A PROCLIVITY FOR ENTREPRENEURSHIP:
A COMPARISON OF ENTREPRENEURS, SMALL BUSINESS OWNERS, AND CORPORATE MANAGERS

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EXECUTIVE SUMMARY

Despite intensive inquiry, relatively little is known about the entrepreneur, the central figure in entrepreneurship. The question of how an individual who operates his or her own business differs from a corporate manager remains unanswered. In addressing this question, the primary purpose of this study was to investigate the potential of psychological constructs to predict a proclivity for entrepreneurship. The research model includes three classic themes in the literature: achievement motivation, risk-taking propensity, and preference for innovation.

A survey of 767 small business owner-managers and corporate managers was assembled from a 20-state region, primarily the southeastern United States. The participants completed a questionnaire composed of the Achievement Scale of the Personality Research Form, the Risk-Taking and Innovation Scales of the Jackson Personality Inventory and questions pertaining to numerous individual and organizational variables. Respondents were first divided into two groups, managers and small business owner-managers.

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Subsequently, due to the often cited variations in entrepreneurs, the owner-managers were further categorized as either an entrepreneur or small business owner, using the widely cited Carland et al. (1984) theoretical definitions. Entrepreneurs are defined by their goals of profit and growth for their ventures and by their use of strategic planning. Alternatively, small business owners focus on providing family income and view the venture as an extension of their personalities. In this study, both groups of owner-managers were simultaneously compared with managers using hierarchical set multinomial LOGIT regression.

The results indicated that the psychological constructs are associated with small business ownership, but with some important caveats. As hypothesized, those labeled entrepreneurs were higher in achievement motivation, risk-taking propensity, and preference for innovation than were both the corporate managers and the small business owners. This profile of the entrepreneur as a driven, creative risk-taker is consistent with much of the classic literature concerning the entrepreneur. Nonetheless, not all of the owner-managers fit this profile. When compared with managers, the small business owners demonstrated only a significantly higher risk-taking propensity. In terms of the constructs studied, the small business owners were more comparable to managers than to entrepreneurs.

In addition to theoretical and methodological implications, the results presented here have important implications for small business owner-managers of both types. A major issue is the connection between the owner’s psychological profile and the characteristics of the venture, including performance. It would appear that psychological antecedents are associated with owner goals for the venture. Some owners will be more growth oriented than will others, and performance should be assessed in light of the owner’s aspirations for the venture. Moreover, owners should be aware of their own personality sets, including risk preferences, which may be more or less suited to different venture circumstances, including those with relatively high levels of risk.

Planning in small businesses appears to enhance venture performance. Research has demonstrated the connections between psychological factors and planning behaviors in small businesses. Those labeled entrepreneurs in this study have goals of profit and growth, and tend to engage in more planning. An awareness of these psychological preferences and concomitant attention to planning behaviors have the potential to improve the performance of the venture, irrespective of owner aspirations.

Venture teaming is becoming more popular among entrepreneurs. Balanced venture teams appear to improve the chances of entrepreneurial success (Timmons 1990), but a common source of conflict among venture team members is inconsistent or ambiguous motives for the new venture. Awareness of venture partners’ psychological predispositions in areas such as risk-taking could be used to identify and reconcile areas of potential conflict, and enhance the planning process in the small firm. In sum, an individual’s awareness of his or her psychological profile provides a number of advantages, not only to existing entrepreneurs, but also to aspiring entrepreneurs who should assess their perceived entrepreneurial opportunities against the backdrop of their psychological proclivity for entrepreneurship.

INTRODUCTION

Despite intensive inquiry, we still know relatively little about the entrepreneur (Begley and Boyd 1987a; Cunningham and Lischeron 1991), particularly how an entrepreneur differs from a manager in a large organization (Gartner 1985; Ginsberg and Buchholtz 1989). Research has indicated that managers and entrepreneurs have different goals (Litzinger 1965) and decision-making styles (Busenitz 1992; Carland 1982; Carland and Carland 1992; Richard 1989; Smith et al. 1988), but beyond this, few studies have compared entrepreneurs and managers (Greenberger and Sexton 1988), and the results of those that have are inconsistent (cf. Brockhaus and Horwitz 1986; Perry 1990). Yet, entrepreneurial behaviors are important (Gartner, Bird, and Starr 1992), and must be distinguishable from managerial activities (Penrose 1968) in the process of learning more about both the entrepreneur and the corporate manager.

The appropriate approach for studying entrepreneurial behavior remains conten-
tious (cf. Carland, Hoy, and Carland 1988; Chell 1985; Gartner 1988; Stewart 1996). Clearly, situational factors and social function are integral components of the entrepreneurial process (e.g., Greenberger and Sexton 1988; Herron and Robinson 1993; Martin 1984; Shapero 1975; Van de Ven 1993), but not all people will become entrepreneurs under comparable circumstances, suggesting that individual personality features are a necessary (Cromie and Johns 1983), if insufficient, condition for the process of entrepreneurship. Therefore, psychological attributes should be an integral part of entrepreneurship research (Carland et al. 1984; Goldsmith and Kerr 1991; Johnson 1990), as they are a significant element of a comprehensive theory of entrepreneurship (e.g., Greenberger and Sexton 1988; Herron and Robinson 1993; Martin 1984; Naffziger, Hornsby, and Kuratko 1994; Sandberg 1986), but thus far, the role of psychological factors is unclear.

