests that EO can indeed vary horizontally across business units depending on contingencies relating to the fit between organizational strategy and business unit characteristics. Furthermore, the models of strategic renewal suggest that issues of fit and as a result the manifestation of EO may evolve over time, a theme we address later in this article.

Job Design and Horizontal Variation of EO. Finally, from the perspective of job design, different functional job roles may have quite dissimilar goals and constraints (Hackman & Oldham, 1976). Consider, for example, the different goals and constraints of accounting versus research and development (R&D) functions. The goals of the accounting function are foremost concerned with compliance to extensive regulatory constraints, whereas the R&D function is more geared toward creativity in the development of new products. In order to achieve these differing goals (i.e., conformity vs. creativity), these functions may develop their own strategies, and thus may manifest EO differently. As such, differences in perceptions of and reactions to EO among groups of managers and employees may occur horizontally across an organization. Initial empirical evidence for this idea is presented by Monsen and Boss (2004), who observe that dimensions of EO for different organizational subunits and functional areas of a healthcare organization can exhibit significant differences both in terms of the levels and composition of EO.

Further, the work of Covin and Slevin (1988) suggests that as tasks become more formalized and mechanistic there may be less motivation for business units to manifest higher levels of EO due to reduced performance benefits. This observation is supported by job design theory, which informs us that skill variety, task identity, task significance, autonomy, and feedback are key dimensions that can impact employees' motivation and job performance (Hackman & Oldham, 1976). Drawing on the ideas of socio-technical theory (Friedlander & Brown, 1974; Trist & Bamforth, 1951), later researchers integrated task interdependence (Kiggundu, 1981) and the role of technology (Rousseau, 1977) in job design. However, more recent research points out that both job design theory and social-technical theory do not account for contextual uncertainty (Wright & Cordery, 1999), which is a critical dimension in entrepreneurial environments. Therefore, as organizational functions may face dissimilar environmental contingencies and constraints, employees across different functional areas may manifest different relationships between the EO dimensions and their job attitudes and outcomes. For instance, Monsen and Boss (2004) observe that healthcare employees in diverse work environments both exhibit and react to EO differently both in terms of their stress levels and desire to quit. Further, Monsen (2005) demonstrates that autonomy and teamwork are two key workplace dimensions that moderate the impact of EO and its sub-dimensions (risk taking, proactiveness, and innovativeness) on an individual's perceptions of role ambiguity, feelings of organizational identification, and objective job performance. In summary, one can expect differences in the manifestation of EO to occur horizontally across functional areas as a result of job design contingencies and constraints.

Temporal Dimension: Variance in EO Across Time and State of Development

While the proceeding sections examine variance in EO across space (vertical and horizontal), we next turn our attention to reasons for variance in EO across time. Beyond spatial variations, there is reason to believe that the manifestation of an organization's EO may change as a function of the firm's level of development and stage of growth. There is an extensive stream of literature that examines the lifecycle or stages of development of a firm, generally following a biological metaphor (e.g., Greiner, 1972). However, one confounding issue in the lifecycle literature is that the age and size of a firm are linked to its stage of development. This approach disregards the fact that not all firms grow and that there are multiple potential "stages" for firms of all ages and sizes. While we do discuss issues related to size and age in this article, our primary focus follows the "dynamic states" approach to growth and development (Levie & Lichtenstein, 2010). This perspective breaks away from the biological metaphor represented by stages or lifecycles to embrace nonlinearity, unpredictability, and emergence in a firm's development. Although Levie and Lichtenstein acknowledge that many firms do indeed follow the stages approach, they suggest that firms can have one of an infinite number of "states" depending on their organizational aspirations and external demands. That is, firms are not preprogrammed to develop in one particular way or at a particular time. During different development states and transitions between states, however, organizations face varying sets of challenges, and transitioning between states is likely to demand changes in the organization's manifestation of EO. Therefore, in this section, we address why EO may fluctuate as well as how the pervasiveness of EO may change over time.

Why Might Organizational EO Vary Over Time. The dynamic states approach to organizational development represents the confluence of a firm's internal abilities, characteristics, and ambitions and its external environment (Levie & Lichtenstein, 2010). Similar to contingency theory in the sense that there may be an optimal configuration of strategy, structure, and environment that help a firm adapt to changing external threats and maximize performance (e.g., Short, Payne, & Ketchen, 2008), the dynamic states model takes a firm's willingness and aspirations into consideration when determining whether and in what way a firm will alter states. The dynamic states approach thus implies that the firm will take into consideration both its environmental fit and internal fit (cf. Miller, 1992) and potential priorities between them when determining if and when to alter states. As an organization grows or as the environment changes a configuration or state may become suboptimal, creating the need for a firm to change. Firms that do not adjust to these needs for reconfiguration will either simply fail to maintain a level of performance that satisfies expectations or will be selected out of the environment. Different problems need to be addressed in each of these states, resulting in the need for different management skills, priorities, and structural configurations to overcome these issues (Flamholtz & Randle, 2000). The sum of these arguments is that the configurational and dynamic states perspectives suggest that firms must make changes in their strategic orientations over time, as a reflection of their learning about the environment or as internal necessities/goals require. Therefore, one can expect that the EO of the firm would ideally adapt to these changing internal and external needs (Wiklund & Shepherd, 2005) in order to maintain fit and continue to perform over the longer term.

