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How Lead Founder Personality Affects New Venture Performance: The Mediating Role of Team Conflict

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This empirical study of 323 new ventures examines how task and relationship conflict in the founding top management team mediates the effect of lead founder personality on new venture performance. The results reveal that (1) openness and agreeableness increase task conflict, whereas conscientiousness decreases it, and (2) openness, extraversion, and conscientiousness decrease relationship conflict, whereas neuroticism increases it. Furthermore, task conflict increases venture performance, whereas relationship conflict decreases venture performance and weakens the positive effect of task conflict. In addition, task and relationship conflict do not mediate the effect of extraversion, and they only partially mediate the effects of openness and neuroticism on new venture performance. Openness and neuroticism exert a direct impact on new venture performance, in addition to their indirect impact through task and relationship conflict.

Keywords: *lead founder personality; task and relationship conflict; founding TMT*

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After years of confusion, a growing stream of research is exhibiting renewed interest in the role of entrepreneurial personality (e.g., Baum, Locke, & Smith, 2001; Ciavarella, Buchholtz, Riordan, Gatewood, & Stokes, 2004; Ling, Zhao, & Baron, 2007; Zhao & Seibert, 2006; Zhao, Seibert, & Lumpkin, 2010). However, similar to early research (Brockhaus & Horwitz, 1986; Gartner, 1988), these more recent studies continue to report mixed and contradictory findings about the relationship between entrepreneurial personality and performance. Peterson, Smith, Martorana, and Owens (2003) suggest that the relation between leader personality and performance might become clearer through the incorporation of a mediating role of interpersonal processes among the members of the top management team (TMT). In the founding TMT, conflict among the members is a critical and frequent interpersonal process because roles and tasks are not yet well defined (Foo, Sin, & Yiong, 2006) and collective norms about how to work together and make joint strategic decisions have yet to be developed. Therefore, taking into account the role of conflict in the founding TMT to investigate the relation between lead founder personality and new venture performance may be an appropriate direction. Several recent studies also have noted the role of interpersonal processes in TMTs to explain organizational performance (Carpenter, Geletkanycz, & Sanders, 2004; Knight et al., 1999; Lubatkin, Simsek, Ling, & Veiga, 2006), yet the role of conflict in the founding TMT has received little attention (Ensley, Pearson, & Amason, 2002). Theoretically, team conflict can have positive or negative consequences (Dyer & Song, 1997, 1998; Montoya-Weiss, Massey, & Song, 2001; Parry, Song, & Spekman, 2008; Song, Dyer, & Thieme, 2006; Song, Xie, & Dyer, 2000; Xie, Song, & Stringfellow, 2003; Xie, Song, & Stringfellow, 1998). For example, conflict among founding TMT members could be extremely harmful to new venture performance because start-ups have loose structures and often operate in dynamic environments with small windows of opportunities (Kirzner, 1997). Alternatively, team conflict, manifested as disputes about novel ideas and discussions of how to proceed and shape effective courses of action, may be a critical determinant of performance success (Montoya-Weiss, Massey, & Song, 2001; Song, Xie, & Dyer, 2000; Xie, Song, & Stringfellow, 2003; Xie, Song, & Stringfellow, 1998). In addition, in an astructural entrepreneurial context, the individual lead founder's personality may drive the founding TMT processes, including team conflict and macrolevel new venture outcomes (Ciavarella et al., 2004; Snyder & Ickes, 1985). Although some studies have considered the relation between an individual entrepreneur's personality characteristics and macrolevel new venture performance (e.g., Baum et al., 2001; Ciavarella et al., 2004; Ling et al., 2007), none of them feature the mediating role of conflict in the founding TMT in this relation.

Therefore, the purpose of this study is to investigate how a lead founder's personality might influence new venture performance, in which founding TMT conflict represents a mediator. First, following prior literature, we distinguish two types of conflict in the founding TMT: task and relationship (De Dreu & Weingart, 2003). We investigate the impact of lead founder personality, conceptualized according to the five-factor personality model, on these types of conflict in the founding TMT. We use the five-factor model as a robust and widely recognized classification of personality characteristics (e.g., Block, 1995; Eysenck, 1992; McCrae & Costa, 1987). Second, we examine the impact of task and relationship conflict in the founding TMT on new venture performance. Third, we consider the mediating role of task and relationship conflict in the relation between lead founder personality and new venture performance.

With these investigations, we make several contributions to the extant literature. First, we extend existing TMT research, which has largely ignored the distinction between the CEO and other TMT members (Vissa & Chacar, 2009), by addressing the impact of the individual lead founder's personality on conflict in the founding TMT and on new venture performance. Second, we contribute to the growing stream of research in the area of management and entrepreneurship (e.g., Baum & Locke, 2004; Baum et al., 2001; Hitt, Beamish, Jackson, & Mathieu, 2007) by taking a multilevel perspective to investigate the impact of microlevel variables (i.e., lead founder personality and team conflict) on macrolevel new venture performance. Management and entrepreneurship research has attracted growing attention to increase understanding of how microlevel variables, such as an executive's personality characteristics, values, beliefs, and behaviors (Carpenter et al., 2004; Hitt et al., 2007; Waldman, Javidan, & Varella, 2004), likely influence organizational performance through strategic processes and choices (Hiller & Hambrick, 2005) or group processes (Peterson et al., 2003). Third, we expand research on the relation between entrepreneurial personality and new venture performance by investigating the mediating role of team conflict. To our knowledge, this study is the first to take into account the mediating role of interpersonal processes in this relation.

Theoretical Framework

Lead Founder Personality, Conflict in the Founding TMT, and New Venture Performance

The role of entrepreneurial personality has received increasing research attention. Schjoedt (2009) emphasizes the importance of research into how an entrepreneur's personality interacts with task characteristics to affect job satisfaction. Zhao and Seibert (2006) compare entrepreneurs with managers and find that they significantly differ in personality.

The literature on the relation between entrepreneurial personality and performance is inconclusive as to whether personality characteristics directly or indirectly influence performance. On the one hand, several studies find that entrepreneurial personality is not directly, but indirectly, related to performance. For instance, Baum et al. (2001) and Baum and Lock (2004) conclude that an entrepreneur's personality characteristics matter, but indirectly, and that entrepreneurial skills and motivational variables are more effective because they relate directly to performance. Similarly, Zhao, Seibert, and Hills (2005) find that an entrepreneur's risk propensity as a general personality trait does not affect entrepreneurial intentions directly but is fully mediated by entrepreneurial self-efficacy.

On the other hand, several more recent studies show direct effects of an entrepreneur's personality characteristics on new venture outcomes. For instance, Ciavarella et al. (2004) find that an entrepreneur's conscientiousness positively relates to new venture long-term survival, whereas openness relates negatively to it. Similarly, Ling et al. (2007) find direct positive effects of founder CEO's personal values, such as collectivism and novelty, on the company's post-start-up performance. Zhao et al. (2010) also show that four of the Big Five personality dimensions directly relate to entrepreneurial intentions and performance, although agreeableness is related to neither.

The results of these studies thus are mixed, and in addition to that, the research base regarding the role of an individual executive's characteristics remains modest, because management studies generally attend to the properties of the entire TMT (e.g., Ensley et al., 2002; Jehn, 1994; Knight et al., 1999; Pelled, Eisenhardt, & Xin, 1999). The TMTs of many established organizations have team properties (Hambrick, 1994, 1995) because such organizations have well-set structures in which members often are in different physical locations, with well-defined roles, and get together during quarterly meetings. However, new ventures lack well-established organizational structures, and founding TMT members might meet and coordinate their activities daily, such that they are familiar and comfortable with one another (Ensley et al., 2002; Ruef, Aldrich, & Carter, 2003). Interpersonal processes thus are critical because nascent ventures are often team-based efforts.

