Do Similarities or Differences Between CEO Leadership and Organizational Culture Have a More Positive Effect on Firm Performance? A Test of Competing Predictions

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This study examines the nature of the interaction between CEO leadership and organizational culture using 2 common metathemes (task and relationship) in leadership and culture research. Two perspectives, similarity and dissimilarity, offer competing predictions about the fit, or interaction, between leadership and culture and its predicted effect on firm performance. Predictions for the similarity perspective draw upon attribution theory and social identity theory of leadership, whereas predictions for the dissimilarity perspective are developed based upon insights from leadership contingency theories and the notion of substitutability. Hierarchical regression results from 114 CEOs and 324 top management team (TMT) members failed to support the similarity hypotheses but revealed broad support for the dissimilarity predictions. Findings suggest that culture can serve as a substitute for leadership when leadership behaviors are redundant with cultural values (i.e., they both share a task- or relationship-oriented focus). Findings also support leadership contingency theories indicating that CEO leadership is effective when it provides psychological and motivational resources lacking in the organization's culture. We discuss theoretical and practical implications and delineate directions for future research.

Keywords: leadership, organizational culture, person-environment fit, firm performance

Researchers and practitioners alike have long espoused the important ways in which both leadership and organizational culture affect organizational effectiveness. A common theme across both literatures is that leadership and culture are salient contextual cues, or sources of information about attitudes and behaviors that are valued, rewarded, and supported in the organization (Ostroff, Kinicki, & Muhammad, 2013). Indeed, both leadership and culture are related to a host of aggregated attitudes and behaviors (DeRue, Nahrgang, Wellman, & Humphrey, 2011; Hartnell, Ou, & Kinicki, 2011), but a dearth of theoretical and empirical research examines

the interactive effect of leadership and culture on organizational effectiveness (Burns, Kotrba, & Denison, 2013). This lack of attention is surprising because a leader's effectiveness is a result of the interaction between the leader and the social and organizational environment (Dinh et al., 2014; Fiedler, 1996). Hence, "at the very least, a senior leader would have to factor the nature of the company culture into his or her approach to leadership" (Klimoski, 2013, p. 275).

Klimoski's (2013) observation underscores the importance for CEOs to recognize aspects of the social context and adapt their leadership behavior accordingly. Unfortunately, past research offers little in the way of clarifying whether leaders should behave similarly or differently from values espoused by an organization's existing culture. The overall goal of this study is thus to examine the fit, or the interaction, between CEO leadership and organizational culture. Our predictions are based upon insights from attribution theory (Kelley, 1967), social identity theory of leadership (Hogg, 2001), and contingency-based leadership theories (House, 1971, 1996; Kerr & Jermier, 1978). These theoretical lenses propose an interactional effect between leadership and culture that is based on their respective levels of similarity or dissimilarity. Results are theoretically and practically insightful because similarity and dissimilarity perspectives offer contrasting views about how leadership and

culture fit and why they are expected to enhance organizational outcomes.

The similarity perspective suggests that leadership and culture positively influence firm performance when leaders behave similarly to values espoused by an organization's existing culture. The similarity perspective is based on the notion that CEOs who align their behaviors with an organization's culture create consistent cues that inform employees about how to direct their attention and effort. This consistency, in turn, should foster a concentrated effort on the pursuit of common goals and subsequently enhance organizational performance.

In contrast, the dissimilarity perspective is based on the proposition that leadership and culture improve firm performance when leaders behave differently from values espoused by an organization's existing culture. According to this perspective, similarities between leadership and culture are inefficient because similarities convey redundant information. Theories underlying the dissimilarity perspective thus predict that CEOs are expected to be more effective when their behaviors provide information and support not provided by the organizational context (House, 1996). These contrasting perspectives motivated the current study to examine the following research question: Do similarities or differences in corresponding dimensions of leadership and culture have a more positive effect on firm performance? We examine leadership–culture fit by making predictions about an interactional effect based on levels of similarity and dissimilarity.

This study contributes to the literature in three ways. We contribute to organizational culture research by providing a theoretically grounded framework to examine how the similarity or dissimilarity between organizational culture and CEO leadership impact firm performance. Second, we contribute to upper echelon research by examining contingency relationships associated with CEO task and relational leadership. This is important because past research linking CEO leadership to outcomes has focused almost exclusively on the positive effects resulting from charismatic (Waldman, Ramirez, House, & Puranam, 2001) and transformational leadership (Ling, Simsek, Lubatkin & Veiga, 2008). Although these results are informative, these two forms of leadership do not completely encapsulate the range of behaviors CEOs exhibit to enhance organizational effectiveness (Bass & Bass, 2008; Mintzberg, 1973). Finally, this study takes initial steps toward examining the effect of similarities and dissimilarities between macro social components (i.e., CEO leadership and culture) within an organizational system (Ostroff & Schulte, 2007). Results thus inform the broader literature in organizational psychology and Person-Environment (P-E) fit by specifying how the fit between two different, but salient aspects of an organization's social-contextual environment affect firm performance.

There are three important boundary conditions associated with this study. First, this study is focused on the interaction of leadership and culture where leadership and culture "work in concert to influence outcomes" (Kristof-Brown & Guay, 2011). Rather than specifying a primary determinant (as in traditional applications of moderation), our chief interest is to theoretically specify and empirically examine the point of congruence between CEO leadership and culture. We thus examine the influence of different combinations of corresponding leadership and culture dimensions on firm performance. Second, this study does not address the emergence of leadership or organizational culture. Researchers widely agree that leaders can be culture creators and culture can constrain leadership behavior (Hartnell & Walumbwa, 2011; Schein, 2010; Trice & Beyer, 1991), but the causal dynamics between leadership and culture or leadership/culture change is beyond the scope of this article. Finally, our research is bounded by the study's context. All firms in the current study are established firms in the high technology industry, and only a small percentage of these CEOs were founders. Founders' leadership behavior is expected to be similar to values espoused within the organizational culture because they are formative in imprinting the organization's values, beliefs, and assumptions (Schein, 2010), but the similarity between leadership and culture for nonfounding CEOs remains equivocal. Taken together, the purpose of this study is to investigate how similarities and differences between CEO leadership and culture influence organizational performance.

Theoretical Background

Leadership and culture dimensions are characterized by similar and corresponding metathemes. To lend clarity for the hypotheses, we identify metathemes in leadership research, illustrate the importance of task and relational leadership for CEOs, and identify metathemes in organizational culture research.

Metathemes in Leadership Research

Within the leadership literature, task and relational leadership reflect common thematic dimensions across numerous classical programs of leadership research (cf., Bowers & Seashore, 1966). For instance, the Ohio State Leadership Studies narrowed 2,000 leadership behaviors into two broad dimensions—initiating structure and consideration (Halpin & Winer, 1957; Stogdill, 1963). Concurrently, a series of University of Michigan studies uncovered clusters of leader characteristics into production orientation and employee orientation dimensions (Katz, Maccoby, & Morse, 1950). Subsequent research established two types of leadership behavior–job-centered and employee-centered leadership (Likert, 1961). Contemporary leadership scholars continue to classify leadership behaviors into task and relational metathemes (Fiedler, 1996; Fiedler & House, 1994; Fleishman et al.,1991; Judge, Piccolo, & Ilies, 2004; Yukl, Gordon, & Taber, 2002). For instance, task and relational dimensions are consistent metacategories in taxonomies of individual leadership (cf., DeRue et al., 2011; Yukl, 2011) and team leadership (Burke et al., 2006).

Task-oriented leaders focus primarily on facilitating task accomplishment by defining role relationships among group members, by clarifying expectations and performance standards, and by encouraging the use of standardized rules and regulations to enhance consistency and predictability (Bass & Bass, 2008). Relationship-oriented leaders, on the other hand, emphasize interpersonal support and positive relationships by encouraging group members' involvement in decision-making, implementing group members' suggestions, demonstrating respect for group members, and treating group members as equals (Bass & Bass, 2008). In this study, relational leadership solely reflects an entity-based perspective in which a leader builds interpersonal relationships with followers aimed toward accomplishing shared goals (Uhl-Bien, 2006). It departs from the focus of Uhl-Bien's (2006) relational leadership theory in that it does not incorporate a social constructionist view of relational leadership as an organizing process.

Although other important types of leader behavior are included in modern leadership taxonomies, we focus on task and relational leadership because they constitute enduring and consistent themes across numerous leadership taxonomies. Furthermore, studying task and relational leadership among CEOs contributes to leadership knowledge by examining a bandwidth of CEO behavior that goes beyond studies of charismatic or transformational leadership.