The dynamic state of the firm and the corresponding manifestation and expression of EO may also be reflected in the level of formalized systems, structures, and decision making (Kazanjian, 1989). Some firms, oftentimes new and young firms, do not have formal structures. New and young firms tend to have very simple, informal structures albeit with high levels of centralized decision making (Hanks, Watson, Jansen, & Chandler, 1993). Growing firms, or firms that have grown in the past, may have the structures in place to manage larger numbers of employees (Hanks et al.; Kazanjian, 1989). These structural considerations may also affect the importance and manifestation of EO over time. The empirical relationship between the structure of the firm and its EO, such as the positive relationship between informal organic structures and EO (Covin & Slevin, 1988; Green et al., 2008), creates potential challenges as the organization changes states. During certain times, organizations may develop more formal structures in order to overcome issues related to a lack of routines, systems, or reputations as well as to provide greater stability to the firm (Hanks et al., 1993; Kazanjian). The development of these formal, potentially mechanistic structures may function as a double-edged sword in the sense that they help to provide stability, control, and routines in the organization but may simultaneously lead to other difficulties around the manifestation of EO. Yet, following dynamic states reasoning, this may be in the firm's best interest. In any case, this once again suggests that organizations may face differing levels of EO pervasiveness throughout their lives.

How the Pervasiveness of EO Might Vary Over Time. The state of a firm may dictate the precise approach toward growth (e.g., acquisition, organic, or hybrid), which is related to a firm's EO (McKelvie & Wiklund, 2010). In a large-scale study of Swedish firms, McKelvie, Wiklund, and Davidsson (2006) find that smaller firms tend to pursue organic growth strategies, while larger firms have a much higher tendency to grow via acquisitions. Interestingly, they find that organic growth strategies (i.e., what small firms pursue) are strongly predicted by EO, while growth via acquisition is not predicted by EO. Acquisitive growth strategies are, on the other hand, predicted by access to financial resources and management, which is in line with Penrose's (1959) theory. Delmar, Davidsson, and Gartner (2003) share their conclusion that different types (e.g., in terms of age and size) of firms follow different strategic orientations as a function of their resource bases and use of EO. In a study of the airline industry, Chen and Hambrick (1995) find that smaller airlines have stronger orientations toward competitive aggressiveness and proactiveness than their larger counterparts. Further evidence also suggests that acquisition strategies can curtail internal R&D and product championing (Hitt, Hoskisson, & Ireland, 1990). They theorize that acquisitions, as a substitute for product championing, negatively impact a firm's orientation toward risk and innovativeness. As such, they provide an argument for why EO can fluctuate over time as a function of changes in an organization's growth strategy.

While these studies provide reasons for why the pervasiveness of an EO might differ over time given internal factors, other reasons also exist. Some research has shown that the capability of an organization to be innovative decreases as it develops core rigidities and inertia (Leonard-Barton, 1992), which some suggest develop as part of aging (Thornhill & Amit, 2003). Thornhill and Amit's study also shows that older firms tend to develop innovations that build upon their existing competencies rather than pursuing new and different opportunities. Indeed, some have argued that firms with limited experience and routines tend to be better suited for more radical innovation (Christensen & Bower, 1996) and that some firms with extensive experience tend to fall into a comfortable pattern of repeating past strategies that were previously successful (Miller & Chen, 1994). Together, these studies suggest that a firm's EO and its subsequent manifestation within the firm should vary over time.

Another important consideration from a temporal perspective is how and why the distribution of EO and the degree to which it is manifested across a firm may change over time. On the one hand, this change in distribution could be deliberate, proactive, and a result of strategic choice. For example, Stopford and Baden-Fuller (1994) provide examples of how EO can begin with a single business unit within a firm and in a bottom-up manner proliferate over time and change the strategic orientation of an entire firm. Alternatively, Bartlett and Ghoshal (1993) provide examples and theoretical explanations for how entrepreneurial firms can impress their established entrepreneurial orientations in a top-down manner onto newly acquired business units that were previously not entrepreneurial. On the other hand, changes in the manifestation of EO could be emergent or reactive to organizational and market forces (Volberda et al., 2001). In either case, the changing structure of the organization can impact how EO is manifest over time (Bartlett & Ghoshal; Mosakowski, 1998). In summary, based on the notion of dynamic states and the literature on growth/strategic orientations, we not only conclude that overall organizational EO can indeed vary across time but also that EO can pervade the hierarchical levels (vertical dimension) and business units (horizontal dimension) differently over time.