A particularly essential interpersonal process in new ventures is team conflict. In a meta-analysis, De Dreu and Weingart define this form of conflict as "the process resulting from the tension between team members because of real or perceived differences" (2003: 741). The extant literature generally distinguishes two types of team conflict: task and relationship (e.g., Amason & Schweiger, 1994; De Dreu & Weingart, 2003; Forsyth, 1990; Jehn, 1995; Pelled et al., 1999). Task conflict occurs when team members disagree about issues such as the distribution of resources, key decision areas, procedures and policies, or an appropriate action choice. Relationship conflict occurs when team members disagree about interpersonal styles and personal tastes or sociocultural norms and values (De Dreu & Weingart, 2003) and involve interpersonal clashes characterized by negative feelings and emotions, such as anger, hostility, and frustration (Jehn, 1994; Pelled et al., 1999).

Without an established structure in new ventures, members might interact intensively, but their founding TMTs still tend to be fragmented and lacking in coherence, such that team conflict may be a significant challenge (Foo et al., 2006). Founding TMT members must develop routines and norms and learn their newly assigned roles (Amason, Shrader, & Tompson, 2006). These demands may lead to disagreement, debate, and conflict among founding TMT members, and they must work through any conflicts in their perceptions and interests to communicate and collaborate in their strategic decision making.

Because new ventures also operate in a turbulent environment and face task and personal issues that cannot be resolved easily, they likely need a leader with a strong personality who can initiate constructive conflict (Marcel, 2009) to identify collective goals, move the venture forward, and determine the amount of necessary resources (Ling, Simsek, Lubatkin, & Veiga, 2008). The leader also should be able to monitor team discussions about personal issues. Teams without clear leadership run the risk of splitting into different strategic directions, which decreases the team's viability (Foo et al., 2006).

Peterson et al. (2003) emphasize that a consideration of how CEOs deal with interpersonal processes among the TMT members is critical to acquire a good understanding of the relation between CEO personality and organizational performance. Yet the impact of leader personality on TMT interpersonal processes, such as team conflict, rarely has been investigated in established organizations (cf. Peterson et al., 2003) and is ignored in new ventures. Few studies acknowledge the role of interpersonal processes among founding TMT members when investigating the relation between an entrepreneur's personality and new venture performance.

However, recent studies in management and entrepreneurship increasingly aim to acquire a better understanding of the relationship between microlevel variables (Hitt et al., 2007; House, Rousseau, & Thomas-Hunt, 1995) and macrolevel organizational phenomena. Investigating the impact of lead founder personality through the conflict in the founding TMT on macrolevel new venture performance requires a multilevel lens. Furthermore, studies on the relation between entrepreneurial personality and organizational performance explicitly emphasize the importance to consider microlevel variables and macrolevel phenomena simultaneously (e.g., Baum & Locke, 2004; Baum et al., 2001; Hitt et al. 2007). Therefore, we take a multilevel perspective to investigate the impact of microlevel variables (i.e., lead founder personality and team conflict) on macrolevel new venture performance (i.e., gross margin).

We consider the influence of five lead founders' personality characteristics (McCrae & Costa, 1987) on new venture performance, through task and relationship conflict in the founding TMT. The set of five factors reflects the contents of almost every major personality inventory in the past two decades. Although acceptance of this classification is not universal (e.g., Block, 1995), its robustness across cultures and measures, and the strong evidence of the heritability of these characteristics, has led to widespread recognition of a five-factor model that comprises openness, neuroticism, extraversion, agreeableness, and conscientiousness as fundamental personality dispositions (e.g., Block, 1995; Eysenck, 1992; McCrae & Costa, 1987).

Lead Founder Personality Characteristics as Antecedents of Conflict in the Founding TMT

Openness refers to whether people accept new experiences, are interested in unusual thought processes, and possess creative tendencies (McCrae & John, 1992). Open leaders question old assumptions and stimulate new perspectives or ways of doing things (Judge & Bono, 2000). These leaders tend to display novel, unconventional, or extraordinary behaviors because they are nonconsensual, adventurous persons who take considerable risks (Conger & Kanungo, 1987; Miller & Toulouse, 1986). Consequently, leaders with greater openness are more likely to encourage creative, unconventional behaviors in the workplace (George & Zhou, 2001) and reward team behavior that is intellectually challenging and open (Peterson et al., 2003). Especially in new ventures, such creativity is relevant for stimulating novel ideas about products, practices, processes, or strategies that are insightful, workable, and relevant (Ensley et al., 2002).

Simons and Peterson (2000) also argue that teams with members who are strongly connected and cooperative can engage in task-related debate without invoking relationship conflict. Founding TMTs should be strong social entities in which the lead founder and other members know one another well, have strong ties, trust one another, and share knowledge about emotional expressions and experiences. As a result, founding TMT members may be more receptive to the founder's new ideas and suggestions, rather than misinterpreting them as personal criticisms.

In addition, open lead founders are typically able to create work practices marked by constructive controversy about task-related issues (Kellermanns & Eddleston, 2007). As

open lead founders encourage their founding TMT members to constructively communicate their ideas and points of view, this may, especially in face-to-face settings, lead to less tension among founding TMT members (cf. Ibrahim, Soufani, & Lam, 2001). Eddleston and Kellermanns (2007) argue that stimulating members to effectively participate in strategic discussions reduces relationship conflict in family firms. When individual family members are able to voice their opinions on strategic interests, this facilitates the process of interaction and participation and contributes to each member's feeling of worth and importance to the business. Therefore, we posit that lead founders with more openness emphasize the creation of novel ideas and stimulate consideration of deviant viewpoints that contradict the status quo, which may lead to higher levels of task conflict but lower levels of relationship conflict.

Hypothesis 1: Lead founder openness relates (a) positively to task conflict in the founding TMT and (b) negatively to relationship conflict in the founding TMT.

Neuroticism refers to a person's tendency to be tense, defensive, thin-skinned, and worrisome (McCrae & John, 1992; Peterson et al., 2003). Neurotic people tend to get upset and anxious; they often are self-pitying, touchy, and unstable (McCrae & John, 1992). Neurotic persons associate with emotional distress, which obstructs the integration of diverse ideas (Eisenhardt & Zbaracki, 1992; Torrance, 1957). Rather than focusing on the integration of founding TMT members' capabilities and perspectives, the neurotic lead founder feels tensed and displays negative emotions, like anxiety, sadness, stress, and angriness, that disturb communication of different perspectives and hinder effective constructive decision making (Kellermanns & Eddleston, 2004).

Neurotic leaders cannot use their managerial power effectively; are indecisive; and fail to establish clear directions, expectations, or rewards for employees, which minimizes consistency (Hofmann & Jones, 2005). Such a lead founder's propensity to experience negative affect and anxiety may spill over onto team members in the form of emotional contagion (Barsade, 2002) and increase the level of team conflict. In founding TMTs in which members likely are closely connected and share emotional experiences, higher levels of lead founder neuroticism may have devastating impacts on relationship conflict. Formally, we propose:

Hypothesis 2: Lead founder neuroticism relates (a) negatively to task conflict in the founding TMT and (b) positively to relationship conflict in the founding TMT.

Extraversion refers to assertiveness and dominance, as well as sociability, gregariousness, and talkativeness (McCrae & Costa, 1987) and thus pertains closely to instrumental, task-related issues. Extraverted leaders typically adopt a transformational leadership style marked by intellectual stimulation; visionary goal setting; expectations that encourage risk taking, questioning the status quo, and creativity; and norms that stimulate boldness and high energy (Hofmann & Jones, 2005). Extraverted leaders tend to influence the environment by scanning for opportunities, showing initiative, taking action, and persuading people about task-related issues (Bateman & Crant, 1993).

Extraversion also represents an interpersonal trait that relates to social leadership (Costa & McCrae, 1988). Extraverts tend to be warm, enthusiastic, outgoing, and friendly (Costa & McCrae, 1992b); have good social skills (McCrae & Costa, 1989); are more interactive; and

put a greater emphasis on communicating their points of view (Judge, Bono, Ilies, & Gerhardt, 2002). The lack of structure and role ambiguity in many new ventures may cause team members to appreciate a strong and energetic leader who provides clarification and reassurance (Ling et al., 2008).

Hypothesis 3: Lead founder extraversion relates (a) positively to task conflict in the founding TMT and (b) negatively to relationship conflict in the founding TMT.