The Importance of CEO Task and Relational Leadership

Contrary to the myth that CEOs spend the majority of their time formulating strategies and visions, Bass and Bass (2008) noted that senior leaders spend "much more of their time in implementing strategies" (p. 685). Strategy implementation involves aligning employees' goals and incentives with the organization's strategy (Hitt, Ireland, & Hoskisson, 2015). It also includes building consensus among senior leaders on a strategy to clarify work roles, clearly defining goals, and motivating others to accomplish the strategic objectives (Finkelstein, Hambrick, & Cannella, 2009). Implementing strategies thus requires functional leadership behaviors such as task and relational leadership.

Qualitative evidence indicates that task and relational leadership may be just as important for CEO effectiveness as they are for leaders at lower levels of the organization. In a qualitative study of several dozen CEO failures, Charan and Colvin (1999, p. 70) revealed that CEOs were fired because they were "not getting things done, being indecisive, not delivering on commitments." Finkelstein (2003) documented similar findings in a study of "spectacularly failing" CEOs. Failing CEOs neglected task leadership when they used financial statements as public relations tools rather than monitoring and controlling devices to improve operations. Failing CEOs also failed to employ relational leadership when they used intimidation and elimination as tactics to get subordinates on board with their initiatives (Finkelstein, 2003).

The importance of task and relational leadership for CEOs is further evident in Mintzberg's (1973) work on executive roles. Mintzberg (1973) notes that senior leaders enact two key roles — informational and interpersonal. An informational role includes obtaining, communicating, and disseminating information. This role is consistent with task leadership because information is used to identify and articulate goals, initiate structure, and communicate expected results. Executives' interpersonal roles involve maintaining social networks and motivating and training subordinates to perform, a notion that parallels relational leadership.

Metathemes in Organizational Culture Research

Organizational culture is composed of shared values and norms that inform employees about how they should perceive, think, feel, and behave in relation to organizational problems (Ostroff et al., 2013; Schein, 2010). Culture is a source of social control because it reflects shared learning that produces normative expectations about behavior (O'Reilly & Chatman, 1996). Norms influence employee behavior to ensure unit survival and to increase the coordination and predictability of members' actions toward desirable organizational ends (Feldman, 1984). Organizational culture further exerts social control through its influence on other components of the organization's social system. For instance, culture is the underlying logic that informs more surface level manifestations of the organizational social system, such as organizational climate and human resource (HR) practices (Ostroff et al., 2013; Zohar & Hofmann, 2012). All told, culture is a salient social contextual factor that helps employees make sense of their environment and directs their attention to facets of organizational functioning that are valued, rewarded, and supported.

From a theoretical standpoint, values and norms tend to coalesce around task- and relationship-oriented themes because organizations must solve fundamental problems related to external adaptation and internal integration (Schein, 2010). Problems related to external adaptation, for instance, focus organizational members externally on task-oriented functions such as meeting, anticipating, and being responsive to customers' dynamic needs and preferences, as well as monitoring competitors' behaviors (Cameron, Quinn, DeGraff, & Thakor, 2006; Schein, 2010). Problems related to internal integration focus organizational members internally on relationship-oriented processes that facilitate integration such as coordination, participation, and communication (Cameron et al., 2006; Schein, 2010).

Consistent with the theoretical themes underlying organizational culture as well as the metathemes found in the leadership literature, the predominant organizational culture frameworks contain culture dimensions with broad thematic similarities that focus on task-oriented values and relationship-oriented values. For instance, the Competing Values Framework (CVF; Cameron & Quinn, 1999; Quinn & Rohrbaugh, 1983) introduces market and clan cultures. *Market cultures* are externally focused on enhanced goal achievement, competition with competitors, and market-based results as means to boost competitiveness (Cameron et al., 2006). *Clan cultures* are internally focused on people-oriented processes to facilitate coordination and collaboration among employees to accomplish organizational goals (Cameron et al., 2006). Denison's Organizational Culture Survey (Denison & Mishra, 1995) identifies a *mission culture* as focusing on goal accomplishment through clarifying organizational goals and structuring employees' roles to attain the organization's strategic direction. *Involvement cultures* value employee participation and developing positive interpersonal relationships through empowering followers, developing their capabilities, and building a team orientation. Finally, the Organizational Culture Profile (O'Reilly, Chatman, & Caldwell, 1991), classifies cultures as having an *outcome orientation* (i.e., akin to market and mission cultures) and *respect for people* component (i.e., similar to clan and involvement cultures). Taken together, the three most commonly used taxonomies of organizational culture all emphasize task-oriented and relationship-oriented values as major dimensions of culture.

We define task cultures as those with shared values that stress the importance of structuring tasks, clearly articulating expectations, and achieving goals (Cameron et al., 2006; O'Reilly et al., 1991). Such cultures influence organizational members to plan, focus on tasks, and achieve goals aggressively and competitively. Relationship cultures, in contrast, are defined as those with shared values that emphasize developing people in an effort to build employee cohesion and collaboration (Cameron et al., 2006; O'Reilly et al., 1991). Relationship cultures influence organizational members to engage in teamwork, participate actively in generating ideas as well as making decisions, and communicate openly with each other.

Hypotheses

Leadership–Culture Fit From the Similarity Perspective

As mentioned earlier, the similarity perspective underscores the benefits of similarity, or affinity, between leadership and culture. According to the similarity perspective, fit occurs when levels of corresponding leadership and culture dimensions converge, or match. That is, levels of leadership and culture are aligned such that they both signal to employees that achieving tasks or developing relationships are valued, encouraged, rewarded, and supported.

Positive effects of similarity. Two theoretical perspectives explain why leadership-culture similarities are expected to positively impact firm performance: attribution theory and the social identity theory of leadership. Attribution theory is predicated on the assumption that people make attributions about behavior and performance by considering the consistency across environmental stimuli (Heider, 1958). Kelley (1967, 1973) notes that consistency across stimuli is expected to make attributions about cause-effect relationships more straightforward. In the present context, consistency between the social contextual cues contained in leader behavior and organizational culture send unambiguous signals to employees about behavior that is expected, rewarded, and supported. A consistent set of contextual cues is expected to foster a clearer understanding of valued performance standards, enabling employees to more efficiently focus their efforts. In contrast, inconsistent signals from leadership and culture may confuse employees, create role ambiguity, and foster various forms of conflict, thereby resulting in decreased firm performance. In summary, consistencies between leadership and culture are expected to provide clear behavioral expectations to employees resulting in more integrated effort and better performance than organizations in which leadership and culture send inconsistent cues.

The second theoretical perspective pertains to the social identity theory of leadership. The social identity theory of leadership purports that followers attribute higher status to prototypical leaders—or leaders who conform to the distinctive and enduring characteristics of the collective—and view them as more attractive because they affirm the collective's core values (Hogg, 2001). Prototypical leaders thus wield more influence on followers' attitudes and behaviors than leaders who are less prototypical of the unit. In support, extant research indicates that followers tend to be more accepting of and receptive to prototypical leaders than leaders who do not embody values and beliefs that define the collective (Giessner, van Knippenberg, & Sleebos, 2009; Ullrich, Christ, & van Dick, 2009; van Knippenberg & van Knippenberg, 2005). In sum, attribution theory and the social identity theory of leadership support the contention that similar levels of corresponding leadership and culture dimensions are beneficial for organizational performance.

Negative effects of dissimilarity. The theory of cognitive dissonance (Festinger, 1957) and the social identity theory of leadership explain the negative effects of dissimilar social cues on firm performance. Festinger's theory of cognitive dissonance (1957) proposes that inconsistent information creates psychological discomfort that motivates people to reconcile the perceived inconsistencies. In this context, discrepant signals between distinc-

tive social contextual cues—leadership and organizational culture—may result in a gap between espoused and enacted values. This gap may create confusion among employees about what behavior is valued, rewarded, and supported, and, consequently, attenuate firm performance. In support, Simons' (2002) model of behavioral integrity suggests that perceived misalignment between words and actions results in lower levels of employee trust, performance, cooperation, and citizenship behavior.