The lack of progress in personality research in entrepreneurship may be due to the theories and methods used to identify those characteristics (Robinson et al. 1991; Sexton and Bowman 1984, 1986). Definitional quandaries concerning the entrepreneur (cf. Stewart, Carland, and Carland 1996) have also hampered theoretical development. The resulting disharmony in the literature has initiated calls for additional research, particularly comparative investigations, to definitively identify the salient features of the entrepreneurial personality (Herron and Robinson 1993; Hoy and Carland 1983; Johnson 1990; Sexton and Bowman 1983), but studies of that nature have been limited of late (Chandler and Hanks 1994; Shaver and Scott 1991). This study is, in part, a response to the challenge for additional inquiry concerning how entrepreneurs differ from managers.

The central problem addressed in this study is to investigate selected psychological predispositions of small business owner-managers and corporate managers to determine if there are significant differences. Recognizing that a wide range of owner-managers exists (Collins and Moore 1970; Dunkelberg and Cooper 1982; Filley and Aldag 1978; Smith 1967) wherein variation might limit inquiry (Gartner 1985), we also examine two types of small business owner-managers. Carland et al. (1984) elucidated two distinct types of small business owner-managers: entrepreneurs and small business owners. According to the authors, an entrepreneur capitalizes on innovative combinations of resources for the principal purposes of profit and growth, and uses strategic management practices. Alternatively, the small business owner operates a business as an extension of the individual's personality to further personal goals and to produce family income. The two types of owners differ in articulated venture strategies, personality, cognitive orientation and behavior preferences (Carland et al. 1988), factors also associated with planning activities in small ventures (Carland, Carland, and Aby 1989). A primary objective of our research is to investigate whether this definitional distinction affords insight into the entrepreneurial psyche. Specifically, we pursue a three-way comparison of the psychological predispositions of corporate managers, entrepreneurs and small business owners across a variety of contexts. Observed differences could have important implications for theory development in a number of areas, including education and assistance programs, teaming, planning and management style.

THE PRESENT STUDY
Sparked by the recognition of an opportunity (Stevenson and Jarillo 1990), the entrepreneur, through an act of volition (Bygrave and Hofer 1991) or intention (Bird 1988), is
the catalyst of the process of entrepreneurship. This research effort is focused on the individual entrepreneur and is based on psychological theories that seek to explain why people act in certain ways, specifically, entrepreneurially. In other words, individual psychological factors may indicate a potential for entrepreneurship (Lachman 1980). There is evidence that psychological traits are remarkably stable over time (cf. Epstein and O’Brian 1985), influence behavior in relevant situations (Bem and Funder 1978), may change situations (Rausch 1977) or be more easily expressed in certain situations (Schutte, Kenrick, and Sadalla 1985), and may lead people to choose different situations (Snyder and Ickes 1985). Therefore, psychological predispositions could be the antecedents of entrepreneurial behavior, indicating a proclivity for entrepreneurship.

Whereas a host of psychological factors associated with entrepreneurship has been studied, in evaluating a psychological predisposition for entrepreneurship we develop a theoretical framework drawn from the three streams of research that are most commonly evident in descriptions of the entrepreneur (Bellu 1987; Carland et al. 1984; Long 1983): achievement motivation, risk-taking propensity, and preference for innovation. Research has generally supported relationships between these three psychological constructs and the entrepreneur (Gasse 1982), but the results are inconclusive. The most extensively researched of these characteristics is achievement motivation.

**ACHIEVEMENT MOTIVATION**

Murray (1938) identified the need for achievement as a basic need that influences behavior. McClelland (1961, 1965) established the construct in the entrepreneurship literature by positing that a high need for achievement predisposes a young person to seek out an entrepreneurial position to attain more achievement satisfaction than could be derived from other types of positions (McClelland 1961, 1965; Meyer, Walker, and Litwin 1961). Alternatively, a manager tends to be high in need for power and lower in need for achievement (McClelland and Winter 1969). McClelland’s methodology has been questioned (Entwisle 1972; Frey 1984; Klinger 1966; Miner 1980), but moreover, these studies did not actually link need for achievement with the founding or ownership of a business, the classical hallmarks of the entrepreneur. Subsequent researchers have analyzed achievement motivation vis-à-vis entrepreneurship.