EO Manifestation Models

Having established several rationales for the variable pervasiveness of EO, in this section, we turn our attention to how this variability informs the question of EO's typical manifestation within organizations. Prior research suggests that EO characterizes an important means through which organizations change, adapt, and stay competitively relevant in dynamic environments (Rauch et al., 2009). Therefore, at the heart of these models is the question of how firms organizationally respond to the adaptation and change necessary to stay competitively relevant in dynamic environments (Lawrence & Lorsch, 1967; Thompson, 1967).

To the extent that EO implies change or adaptation in the pursuit of growth, it is in contradiction with the needs and requirements of organizational stability. This is an important observation given that organizational strategy has been conceived as "mostly managing stability, not change" (Mintzberg, 1987, p. 73). Nonetheless, organizations must at times change and adapt to gain and maintain a competitive advantage (Mintzberg & Westley, 1992; Raisch et al., 2009; Rindova & Kotha, 2001). Keeping this contradiction between EO and stability in mind, we build on the logic of previous models concerning how organizations manifest entrepreneurial attitudes and behaviors (Adler, Goldoftas, & Levine, 1999; Baden-Fuller & Volberda, 1997; Raisch et al.) to present three descriptive models of how organizations gain and maintain competitive advantage through change and varying their strategic orientations over space (vertical and horizontal) and time.

We begin with the baseline *Continuous Morphing Model* in which the strategic orientation (EO) of the organization is relatively homogenous and stable. We follow this with the *Ambidextrous Model* and *Cyclical Wave Model* in which the strategic orientation (EO) varies across space (Ambidextrous) and time (Cyclical Wave).

Continuous Morphing Model

The first model of how firms manifest EO presents a phenomenon that is both spatially and temporally homogeneous in its pervasiveness throughout the entirety of the firm. In this regard, all organizational actors exhibit and embrace a similar degree of EO, and organizational perceptions of EO are relatively consistent across levels and areas and over time. The Continuous Morphing Model suggests that firm structures, processes, cultures, and resources are constantly being altered, adjusted, and adapted to increase the organization's competitive capabilities (Rindova & Kotha, 2001). Continuous morphing characterizes organizations that are continuously undertaking "whole-system change" (Marshak, 2004, p. 14) through organizational mechanisms such as dynamic capabilities or strategic flexibility (Rindova & Kotha), or as we propose, through the firms' exhibition of EO attitudes and behaviors.

EO is, at its heart, an organizational mode of exploration, venturing, and renewal that drives organizational change and facilitates growth (Lumpkin & Dess, 1996). EO implies regularity, even "momentum" (Miller & Friesen, 1982, p. 5) in the taking of large, "bold strokes" or "courageous moves" (Mintzberg, 1973, p. 45) within the firm. A high level of EO leads organizations to question their existing norms, procedures, policies, and objectives as new opportunities are discovered and resources mobilized to exploit them. Unconstrained, the proliferation of EO attitudes and behaviors throughout the entirety of the firm characterizes an organization that is in a continuous state of morphing and adapting its structure and processes in response to emerging opportunities for new entry or renewal. In this regard, the Continuous Morphing Model emphasizes organizational variation and experimentation over the demands of organizational stability. To the extent that firms are able to maintain stability while exhibiting continuous morphing, the stability is likely to occur through a consistent shared vision paired with the rapid and holistic diffusion of adaptations to firm structures and processes throughout the entirety of the firm.

The logic of the Continuous Morphing Model is notably consistent with theories of organizational learning. For example, double-loop learning, or strategic learning, refers to the means by which an organization makes sense of the opportunities within its environment in ways that broaden the range of strategic objectives it can pursue or the range of resources and actions available for pursuing its objectives (Argyris & Schön, 1996). As noted by Zahra, Nielsen, and Bogner (1999), emphasizing EO facilitates strategic learning and continuous renewal by fostering opportunities for organizational knowledge creation and use. In this regard, entrepreneurial and learning orientations are mutually reinforcing. For instance, the continuous morphing of organizational culture in the presence of EO is evident in discussions of their reciprocal relationship. Notwithstanding the possible influence that organizational culture may have on the development of EO (Hart, 1992), it has been suggested that over time, recurring entrepreneurially oriented behaviors may transform the prevailing culture within an organization to become more entrepreneurially supportive (Covin & Slevin, 1991).