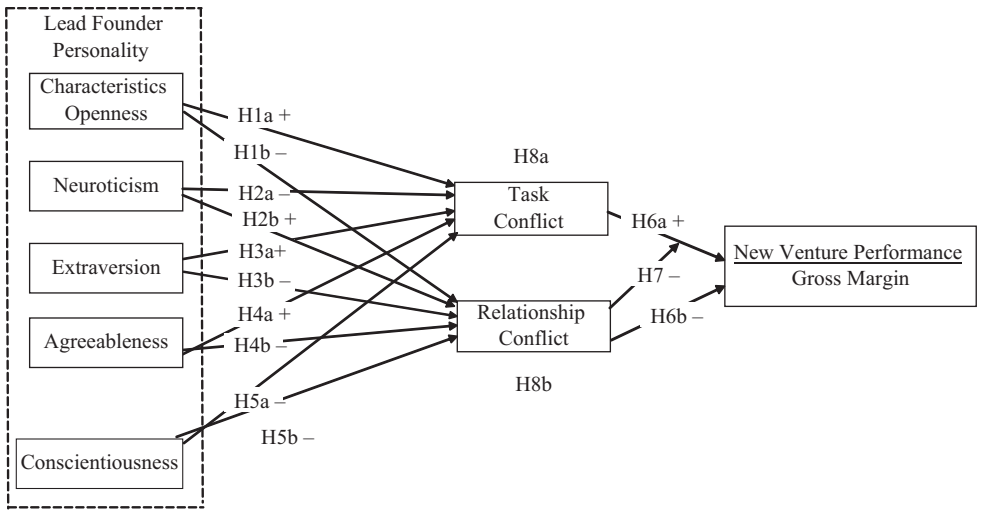
Agreeableness refers to characteristics such as altruism, nurturance, caring, and emotional support (Digman, 1990). Agreeable persons are kind, considerate, sympathetic, and helpful (Costa & McCrae, 1992b), and they deal with team conflict in a cooperative and collaborative way (Digman, 1990). Highly agreeable leaders are associated with highly cohesive teams, tend to deemphasize status and power differences among individual members, and stimulate team members to share task-related information with colleagues to reach group consensus (Peterson et al., 2003; Tjosvold, 1984). Katzenbach (1997) and Knight et al. (1999) argue that an essential leadership practice for encouraging agreement-seeking behavior is establishing mutual accountability, which encourages team members to take initiative as a collective, actively engage in information processing, and jointly shape work activities. Agreeable leaders of small firms, with less formalized and specialized structures, tend to adjust to dynamic situations by delegating decision-making authority to team members (Miller & Toulouse, 1986). Founding TMT members thus can express their different opinions and disagree about task-related issues.

Wiggins (1996) posits that the primary motivation of agreeable persons is altruism, that is, their sincere consideration for others' interests and empathy for others' situations. If individual founding TMT members receive such sincere attention from the leader, they may feel more comfortable expressing their opinions and disagreements on task-related issues. Agreeable leaders also tend to advance a compromise rather than a confrontation strategy (Moberg, 1998), which should reduce the likelihood of relationship conflict. Therefore,

Hypothesis 4: Lead founder agreeableness relates (a) positively to task conflict in the founding TMT and (b) negatively to relationship conflict in the founding TMT.

Finally, *conscientiousness* reflects an achievement orientation, such that the person displays thoroughness, perseverance, reliability, responsibility, and respect for established rules. Conscientious persons focus on achievement rather than on interpersonal relationships (McCrae & Costa, 1987). They likely organize and direct necessary behaviors to produce targeted outcomes (McCrae & John, 1992) and motivate employees to fulfill their job duties more diligently and with more effort (Peterson et al., 2003; Podsakoff, MacKenzie, & Bommer, 1996). Higher levels of lead founder conscientiousness may induce higher levels of team conflict though, because conscientious leaders' high need for achievement and power prompts them to use strong methods of influence, such as persuasive argument and manipulation (Howell & Higgins, 1990; Mowday, 1979). If a highly conscientious lead founder takes a view divergent from that of other group members, he or she likely pushes for his or her own ideas, which initially creates greater team conflict. Yet conscientious leaders also might reduce team conflict because they prefer an unambiguous, structured work setting

Figure 1
A Conceptual Model for Studying Lead Founder Personality, Intrateam Conflict, and New Venture Outcomes



in which people adhere to the rules and norms. In the astructural, ambiguous, and complex setting of new venture activities (Bryant, 2004; Ensley, Hmieleski, & Pearce, 2006), a powerful, achievement-oriented lead founder could initiate structure and set rules that decrease conflict in founding TMTs over time. We therefore posit:

Hypothesis 5: Lead founder conscientiousness relates negatively to (a) task conflict in the founding TMT and (b) relationship conflict in the founding TMT.

Figure 1 reflects our proposed theoretical model.

Consequences of Conflict in the Founding TMT

Whether task conflict is beneficial may depend on the type of task the team performs. Jehn (1995) argues that task conflict is more beneficial for the performance of nonroutine tasks. Routine, well-known tasks require little variety in the methods used, entail similar processes, and generally can be conducted the same way each time to achieve the same expected outcomes (Hall, 1972; Thompson, 1967). Nonroutine tasks instead require problem solving, have few set procedures, and exhibit a high level of uncertainty (Van de Ven,

Delbecq, & Koenig, 1976). Ashby's (1956) theory of requisite variety and Galbraith's (1973) information-processing view contend that high task variety should align with high task disagreement. Such task conflict stimulates thorough information processing and intensive information exchange; group members consider problems from different angles, discuss alternatives, and critically review different opinions (Amason & Sapienza, 1997), which produces in-depth decision making (Pelled et al., 1999).

Founding TMTs typically deal with nonroutine, complex tasks without standard solutions (Bryant, 2004; Ensley et al., 2006), such as developing and implementing policies and procedures or shaping effective courses of action to commercialize an innovative new product (Lodish, Morgan, & Kallianpur, 2001). Task conflict among team members may benefit innovation (Jehn, 1995; Pelled, 1996) by stimulating information processing, evaluations of opposing views, reconsideration of the status quo, and scrutiny of the task at hand, which prompts new idea creation and unconventional but higher quality solutions (Shalley & Gilson, 2004; Tjosvold, 1985; West, 2002). Likewise, the idiosyncratic nature of founding activities (Bryant, 2004; Ensley et al., 2006) may prompt disputes about how to distribute scarce resources, the best means to increase sales growth, or how to meet investors' objectives. A thorough, constructive dispute about how to allocate resources or address strategic and commercial issues should promote balanced, high-quality decisions and improved performance.

In contrast, relationship conflict may cause dysfunction because it tends to be emotional, involve high levels of anxiety and hostility (Evan, 1965; Jehn, 1994; Sarason, 1984), and focus on personal incompatibilities (e.g., Brehmer, 1976; Cosier & Rose, 1977; Jehn, 1992). Relationship conflict impairs cognitive task performance in work groups and inhibits information processing because members address personal issues rather than the group's task-related activities. Members of founding TMTs thus may be less motivated to exchange task-related information or consider how to meet objectives and gain market share. Instead, they devote their time and effort to personal attacks (or defending against such attacks).

The effect of conflict in the founding TMT on performance may be particularly pronounced. In larger organizations, TMT members likely work in different physical locations and meet perhaps quarterly to fulfill their well-defined roles. In new ventures, the founding TMT members might meet and coordinate their activities daily, and they have few routines or norms to dictate the firm's development. Therefore, they must work together intensively to ensure the proper conduct of their tasks. When team members frequently interact and closely cooperate, team conflict has an intensified effect on outcomes (Jehn, 1995). Thus, in founding TMTs, constructive criticism should have a stronger positive effect on performance, and relationship conflict should have a stronger negative effect. We therefore propose:

Hypothesis 6: (a) Task conflict in the founding TMT positively relates to new venture performance, and (b) relationship conflict in the founding TMT negatively relates to new venture performance.