Consistent with Simons' predictions, discrepancies between leadership behavior and cultural norms are expected to foster uncertainty and ambiguity among employees about how they should perceive, think, feel, and behave in relation to organizational events, resulting in a reduction in firm performance. For example, CEOs whose task leadership underemphasizes task-oriented expectations relative to the organization's culture may result in tension for employees because their leaders inadequately equip them or insufficiently clarify policies and procedures, hindering their ability to stay focused and execute tasks to fulfill the normative task-oriented expectations derived from the organization's culture. In contrast, task leadership that overemphasizes task-oriented expectations relative to the firm's culture may unintentionally instigate stress and strain among employees because the leaders come across as micromanaging—overemphasizing conformity to policies and overcommunicating performance expectations relative to the norms set forth by the organizational culture. These task-oriented leadership behaviors may be perceived as excessive and contribute to role overload and role ambiguity, impeding employees' psychological resources available to enhance organizational performance.

Likewise, CEOs that underemphasize or overemphasize relational leadership behaviors relative to the relational norms set forth by the organization's culture may send confusing signals to employees. CEOs that underemphasize relational leadership behaviors in comparison with the organization's relationship culture may convey to employees that their CEOs do not personally value or directly reward social behaviors such as friendliness, participation, and collaboration. CEO relational leadership that overemphasizes relational behaviors and expectations relative to the organization's culture may be interpreted by organizational members as patronizing, politically motivated, and insincere. Inconsistent signals that result from CEO leadership behaviors that underemphasize or overemphasize task or relational behavior relative to the corresponding culture may thus create ambiguity for employees in interpreting and responding appropriately to the social contextual cues.

Although inconsistent signals may mitigate performance by causing uncertainty and ambiguity, the social identity theory of leadership suggests that the lack of similarity between leadership and social contextual cues has relational repercussions that diminish firm performance. Leaders who underemphasize or overemphasize tasks or relationships relative to the organization's culture may signal that they are not representative of their organization's central values and beliefs. Ullrich et al. (2009) reported that leaders whose behaviors are misaligned with their unit's norms and values lack the endorsement of unit members. Leaders who are not perceived to be prototypical of the unit may thus lack the influence, trust, and status needed to direct employee behavior toward enhancing organizational outcomes (Giessner et al., 2009; van Knippenberg & van Knippenberg, 2005). Taken together, the above discussion leads to the following predictions:

Hypothesis 1: When levels of task leadership and task culture are similar, firm performance will be higher than when levels of task leadership and task culture are dissimilar.

Hypothesis 2: When levels of relational leadership and relationship culture are similar, firm performance will be higher than when levels of relational leadership and relationship culture are dissimilar.

Leadership–Culture Fit From the Dissimilarity Perspective

The dissimilarity perspective of leadership–culture fit posits that dissimilarities in levels of corresponding leadership and culture dimensions provide several benefits to the organization and its members that enhance firm performance. The benefits of leadership–culture dissimilarities are based on propositions derived from House's (1996) path-goal theory and substitutes for leadership theory. Taken together, these two theoretical perspectives predict that firm performance will improve when levels of corresponding leadership and culture dimensions are dissimilar such that leadership is high when culture is low or leadership is low when culture is high. We now consider the detailed arguments underlying each theoretical perspective.

Positive effects of dissimilarity. An assumption implicit in leadership contingency theory is that leaders provide the "right amount" of leadership behaviors to enhance effectiveness (Lambert, Tepper, Carr, Holt, & Barelka, 2012). Path-goal theory suggests that the "right amount" of leadership is attained when leaders provide information and support not provided by the context (House, 1996). This conclusion is consistent with McGrath's (1962, p. 5) argument that leaders should "do, or get done, whatever is not being adequately handled for group needs." CEOs who engage in task leadership when there is a lack of a task-oriented focus within the organizational culture enhance firm performance through clarifying and communicating goal-oriented expectations and directing employees' attention toward valued organizational objectives. Social learning theory (Bandura, 1977) suggests that these behavioral signals are likely to be an important source of social learning because CEOs are credible role models who are expected to reward similar behavior. Hence, task leadership is particularly important in a culture with low levels of task-oriented cues because it reduces ambiguity by providing directive information that clarifies how followers' should allocate their effort and direct their attention. In this context, task leadership is expected to promote goal achievement and firm performance.

CEOs who employ relational leadership when the firm's culture does not underscore the importance of people-oriented processes signal their personal beliefs that participation, collaboration, and coordination are essential to improving firm performance. CEO relational leadership is likely to engender positive relationships with employees, particularly in environments where supportive, fair, and participative behaviors are not the norm. Employees who benefit from unexpected positive social exchanges with their CEO are thus expected to be more motivated to reciprocate through working toward valued organizational ends, such as improved firm performance.

Organizational culture also is a prominent source of social control that influences what followers do and how they do it (O'Reilly & Chatman, 1996). Employees in task-oriented cultures, for example, have been taught to prioritize issues of firm survival (i.e., external adaptation) through emphasizing achievement, results, competition, and aggressiveness (Cameron et al., 2006). These normative expectations streamline employees' effort and attention toward enhancing firm performance and improving the organization's competitive position in the marketplace. In support, meta-analytic evidence indicates that task-oriented cultures (i.e., market culture) are positively associated with firm performance (Hartnell et al., 2011). High task cultures are likely to be particularly effective when CEOs engage in low levels of task leadership because they provide clear cues to employees that they should allocate their effort and energy toward enhancing firm performance. We thus expect that in the absence of directive, task-oriented guidance from their leaders, task-oriented values and normative expectations will play a key role in aligning followers' effort with behaviors that enhance firm performance.

Likewise, a high relationship culture juxtaposed with low CEO relational leadership is expected to provide performance-related benefits. Low CEO relational leadership may prompt followers to search for positive relationships and social interactions among their colleagues to facilitate internal integration, particularly in firms with high relationship cultures. A relationship culture cues the importance of positive relational dynamics, an open exchange of information, and collaborative decision-making. In the absence of supportive behaviors from the CEO, relational norms are likely to engender high-quality exchanges among top management team (TMT) members because they are the primary source of social support and information. This process is expected to positively impact firm performance because TMT members will share resources and work together collaboratively to make decisions and attain their goals. In support, Simsek, Veiga, Lubatkin, and Dino (2005) reported that positive relationships and high levels of information exchange among TMT members (i.e., TMT behavioral integration) enhanced firm performance. Low relational leadership in the context of a high relationship culture is thus expected to enhance firm performance.

Negative effects of similarity. Substitutes for leadership theory (Kerr & Jermier, 1978) argues that leadership is ineffective when it is accompanied by organizational characteristics with a similar emphasis. Substitutes are organizational characteristics "which render relationship and/or task-oriented leadership not only impossible but also unnecessary" (Kerr & Jermier, 1978, p. 396). Substitutes for leadership theory contends that redundancies between leadership and aspects of the organizational context may result in decreased leader effectiveness. For example, a culture that emphasizes competition and goal accomplishment may render task leadership unnecessary. Likewise, organizations with collaborative, supportive, and participative cultures may not benefit from relational leaders who similarly foster trust, support, and communication. Substitutes for leadership theory thus supports the dissimilarity perspective that leadership and culture are more effective when they are not redundant. In support, Schneider (1987) argues that consistent environmental cues within an organization convey similar signals that may result in excess homogeneity and myopic perspectives, resulting in negative organizational outcomes. We now consider more specifically how redundancies in corresponding dimensions of leadership and culture may attenuate firm performance.

High levels of task leadership may be unnecessary and even deleterious for employee motivation in task-oriented cultures. Task cultures provide clear contextual signals to convey the importance of high performance (Hartnell et al., 2011). CEOs that further emphasize task-oriented expectations with high task leadership are likely to be perceived as controlling or overbearing. Task-oriented leaders who continually monitor behavior (particularly among TMT members), clarify what employees should be doing, and reinforce performance expectations may inhibit followers' autonomy and distract them from getting work done. Constrained autonomy may impair followers' self-efficacy, motivation, and commitment, and diminish their cognitive and affective resources focused on accomplishing organizational goals. As a result, high levels of CEO task leadership may impede followers' performance when an organization's culture emphasizes task-oriented values.

High levels of CEO relational leadership and relationship culture may also produce redundancies that attenuate firm performance. Employees in relationship-oriented cultures are expected to prioritize issues of internal integration through building positive relationships among coworkers and building strong team dynamics. A focus on internal processes emphasizes the importance of cohesion, participation, communication, and collaboration among organizational members (Cameron et al., 2006). These processes build trust and loyalty among organizational members, resulting in high levels of employee satisfaction and commitment (Hartnell et al., 2011).