The Continuous Morphing Model may be more appropriate when organizational variation takes greater precedence over the needs of stability. Continuous morphing, based on its nature, appears to be most beneficial when competitive and market conditions are rapidly changing (Brown & Eisenhardt, 1997; Rindova & Kotha, 2001). For instance, fluctuations in organizational processes are important before a standardized design emerges within an industry (Anderson & Tushman, 1990). The continuous morphing of structures and processes is also likely to appear more frequently in smaller firms, particularly when individuals are simultaneously responsible for several functional areas at once. When organizational responsibilities are blurred, it is difficult to partition the exploratory and exploitative functions of the organization (March, 1991). Smaller firms may also experience smoother transitions while morphing, as they have fewer formalized procedures and specialized assets to adapt. As firms grow in size, structures and processes typically become more formalized, and continuous morphing may be less prevalent than an approach to EO in which EO attitudes and behaviors are purposefully restricted to certain units and areas within the firm to maintain manageability over a firm's exploratory initiatives.

Finally, continuous morphing may occur when organizational strategy is difficult to formulate in a top-down fashion. Situations more conducive to the implementation of intended strategies tend to favor stability and implementation over continuous change and adaptation. As such, an important factor for adopting a Continuous Morphing Model may be environmental dynamism, prompting the firm to change frequently and rapidly in order to remain competitively relevant. Additionally, factors that limit the firm's ability to morph continuously may also be of concern. For instance, organizational complexity is likely to reduce the duration over which organizations may continuously morph. As noted by Ireland et al. (2009, p. 37), Baden-Fuller and Volberda (1997, p. 99) assert that continuous renewal across complex organizations over long periods may represent too much change for these organizations to handle, contributing to "chaos, loss of cultural glue, fatigue, and organizational breakdown." Finally, it may also be important to account for factors that limit the diffusion of EO, thereby preventing an organizational pattern of attitudes and behaviors from developing or being maintained.

Ambidextrous Model

The second model of how firms manifest EO represents a phenomenon that is spatially heterogeneous in its pervasiveness throughout the firm. In this regard, firms aim to ambidextrously pursue both entrepreneurially oriented exploratory initiatives as well as more conservative initiatives that refine and exploit their existing knowledge (March, 1991; O'Reilly & Tushman, 2004; Raisch et al., 2009). Tushman and O'Reilly (1996) note that "the ability to simultaneously pursue both incremental and discontinuous innovation and change results from hosting multiple contradictory structures, processes, and cultures within the same firm" (p. 24). To this end, organizations may deliberately restrict their exhibition of EO attitudes and behaviors to certain areas within the firm in an effort to achieve a balance between the opposing requirements of organizational stability and change. Lawrence and Lorsch (1967, p. 9) were among the earliest to recognize that organizations may partition themselves into separate business units or areas that exhibit "differences in attitude and behavior" and "orientations toward particular goals" to deal with variations in the external environment more effectively. Along these lines, Duncan (1976) suggests that organizations benefit from "dual structures" such that the organization can maintain a stable core while simultaneously hosting separate units that are able to focus exclusively on entrepreneurial initiatives.

The Ambidextrous Model of how EO is manifested within organizations builds on the notion of structural differentiation. The separation of "core" and "innovating" units allows differences in strategic intent to be manifested and controlled. While exploratory units emphasize innovation and growth within loose adaptive structures, exploitative units focus on cost and profit within formal mechanistic structures (O'Reilly & Tushman, 2004). Individuals within "innovating" units are encouraged to develop and exhibit entrepreneurial competencies, while those in "core" units are required to emphasize the development of more operationally oriented competencies. As such, the bold initiatives and risky new endeavors that accompany the exhibition of EO are contained and managed within separate organizational subunits. This containment shields innovating units from the emphasis on efficiency and process management within the stable "core" of the business (Thompson, 1967), which tends to restrict the ability of a firm to experiment and achieve any measure of innovation beyond relatively simplistic incremental advances (Benner & Tushman, 2003). This logic is consistent with firm efforts to provide greater autonomy and decision-making discretion to R&D units or corporate ventures within the firm (Covin & Miles, 2007; Miles & Covin, 2002).

In addition to the structural partitioning of entrepreneurial and nonentrepreneurial tasks across formally separated units, EO attitudes and behaviors may also be differentially exhibited across individuals within the same work units (Adler et al., 1999; McDonough & Leifer, 1983). In this regard, the logic underlying the Ambidextrous Model of EO's manifestation may be applied to smaller organizational subunits, such as departments and teams. Taken together, prior research suggests that ambidexterity implies a mix of structural differentiation between "core" and "innovating" units, as well as an integration of differing behaviors across individuals within the same work unit (Andriopoulos & Lewis, 2009; Raisch et al., 2009).