Yet sometimes, high levels of task conflict and relationship conflict coexist (Simons & Peterson, 2000). Several researchers suggest encouraging task conflict while disallowing relationship conflict (Amason, 1996; Amason & Sapienza, 1997) to gain the "benefits of conflict without the costs" (Eisenhardt & Zbaracki, 1992: 34). High levels of relationship

conflict may inhibit the positive effect of task conflict, which emphasizes the need to attend to the interactive effect of both types of team conflict.

Several studies investigate this link (e.g., Simons & Peterson, 2000) and consider how relationship conflict mediates the effect of task conflict on performance (Friedman, Tidd, Currall, & Tsai, 2000). However, the scarce research on these interactive effects provides inconclusive results. For example, Janssen, Van de Vliert, and Veenstra (1999) find no interactive effects of task and person conflict on team decision-making effectiveness, but Kellermanns and Eddleston (2004) provide empirical evidence that higher relationship conflict in family firms impedes the positive effect of task conflict on firm performance. Jehn argues that high relationship conflict can hamper work-related efforts "because members focus on reducing threats, increasing power and attempting to build cohesion rather than working on the task at hand" (1997: 531). In entrepreneurial firms, relationship conflict can pervade the entire TMT and prevent members from incorporating others' ideas (Filbeck & Smith, 1997). Moreover, relationship conflict is particularly harmful in small entrepreneurial firms, which often consist of family members with decision-making power and full access to information (Dyer, 1986; Sorenson & Kaye, 1999). However, when relationship conflict is low, the insights and viewpoints of each person can become synergistic and dynamic (Filbeck & Smith, 1997). If founding TMT members respect one another, they are more productive, manage information better, and achieve improved decision making. Thus,

Hypothesis 7: The positive relationship between task conflict in the founding TMT and new venture performance weakens when the level of relationship conflict in the founding TMT increases.

Conflict in the Founding TMT as a Mediator

The preceding hypotheses link together in an overall mediation model: Hypotheses 1 through 5 relate the lead founder's personality characteristics to both types of team conflict, and Hypotheses 6 and 7 link task conflict and relationship conflict to new venture performance. Implicitly, our discussion suggests that lead founder personality characteristics affect new venture performance through their effects on task and relationship conflict. That is, lead founder personality characteristics influence the level of team conflict, and the process of conflict resolution among founding team members converts the impact of the lead founder's personality characteristics into concrete performance implications.

This mediation model is not intended to suggest that lead founder personality characteristics play no direct role in determining new venture performance or that no other variables mediate the relationship between personality characteristics and performance. To perform well, a new venture requires a lead founder with an appropriate personality profile, who uses his or her personality to prompt task conflict and inhibit relationship conflict. Founding TMT members, including the lead founder, often work together and meet daily, so the lead founder's personality and behavior inherently relates to the interpersonal dynamics of the founding TMT. Hermann and Preston (1994) similarly show that leader personality significantly affects how senior management interacts, which affects organizational performance, and Peterson et al. (2003) argue that CEO personality characteristics indirectly influence

organizational performance through group processes, such as TMT intellectual flexibility, risk taking, and cohesion.

Our thesis that individual lead founder personality characteristics affect new venture performance through task and relationship conflict is based on the notion that individual members contribute to group outcomes through their task and socioemotional inputs (Forsyth, 1990; Mann, 1959). Task inputs include fulfilling responsibilities and achieving goals; socioemotional inputs reflect social interactions and team members' emotional needs (Bass, 1990). Some studies implicitly assume a mediating role of team conflict on team performance. For example, Ensley et al. (2002) specify task and relationship conflict as mediators of the link between a new venture's TMT cohesion and performance. Similarly, Pelled et al. (1999) name task and emotional conflict as mediators of the relationship between group diversity variables and work group performance. Yet these studies have not empirically tested the mediating effect of team conflict, although Knight and colleagues (1999) empirically examine the mediating role of interpersonal conflict in the link between TMT diversity and TMT strategic consensus. However, they ignore individual executive characteristics and the potential mediating role of task conflict.

As we have argued, for a new venture to perform well, the interactions among founding TMT members should be characterized by high levels of task conflict and low levels of relationship conflict. The mobilization of the lead founder's personality characteristics seems critical to achieve this desirable situation. That is, founding TMT members may be unable to improve new venture performance in the absence of a lead founder with an appropriate personality profile. The level of conflict in the founding TMT, as influenced by the lead founder's personality, ultimately determines the new venture's performance. We propose:

Hypothesis 8a: Task conflict in the founding TMT mediates the relationships between lead founder personality characteristics (openness, extraversion, agreeableness, conscientiousness) and new venture performance.

Hypothesis 8b: Relationship conflict in the founding TMT mediates the relationships between lead founder personality characteristics (neuroticism, extraversion, agreeableness, conscientiousness) and new venture performance.

Research Design and Data

For this study, we define a lead founder as the lead entrepreneur who initiated the new venture and assembled the new venture founding team. Although we do not distinguish ventures with single versus multiple lead founders, most ventures in our sample had one distinct leader. The founding TMT is the group of entrepreneurs who founded the new venture.

Field Research

To develop the measures for this study, we first generated a list of scale items pertaining to lead founder personality and task and relationship conflict from existing, well-validated measures. We adopted the copyrighted NEO Five-Factor Inventory (NEO-FFI; Costa &

McCrae, 2003) survey, a 60-item scale used previously in multiple settings (e.g., McCrae, 1991; McCrae & Costa, 1987). To ensure the content validity and appropriateness of these items, we conducted field research to pretest the survey through in-depth, three-part focus interviews with 14 founders of four new venture founding teams. In the first part, we asked each respondent to describe the personality of the venture's lead founder and the task and relationship conflict in the founding team. We also discussed the respondents' perceptions of how personality affects the management of conflict in the founding TMT. In the second part, these founders evaluated whether our hypotheses described their own experiences adequately. The third part asked for their opinions about the relevance and completeness of scale items generated from the literature. Each respondent completed this survey in the presence of one of the researchers.

Based on these field research, we found that gross margin and subjective performance measures are the best measures of performance for early stages of new ventures. In particular, the results from our field research indicate that the subjective measures are appropriate because they capture the perceptions of the founders that underlie their decision-making processes and permit comparisons across new ventures, based on new ventures' individual assessments given their particular industries, time horizons, economic conditions, and goals.

After the interview, we analyzed the qualitative data and found a high degree of agreement across respondents. The lead founders played critical roles in managing team conflict and new venture performance; in particular, the lead founder's personality was one of the most frequently cited reasons for team conflict and new venture performance. The respondents' descriptions of the lead founders' personalities also were largely consistent with the five common personality dimensions.

Data Collection

The sample frame consisted of new, independent businesses established between 2005 and 2007 and listed in the Dun & Bradstreet Corporation database. We randomly selected 1,000 firms in the following industries: (1) consumer electronics and electrical equipment, electronic components, and accessories; (2) computer games, video game, and toys; and (3) semiconductors, computer hardware, software/embedded technologies, and computer products.

The data used in this study consisted of two data sources. The data about the lead founder's personality, team conflict, and the subjective measure of new venture performance were collected using a mail survey. We administered the survey following the total design method (Dillman, 1978). The first mailing packet included a business card, personalized letter, copy of the survey, postage-paid envelope with individually typed return-address labels, and list of research reports available to participants. The packages were sent by priority mail. One week after the first mailing, we sent a follow-up letter to each firm. Of the 1,000 original mailings, 198 packages were returned as undeliverable. To ensure sufficient observations for this study, we randomly selected an additional 198 firms from the original sample frame and sent packages to these newly selected firms. We conducted two waves of mailings and two follow-up letters. We were successful in collecting survey data from 369 new ventures (36.9% response rate).

Because temporal order is a crucial condition to assume causality in relations among variables (e.g., Taris, 2000), we collected performance data 1 year after the survey data, which allows for a delayed influence of task and relationship conflict. The performance data included subjective performance data and gross margin data from 323 new ventures (46 companies were excluded, as these companies did not provide the performance data or the companies were no longer operating). The gross margin data were collected through multiple sources, including direct contact with the company and secondary sources (e.g., Dun & Bradstreet Corporation database).