Entrepreneurs are more achievement oriented than the general population (Hornaday and Aboud 1971; Hornaday and Bunker 1970; Komives 1972), irrespective of gender (DeCarlo and Lyons 1979). Although this conclusion is questioned (Schrage 1965), so is the validity of the inferences of the detractors (Wainer and Rubin 1969). Resolution of these discrepancies is arduous because of differences in measurement and limited statistical power. Cross-cultural research indicates that not only is the entrepreneur higher in achievement motivation than the norm, but that the phenomenon may not be significantly culturally circumscribed (Ahmed 1985; Nandy 1973; Perry, Meredith, and Cunnington 1988).

The need for achievement may not be the most important variable for predicting the likelihood of starting a business. Achievement motivation was not a significant factor among students who intended to become entrepreneurs and those who did not (Borland 1974), nor between those who indicated entrepreneurial interest through the choice of majors (Sexton and Bowman 1983). Yet, the question of whether students’ majors or stated intentions are appropriate surrogates for business ownership arises. Potentially more conclusive results based on alumni business ownership indicate that achievement
motivation does not signify the likelihood of starting a business (Hull, Bosley, and Udell 1980), but it appears to be a primary motivation for female entrepreneurs (Schwartz 1976).

Notably, few studies directly compare entrepreneurs and corporate managers on achievement motivation, and the results of those that have are mixed. Evidence suggests that entrepreneurs are higher in achievement motivation than are managers (Begley and Boyd 1987a; Carland and Carland 1991; Lachman 1980; Ray 1981; Schere 1982). One study found no differences for female entrepreneurs and managers (Waddell 1983), whereas another study found female entrepreneurs higher in need for achievement than female managers (Carland and Carland 1991). In general, the findings tend to support the McClelland and Winter (1969) proposition that managers and entrepreneurs have different priorities of needs.

Although the relationship between achievement motivation and entrepreneurship has not been demonstrated (Brockhaus and Horwitz 1986), the inconclusiveness may be a function of the samples, different operationalizations of the achievement motive, and convergent validity problems in instrumentation (Johnson 1990). Moreover, high achievement motivation may be correlated with venture performance (Begley and Boyd 1987b; Carsrud and Olm 1986; Morris and Fargher 1974; Smith and Miner 1983, 1984; Wainer and Rubin 1969), suggesting that not only may the achievement motivation of the entrepreneur influence the ownership decision, but it could also influence the viability of the organization. Potentially, this is explained by entrepreneurs with high achievement motivation engaging in more entrepreneurial activity than those with lower motivation (Durand and Shea 1974).

**H1a:** Entrepreneurs will demonstrate a greater need for achievement than will corporate managers.

In studies of the small business owner-manager, both of the Carland et al. (1984) types, entrepreneurs and small business owners, have generally been defined as entrepreneurs. In fact, the most often used minimum for defining an entrepreneur is simply the person who starts a business. Our purpose to test whether the definitional distinctions offer insight. Intuitively, one might conclude that small business owners fall somewhere between entrepreneurs and corporate managers; however, the literature is inadequate in supporting such a conclusion due to a paucity of studies that explicitly test such distinctions. If distinctions between entrepreneurs and small business owners in the Carland et al. (1984) sense are unnecessary, the previous hypothesis should also apply to small business owners.

**H1b:** Small business owners will demonstrate a greater need for achievement than will corporate managers.

One of the primary differences between entrepreneurs and small business owners in the Carland et al. (1984) definition is the goal for the business. The goals of profit and growth that are associated with the entrepreneur may indicate a higher achievement motivation than that of the small business owner, who focuses on family income. The planning practices of entrepreneurs are also more extensive than those of small business owners (Carland et al. 1989). Given that a higher degree of planning is associated with greater achievement motivation (Carland et al. 1989), one could expect differences between achievement motivation for the Carland et al. (1984) types.

**H1c:** Entrepreneurs will display a greater achievement motivation than will small business owners.
Risk-taking propensity can be effectively conceptualized as an individual’s orientation toward taking chances in a decision-making scenario (Sexton and Bowman 1985). Studies generally support the notion that risk-taking is predispositional and not simply a situational variable (Jackson, Hourany, and Vidmar 1972; Plax and Rosenfeld 1976), and there is strong evidence for a propensity for risk-taking (Jackson et al. 1972). The task roles of the entrepreneur and the manager both entail risk-taking, but entrepreneurs are generally believed to take more risks than do managers because the entrepreneur faces a less structured, more uncertain set of possibilities (Bearse 1982), and actually bears the ultimate responsibility for the decision (Gasse 1982; Kilby 1971; Knight 1921). Early empirical studies indicated that managers who are in entrepreneurial roles prefer intermediate levels of risk (Litzinger 1963; McClelland 1961; Meyer, Walker, and Litwin 1961). Subsequent investigations of owners have produced mixed conclusions.