These ambidextrous tendencies may occur more frequently in larger, more resource-munificent firms. Smaller firms "lack the amount of slack resources and the kind of hierarchical administration systems that can help or impede larger firms in managing their contradictory knowledge processes and, thus, affect the attainment of ambidexterity" (Lubatkin, Simsek, Yan, & Veiga, 2006, p. 647). With larger resource pools, larger organizations can also more easily accommodate the coordination costs that accompany simultaneously embracing exploratory and exploitative business units within the same organization. Important contingency factors for the Ambidextrous Model may also include factors that influence granting autonomy to innovating units, such as the centralization of decision making (e.g., Covin & Miles, 2007; Miles & Covin, 2002; Tushman & O'Reilly, 1996). Additionally, factors such as connectedness, information exchange, and joint decision making that influence behavioral integration across individuals within units and areas are also of consequence to an organization's ability to balance exploratory and exploitative activities judiciously. Several studies have supported this logic within the context of top-management teams (Jansen, Tempelaar, Van den Bosch, & Volberda, 2009; Lubatkin et al., 2006). Factors which influence behavioral integration are likely to be of similar, if not greater, relevance at middle-management levels in organizations that decentralize decision making around autonomously innovating units.

Cyclical Wave Model

The third model of how firms manifest EO, the Cyclical Wave Model, recognizes that organizations may alter their focus on EO during various periods of development and change. Organizational approaches to dynamic change, such as the punctuated equilibrium model (Romanelli & Tushman, 1994) and the dynamic states approach (Levie & Lichtenstein, 2010), note that firms will undergo periods of stability and conservatism followed by substantial system-wide upheavals. Periods of stability allow organizations to focus on specific plans of action whereby efforts can be centered on operating efficiencies but also on preparing to adapt to changing environments (Mintzberg & Westley, 1992). However, over time—whether due to inertia, environmental shifts, or internal crises—organizations transition to a new form.

Slevin and Covin (1990) argue that the most successful firms will "cycle" between different strategic orientations over time. Most organizations are ill-prepared to face all possible conditions; thus, they expect to undergo periodic changes. This cycling or "alignment" may be a function of external or internal triggers (Siggelkow, 2002; Webb & Pettigrew, 1999). From the external perspective, the cycling of entrepreneurial posture may be a clear reflection of changes in the environment. Slevin and Covin argue that one major impetus behind cycling between postures is variations in the level of environmental hostility. For example, they show that when an environment becomes more benign, high-performing firms adopt more conservative (i.e., less entrepreneurial) strategies in order to deal with those competitive challenges better (Covin & Slevin, 1990). Other studies have shown that an EO may have greater benefit at different stages of the industry lifecycle (e.g., Lumpkin & Dess, 2001). These findings suggest that a more entrepreneurial strategic posture might be differentially appropriate across degrees of uncertainty and industry evolution (Anderson & Zeithaml, 1984; Covin & Slevin).

From an internal perspective, this cycling may also be a reflection of the firm's state of development. Early on, firms may manifest an EO that is clearly pervasive throughout the entire firm while focusing on getting their initial offerings to market. However, over time, firms may need to cycle to more conservative approaches in order to provide greater stability and control over the production process (Hanks et al., 1993; Mintzberg & Westley, 1992). Simply put, an organization may alter the pervasiveness of EO within the firm in order to manage the most pressing organizational problems at the time, whether they are a matter of developing more sophisticated internal systems, expanding capacity, or formalizing the varying functions and roles within the firm (Kazanjian, 1989). Nevertheless, following states focusing on consolidation, the firm may then revert back to a more entrepreneurial focus in order to fuel further growth through new product expansion and diversification over time (Hanks et al.; Lumpkin & Dess, 1996; Wiklund, 1999).

Although not directly connected to dynamic states views of organizational development, Mintzberg (1987) argues that many of the most creative organizations are required to let loose at times in order to satiate their creative needs. However, there are also periods when they need to "settle down" in order to provide some structure and order from the otherwise chaotic creative orientations. These changes may follow a cyclical pattern, reconciling the needs for stability and change separated in time. This is similar to Adler et al.'s (1999) view of "switching," where an organization sequentially directs employees to focus on novelty and routine work, similar to cycling between organic and mechanistic structures. The "switch" allows for greater focus on the task at hand, thus reducing the costs of confusion (Adler et al.).

Furthermore, pursuing an entrepreneurial posture is costly to sustain. Successfully enacting an entrepreneurial strategy requires resources to be directed toward activities with uncertain returns (Covin & Slevin, 1991; Wiklund & Shepherd, 2005). Slack resources (i.e., resources available beyond those required for basic operating expenses) provide much of the discretionary funding and human capital needed to pursue opportunities and invest in R&D (George, 2005). However, slack resources are quickly consumed or put to use in order to pursue entrepreneurial efforts, and as this occurs, the organization may need to focus its attention on less resource-intensive conservative strategies (Covin & Slevin; Slevin & Covin, 1990). This may even be a reflection of entrepreneurial strategies that did not work out (Hart, 1992).