In the context of high relationship cultures, high levels of CEO relational behavior may overemphasize the role of relationships within the organization to the exclusion of focusing effort on enhancing firm performance. That is, high levels of relational leadership and relationship culture may collectively reinforce that social integration, or satisfaction with and attraction to the group (O'Reilly, Caldwell, & Barnett, 1989), is a valued end in itself. As such, high levels of relational leadership and relationship culture may create an environment in which employees are satisfied and committed, but are less focused on task-oriented functions that more directly impact firm profitability and performance. In support, meta-analytic results indicate that clan cultures may have a more distal relationship with firm performance such that they are positively associated with positive employee attitudes but are not related directly with measures of firm performance (Hartnell et al., 2011). High levels of CEO relational leadership combined with a high relationship culture may thus result in a weaker relationship with firm performance than when levels of relational leadership and relationship culture are dissimilar.

Based on tenets of path-goal theory and substitutes for leadership, we propose the following hypotheses:

Hypothesis 3: When levels of task leadership and task culture are dissimilar, firm performance will be higher than when levels of task leadership and task culture are similar.

Hypothesis 4: When levels of relational leadership and relationship culture are dissimilar, firm performance will be higher than when levels of relational leadership and relationship culture are similar.

In summary, our arguments for similarity (H1 and H2) are in direct contradiction to the arguments for dissimilarity (H3 and H4).

Stated differently, the similarity and dissimilarity hypotheses are competing hypotheses that cannot be supported simultaneously.

Method

Sample and Procedure

The data used in this sample were drawn from CEOs and their TMT members who were members of a technology consortium dedicated to providing peer networking opportunities and industry information sharing. The consortium consisted of a rolling membership of CEOs and their organizations who participated at various points during the longitudinal data collection. A subset of members from this association participated in three prior studies (Ou, Waldman, & Peterson, in press; Peterson, Galvin, & Lange, 2012; Reina, Zhang, & Peterson, 2014). Eighty percent of the CEOs used in this study are unique to this article and did not participate in the other studies. In addition, data were collected several months after the published studies, eliminating any potential data overlap. Respondents in this study are thus part of the same larger consortium but constitute a unique sample. This study further differentiates from the previously published studies in that we include data obtained from CEOs and their full TMT as opposed to only the CEOs and their corresponding chief financial officers (CFOs).

The technology consortium provided access to 205 CEOs in the software and hardware industries. One-hundred twenty CEOs agreed to participate, representing a 58.5% response rate. Participating CEOs identified their TMT members and provided their contact information. All participants were assured of confidentiality and were told that only aggregated results would be shared with participating organizations. Data were obtained from 338 out of 382 TMT members, representing an 88.5% participation rate. Responses from at least 50% of each organization's TMT were required to ensure that samples were representative of their respective organizations (cf., Ling et al., 2008). This criterion resulted in a final sample of 119 CEOs or firms and 337 TMT members.

The average age of CEOs was 48.7 years, 82% male, 82% Caucasian, and 18% founded the company. CEOs' average tenure was 4.2 years and 73% served as their company's chief executive for at least 3 years. The vast majority of participating organizations were privately held (92%). The average TMT size (i.e., number of CEO direct reports) was 3.2 members, and the number of TMT responses per organization averaged 2.8.

Data were collected from different sources to mitigate common method bias concerns. TMT members rated their CEO's leadership behavior. CEOs and their respective TMTs assessed the organization's culture. The technology consortium, with the approval of each firm's CEO, provided an objective measure of firm performance (Return on Assets [ROA]) 9 months prior to and 9 months post survey administration.

Measures

Task leadership. Five items from the *initiating structure* subscale of the Leader Behavior Description Questionnaire (LBDQ XII; Stogdill, 1963) were used to assess task leadership. The five items were chosen based on the strength of their factor loadings in an extant study validating the LBDQ XII (Schriesheim & Stogdill, 1975). TMT members rated the extent to which the CEO "Lets

group members know what is expected of them," "Encourages the use of uniform policies," "Maintains definite performance standards," and so forth. The response scale ranged from 1 (*to a very small extent*) to 5 (*to a very large extent*). Across TMT members, the reliability of the scale was .82.

Relational leadership. Relational leadership was measured using five items from the *consideration* subscale of the LBDQ XII (Stogdill, 1963) and focused on the degree to which a leader displayed behaviors such as trust, respect, and liking. The five items that demonstrated the highest factor loadings in Schriesheim and Stogdill's (1975) validation study were used. Using a response scale ranging from 1 (*to a very small extent*) to 5 (*to a very large extent*), TMT members rated the extent to which the CEO, "Is friendly and approachable," "Puts suggestions made by the group into operation," "Treats all group members as his/her equals," and so forth. The alpha reliability of the scale was .90.

Organizational culture. We assessed two dimensions of organizational culture: task and relationship culture. Both culture dimensions were derived from the Organizational Culture Profile (OCP; O'Reilly et al., 1991). We selected the items that loaded onto four dimensions from O'Reilly et al.'s (1991) factor analysis that most directly reflected task-focused and relationship-focused cultures. *Task culture* was measured with seven items from two OCP dimensions: outcome orientation and aggressiveness. The CEO and their TMTs indicated the extent to which the listed values were characteristic of their organization's culture. The response scale ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample value statements for task culture were "A results orientation," "High expectations," and "Competitiveness." O'Reilly et al. (1991) reported that "Social responsibility" loaded negatively on the aggressiveness dimension, but the item was dropped from this study because it was conceptually distant from the other items in the scale which collectively focused on high performance; moreover, the item failed to load significantly on the task culture factor. The alpha reliability of the six-item scale for task culture was .86.

Relationship culture was assessed using six items from two OCP dimensions: respect for people and team orientation. The CEO and their TMTs indicated the extent to which the listed values were characteristic of their organization's culture. The response scale ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Two items were dropped from the measure because they focused on fair treatment of employees rather than an overall orientation toward teamwork and relationships and they did not load significantly onto the relationship culture factor. Value statements for relationship culture were "Team orientation," "Collaboration," "Tolerance," and "A people orientation." The alpha reliability of the four-item relationship culture scale was .83.

Firm performance. An objective measure of firm performance was collected by accessing the firms' ROA 9 months following survey administration. The time-lagged research design temporally separates leadership and culture from firm performance, enabling us to test the combined effect of leadership and culture on firm performance while mitigating the possibility of reverse causality. ROA was made available by the technology consortium and with the CEOs' permission. ROA was captured as net income divided by total assets. ROA is a commonly used performance measure to assess organizational performance (Agle, Mitchell, & Sonnenfeld, 1999; Barrick, Thurgood, Smith, &

Courtright, 2015) and was noted by members participating in the technology consortium as a particularly relevant industry benchmark.

Control variables. Prior firm performance was controlled by accounting for firms' ROA 9 months prior to survey administration. We also controlled for firm size, consistent with research linking organizational attributes to firm performance (cf., Carpenter, Geletkanycz, & Sanders, 2004; Ling et al., 2008). We controlled for CEO founder status and CEO tenure because CEOs who are founders or have longer tenure may have a greater degree of managerial discretion and thus have more influence on firm outcomes. Industry was effectively controlled via the sample because all participating firms were from the high-technology industry.

Aggregation Statistics

A one-way analysis of variance (ANOVA), with the organization as the independent variable, was conducted to assess if greater variability existed in ratings between firms than within firms. ANOVA indicated that respondents' ratings were significantly different between organizations ($p < .01$). We also calculated interrater agreement values ($r_{wg(j)}$; James, Demaree, & Wolf, 1984) and intraclass correlation coefficients, ICC (1) and ICC (2), to assess whether sufficient within-unit agreement and between-unit variability existed to justify aggregating task and relational leadership, as well as task and relationship culture to the firm level.

We calculated aggregation statistics from organizations in the sample with at least two respondents. Twelve organizations with a TMT size of two had one TMT member respondent. These organizations were omitted from the calculation of aggregation statistics for task and relational leadership ($n = 1$), but were included for task and relationship culture because CEOs (in addition to their TMTs) rated culture ($n = 2$). In sum, groups with only one respondent were omitted from the calculation of aggregation statistics but included in the study's analyses and results. Checks for aggregating TMT members' ratings of task leadership, $r_{wg} = .89$; ICC (1) = .55; ICC (2) = .79; $p \leq .01$, and relational leadership, $r_{wg} = .79$; ICC (1) = .70; ICC (2) = .88; $p \leq .01$, yielded acceptable values. CEOs and their TMT members' ratings of task culture, $r_{wg} = .87$; ICC (1) = .58; ICC (2) = .84; $p \leq .01$, and relationship culture, $r_{wg} = .81$; ICC (1) = .42; ICC (2) = .74; $p \leq .01$, similarly demonstrated sufficient agreement to merit aggregation to the organizational level.