Some studies have indicated no significant differences in the risk-taking propensities of entrepreneurs as compared with the general population (Brockhaus 1976; Brockhaus and Nord 1979), or to managers (Brockhaus 1976; Brockhaus 1980a; Brockhaus and Nord 1979). Furthermore, risk-taking propensity does not distinguish between successful and unsuccessful entrepreneurs (Brockhaus 1980b). All of the aforementioned studies used the Wallach and Kogan Choice Dilemmas Questionnaire (CDQ), which has been criticized for low predictive validity of entrepreneurial risk-taking behavior (Higbee 1971; Ray 1986; Shaver and Scott 1991), for failure to measure a unitary dimension (Cartwright 1971), and for ambiguity concerning scoring (Cartwright 1971). Nonetheless, other researchers, using different measures of risk-taking, have supported the supposition that entrepreneurs are not significantly different from managers in their propensity for risk-taking (Litzinger 1965; Masters and Meier 1988) and that risk-taking propensity has no bearing on entrepreneurial success (Peacock 1986).

Others have discovered a higher propensity for risk-taking among entrepreneurs as compared with the general population (Broehl 1978; Liles 1974) and with managers (Carland et al. 1995; Hull, Bosley, and Udell 1980), particularly when confronted with business risk (Ray 1986), but moderated by business experience, age, education and type of business (Schwer and Yucelt 1984). Colton and Udell (1976) proposed that risk-taking, along with creativity and flexibility, is a better indicator of the likelihood of starting a business than is achievement motivation, a conclusion substantiated in aspiring entrepreneurs, as indicated by college major (Sexton and Bowman 1983, 1984, 1986). Moreover, founders appear to show even higher risk-taking than owners not involved in start-up (Begley 1995; Begley and Boyd 1987b; Hull et al. 1980). Also, entrepreneurial attitudes toward risk in decision-making may not be bound by culture (McGrath, MacMillan, and Scheinberg 1992).

The absence of a consensus in the literature regarding the risk-taking propensities of entrepreneurs does not negate the rich conceptual discussions involving risk-taking propensity. Moreover, because of the potential limitations associated with the use of the CDQ in previous studies, a more rigorous examination of the issue is warranted.

H2a: Entrepreneurs will exhibit a higher risk-taking propensity than will corporate managers.

The majority of the aforementioned studies have included both entrepreneurs and small business owners under the moniker of “entrepreneur.” As with entrepreneurs,
small business owners face a more complex, uncertain set of possibilities and bear the additional risks of business ownership relative to corporate managers.

**H2b:** Small business owners will exhibit a higher risk-taking propensity than will corporate managers.

Carland et al. (1984) suggested that the entrepreneur, because of the focus on profits and growth, would be more likely to pursue new avenues for the business and would engage in more extensive planning than would the small business owner. An entrepreneur’s focus on venture growth may entail extended risk relative to the small business owner’s goal of meeting family needs as the entrepreneur plans for the growth of the business. Perhaps this explains the Carland et al. (1989) finding that a higher propensity for risk-taking is associated with more meticulous planning, implying the existence of a difference in the two groups’ risk-taking propensity.

**H2c:** Entrepreneurs will exhibit a higher risk-taking propensity than will small business owners.

**PREFERENCE FOR INNOVATION**

Schumpeter (1934) hypothesized that innovation was the single constitutive entrepreneurial function, separating acts of entrepreneurship from more common managerial activities that are not entrepreneurial (Kilby 1971). Creativity and innovation are conditions inherent in the role of entrepreneurship (Drucker 1985; Olson 1985; Timmons 1978) and separate entrepreneurs from managers (Carland and Carland 1991; Carland et al. 1984; Swayne and Tucker 1973; Timmons 1990). Innovation remains a frequently identified functional characteristic of entrepreneurs (e.g., Carland et al. 1984; Corman, Perles, and Vancini 1988; Gartner 1990; Hornaday 1992; Kets de Vries 1977), but relatively few studies have empirically investigated the proposed relationship.

Much of the literature in entrepreneurship is devoted to the entrepreneur’s ability to innovate. For instance, Schumpeter (1934) described entrepreneurial innovation in terms of introducing new products or methods of production, opening new markets or new sources of supply, or reorganizing industries. These behaviors are indicative of a level of creative ability possessed by entrepreneurs, as manifested by their strategic behavior. Individuals, including entrepreneurs, however, not only differ in their relative ability to create, but also possess different styles with which they prefer to innovate, suggesting that individuals with comparable abilities to innovate might prefer widely different styles of creativity (Goldsmith 1987; Kirton 1987, 1989). Therefore, creative ability and creative style are separate constructs, and low-to-moderate positive relationships are expected between measures of original style and creative ability (Goldsmith 1987).