To examine the potential for nonresponse bias, we performed a MANOVA and compared the number of employees and new venture performance of the 323 participating new ventures with those of the 677 nonresponding firms. The results revealed no significant differences between responding and nonresponding firms at a 90% confidence level. Therefore, we conclude nonresponse bias is not a concern for our study.

Study Measures

Lead founder personality. To assess the lead founder's personality, we used the copyrighted NEO-FFI (Costa & McCrae, 2003) survey, a 60-item scale used previously in multiple settings (e.g., McCrae, 1991; McCrae & Costa, 1987), with 12 items for each personality trait. The scale ran from 1 (*strongly disagree*) to 5 (*strongly agree*). We follow prior studies and do not include the measurement items herein.

Team conflict. We adopted scales from Pelled et al. (1999) to assess task conflict (four items) and relationship conflict (four items). The task conflict items were "To what extent were there differences of opinion in your founding team?" "How often did the members of your founding team disagree about how this new venture should be managed?" "How often did the members of your founding team disagree about which procedure should be used to manage your new venture?" and "To what extent were the arguments in your founding team task-related?" The relationship conflict items were "How much were personality clashes evident in your founding team?" "How much tension was there among the members of your founding team?" "How often did people get angry while working in your founding team?" and "How much jealousy or rivalry was there among the members of your founding team?" Participants responded on scales ranging from 1 (*none*) to 5 (*a great deal*).

New venture performance. Performance was measured by an objective measure (gross margin) and a subjective measure. Gross margin is calculated as (revenues – variable costs)/revenues. This measure does not include fixed costs and taxes. For the subjective measurement, we developed a five-item subjective performance scale, based on input from the lead founders. Sample items include "Our company has met our predefined level of sales growth" and "Our company has met our predefined level of profitability." Response options on this scale range from 1 (*much lower*) to 5 (*much higher*). Because the correlation between the subjective and objective measures is very high (.95), we only report the results from the gross margin, in the interest of conciseness.

Control variables. Following prior upper echelons studies, we included observable variables as controls. First, we controlled for the founding TMT's *prior experience with similar projects,* which may be an important covariate of performance (Ensley et al., 2002; Finkelstein & Hambrick, 1990; Hambrick & Mason, 1984). Finkelstein and Hambrick (1990) argue that relying on past experience tends to restrict information processing because organizational members develop habits and rely on their past experience instead of on new stimuli. This reliance may decrease decision-making quality and performance. However, Ensley et al. (2002) assert that members who continue to work together gain greater knowledge of one another's skills and abilities, which facilitates venture performance. We assessed prior experience with a single item, "How much prior start-up experience does your founding team have with similar projects?" with a 5-point scale (*none* to *a great deal*).

Second, *team size* has an important influence on performance. Larger ventures tend to have more established and complex structures, which may limit the lead founder's influence on the venture's strategic and operational functions (Ling et al., 2008). Furthermore, Amason and Sapienza (1997) show that TMT size relates positively to cognitive and affective conflict. We therefore operationalized team size as the number of persons in the founding TMT.

Third, the new ventures we investigated operated in three types of industries. Therefore, we controlled for *industry type* by creating dummy variables for Industry 1 (consumer electronics) and Industry 2 (computer games), using Industry 3 (semi-conductors) as the reference category.

Data Analyses

Measurement Validation

Before testing the hypotheses, we performed a confirmatory factor analysis (CFA) to assess the measurement properties of the items pertaining to the five personality characteristics, task conflict, relationship conflict, and the subjective scale of new venture performance. The initial model provided poor fit with the data. Following standard CFA procedures (Anderson & Gerbing, 1988), we eliminated 19 of the 60 personality items (i.e., 4 openness, 4 neuroticism, 3 extraversion, 5 agreeableness, and 3 conscientiousness items) on the basis of the modification indices. After deleting the items, the final measurement was acceptable, $\chi^2(1{,}055) = 2{,}352.39/1{,}055 = 2.23$, confirmatory fit index (CFI) = .93, normed fit index (NFI) = .87, and root mean squared error of approximation (RMSEA) = .06. All included constructs indicated coefficient alphas of .82 or higher: .86 openness, .82 neuroticism, .95 extraversion, .87 agreeableness, .95 conscientiousness, .85 task conflict, and .87 relationship conflict. In addition, the items revealed high significant factor loadings ($p < .01$). Therefore, the measurement model displayed unidimensionality and convergent validity (Anderson & Gerbing, 1988). We also examined discriminant validity using the average variance extracted (AVE; Fornell & Larcker, 1981) and a pairwise chi-square test. The final construct measurement was the average of the items retained for that construct. In Table 1, we present the correlations among the constructs in the lower left off-diagonal of the matrix and the square roots of the AVE along the diagonal. The smallest square root of AVE (.64) was greater than

Table 1
Descriptive Statistics

	OP	NE	EX	AG	CO	TC	RC	TEAMS	EXP	GM	PERF
Mean	2.98	2.73	3.06	3.44	2.98	3.53	3.21	4.40	3.02	17.84	2.12
Standard deviation	0.92	0.98	0.98	0.88	1.01	1.01	1.09	1.81	1.56	28.00	1.23
Construct reliability	.86	.82	.95	.87	.95	.85	.87	NA	NA	NA	.96
Correlation											
Openness (OP)	**.69**										
Neuroticism (NE)	.25	**.64**									
Extraversion (EX)	.27	.17	**.85**								
Agreeableness (AG)	.47	.15	.27	**.74**							
Conscientiousness (CO)	.34	.41	.45	.12	**.85**						
Task conflict (TC)	.25	.05	.18	.31	.01	**.76**					
Relationship conflict (RC)	–.33	–.08	–.38	–.21	–.52	–.15	**.84**				
Team size (TEAMS)	.18	.19	.30	.14	.27	.16	–.29	NA			
Prior experience with similar projects (EXP)	–.05	.06	.06	.07	–.02	.33	–.02	.01	NA		
Gross margin (GM)	.40	.24	.33	.34	.27	.47	–.39	.41	.20	NA	
Subjective performance (PERF)	.43	.24	.33	.34	.29	.46	–.39	.39	.24	.95	NA

Note: Diagonal elements in bold are square roots of the average variance extracted. Off-diagonal elements are correlations between the constructs.

the largest correlation coefficient (.52). The chi-square tests, carried out for each pair of the constructs, compared the two-factor models with the corresponding one-factor models. The smallest chi-square difference was 387.01. Our data thus satisfied Fornell and Larcker's (1981) criteria for discriminant validity.

To test for potential common method bias, we conducted Harman's single-factor analysis (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff & Organ, 1986) with an exploratory factor analysis and CFA of the one-factor model. The exploratory factor analysis generated seven factors, and the first factor explained only 38% of the total variance. The one-factor model fit the data very poorly, average χ^2(total/degree of freedom) = 10.19, CFI = .43, NFI = .41, and RMSEA = .17. Therefore, the single-factor model was strongly rejected.

Regression Analyses Results

In Table 1, we display the basic statistics of the study measures. As we noted previously, the correlation between the two performance measures was .95, and they also correlated with the other variables almost identically. Not surprisingly, the regression results were very similar as well.