The proportion of variance because of unit membership [that is, ICC (1)] in this study is higher than average values reported in the extant literature for two reasons. First, ICC (1) values are frequently assessed among team members within organizations with multiple teams. The variance in ratings between teams is expected to be less than the variance between organizations because teams share a similar organizational context. Second, high levels of agreement about leadership and culture are expected to exist within an organization's upper echelon because TMTs are directly involved in the strategic components of organizational functioning. In support, Agle, Nagarajan, Sonnenfeld, and Srinivasan (2006) reported ICC (1) values for TMT-rated CEO leadership and CEO behaviors across organizations ranging from .55 to .85 (with a median value of .65), levels consistent with those in this study and well above ICC (1) values reported for studies of multiple teams within an organization.

Analyses

Prior to conducting statistical analyses, we checked for multivariate outliers by computing studentized residuals, Cook's *D*, and leverage. Five cases were identified with excessive values for all three fit statistics and were removed. Omitting the multivariate outliers resulted in a sample of 114 organizations and 324 TMT members for all analyses.

Although we received complete data regarding prior and subsequent firm performance (provided by the technology consortium), 27% of the CEOs failed to provide descriptive data relating to the control variables (i.e., firm size, CEO tenure, & CEO founder status). Following "state of the art" techniques to address missing data that are less subject to bias than listwise and pairwise deletion (Enders, 2010; Newman, 2009; Schafer & Graham, 2002), we utilized multiple imputation to account for the missing descriptive data among CEOs. Hirschfeld, Cole, Bernerth, & Rizzuto (2013, p. 459) describe multiple imputation as a "process that produces *m* imputed data sets, each of which includes 'filled in' values based on a random draw from a distribution of probable missing values." We obtained estimates of the missing values by creating 25 imputed datasets in SPSS Missing Values Analysis software. The imputed datasets were generated using the Markov Chain Monte Carlo (MCMC) algorithm. Analyses were computed on all 25 imputed data sets. SPSS generated a pooled set of parameter estimates, *SE*s, and *t*-values from the 25 imputed data sets (Rubin, 1987), which were used to generate the final reported estimates.

The interactive effects of leadership and culture on firm performance were analyzed using hierarchical regression in SPSS. Subsequent firm performance was regressed on the control variables (prior firm performance, CEO tenure, firm size, and founder status) in the first step, followed by leadership and culture in the second step, and the leadership–culture interaction term in the third step. Values for task and relational leadership, as well as task and relationship culture, were mean-centered prior to estimating regression equations to enhance interpretability and reduce multicollinearity (Cohen, Cohen, West, & Aiken, 2003).

Results

Descriptive statistics and correlations for the study variables are summarized in Table 1. The correlation between task and relationship culture was negative and high; we thus used confirmatory

factor analyses (CFA) to test for discriminant validity. We compared baseline models in which the two dimensions of culture were modeled as separate constructs with alternative models in which both constructs were constrained to be equal (cf., Prussia & Kinicki, 1996). We followed the same procedure to test the discriminant validity between the two leadership dimensions and between the conceptually congruent dimensions of leadership and culture (e.g., task leadership—task culture and relational leadership—relationship culture). Chi-square difference tests (Bollen, 1989) revealed significant differences between the two-factor models and the one-factor models such that the constrained one factor models produced uniformly worse fit than the baseline two-factor models. More specifically, the chi-square difference test was significant between the culture measures $\Delta\chi^2(1) = 146.34$, $p < .001$; between the leadership measures $\Delta\chi^2(1) = 89.84$, $p < .001$; and between the leadership and culture measures, task leadership–task culture, $\Delta\chi^2(1) = 223.01$, $p < .001$; relational leadership–relationship culture, $\Delta\chi^2(1) = 263.40$, $p < .001$). In addition, the change in CFI (Cheung & Rensvold, 2002) for all four measurement models exceeded .01 between the baseline models and the constrained models, lending evidence toward constructs' discriminant validity.

Predictions based on our reasoning about leadership-culture similarity, H1 and H2, are in direct contradiction to the dissimilarity predictions, H3 and H4. Hypotheses concerning task leadership-culture (H1 and H3) were tested on a single moderated regression equation involving task leadership, task culture, and their product term. These results are presented next and will be followed by the results of the equation testing relational leadership and relational culture (H2 and H4).

Task Leadership and Task Culture

Table 2 shows the regression results concerning task leadership and task culture. Of the control variables, only prior firm performance was a significant predictor of subsequent firm performance. Collectively, the control variables accounted for 44.7% of the variance in subsequent firm performance. The unstandardized regression coefficients shown in Table 2 indicate that the interaction between task leadership and task culture was significant and negative ($b = -.011$, $p < .01$).

We plotted the simple slopes of task leadership at low and high values (± 1 *SD*) of task culture as shown in Figure 1. Using the

Table 1
Descriptive Statistics and Correlations

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Prior firm performance	.06	.02	—								
2. CEO tenure	4.21	2.26	−.06	—							
3. Firm size[a]	2.23	.82	.40**	.00	—						
4. Founder status[b]	1.82	.39	−.09	−.06	−.15	—					
5. Task leadership	3.61	.62	−.11	.01	−.10	.00	(.82)				
6. Relational leadership	3.42	.84	.23*	.01	.03	.01	−.60**	(.90)			
7. Task culture	3.74	.65	.21*	.12	.15	−.06	.20*	.03	(.86)		
8. Relationship culture	3.39	.60	−.05	−.17	−.08	.00	−.10	−.01	−.83**	(.83)	
9. Subsequent firm performance	.07	.02	.64**	.04	.16	.08	−.10	.20*	.19*	−.01	—

Note. Reliabilities are reported in parentheses on the diagonal; *N* = 114.
[a] Firm size (number of employees): 1 = 1–200; 2 = 201–1,000; 3 = 1,001–5,000; 4 = 5,000+. [b] CEO founder status: 1 = founder; 2 = nonfounder.
* *p* < .05. ** *p* < .01 (two-tailed).

Table 2

Coefficient Estimates for Task Leadership and Task Culture on Subsequent Firm Performance (Return on Assets [ROA])

| | DV = Subsequent firm performance | | | | | | | | |
| | Step 1 | | | Step 2 | | | Step 3 | | |
Variable	b	SE	t	b	SE	t	b	SE	t
Control variables									
Constant	.019	.012	1.637	.021	.012	1.745	.025	.012	2.141[*]
Prior firm performance	.617	.073	8.469[**]	.602	.075	8.045[**]	.523	.079	6.641[**]
CEO tenure	.001	.001	1.131	.001	.001	1.000	.001	.001	.964
Firm size	−.002	.002	−1.024	−.003	.002	−1.103	−.002	.002	−.891
Founder status	.008	.005	1.623	.008	.005	1.617	.008	.005	1.729
Predictors									
Task leadership				−.002	.003	−.719	−.004	.003	−1.511
Task culture				.002	.003	.904	.002	.002	.743
Interaction									
Task leadership * Task culture							−.011	.004	−2.739[**]
R^2		.447[**]			.453[**]			.490[**]	
Change R^2					.006			.037[**]	

Note. $N = 114$.
[*] $p < .05$. [**] $p < .01$ (two-tailed).

estimated regression coefficients, we calculated predicted values for four points representing the four possible combinations of task leadership and culture: low leadership, low culture; high leadership, high culture; high leadership, low culture; low leadership, high culture. For each predicted value, we used the standard errors to construct 95% confidence intervals (CIs) around the predicted points. The point estimates and confidence intervals are reported in Table 3.