In terms of Kirton’s (1987, 1989) Adaption-Innovation (KAI) Theory, entrepreneurship attracts people who tend to prefer a more innovative style in solving problems and making decisions (Goldsmith and Kerr 1991), and entrepreneurs are more innovative in their creative styles than are managers in large organizations, who tend to prefer a more adaptive style of creativity (Buttner and Gryskiewicz 1993), even in other cultures (Dewan 1982). In sum, even though the validity and factor structure of the KAI have been questioned (Payne, 1987; Torrance and Horng 1980), these studies suggest a discernible prevalence of innovativeness in the psychological predisposition of entrepreneurs. Other studies provide concurring evidence.
Entrepreneurship students are significantly higher in innovativeness than are general business majors, differentiating the aspiring entrepreneur from his or her aspiring corporate counterpart (Sexton and Bowman 1983, 1984). Theoretically, this could be due to the fact that career patterns of entrepreneurs are circumscribed by opportunities for creativity and innovation (Bendit 1970; Collins and Moore 1964). Alternatively, managers’ careers tend to be anchored by competence and efficiency (Schein 1975). Not only do entrepreneurs have a higher preference for innovation than do managers (Robbins 1986), but founders of rapid growth firms are significantly higher in personal innovation than are managers desiring innovative solutions to problems (Smith and Miner 1983, 1984).

H3a: Entrepreneurs will display a higher preference for innovation than will corporate managers.

As discussed above, researchers have investigated the predisposition for innovation of a wide range of business owner-managers, and there is little evidence for a definitional distinction. Nonetheless, as indicated in the KAI literature, owner-managers, who focus on effectiveness, prefer a creative style wherein, because of a lack of rules, there is the potential to alter the context of the problem in devising new solutions. In comparison, managers, who focus more on efficiency, are more likely to prefer to work within more structured decision-making environments with clear instructions.

H3b: Small business owners will display a higher preference for innovation than will corporate managers.

Carland et al. (1984) theorized that entrepreneurs have a predilection for strategic activities associated with innovative combinations of resources for profit and growth, a hypothesis with empirical support that suggests the entrepreneur’s ability to establish a distinctive competence for the firm (Carland et al. 1988). In so doing, the entrepreneur has a higher preference for innovation than does the small business owner (Carland et al.1988).

H3c: Entrepreneurs will display a higher preference for innovation than will small business owners.

RESEARCH PROCEDURE AND METHODOLOGY

The Sample
To support the development of a large data base of respondents, which was necessary for the research, to minimize nonresponse bias, and to procure thoughtful, considered responses to the questions and to the personality instruments, we determined that a data collection strategy different from traditional survey techniques would be required. Therefore, we decided to utilize graduate business students to approach candidates and solicit their participation. The rationale for this decision was that the students would have contacts with a large number of people, and these relationships would increase the likelihood of response to a lengthy survey and prompt more meticulous attention to the questions.

Subsequently, over a period of 4 years, more than 200 graduate business students from the authors’ classes were asked to locate and secure participants for this study. These students were first exposed to issues of psychological and personality distinctions
TABLE 1 Demographic Characteristics of Respondents

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<thead>
<tr>
<th>Characteristics</th>
<th>Managers</th>
<th>Owners</th>
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<td>Female</td>
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<tr>
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<tr>
<td>Other</td>
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<td>10</td>
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<tr>
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<tr>
<td>College graduate</td>
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<td>Graduate study</td>
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<td>Organization</td>
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<td>Retail or wholesale</td>
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<td>Manufacturing</td>
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<td>Employees</td>
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<td>$501,000–$1,000,000</td>
<td>17</td>
<td>42</td>
</tr>
<tr>
<td>Over $1,000,000</td>
<td>247</td>
<td>55</td>
</tr>
</tbody>
</table>

*Some numbers do not add to correct totals due to missing data points.*

between entrepreneurs and managers. One class period was devoted to the discussion of the research, the contents of the survey, and the requirements for participation in the study. Moreover, each student in the class was required to complete the personality instruments used in the research, and the results and implications of their scores were discussed. Data collection was offered as one of several different term projects that students could select. Consequently, students who elected to participate had an interest in entrepreneurship and felt that they had a network they could utilize to solicit participants.

There were no a priori lists for inclusion in the study. Students were instructed to identify individuals who owned and actively managed small businesses and individuals who were employed by large firms in managerial capacities. We monitored the data collection process carefully and verified each respondent. As a result of student involvement, the survey was administered to more than 800 owner-managers and corporate managers. The final data set consisted of 767 individuals, containing respondents from 20 states. The majority, approximately 75%, of the respondents were from Georgia, Florida, North Carolina, Tennessee, South Carolina and Virginia. All of the remaining respondents, about 25%, came from the Northeast, Midwest and Southwest. The demographic characteristics of the data set are displayed in Table 1, which follows the discussion of variables and instrumentation.