There appear to be a number of important contingency factors for the manifestation of the Cyclical Wave Model. A cyclical wave pattern seems most likely to occur when a firm faces periodic discontinuities due to a dynamic, changing environment or change within the organization. This is clearly distinct from the Continuous Morphing Model, in which the firm adapts in a relatively continuous manner. In other words, the likelihood of a firm pursuing cyclical wave behavior increases when it perceives that not being entrepreneurial for a period of time will lead to falling behind competitors' capabilities. Thus, when fluctuations in customer demand or industry upheaval typically occur periodically, cycling will likely be more common.

Moreover, when facing issues of resource scarcity, a cyclical wave manifestation may develop. For instance, when resource levels may fully support either exploration or exploitation but not both, cyclically manifesting EO attitudes and behaviors allows firms to sequentially focus larger portions of their limited resources on exclusively exploration or exploitation tasks than would be possible through a more ambidextrous approach (Covin & Slevin, 1991). Further, cycling may occur more frequently in situations in which expectations of flexibility and change are less common than those most facilitative of a continuous morphing manifestation.

Comparing the Three Models

In Table 1, we summarize the three models. As posited by Hunt (1983) and discussed in Covin and Miles (1999), it is essential that theoretical typologies meet certain criteria to be deemed acceptable classification schemata. Following Hunt's guidelines for typology development, the categories should be mutually exclusive, collectively exhaustive, and useful. While our three models may not necessarily be collectively exhaustive, each focuses on an independent dimension and reflects actual business practice. For example, while some may suggest that the Ambidextrous Model and the Cyclical Wave Model are very similar (Raisch et al., 2009), these two models differ along the spatial and temporal dimensions. For the Ambidextrous Model, EO-related actions take place to varying degrees simultaneously throughout the firm. For the Cyclical Wave Model, these EO-related actions occur sequentially and to varying degrees over time. Alternatively, while some may suggest that all organizations are continuously morphing with organizational members individually balancing exploration and exploitation while the organization further balances the ambidextrous tension between core and innovating units (Gibson & Birkinshaw, 2004), we limit the bounds of the Continuous Morphing Model to the special case of those organizations with homogenous EO.

Common to all three models is our intent to provide a conceptual framework for better understanding how EO can be manifested and expressed within organizations across vertical, horizontal, and temporal perspectives. As such, we make no normative prescription as to which model is best for firm performance and survival. While we may at times have employed language that implies a preference or "likelihood" for one model, we emphasize that these are descriptive proposals that are open to further refinement and empirical testing. In summary, the proposed typology represents a useful starting point and provides a reasonable conceptual guide for future discussion and research exploring the variable pervasiveness of EO.

Table 1

Key Attributes of the Three Forms of EO Manifestation

Form of EO manifestation	Focus of EO manifestation	Typical basis for maintaining org. stability	Typical degree of org. stability	Typical resource intensity	Principal managerial challenges
Continuous Morphing	Consistency	Shared vision	Low stability	High intensity	Constant change
Ambidextrous	Spatial heterogeneity	Separation of core and EO units	Moderate stability	Moderate intensity	Coordination costs
Cyclical Wave	Temporal heterogeneity	Varying levels and manifestations of EO over time	High stability	Low intensity	Transitioning resources

Discussion

In this article, we first establish that EO may heterogeneously pervade organizations and provide reasons why this matters both practically and theoretically. Second, we detail three dynamic models of how EO can be manifested and change inside organizations. We now discuss the theoretical implications of the preceding models, the practical challenges to managing organizational entrepreneurship as a heterogeneously pervasive phenomenon, and directions for future research into exploring the manifestation of EO within organizations.

Theoretical Implications

The preceding three models of how EO may pervade organizations have several important implications. A primary theoretical implication is that acknowledging variance in EO across levels and areas and over time helps to explain more realistically how EO is manifested within organizations as a homogeneous, spatially heterogeneous, or temporally heterogeneous phenomenon. The three models offered herein demonstrate how organizations can adopt distinctly different manifestations of EO as a reflection of changing external environments and internal characteristics. In the Continuous Morphing Model, EO is homogeneously distributed throughout the firm with structure and processes continuously changing. The Ambidextrous Model applies to situations when EO is heterogeneously distributed within the firm with a stable core and separate areas responsible for entrepreneurship. Finally, the Cyclical Wave Model views the manifestation of EO as cycling between periods of stability (less EO) and change (more EO). In developing these models, we recognize that organizations may follow distinctly different paths of EO manifestation as they adapt and change over time.