We used ordinary least squares regressions to test the hypotheses. For presentation simplicity, we centered all the independent variables. In Table 2, we show the results for Hypotheses 1 through 5. The model comparison test (F = 19.24 and 6.17, respectively, for

Table 2
Regression Analyses of Lead Founder Personality–Team Conflict Relationships Results ($N = 323$)

	Dependent Variable Task Conflict (TC)						Dependent Variable Relationship Conflict (RC)					
	Control Model			Full Model			Control Model			Full Model		
	Coefficient Estimate	Standard Error	Standard Coefficient	Coefficient Estimate	Standard Error	Standard Coefficient	Coefficient Estimate	Standard Error	Standard Coefficient	Coefficient Estimate	Standard Error	Standard Coefficient
Intercept	0.02	0.09	0.00	0.01	0.09	0.00	–0.16	0.10	0.00	–0.15	0.09	0.00
Openness (OP)				0.21**	0.07	0.19				–0.18**	0.06	–0.15
Neuroticism (NE)				–0.03	0.06	–0.03				0.23**	0.06	0.21
Extraversion (EX)				0.09	0.06	0.09				–0.12*	0.06	–0.11
Agreeableness (AG)				0.21**	0.07	0.18				–0.08	0.06	–0.06
Conscientiousness (CO)				–0.14*	0.06	–0.13				–0.50**	0.06	–0.46
Team size (TEAMS)	0.09**	0.03	0.16	0.07*	0.03	0.12	–0.18**	0.03	–0.30	–0.09**	0.03	–0.15
Prior experience (EXP)	0.21**	0.03	0.32	0.20**	0.03	0.32	–0.00	0.04	–0.01	–0.02	0.03	–0.02
Consumer electronics	–0.07	0.13	–0.03	–0.05	0.12	–0.03	0.28*	0.14	0.12	0.24*	0.12	0.11
Computer games	–0.00	0.13	–0.00	0.02	0.13	0.01	0.18	0.15	0.08	0.19	0.12	0.08
Model F statistic		12.24**			11.07**			8.63**			21.12**	
Adjusted R^2		.12			.22			.09			.36	
R^2		.13			.24			.10			.38	
Change in R^2					.11						.28	

Note: All tests are two-tailed. Consumer electronics is an industry dummy variable (1 = *firm in consumer electronics and electrical equipment, electronic components, and accessories*); computer games is an industry dummy variable (1 = *firm in computer games, video game, and toys*); and the industry comprising semiconductors, computer hardware, software/embedded technologies, and computer products was set to 0 (baseline).
*$p < .05$. **$p < .01$.

task conflict and relationship conflict; $p < .01$) shows that the full models fit the data significantly better than the control models for both task and relationship conflict, indicating that personality characteristics drive team conflict. Results from the full model show that lead founder openness has a significant positive effect on task conflict ($b = .19$, $p < .01$), while having a negative effect on relationship conflict ($b = –.15$, $p < .01$). These results are in support of Hypotheses 1a and 1b. Furthermore, lead founder neuroticism has no effect on task conflict ($b = –.03$, *ns*) but has a significant positive effect on relationship conflict ($b = .21$, $p < .01$). These results do not support Hypothesis 2a but confirm Hypothesis 2b. Although we find that lead founder extraversion has no effect on task conflict ($b = .09$, *ns*), it does have a significantly negative effect on relationship conflict ($b = –.11$, $p < .05$). These results fail to offer support for Hypothesis 3a but confirm Hypothesis 3b. In addition, lead founder agreeableness has a positive effect on task conflict ($b = .18$, $p < .01$) and no effect on relationship conflict ($b = –.06$, *ns*), in support of Hypothesis 4a but not Hypothesis 4b. As we predicted in Hypotheses 5a and 5b, lead founder conscientiousness has significant negative effects on both task conflict ($b = –.13$, $p < .05$) and relationship conflict ($b = –.46$, $p < .01$).

We provide the findings related to Hypotheses 6 and 7 in Table 3. Model 1 includes only control variables, Model 2 adds the direct effects of the five personality characteristics as controls, and Model 3 includes task and relationship conflict in addition to the controls and personality characteristics. The results from Model 3 indicate that task conflict has a positive effect on gross margin ($b = .29$, $p < .01$), and relationship conflict has a negative effect on new venture performance ($b = –.17$, $p < .01$), in support of Hypotheses 6a and 6b. Model 4 includes the interaction between task conflict and relationship conflict. When we hold relationship conflict at the mean, task conflict positively affects performance ($b = .30$, $p < .01$). On the contrary, relationship conflict negatively affects performance when task conflict remains at a mean level ($b = –.16$, $p < .01$). Therefore, the results from Model 3 support Hypotheses 6a and 6b as well. As we predicted in Hypothesis 7, we find a negative interaction effect of task and relationship conflict on new venture performance ($b = –.14$, $p < .01$). That is, when relationship conflict increases, the positive effect of task conflict on new venture performance decreases.

Mediation Analyses

To test Hypothesis 8, we examined the mediating effects of task conflict and relationship conflict in the link between lead founder personality and new venture performance by performing a Sobel (1982) test. The traditional method for assessing mediation has been the multistep process outlined by Baron and Kenny (1986). However, recent research has suggested that mediation can also be established without significant direct relationships between independent and dependent variables, which is the first step in the Baron–Kenny method (see Shrout & Bolger, 2002). In addition, Preacher and Hayes (2004) argue that the Sobel test is a more powerful alternative for assessing indirect effects than the stepwise procedure offered by Baron and Kenny, because the Sobel test can directly assess mediation. Therefore, we decided to use the Sobel test.

Table 4 contains the results of the Sobel test. Neuroticism and extraversion do not directly affect task conflict, and agreeableness does not directly affect relationship conflict, so we did

Table 3
Regression Analyses of the Team Conflict–Gross Margin Relationship Results ($N = 323$)

	Model 1 Controls			Model 2 Controls + Big Five			Model 3 Controls + Big Five + Team Conflict			Model 4 Controls + Big Five + Team Conflict + Interaction		
	Coefficient Estimate	Estimated Error	Standard Coefficient	Coefficient Estimate	Estimated Error	Standard Coefficient	Coefficient Estimate	Estimated Error	Standard Coefficient	Coefficient Estimate	Estimated Error	Standard Coefficient
Intercept	20.42**	2.45	0.00	19.84**	2.23	0.00	19.13**	2.09	0.00	18.79**	2.06	0.00
Task conflict (TC)							8.14**	1.34	0.29	8.30**	1.32	0.30
Relationship conflict (RC)							−4.26**	1.37	−0.17	−4.18**	1.35	−0.16
Interaction (TC × RC)										−3.32**	1.03	−0.14
Openness (OP)				7.38**	1.66	0.24	4.92**	1.58	0.16	4.34**	1.57	0.14
Neuroticism (NE)				1.76	1.44	0.06	3.00*	1.38	0.11	3.22*	1.36	0.11
Extraversion (EX)				3.28*	1.52	0.12	2.04	1.43	0.07	2.45	1.41	0.09
Agreeableness (AG)				4.14*	1.67	0.13	2.13	1.58	0.07	1.60	1.57	0.05
Conscientiousness (CO)				0.30	1.58	0.01	−0.71	1.63	−0.03	−0.67	1.61	−0.02
Team size (TEAMS)	6.40**	0.77	0.42	4.68**	0.75	0.30	3.75**	0.71	0.24	3.55**	0.71	0.23
Prior experience (EXP)	3.44**	0.90	0.19	3.34**	0.83	0.19	1.60*	0.82	0.09	1.14	0.82	0.06
Consumer electronics	−4.50	3.39	−0.08	−3.82	3.08	−0.07	−2.36	2.89	−0.04	−2.50	2.85	−0.04
Computer games	−3.06	3.50	−0.05	−2.02	3.19	−0.03	−1.42	2.98	−0.02	−1.96	2.94	−0.03
Model F statistic		21.47**			19.79**			23.14**			22.73**	
Adjusted R^2		.20			.34			.43			.45	
R^2		.21			.36			.45			.47	
Change in R^2					.15			.09			.02	

Note: All tests are two-tailed. Consumer electronics is an industry dummy variable (1 = *firm in consumer electronics and electrical equipment, electronic components, and accessories*); computer games is an industry dummy variable (1 = *firm in computer games, video game, and toys*); and the industry comprising semiconductors, computer hardware, software/embedded technologies, and computer products was set to 0 (baseline).
*$p < .05$. **$p < .01$.

Table 4
Sobel Tests for Indirect Effects

	Gross Margin (GM)	
	Task Conflict (TC)	Relationship Conflict (RC)
Openness (OP)	1.72 (0.61)**	0.75 (0.38)*
Neuroticism (NE)	NA	–0.98 (0.40)*
Agreeableness (AG)	1.67 (0.61)**	NA
Extraversion (EX)	NA	0.50 (0.31)
Conscientiousness (CO)	–1.10 (.54)*	2.11 (0.73)**

Note: All tests are two-tailed. Sobel tests were conducted using the estimates from the model with main effects only (no interaction).
*$p < .05$. **$p < .01$.

not conduct Sobel tests for these relations. With task conflict as a mediator, the Sobel test statistics are significant ($p < .05$) for all three tested independent variables (i.e., openness, agreeableness, and conscientiousness). When relationship conflict is the mediator, we find significant Sobel test statistics ($p < .05$) for three of the four tested independent variables (i.e., openness, neuroticism, and conscientiousness).