Although the sample is one of convenience, there are several benefits from this
sampling technique. First, the sample was not anonymous, and the data set was controlled. Second, the rate of response was greater than that of the typical mail survey, particularly for surveys of entrepreneurs that produce notoriously low response rates (Aldrich 1992; Gasse 1982). Fewer than 5% of the individuals who were approached refused to participate in the study, indicating less concern with nonresponse bias. Third, the technique supported the generation of a large sample size. The central limit theorem (Mason 1982) suggests that the level of confidence of a sample of this size approaches that of a random sample. Furthermore, the size of the sample improves statistical power. Using a conservative estimate of effect size, that labeled “small” by Cohen (1988), the statistical power for this study is between 0.96 and 0.98 for an alpha level of 0.05, and between 0.88 and 0.92 for an alpha level of 0.01.

The Variables and Instrumentation

Achievement Motivation

We used the Achievement Scale of the Personality Research Form (PRF) (Jackson 1967) to measure achievement motivation. The PRF is based on the 20 manifest needs described by Murray (1938) and is designed with high content saturation to assess the personality of an individual in a wide array of situations (Jackson 1967). Each scale consists of 20 bipolar questions, 10 keyed “false” and 10 keyed “true” in order to reduce response sets. The definition of achievement motivation used for this study is as follows:

Achievement motivation, or the need for achievement, is evident in an individual who: aspires to accomplish difficult tasks; maintains high standards; works toward the attainment of distant goals; responds positively to competition; or is willing to put forth effort to attain excellence (Jackson 1967).

The PRF has been ubiquitously identified as a sound personality assessment instrument (Anastasi 1972; Hogan 1978). In terms of reliability, both homogeneity (Jackson 1967) and stability (Bentler 1964; Jackson 1967) have been demonstrated for the PRF, as has construct validity (Campbell et al. 1964; Edwards, Abbott, and Klockars 1972; Jackson 1967, 1974; Jackson and Guthrie 1968; Jackson and Lay 1968; Kusyszyn 1968; Mehrabian 1969; Vesper 1980). For the current study, the Cronbach alpha estimate for achievement motivation was 0.72.

Risk-Taking Propensity and Preference for Innovation

We measured risk-taking propensity and preference for innovation with the Risk-Taking and Innovation Scales of the Jackson Personality Inventory (JPI) (Jackson 1976). The construction and features of the JPI parallel those of the PRF. Both scales are composed of 20 bipolar questions aimed at maximized content saturation and reduced response bias. The Risk-Taking Scale of the JPI allows examination of four relatively independent components of risk-taking: social, physical, monetary and ethical; however, monetary risk is weighted most heavily (Jackson 1976). The following is a description of the high scorer on the Risk Scale (Jackson 1976):

Enjoy gambling and taking a chance; willingly exposes self to situations with uncertain outcomes; enjoys adventures having an element of peril; takes chances; unconcerned with danger.
The Innovation Scale of the JPI is a measure of the predisposition to be innovative and is conceptually synonymous with creativity. The Innovation Scale is highly similar to several personality-type indicators of creative personality style (Goldsmith 1987), particularly the Originality subscale of the KAI (Goldsmith 1984). The following is a definition of the high scorer on the Innovation Scale (Jackson 1976):

A creative and inventive individual, capable of originality of thought; motivated to develop novel solutions to problems; values new ideas; likes to improvise.

Research has verified the reliability and validity of the JPI for measuring generalized risk-taking (Jackson 1977). Additional studies have supported the reliability (Begley and Boyd 1987b; Goldsmith 1987; Howell and Higgins 1990) and the validity (Jackson 1976; Jackson et al. 1972; Sexton and Bowman 1984) of the two scales of the JPI. In both instruments, the careful attention to scale construction is justified by the weight of contemporary writing (Dyer 1985), and the instruments possess sound psychometric properties (Kaplan and Saccuzzo 1993). Moreover, both instruments are appropriate for use in occupational settings (Sexton and Bowman 1984). Cronbach's alpha reliability estimates for risk-taking and preference for innovation in the current study were 0.76 and 0.77, respectively.

**Control Variables**

There is a potential for entrepreneurs to vary widely in different industries (Cooper and Dunkelberg 1981). For example, risk-taking propensities vary by size and type of business (Schwer and Yucelt 1984). Age (Cooper 1973; Howell 1972; Liles 1974; Mayer and Goldstein 1961; Shapero 1971), education (Brockhaus 1982; Brockhaus and Nord 1979; Collins and Moore 1970; Cooper and Dunkelberg 1981, 1987; Howell 1972), gender (Cuba, DeCenzo, and Anish 1983; DeCarlo and Lyons 1979; Hisrich and O'Brien 1981; Sexton and Bowman-Upton 1990) and race (DeCarlo and Lyons 1979; Feldman, Koberg, and Dean 1991) may be important in the entrepreneurial event. Because of the potentially confounding effects of individual and firm demographic factors, we included age, education, gender, race, and type of business as control variables.