A second theoretical implication from this work is that there are numerous strong theoretical and empirical grounds to view entrepreneurial organizations as heterogeneous entities. EO should not be thought of as homogeneously pervading organizations all the time, nor should it be thought of as an inherently positive and productive process across all aspects of organizational functioning. As such, viewing EO as a set of processes and practices that are always organizationally homogeneous is unduly restrictive. Instead, embracing pervasiveness as a heterogeneous and multidimensional concept can provide additional richness and depth not only to the EO literature but also for complementary process models in the broader entrepreneurship literature. These models include Davidsson's (1991) cognitive model of small firm growth, Floyd and Wooldridge's (1999) capability-development process model of corporate entrepreneurship, and Ireland, Hitt, and Sirmon's (2003) resource and learning-based model of strategic entrepreneurship. As such, the insights herein may help to build bridges between parallel and complementary conversations in the broader area of entrepreneurship research and may open up a number of new and novel research questions.

A third theoretical implication of the various dimensions of pervasiveness and EO manifestation models is that they question the relevance and utility of discussing how pervasive EO *needs* to be within a firm in order to claim that EO is either present or absent within the organization. First, firms may spatially or temporally restrict their exhibition of EO beliefs and behaviors. This nuanced perspective of pervasiveness implies that it is not appropriate to conceive the strength of EO as a function of its degree of pervasiveness. Rather, organizations may exhibit high levels of EO even when its pervasiveness is limited. Second, because EO is ultimately defined by behavioral output criteria (Lumpkin & Dess, 1996; Miller, 1983), like attitudes absent behavioral output, it is insufficient to claim that the strength of EO is based on pervasiveness (Covin & Slevin, 1989, 1991). Therefore, how EO is manifested does not characterize whether a firm is more or less entrepreneurial but rather how an organization exhibits entrepreneurial beliefs and behaviors and subsequently how EO is managed. Thus, we suggest that researchers should focus on exploring pervasiveness as an important organizational phenomenon and not as a means to characterize organizations as more or less entrepreneurial.

Practical Implications

In addition to the theoretical implications, this research also has practical implications for top- and middle-level managers of entrepreneurial organizations. Managing entrepreneurship in organizations is an important, ongoing challenge, as evidenced by the various descriptive and normative models in the research literature (Baden-Fuller & Volberda, 1997; Covin & Miles, 2007; Miles & Covin, 2002; Volberda et al., 2001). Managers face a number of important decisions regarding which model may work best for them given their personal characteristics, needs, and goals; the goals of their organization; and market conditions.

While we are cautious about making normative recommendations regarding the three models, managers should bear in mind that each of these models implies different managerial challenges. For the Continuous Morphing Model, managers must prepare employees for unrelenting and constant change by, for instance, developing a supportive culture that embraces change as something positive rather than negative or developing a shared vision that helps reinforce and promote some sense of stability in the face of potential chaos. For the Ambidextrous Model, choosing which units or areas should manifest greater EO and ushering resources to these units is a necessary managerial task. Moreover, managers may need to devise a plan to ensure that key entrepreneurial insights are able to transition out of exploratory organizational silos, hopefully with the minimum possible coordination costs. Finally, for the Cyclical Wave Model, managers face challenges pertaining to refocusing organizational resources, both human as well as physical assets, during transitions between EO and more conservative strategic postures.

Future Research Directions

As the pervasiveness of EO has often been a missing or misunderstood concept in prior research, how might research on pervasiveness proceed? Our argument that EO may at times be heterogeneously pervasive throughout an organization as a function of vertical, horizontal, and temporal issues opens up a number of new focal areas of research, each with novel research questions and methodological implications. While we have touched on many of these new research avenues in earlier parts of this article, we specifically address them in Table 2.

Answering these questions on the pervasiveness of EO may require adopting different methodological approaches than have been commonly employed. That is, while we do value surveying top management as a valid source of a firm's EO, other methods may provide new insights into EO pervasiveness that cannot be answered through a top-management approach. One potentially promising method would be to examine perceptions of organizational EO from multiple respondents across different levels or areas of the firm utilizing validated measures of EO (e.g., Covin & Slevin, 1990; Lumpkin et al., 2009; Lumpkin & Dess, 2001). For instance, administering existing firm-level survey measures of EO to mid-level managers and employees within different areas of the organization