To determine whether task and relationship conflict fully or partially mediate the relationship, we also inspected the effects of the personality characteristics on new venture performance when we included relationship conflict, task conflict, and the controls in the regressions (Table 3, Model 4). Only openness ($b = .14$, $p < .01$) and neuroticism ($b = .11$, $p < .05$) have significant directs effects on performance. Therefore, task conflict fully mediates agreeableness and conscientiousness but only partially mediates openness. Relationship conflict fully mediates openness and conscientiousness but only partially mediates neuroticism. Extraversion, though negatively related to relationship conflict, has no significant direct or indirect effect on performance. These results provide partial support for Hypothesis 8.

Discussion

Following the trend in management research and entrepreneurial research in particular to integrate microvariables with macro-organizational phenomena (e.g., Baum & Locke, 2004; Baum et al., 2001; Hitt et al., 2007), we decided to examine the impact of the microlevel variables related to a lead founder's personality and founding TMT conflict on macrolevel new venture firm performance. We propose that the lead founder's personality, captured by the five-factor model, has a significant impact on new venture performance through task and relationship conflict in founding TMTs.

Our results reveal that all five personality characteristics, as personified by the lead founder, relate to task conflict, relationship conflict, or both. Thus, lead founder personality is a significant driver of conflict in founding TMTs. Our findings further reveal that personality characteristics with a task-related focus, such as the creative work behavior encouraged by openness (Kamdar & Van Dyne, 2007) or the task completion focus of conscientiousness

(Barrick, Stewart, Neubert, & Mount, 1998), relate to task and relationship conflict. Our empirical results show that (1) openness increases task conflict but decreases relationship conflict, (2) neuroticism increases relationship conflict but has no effect on task conflict, (3) extraversion decreases relationship conflict but has no effect on task conflict, (4) agreeableness increases task conflict but has no effect on relationship conflict, and (5) conscientiousness leads to lower levels of task and relationship conflict. Task conflict in the founding TMT is a process, so openness can boost creativity for developing new ideas, products, procedures, and strategies. However, in this fluid process, conscientiousness and its preference for thoroughness, orderliness, and workaholic tendencies is less appropriate. George and Zhou (2001) similarly find that openness encourages creative behavior, but conscientiousness inhibits creativity by stimulating conformity and controlled tendencies. However, the astructural and ambiguous context of a new venture means that lead founders who try to structure and formalize activities might reduce relationship conflict. In line with our expectations, we find a negative effect of lead founder openness on relationship conflict. This confirms the notion that founding TMT members with open lead founders are better capable of voicing their opinions and to conceive emerging relationship conflict as task related rather than personal.

In addition, we find that lead founder personality characteristics that are intrinsically interpersonal in nature, such as extraversion, or that reflect negative emotions, such as neuroticism, relate only to relationship conflict (McCrae & Costa, 1989). An extraverted lead founder who is gifted with communication skills tends to use social leadership to lower relationship conflict; a neurotic lead founder who is thin-skinned, anxious, unstable, and indecisive tends to stimulate relational tensions. Contrary to our expectations though, we find no effect of lead founder extraversion on task conflict, perhaps because of the interpersonal nature of extraversion, such that it relates weakly to task-related aspects compared with socioemotional aspects (Barry & Stewart, 1997).

Finally, agreeable lead founders delegate decision-making authority to team members, which allows them to manifest their opinions and ideas and stimulates task conflict. Agreeable lead founders also exhibit consensus-seeking, social, and helpful tendencies; however, the altruistic and caring nature of their personalities may make them less effective in inhibiting and controlling relationship conflict. Quarrelling TMT members may perceive agreeable lead founders as "too soft" and regard their attempts to resolve relationship conflict as neither powerful nor demanding. As a result, they feel less impetus to give up their personal conflicts.

As we predicted, task conflict has a positive impact on new venture performance, but relationship conflict induces lower new venture performance. These findings empirically substantiate the notion that task conflict benefits nonroutine task performance, whereas relationship conflict decreases task performance (Jehn, 1995). The opposing effects of task and relationship conflict relate to the finding of a negative correlation between task conflict and relationship conflict, which runs counter to conventional literature on team conflict (De Dreu & Weingart, 2003; Simons & Peterson, 2000). A plausible explanation for this deviant result may be that the nature of founding TMTs differs significantly from that of TMTs in established organizations. Many new ventures are founded by friends and family members, who have experience with one another and voluntarily agree to work together, so the founding TMT likely enjoys high levels of trust. Simons and Peterson (2000) find that trust among

team members negatively moderates the positive relationship of task conflict and relationship conflict. Because founding TMT members often work intensively together, they should trust one another and be inclined to perceive ambiguous behaviors less negatively, rather than as evidence of relationship conflict. Similarly, Mooney, Holahan, and Amason (2007) indicate that members of behavioral integrated teams trust that others have a real stake in the success of the team and are less inclined to take divergent viewpoints and opinions personally. As a result, they can constructively confront one another with diverse ideas and views, without the fear of negative consequences.

Indeed, in high-technological new ventures with such collegial culture, lead founders should encourage constructive confrontation, which is a critical and open debate of divergent perspectives including task-related facts and opposing ideas (Alper, Tjosvold, & Law, 1998; Ellis et al., 2003; Tjosvold, 1985; Shah, Dirks, & Chervany, 2006). Lead founders should carefully consider founding TMT members' suggestions and ideas before making decisions (Chen & Tjosvold, 2006). Stimulating founding TMT members to vigorously debate tough issues, like the prospect of the new venture, is possible only when people can speak their minds without fear for punishment (Burgelman, 2002). Only such constructive controversy, which encourages an open, mutual discussion on divergent views, can contribute to decision making (Alper et al., 1998).

Furthermore, we find a significant negative interaction effect of task and relationship conflict on new venture performance. In a founding TMT, which often consists of relatives, members cooperate intensively, are more interdependent, and see one another more frequently than do members of TMTs in large, established organizations. Relationship conflict among founding TMT members therefore may be extremely harmful and have a destructive effect on the benefits of task conflict (Kellermanns & Eddleston, 2004).

Finally, we proposed that lead founder personality characteristics would indirectly affect new venture performance through task conflict and relationship conflict. Our findings show that (1) openness exerts both direct and indirect positive effects on performance, (2) neuroticism has a negative indirect effect through relationship conflict but a positive direct effect on performance, (3) agreeableness exerts an indirect a positive effect on performance through task conflict, (4) extraversion has neither direct nor indirect effects on performance, and (5) conscientiousness has a positive indirect effect on performance through relationship conflict but a negative indirect effect through task conflict. Therefore, two characteristics (i.e., openness and neuroticism) have direct effects; we note in particular the direct positive effect of lead founder openness on new venture performance because traditional studies of job performance have indicated weak and inconsistent effects of openness (Barrick & Mount, 1991; Barrick, Mount, & Judge, 2001).

The new ventures under study are involved in radical innovation of high-tech products. In such context, performance largely results from creativity, in terms of the production of ideas about products, practices, processes, or procedures that are novel and potentially useful (Amabile, 1996). Lead founders who are more open, who consider a variety of novel approaches and perspectives, are more likely to exhibit high creativity when needed (cf. Baer & Oldham, 2006).

A remarkable finding is the direct positive effect of neuroticism on new venture performance In new ventures that develop radical high-tech innovations and typically focus on creative performance, the neuroticism of individual leading entrepreneurs may be beneficial,

given that the levels of task and relationship conflict are constant. Individual lead founders in negative moods may push themselves to come up with truly new and useful technological ideas because their negative mood states cause them to be more critical and more willing to identify complex technological problems, which may prompt them to make changes and stimulate creativity (Frijda, 1988; George & Zhou, 2002; Martin & Stoner, 1996). These lead founders do not really need task-related disputes with their founding TMT colleagues (note also the absence of the mediating effect of task conflict) to boost their creativity and the new venture performance.