**Dependent Variable**

A panel of experts, composed of Drs. JoAnn and James Carland, collaborated on an examination of the surveys returned by the respondents. They assigned individuals to the owner-manager group if they were primary owners of a small business and active in full-time management within that business. To be classified as small, a business had to fit the most widely used definition of a small business (Peterson, Albaum, and Kozmetsky 1986)—that provided by the Small Business Administration in evaluation for assistance. All of the owner-managers had established and were managing a business. The approach to establishing the business varied, but the Carland et al. (1984) definition did not imply that a single approach to establishing a firm was required. In fact, the use of the language in the two definitions suggests that the authors intended to incorporate all approaches to establishing a business, as only two types of owner-managers were discussed. The remaining individuals were classified as managers if they had no ownership stake in their firms and their positions involved: supervision of employees or officers within the organization; responsibility for use, protection or conservation of assets of
the organization; responsibility for performance of a unit of the organization; or involvement in planning for the organization. The panel omitted from the data set those individuals who could not be determined to be members of either group. As a result of their investigation, the panel identified 428 small business owner-managers and 342 managers from the sample. The demographics of the final data set are comparable to the large sample described by Cooper and Dunkelberg (1987) and are displayed in Table 1.

To facilitate the objective of explicitly addressing definitional distinctions, we needed to partition the owner-managers into two groups, entrepreneurs and small business owners, as proposed in the Carland et al. (1984) definition. We asked the panel of experts to review the responses and to classify each owner-manager as an entrepreneur or a small business owner under the Carland et al. (1984) definition. The panel reported that the questions concerning perception of the business, its relationship to the family, goals in establishing the business, and the practice of strategic planning provided a basis for judging the respondents in all areas except innovative strategic behavior. The open-ended questions concerning personal and business goals and objectives helped to clarify the issue of family relationship. Finally, the panel used the respondents’ open-ended description of steps taken to establish a distinctive competency to evaluate innovative strategic practices.

The panel independently examined each of the 428 owner-manager surveys and classified the respondent as an entrepreneur or a small business owner. The examination resulted in complete agreement for 90% of the cases, producing a Proportional Reduction in Loss reliability estimate (Rust and Cooil 1994) of 0.92. For the remaining respondents, the experts conferred and arrived at a consensus as to classification. The result was the classification of 101 respondents as entrepreneurs and 324 respondents as small business owners. Three respondents did not provide enough information for a consensus and were excluded from the analysis.

**Results**

Means, standard deviations (SD), ranges and intercorrelations of the variables in the study are presented in Table 2. Scores for the primary independent variables, achievement, innovation and risk-taking, were significantly correlated.
TABLE 2 Descriptive Statistics and Correlation Matrix\(^{a,b}\)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>40.8</td>
<td>11.2</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>14.4</td>
<td>3.4</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>1.0</td>
<td>0.3</td>
<td></td>
<td>0.05</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>1.7</td>
<td>0.4</td>
<td>0.11</td>
<td>0.02</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of company</td>
<td>3.0</td>
<td>1.7</td>
<td>-0.07</td>
<td>0.27</td>
<td>0.01</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>12.8</td>
<td>2.7</td>
<td>-0.01</td>
<td>0.03</td>
<td>-0.08</td>
<td>0.01</td>
<td>-0.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>13.7</td>
<td>4.8</td>
<td>-0.09</td>
<td>0.03</td>
<td>-0.02</td>
<td>0.02</td>
<td>-0.06</td>
<td>0.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk taking</td>
<td>9.8</td>
<td>5.2</td>
<td>-0.14</td>
<td>0.10</td>
<td>-0.03</td>
<td>0.09</td>
<td>0.02</td>
<td>0.25</td>
<td>0.43</td>
<td></td>
</tr>
</tbody>
</table>

\(^{a}\)Correlations greater than 0.07 or less than -0.07 are significant at alpha = 0.05.

\(^{b}\)The range for need for achievement is 0 to 16, and the ranges for risk-taking propensity and preference for innovation are 0 to 20.

\(^{c}\)Dependent variable categorization where 1 = entrepreneurs, 2 = small business owners, and 3 = corporate managers.

Model Determination and Predictive Efficacy

All of the LOGIT models were significant (\(\alpha = 0.05\)) overall, as were the steps that included the covariates and the main independent variables. In Table 3, we present the model that was most appealing from a theoretical and performance perspective, show-

TABLE E 3 Results of Hierarchical Set Multinomial LOGIT Regression\(^{a}\)