Table 2

Key Questions for Future Research

Dimension	Areas of focus	Research questions	Empirical implications
Vertical	EO across organizational levels EO across managerial groups EO in nonmanagerial positions	How do actors at different levels drive EO manifestation? How does the homogeneity or heterogeneity of EO across levels influence firm outcomes and performance? How does the manifestation of EO differ between a top-down induced vs. bottom-up autonomous approach? Through what means do managers at different levels influence the manifestation of EO throughout the firm? In what manners are EO beliefs manifested across organizational levels during continuous morphing?	Employ multiple respondents at each firm level examined. Extend the use of firm-level EO measures deeper into the firm. Test for congruence between top manager, mid-level manager, and nonmanagerial worker reports of organization-level EO. Examine differing manifestations of EO at lower organizational levels using a multidimensional theoretical and empirical lens. Examine nonfinancial performance measures of relevance to lower levels (employee retention, readiness for change, etc.) Explore intermediary outcomes (initiatives, projects, etc.) contributing to the manifestation of firm-level EO.
Horizontal	EO across business units EO across functional areas	How do actors in different areas of the firm drive the manner in which EO is manifested as an organizational phenomenon? How does consistency or heterogeneity of EO across units, departments, or other areas influence firm outcomes and performance? Do employees in different work environments react differently to EO and with what implications? In what units or areas do firm-level findings hold or differ? In what organizational and environmental contexts are firms able to manage ambidextrous manifestations of EO better?	Compare respondents from differing business units or functional areas, particularly across “core” and “entrepreneurial” units. Develop department-level measures of EO to allow for the comparison of differing manifestations of EO attitudes and behaviors within differing organizational subunits and areas. Examine measures of department-level performance, including financial and nonfinancial measures. Examine the organizational considerations that moderate the effectiveness of EO as manifested within differing units/areas.
Temporal	EO across dynamic states of a firm EO as a changing contingency factor	How does the pervasiveness of EO change over time and during transitions between firm development states? How do configurations of organizational factors influence EO effectiveness, and do these configurations change over time? How does organizational development affect the salience of differing forms of pervasiveness? How does the pervasiveness of EO relate to temporally linked organizational factors: liabilities/viabilities of newness, inertia, and core rigidities? In what instances is cycling EO most appropriate?	Examine firms longitudinally to measure how and why the manifested pervasiveness of EO changes over time and in different states. Examine how developmental states influence the effectiveness of EO as manifest across various firm levels and areas. Employ qualitative methodology (ethnography, case study) to develop a deeper understanding of the changing nature of EO. Examine the industry and organizational conditions that moderate the effectiveness of varying degrees of EO over time. Use broader samples to compare various effects of aging, size, and level of development on the cycling of EO within firms.

(Kemelgor, 2002; Monsen & Boss, 2009) and testing the congruence between levels, areas, and developmental states can provide initial inroads into understanding EO as a heterogeneous organizational phenomenon. This might help to identify which areas of the firm are typically manifesting particular aspects of EO, at what times, to what degrees, and with what effects with respect to which organizational contexts.

Another promising approach would be to adapt current measures and/or develop new measures that reflect intermediary steps in the entrepreneurship process across units, areas, and time, such as exploratory initiatives, projects, and experiments that lead to launching new product-market offerings. Exploring these intermediary steps responds in part to Rauch et al.'s (2009) suggestion that "developing new and improved measures of EO can possibly benefit future EO research" (p. 779). In this process of scale adaptation and development it will be critical to differentiate between the measurement of entrepreneurial behaviors or entrepreneurial attitudes (Zahra, Jennings, et al., 1999). A further benefit to understanding EO processes over time would be to examine EO longitudinally. Although the notion of longitudinal study is no longer novel (Wiklund, 1999), we propose that research specifically be directed at better understanding the reasons for potential fluctuations of EO over time. For instance, understanding how EO changes within a firm as part of a dynamic state change, strategic change, or new leadership/ownership may help to improve guided longitudinal research in the future. At the very least, this should enhance our knowledge of the mechanisms behind the driving forces of EO, how it is spread throughout an organization, and how manifestations of EO might change.

Finally, we suggest a broader set of performance measures, particularly for research on EO at lower organizational levels. Dess et al. (2003) specifically ask for researchers to consider not only multiple measures of profit but also nonfinancial measures, such as competitive capability (Ireland et al., 2009) and readiness for change (Rutherford & Holt, 2007). Further, while expectations of future outcomes are important for managerial decision making (Kuratko et al., 2005), given the uncertainty of these long-term outcomes in an entrepreneurial setting, Dess, Lumpkin, and McGee (1999) suggest that it may be insightful to assess near-term outcomes, such as employee retention (Dess et al., 1999) and the causes of employee departure, such as job stress (Floyd & Lane, 2000; Monsen & Boss, 2009; Upson, Ketchen, & Ireland, 2007). Combined, we believe that these are potentially fruitful new avenues for EO research.

Conclusion

The focus of this article was to address the questions of how and why organizational manifestations of EO vary across hierarchical levels and business areas and over time and to discuss three models of how this heterogeneity is typically manifested within organizations. We believe that considering the pervasiveness of EO along the vertical, horizontal, and temporal dimensions and the three corresponding manifestation models will help to direct further research along theoretically and practically interesting paths as well as to develop novel research methods and measures. While it is beyond the scope of this manuscript to investigate the relationship between the various manifestations of EO and firm performance, it is our hope that the insights herein will eventually serve to specify and tighten the various relationships between EO and important organizational outcomes, ultimately leading to the development of more effective managerial recommendations for corporate entrepreneurship and strategic renewal.

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