In addition, it should be noted that the positive effect of neuroticism on gross margin only emerges after controlling for task and relationship conflict (see Table 3, Models 3 and 4). The regression coefficient (1.76) in Model 2, which does not control for task conflict and relationship conflict, is not significant. Therefore, an increase in neuroticism of the lead founder leads to an increase in new venture performance only when relationship conflict and task conflict are held constant. However, the results in Table 2 show that an increase in neuroticism leads to increased relationship conflict, which in turn negatively impacts new venture performance. Hence, neuroticism has a negative indirect impact on new venture performance. The total effect (the sum of the positive direct effect and the negative indirect effect) of neuroticism is 2.02, which is not significant.

This result nuances our expectations that team conflict plays an intervening role, mediating the impact of lead founder characteristics on new venture performance. Our findings suggest that a partially mediated model of team conflict reflects reality better than a fully mediated model of team conflict. We extend Knight et al.'s (1999) finding that relationship conflict in TMTs does not fully mediate but partially mediates the linkage between TMT characteristics and TMT outcomes. A reasonable explanation for the direct effects of lead founder personality characteristics (openness, neuroticism) on new venture performance may be that new ventures tend to be small firms with less developed structures, in which lead founders have more freedom to influence strategic and operational processes than they would in large firms. As a result, their direct impact on firm outcomes may be more visible (Ling et al., 2008).

Our findings of both indirect and direct effects of leader personality characteristics on new venture performance should spur the ongoing debate about whether TMT properties provide better predictors of firm outcomes than do individual executive characteristics (Mackey, 2008). Several empirical studies suggest that TMTs are better predictors of firm outcomes (e.g., Ancona, 1990; Hage & Dewar, 1973; Haleblian & Finkelstein, 1993), yet an increasing number of leadership studies indicate important individual-level effects (e.g., Bertrand & Schoar, 2003; Jensen & Zajac, 2004). We empirically address the calls to focus not just on TMT properties but also on the impact of a chief executive's characteristics and unique position within the TMT (Hambrick & Cannella, 2004; Jensen & Zajac, 2004; Marcel, 2009) and thus add nuance to the prevalent notion that firm performance is a function of TMT rather than of executive properties.

Implications

The findings from this study have several implications for management and entrepreneurship research. To start, we clarify the upper echelons focus on TMT properties as predictors

of firm outcomes by showing that lead founder personality characteristics in particular can predict task and relationship conflict in founding TMTs. Our findings raise natural questions about whether these strong effects apply only in a new venture context or if the influence of personality characteristics and other lead founder characteristics (e.g., leadership styles) can mitigate the effects of team properties as drivers of task and relationship conflict. Further research should focus on such issues.

This study also demonstrates that task and relationship conflict (partially) mediate the link between lead founder personality characteristics and new venture performance. The direct and indirect effects of lead founder personality characteristics, through team conflict, suggest that personality characteristics drive new venture performance, which substantiates Marcel's (2009) observation that different executive roles in the TMT have unique impacts on firm outcomes. Our findings also reveal that a partially mediating model better reflects the data than a fully mediating model, such that conflict processes within the founding TMT might not capture the effects of all lead founder personality characteristics. This result may fuel the ongoing debate about whether individual executive characteristics directly or indirectly influence firm performance (Mackey, 2008).

By linking microlevel variables (i.e., psychological and social) to macrolevel organizational outcomes, our study provides a better understanding of how leader personality moves through conflict in the founding TMT to drive new venture performance (Carpenter et al., 2004; Hambrick, 2007; Hitt et al., 2007). However, our set of predictor variables consists exclusively of personality variables collected from a single person in the team. Additional research therefore should collect personality data from multiple founding TMT members and thereby take an integrative approach to compare the effects of founding TMT member personality characteristics against those of objective, macrolevel TMT characteristics.

Finally, our findings suggest several implications for new venture management. To begin with, lead founders must explicitly take into account the effects of their personality profiles. They should subject themselves to a personality assessment to acquire knowledge about their personality characteristics, then use the results to perform in-depth diagnoses of their personality strengths and weaknesses. This characterization can provide important selection criteria when assembling the founding TMT. Thorough knowledge of his or her personality enables the founder to select TMT members whose characteristics complement that personality profile. For example, lead founders high in neuroticism might try to minimize the negative effect of this characteristic on the team's relationship conflict by selecting entrepreneurial members who are not neurotic. Lead founders also might pursue persons who possess a surplus of openness, because this characteristic stimulates constructive disputes and inhibits dysfunctional interpersonal clashes, as well as relates directly and positively to new venture performance. Overall, lead founders should encourage task conflict, build trust, and stimulate collaborative work practices to mitigate the negative effects of relationship conflict.

Limitations and Future Research

There are several limitations to this study. Because our sample includes only new ventures, we cannot claim a universally applicable model of TMTs. Additional work on leader personality should examine the generalizability of our findings to TMTs in more established

organizational settings. Furthermore, the cross-sectional nature of our research design does not allow us to draw causal conclusions. Our concern about the causal direction of the effects is mitigated by the considerable consistency of the personality dimensions we assess (Costa & McCrae, 1992a), but we encourage further research that adopts a longitudinal approach. In addition, we used single informants to provide data about personality and team conflict, and the assessments of team conflict variables came from the lead founders, although founding TMT members might be better informed about conflict phenomena. We were able to collect data from multiple members for 34 founding TMTs. Based on this subset of our data (34 founding TMTs), we performed interrater reliability analysis using the $r_{wg(j)}$ statistic to determine consistency among founding TMT members on team conflict (James, Demaree, & Wolf, 1993). The average $r_{wg(j)}$ values for task conflict, $r_{wg(j)} = .99$, and relationship conflict, $r_{wg(j)} = .99$, suggest that there is convincing evidence that founding TMT members agree on the level of team conflict (James et al., 1993). Although our subset of team member data suggests that the data from the lead founders were reliable, further research should consider multiple informants per team.

Finally, the construct validity of the five-factor personality instrument is questionable and requires more research attention. Prior literature generally has dealt with the construct validity of the five-factor model using internal consistency estimates (i.e., item-parceling method), but the CFAs of the items provide poor fit. Lim and Ployhart (2006) find it surprising that the validity of the well-developed personality instruments is based solely on internal consistency estimates, not a regular CFA, and argue for improvements to the instruments. The poor CFA results of this established measure may occur because the NEO-FFI is a proprietary instrument, which can hinder research efforts. Researchers may not publish the psychometric characteristics of specific items or reveal which "weak" items should be dropped to enhance the quality of instrument. Even McCrae and Costa (2004), who own the personality instrument, have recognized room for improvement in the NEO-FFI and proposed replacing 14 of the 60 items. In their study of the validity of the Revised NEO Personality Inventory, which relates to the NEO-FFI, Gill and Hodgkinson (2007) conclude that 27 of the 140 items in that scale cross-loaded at a level of .3 or greater on more than one scale; these items should be eliminated from further analyses (e.g., Kline, 2000; Nunnally & Bernstein, 1994). Because most studies that use the FFI, regardless of its measurement quality, are based on all 60 items, we checked whether eliminating items led to different results and performed additional analyses with all 60 personality items. The results were similar to our reported findings and did not significantly change our main conclusions.

Conclusion

By investigating the impact of lead founder personality characteristics, through the social process of founding TMT conflict, on new venture performance, this research adds to our understanding of how an individual lead founder's personality affects new venture performance through team conflict. The results have shown that the relationship between founding TMT conflict and new venture performance is mediated by team conflict: Task conflict increases new venture performance, whereas relationship conflict decreases new venture

performance and reduces the positive impact of task conflict. In addition, our findings have revealed that all five individual lead founder personality characteristics affect task conflict, relationship conflict, or both types in the founding TMT and that four out of five characteristics influence venture performance directly or indirectly. These significant direct and indirect effects suggest that the top executive's personality is an important determinant of new venture outcomes. We add nuance to upper echelons theory by integrating microlevel variables with macro-organizational criteria. Our study thus has significant implications for practice and research in several theoretical streams.

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