Similarity perspective predictions. Hypothesis 1 (H1) predicted that firm performance will be higher when levels of task leadership and task culture are similar (e.g., task leadership and

Figure 1. The interactive effect of task leadership and task culture on subsequent firm performance (Return on Assets [ROA]).

task culture are both high or are both low) than when levels of task leadership and culture are dissimilar (e.g., high task leadership and low task culture or low task leadership and high task culture). Contrary to H1, Figure 1 shows that firm performance was lower when task leadership and task culture were both high and both low than when levels of task leadership and task culture were dissimilar. The point estimates and nonoverlapping confidence intervals in Table 3 confirmed that firm performance was lower in organizations with high task leadership–high task culture ($\hat{Y} = .049$; 95% CI: [.041. .057]) than in organizations with high task leadership–low task culture ($\hat{Y} = .072$; 95% CI: [.066, .078]) or low task leadership–high task culture ($\hat{Y} = .093$; 95% CI: [.085, .101]. Likewise, organizations with low task leadership–low task culture ($\hat{Y} = .062$; 95% CI: [.056, .068]) exhibited lower firm performance than organizations with low task leadership–high task culture. The 95% CIs between low task leadership–low task culture and high task leadership–low task culture, however, overlap suggesting that the difference in firm performance between these two leadership–culture combinations was not statistically significant. Taken together, results indicate that firm performance was not higher when levels of task leadership and culture were similar than when they were dissimilar. Hypothesis 1 was not supported.

Dissimilarity perspective predictions. Support for Hypothesis 3 (H3) regarding dissimilarity would be evidenced by higher performance when levels of task leadership and task culture are dissimilar (i.e., high task leadership–low task culture and low task leadership–high task culture), rather than when task leadership and culture are similar (i.e., task leadership and culture are both high or both low). Returning to Figure 1, dissimilarities in task leadership and task culture were associated with higher firm performance than when task leadership and culture were both high or both low. Likewise, point estimates and nonoverlapping 95% CIs in Table 3 indicate low task leadership–high task culture ($\hat{Y} = .093$; 95% CI: [.085, .101]) resulted in significantly higher firm performance than when task leadership and culture were both high ($\hat{Y} = .049$; 95% CI:
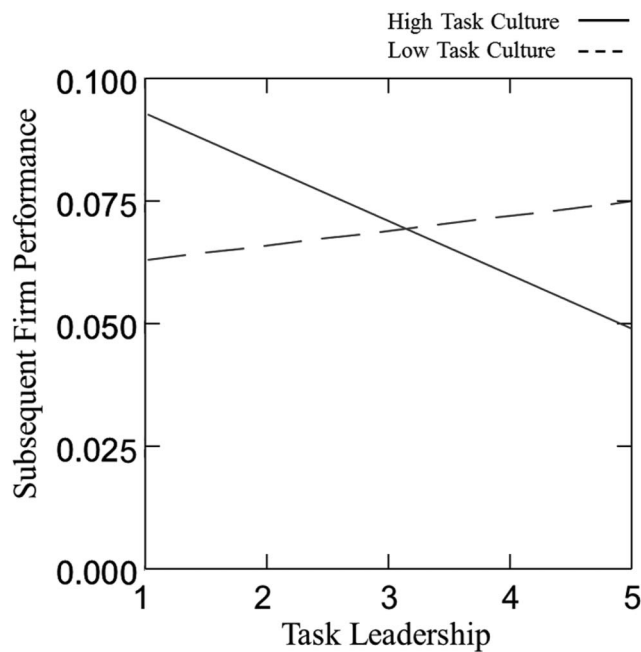
Table 3

Confidence Intervals for Predicted Points Representing the Task Leadership–Task Culture Interaction

Task Leadership × Task Culture	$\hat{Y}$	95% Confidence interval	Hypotheses
Similarity perspective predicted points			Similarity perspective hypothesis: Task leadership and culture
Low task leadership, low task culture	.062	[.056, .068]	H1: Task similarities > task dissimilarities–unsupported
High task leadership, high task culture	.049	[.041, .057]	
Dissimilarity perspective predicted points			Dissimilarity perspective hypothesis: Task leadership and culture
High task leadership, low task culture	.072	[.066, .078]	H3: Task dissimilarities > task similarities–partially supported
Low task leadership, high task culture	.093	[.085, .101]	

Note. $N = 114$. $\hat{Y}$ = point estimate.

[.041, .057]) or both low ($\hat{Y} = .062$; 95% CI: [.056, .068]), lending support for Hypothesis 3. Table 3 further reveals that firm performance was higher when task leadership was high and task culture was low ($\hat{Y} = .072$; 95% CI: [.066, .078]) than when task leadership and culture were both high ($\hat{Y} = .049$; 95% CI [.041, .057]), but performance was not significantly different when both task leadership and task culture were low ($\hat{Y} = .062$; 95% CI: [.056, .068]). Given the modest sample size ($n = 114$), we computed a 90% confidence interval and found that the difference in firm performance between high task leadership—low task culture (90% CI: [.067, .077]) and low task leadership–low task culture (90% CI: [.057. .067]) was significant at $p < .10$. Taken together, three of the four task leadership–culture combinations fully supported Hypothesis 3. Hypothesis 3 is thus partially supported.

Relational Leadership and Relationship Culture

Table 4 shows the hierarchical regression results pertaining to relational leadership and relationship culture. After accounting for the variance explained by the control variables ($R^2 = .447$), relational leadership and relationship culture did not have significant direct effects on subsequent firm performance but the interaction between relational leadership and relationship culture was significant and negative ($b = -.009$, $p < .01$).

We plotted the simple slopes of relational leadership at low and high values of relationship culture, shown in Figure 2, and calculated predicted values and their confidence intervals for testing hypotheses. Results are reported in Table 5.

Similarity perspective predictions. Parallel with the hypotheses for task leadership and culture, Hypothesis 2 (H2) posited that similar levels of relational leadership and relationship culture (e.g., relational leadership and relationship culture are both high or both low) will result in higher firm performance than when levels of relational leadership and culture are dissimilar (e.g., high relational leadership and low relationship culture or low relational leadership and high relationship culture). Contrary to the hypothesized prediction, a visual inspection of Figure 2 indicates that similar levels of relational leadership and relationship culture resulted in lower firm performance than dissimilar levels of relational leadership and relationship culture. The point estimates and nonoverlapping confidence intervals (shown in Table 5) between similar levels of relational leadership and culture, high relational leadership–high relationship culture ($\hat{Y} = .061$; 95% CI [.055, .067]) or low relational leadership–low relationship culture, ($\hat{Y} = .058$;

95% CI [.052, .064]) and dissimilar levels of relational leadership and culture, high relational leadership–low relationship culture ($\hat{Y} = .081$; 95% CI [.075, .087]) or low relational leadership–high relationship culture ($\hat{Y} = .075$; 95% CI [.069, .081]), support the visual evidence in Figure 2. That is, firm performance was significantly lower when relational leadership and relationship culture were similar than when levels of relational leadership and culture were dissimilar. H2 was not supported.

Dissimilarity perspective predictions. Hypothesis 4 (H4) predicted that when levels of relational leadership and relationship culture are dissimilar (i.e., high relational leadership–low relationship culture and low relational leadership–high relationship culture), firm performance will be higher than when levels of relational leadership and culture are similar (i.e., relational leadership and culture are both high or both low). The results illustrated in Figure 2 and shown in Table 5 indicate that subsequent firm performance was highest when levels of relational leadership and culture were dissimilar. Firm performance was higher when organizations had high relational leadership–low relationship culture ($\hat{Y} = .081$; 95% CI [.075, .087]) or low relational leadership–high relationship culture ($\hat{Y} = .075$; 95% CI [.069, .081]) than when relationship leadership and culture were both high ($\hat{Y} = .061$; 95% CI [.055, .067]) or when both were low ($\hat{Y} = .058$; 95% CI [.052, .064]). Hypothesis 4 is thus fully supported.

In sum, we found no support for the similarity perspective's two predictions (H1 and H2) but results partially supported the task leadership–culture hypothesis (H3) and fully supported the relational leadership–culture hypothesis (H4).

Post Hoc Analyses

Schein (2010) posited that CEO founders should have a stronger imprint on an organization's culture than nonfounders. We tested this supposition by examining the moderating effect of CEO founder status on the link between corresponding leadership and culture dimensions. After accounting for the control variables (i.e., prior firm performance, CEO tenure, firm size) and direct effects (i.e., task leadership and founder status), results revealed that founder status did not have a significant moderating influence on the association between task leadership and task culture ($b = .07$, nonsignificant [*ns*]). Likewise, founder status did not moderate the association between relational leadership and relationship culture ($b = -.02$, *ns*) after controlling for prior firm performance, CEO

Table 4

Coefficient Estimates for Relational Leadership and Relationship Culture on Subsequent Firm Performance (Return on Assets [ROA])

	DV = Subsequent firm performance								
	Step 1			Step 2			Step 3		
Variable	b	SE	t	b	SE	t	b	SE	t
Control variables									
Constant	.019	.012	1.637	.020	.012	1.623	.025	.012	2.154*
Prior firm performance	.617	.073	8.469**	.607	.076	8.007**	.526	.077	6.789**
CEO tenure	.001	.001	1.131	.001	.001	1.148	.001	.001	1.247
Firm size	−.002	.002	−1.024	−.002	.002	−.953	−.002	.002	−1.008
Founder status	.008	.005	1.623	.008	.005	1.615	.007	.005	1.606
Predictors									
Relational leadership				.001	.002	.618	.001	.002	.608
Relationship culture				.001	.003	.355	−.001	.003	−.290
Interaction									
Relational leadership * Relationship culture							−.009	.003	−3.058**
R^2		.447**			.450**			.495**	
Change R^2					.003			.045**	

Note. N = 114.
* $p < .05$.   ** $p < .01$ (two-tailed).

tenure, firm size, and the direct effects (i.e., relational leadership and founder status).[1]

Discussion

This study examined the extent to which similarities or differences between CEO leadership and organizational culture collectively influence firm performance. Drawing upon task and relationship metathemes underlying leadership and organizational culture research, competing hypotheses were developed regarding

Figure 2. The interactive effect of relational leadership and relationship culture on subsequent firm performance (Return on Assets [ROA]).

the predictive validity of the similarity and dissimilarity perspectives of leadership–culture fit. Results provide general support for dissimilarity predictions and lack of support for similarity. These findings contribute to leadership, organizational culture, and P-E fit research and have several implications for theory and practice.

Theoretical Implications

The first theoretical implication pertains to the need to contextualize the effects of leadership and organizational culture on firm performance. The preponderance of research to date has focused on the bivariate relationship between leadership and culture (Berson, Oreg, & Dvir, 2008; Dickson, Resick, & Hanges, 2006; Ogbonna & Harris, 2000; Xenikou & Simosi, 2006) or on their individual relationships with firm performance (Wilderom, van den Berg, & Wiersma, 2012). Far less consideration has been given to the interactive effect of leadership and culture and its impact on organizational effectiveness (Burns et al., 2013). We now consider the ensuing theoretical implications for the leadership and culture literatures, respectively.

Contextualizing CEO leadership's effects. CEOs lead their organizations within the context of an existing organizational culture (Klimoski, 2013). Contrary to the view that CEOs' leadership behavior should align with the organization's culture, our findings do not support either of the two predictions generated from the similarity perspective of leadership–culture fit. In fact, results indicate that CEOs are *least* effective when high levels of task or relational behaviors are accompanied by high levels of corresponding culture values. This pattern of relationships suggests that organizational culture can be a substitute for leadership. Because culture provides employees with relational- and task-oriented cues about how to behave, these values and norms can attenuate the need for corresponding leadership behaviors. Stated differently, CEO leadership that reinforces the current organizational culture may generate redundant resources and
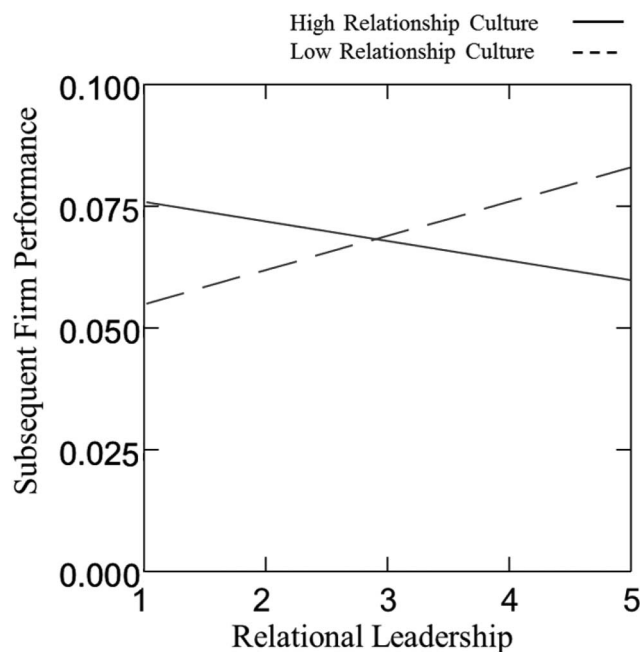
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[1] Additional details regarding all analyses are available upon request.

Table 5

Confidence Intervals for Predicted Points Representing the Relational Leadership–Relationship Culture Interaction

Relational Leadership × Relationship Culture	$\hat{Y}$	95% Confidence interval	Hypotheses
Similarity perspective predicted points			Similarity perspective hypothesis: Relational leadership and culture
Low relational leadership, low relationship culture	.058	[.052, .064]	H2: Relationship similarities > relationship dissimilarities–unsupported
High relational leadership, high relationship culture	.061	[.055, .067]	
Dissimilarity perspective predicted points			Dissimilarity perspective hypothesis: Relational leadership and culture
High relational leadership, low relationship culture	.081	[.075, .087]	H4: Relationship dissimilarities > relationship similarities–Supported
Low relational leadership, high relationship culture	.075	[.069, .081]	

Note. $N = 114$. $\hat{Y}$ = point estimate.

unnecessary guidance that fails to enhance firm performance. Relatedly, the concept of oversupply in needs–supplies relationships (Cable & Edwards, 2004) similarly suggests that resources beyond employees' needs or expectations have little beneficial effect on attitudes and effort.

Results broadly support predictions derived from the dissimilarity perspective of leadership—culture fit. That is, firms are most effective when levels of CEO leadership and culture are dissimilar. These findings align with House's path-goal theory (House, 1971, 1996) and functional leadership theory (McGrath, 1962) by demonstrating that CEO leadership is effective when it provides psychological and motivational resources lacking in the organization's culture. These results are further consistent with proponents of behavioral complexity who contend that leaders who can identify when a leadership style is contextually appropriate are more likely to achieve and maintain effective outcomes (Lawrence, Lenk, & Quinn, 2009).

Although one of the dissimilarity perspective hypotheses was fully supported (H4), one dissimilarity hypothesis was partially supported (H3). Results indicate that dissimilarity between task leadership and task culture (high task leadership-low task culture) result in higher firm performance than when task leadership and culture focus concertedly on task-oriented functioning, but not when leadership and culture do not attend to task-oriented functioning. These results suggest that there may be an adverse impact of excess amounts of CEO task leadership on a TMT. High levels of CEO task leadership can have undesirable (i.e., negative) effects on organizational outcomes because it constrains followers' autonomy and managerial discretion. Indeed, empirical evidence indicates that leaders who employ task leadership in amounts that exceed employees' needs negatively impact employee attitudes such as trust in the leader, job satisfaction, and affective commitment (Lambert et al., 2012). Furthermore, the same study reports that excess amounts of relational leadership do not impact employee attitudes adversely (Lambert et al., 2012), a finding that concurs with this study's observation that high levels of relational leadership are more effective when accompanied by low relationship culture.

Another contribution to the leadership literature pertains to our examination of CEO leadership behaviors that go beyond the visioning behavior captured by charismatic and transformational leadership theories. Although research reveals a positive link between both charismatic (Waldman et al., 2001) and transformational leadership (Ling et al., 2008) and firm performance, scant research considers the role of CEO task and relational leadership. The omission of task and relational leadership in upper echelons research is a notable omission in need of future research because

groups need functional leadership (cf., Morgeson, DeRue, & Karam, 2010) and CEOs are ultimately responsible for the execution of corporate strategies.

In addition, the examination of interaction effects between CEO leadership and other social contextual factors may help explain inconsistent results linking task and relational leadership with firm performance. Wang, Tsui, & Xin (2011) reported that CEO task leadership was positively associated with firm performance while relationship leadership was nonsignificant. In contrast, our results demonstrate the reverse; only relational leadership was correlated with firm performance. These conflicting results may be explained by additional moderators or mediators, and this study suggests that organizational culture is one potential moderator to be considered in future research. More generally, our results underscore the need to investigate how the alignment between CEOs' leadership behavior and social contextual features within an organization influence organizational effectiveness.

Contextualizing culture's effects. Beyond culture being a context in which leaders lead, an organizational culture's effectiveness depends on the CEO's leadership behavior. Previous meta-analytic findings concluded that task cultures (i.e., market) are directly associated with firm performance whereas relationship cultures (i.e., clan) are not (Hartnell et al., 2011). The correlations reported in Table 1 are consistent with those findings such that task cultures ($r = .19$, $p < .05$) are but relationship cultures ($r = -.01$, ns) are not significantly correlated with firm performance. This study builds on the meta-analytic research by providing evidence that the magnitude of culture's impact on firm performance is conditional on other features of an organization's social contextual environment, such as CEO leadership behavior. Future research is needed to investigate the alignment between culture and other social contextual cues, such as organizational climate and HR practices, to further investigate the conditions in which culture influences organizational effectiveness (Ostroff et al., 2013).

Implications for P-E fit. The final theoretical implication pertains to the P-E fit literature. This study compared levels of two social-normative features of the organizational environment, leadership and culture, and their impact on organizational effectiveness. This comparison is consistent conceptually with the P-E fit principle of "general compatibility" (Kristof-Brown & Guay, 2011). The principle of general compatibility provides an avenue to examine the compatibility of components within an organizational system. For example, Lambert (2011) applied the general compatibility definition of fit to investigate the fit between an employee's pay and work—salient facets of employees' psychological contract appraisals—on

their attitudes and behaviors. Although pay and work are not commensurate in what they measure, they are frequently compared in terms of intrinsic calculations of equity between pay and performance (Lambert, 2011). Likewise, corresponding leadership and culture dimensions (i.e., task leadership—task culture or relational leadership—relationship culture) are both prominent features of the social context that employees compare to evaluate the consistency of environmental cues intended to direct their attention, attitudes, and effort. Our results thus inform theoretical path models linking leadership, culture, climate, and HR practices (Ostroff et al., 2013) by suggesting that the interactive relationships among variables may lend additional insight into the effects on organizational outcomes beyond traditional linkage models. Future research may consider assessing system fit (Ostroff & Schulte, 2007), or the alignment among multiple components of an organization's social context, through identifying distinct configurations and documenting their influence on organizational effectiveness (Ostroff, 2012).

Although this study's pattern of results suggest that dissimilarities between task and relational leadership and culture enhance performance, not all dissimilarities between leadership and culture lead to complementarities that increase positive organizational outcomes. Leadership—culture dissimilarities may only result in complementarities that enhance organizational performance when the contextual cues efficiently meet what the group needs to be effective. Team process theory, for example, is based on the proposition that task-oriented processes (i.e., action processes) and relationship-oriented processes (i.e., interpersonal processes) are needed for effective team functioning (Marks, Mathieu, & Zaccaro, 2001). Hence, we postulated that dissimilarities in corresponding leadership and culture dimensions are beneficial because the organizational system needs either leadership or culture to emphasize task-oriented or relationship-oriented cues to foster unit effectiveness. Furthermore, dissimilar leadership–culture cues are effective to the extent that they avoid redundancies, increase efficiency, and signal to employees that tasks and relationships are instrumental to enhance organizational performance. Person and environment factors, however, may be important boundary conditions that illuminate when dissimilarities between leadership and culture enhance organizational functioning. For instance, dissimilarities between high empowering leadership and a low empowering climate would not be expected to increase performance if employees do not possess the abilities to take on more responsibilities or have the environmental resources to utilize the empowerment. Hence, consistent with McGrath's (1962) functional leadership theory, organizational performance may only increase when social contextual cues avoid redundancies and collectively meet needs that are not being adequately handled by the group. Future research is needed to further explicate when dissimilarities in social contextual cues are beneficial or deleterious to organizational performance.

Managerial Implications

This study's findings reveal a couple of important managerial implications. First, CEOs need to be aware of the organization's culture and adjust their leadership styles accordingly, particularly because it is easier to change one's leadership behavior than to change an organization's culture. Cultures that do not value employee empowerment, prosocial employee interactions, and cohesiveness, benefit from relationship-oriented leadership to build positive interpersonal relationships, employee cooperation, collab-

oration, and support. When a culture lacks a high performance-based orientation focused on achieving goals or surpassing competitors, our results suggest that organizational performance would benefit by leaders exhibition of task-oriented leadership to clarify roles, deliver feedback, focus organizational efforts, and execute tasks. CEOs should take caution, however, in employing high levels of task leadership when the culture already fosters a highly competitive, task-focused environment. House (1996) warns that when tasks are unambiguous, employees resent and resist task leadership because they perceive it to be overbearing.

Another important managerial implication is that effective CEO leadership behavior at one point in time may not be as effective in the future. In nascent organizations, CEO leadership is an important input into creating and embedding organizational culture (Schein, 2010). Consequently, organizations may naturally drift toward similarities between leadership and culture because culture is a reflection of its founder. As organizations grapple with changes in the competitive landscape, identify new ways to compete, and integrate internal efforts to meet changing customer and market demands, organizations may benefit more from differences between leadership and culture. CEOs may thus need to adjust their leadership style over time to complement the organization's culture to remain effective. Founding CEOs, in particular, may have a challenging time modifying their leadership style given their identity and their significant investment in time and effort to launch a viable business. This suspicion is partly justified by evidence indicating that CEOs' founding status is negatively related with firm performance in larger and older firms (Jayaraman, Khorana, Nelling, & Covin, 2000). It is thus important for CEOs to utilize upward feedback to assist in identifying their dominant leadership style and pursue leadership training and development to help them modify their behaviors.

Limitations

As with any study, consideration should be given to two potential limitations. First, this study's results may not be generalizable because data were collected from firms exclusively in the high-technology industry, an industry well known for rapid technological advancements and environmental uncertainty. Although this study found little support for the beneficial effects of similarities between leadership and culture, similarities may have more pronounced benefits in stable industries. Furthermore, similarities between leadership and culture may be more desirable in newly formed organizations in which consistency is important to integrate and coordinate efforts toward organizational goals. Future research is needed to test the extent to which the current findings are consistent in more stable industries, nascent organizations, and other types of entities such as governmental organizations and not-for-profit entities.

Second, organizational culture was measured by TMT members and the CEO. Although members of the upper echelon are key informants who are expected to be more accurate in their appraisal about organizational values, policies, procedures, and HR practices than employees at lower levels of the organization, it would be useful to replicate this study with a broader sample of employees. Furthermore, given the existence of subcultures (Sackmann, 1992), future research should assess the extent to which the organizational culture is perceived similarly among employees throughout the

organization (Martin, 1992) and assess the extent to which this similarity impacts important organizational performance.

Future Research

Our findings delineate four directions for future research. First, future research is needed to illuminate other macro, social-contextual characteristics that interact with leadership at the strategic level to influence firm performance. Doing so will uncover additional factors CEOs should consider when applying contingency-based approaches toward leadership (Avolio, Walumbwa, & Weber, 2009). Researchers could begin by considering the impact of other social contextual factors such as high performance work systems and organizational climate on CEO leadership and firm performance.

Second, research is needed to further investigate the effect of CEO founder status on the leadership—culture link. This study included a small proportion of organizations with founding CEOs, attenuating the probability of detecting a significant moderating effect on the link between leadership and culture. Leadership and culture theory would be strengthened by efforts to design studies to investigate the magnitude and duration of CEO founders' (and their successors') leadership impact on organizational culture. Efforts to illuminate factors that attenuate founding and nonfounding CEOs' leadership influence on an organization's culture would also shed valuable insight into the dynamics undergirding the relationship between leadership and culture.

Third, future research is needed to investigate the relationship between leadership and culture over time. The interactive effects of leadership and culture underscore the importance of designing longitudinal research to explore their dynamic interplay and document the extent to which reciprocal relationships exist. Longitudinal leadership–culture research will help clarify standing empirical questions such as defining whether and when leadership is a stronger predictor of culture or vice versa. Much more longitudinal work is needed to refine and test theory about the interactive, dynamic, and reciprocal relationship between leadership and culture over time.

Finally, future research is needed to unfold the complexities of the relationship between leadership and culture across levels within an organization. Does the positive effect of dissimilarities and negative effect of similarities between leadership and culture generalize to lower levels of management? Frontline employees may require more informational consistency than TMT members to ensure that their attention and effort comply with organizational policies, procedures, and goals. Given the more frequent behavioral interactions between lower-level supervisors and their direct reports, it would be valuable to know if similarities and dissimilarities between leadership and culture retain the same form and function as one moves down the organization.

Conclusion

Our results highlight the importance of the interactive effect of leadership and culture on firm performance. We hope that this study's results spur additional interest into better understanding and articulating the nuances undergirding the interactive relationship between leadership and culture. Such research will add significant insight into the roles leadership and culture play in organizations and their respective influence on organizational performance.

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