<table>
<thead>
<tr>
<th>Step</th>
<th>Group</th>
<th>Variable(s)</th>
<th>B</th>
<th>SE</th>
<th>(t)</th>
<th>Rho(^d)</th>
<th>(G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Entrep</td>
<td>Constant</td>
<td>-1.07</td>
<td>1.22</td>
<td>-0.87</td>
<td>0.036(^d)</td>
<td>54.9(^d)</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>0.01</td>
<td>0.01</td>
<td>1.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>-0.10</td>
<td>0.04</td>
<td>-2.69(^b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Black</td>
<td>0.10</td>
<td>1.55</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>0.99</td>
<td>1.08</td>
<td>0.92</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>-0.21</td>
<td>0.26</td>
<td>-0.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SBO Constant</td>
<td>0.39</td>
<td>0.69</td>
<td>0.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>0.04</td>
<td>0.01</td>
<td>5.17(^c)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>-0.11</td>
<td>0.03</td>
<td>-4.09(^c)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Black</td>
<td>-0.56</td>
<td>0.82</td>
<td>-0.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>-0.18</td>
<td>0.52</td>
<td>-0.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>-0.35</td>
<td>0.18</td>
<td>-1.92</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Entrep</td>
<td>Wholesale</td>
<td>-2.00</td>
<td>0.66</td>
<td>-3.02(^c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing</td>
<td>1.79</td>
<td>0.55</td>
<td>3.22(^c)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Retail</td>
<td>0.62</td>
<td>0.55</td>
<td>1.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Service</td>
<td>-0.01</td>
<td>0.58</td>
<td>-0.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SBO Wholesale</td>
<td>-2.60</td>
<td>0.40</td>
<td>-6.41(^d)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturing</td>
<td>1.17</td>
<td>0.37</td>
<td>3.20(^d)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Retail</td>
<td>0.16</td>
<td>0.35</td>
<td>0.46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Service</td>
<td>0.25</td>
<td>0.06</td>
<td>4.26(^d)</td>
<td>0.213(^d)</td>
<td>26.8(^d)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Entrep</td>
<td>Achievement</td>
<td>0.01</td>
<td>0.03</td>
<td>0.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SBO Achievement</td>
<td>0.12</td>
<td>0.03</td>
<td>3.54(^c)</td>
<td>0.223(^c)</td>
<td>14.2(^c)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Entrep</td>
<td>Innovation</td>
<td>0.02</td>
<td>0.02</td>
<td>0.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SBO Innovation</td>
<td>0.14</td>
<td>0.03</td>
<td>4.86(^d)</td>
<td>0.241(^d)</td>
<td>27.9(^d)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Entrep</td>
<td>Risk</td>
<td>0.08</td>
<td>0.02</td>
<td>3.78(^d)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SBO Risk</td>
<td>0.14</td>
<td>0.03</td>
<td>4.86(^d)</td>
<td>0.241(^d)</td>
<td>27.9(^d)</td>
<td></td>
</tr>
</tbody>
</table>

\(^{a}\)Final equations: Entrep = -1.07 - 0.10(educ) - 2.00(manufact) + 1.79(retail) + 0.25(nAch) + 0.12(innov) + 0.14(risk); SBO = 0.39 + 0.04(age) - 0.11(educ) - 2.60(manufact) + 1.17(retail) + 0.08(risk).

\(^{b}\)\(p < 0.05\).

\(^{c}\)\(p < 0.01\).

\(^{d}\)\(p < 0.001\).
ing the multinomial LOGIT comparison between entrepreneurs and managers, and be-
tween small business owners and managers. This model was initiated by the introduction
of demographic characteristics in step 1, followed by the type of business in step 2. The
analysis continued with the introduction of need for achievement (step 3), preference
for innovation (step 4) and risk-taking propensity (step 5). Step 5 demonstrates that
the fully divided model was significant \( \text{Rho}^2 = 0.241, p < 0.001 \), indicating a very satis-
factory model because McFadden’s \( \text{Rho}^2 \) tends to be much lower than the coefficient
determination in ordinary least squares regression (Hensher and Johnson 1981). We
tested the steps for incremental significance using the \( G \)-Statistic and log likelihoods
(Hosmer and Lemeshow 1989), displayed in the last column of the table, and found
steps 1 through 5 significant in their predictive impact on the model.

Analysis of Predictors

The predictors are of interest as they are entered into the model (Cohen and Cohen
1983). Step 1, introducing demographic variables into the model, shows that entrepre-
eurs exhibited a significantly lower education level when compared with managers \( t = -2.69, p = 0.007 \). Step 1 also demonstrates that small business owners were significantly
less educated \( t = -4.09, p < 0.0001 \) and older than managers \( t = 5.17, p < 0.0001 \). There were no other significant differences in the demographics.

In step 2 we introduced the type of business into the model. It shows that both
entrepreneurs \( t = 3.22, p = 0.001 \) and small business owners \( t = 3.20, p = 0.001 \)
are significantly more likely to be involved in retail organizations than are managers.
Conversely, managers are significantly more likely than either entrepreneurs \( t = -3.02,
p = 0.002 \) or small business owners \( t = -6.41, p < 0.0001 \) to be involved in manufac-
turing. Steps 3, 4 and 5 test the research hypotheses.

Hypotheses Tests

Differences between Entrepreneurs and Managers

Hypotheses 1a, 2a and 3a posited that entrepreneurs would exhibit higher scores on
need for achievement, risk-taking propensity and preference for innovation, respec-
tively, than would corporate managers. In Table 3, \( t \)-tests on comparisons between en-
trepreneurs and managers are provided for need for achievement \( t = 4.26, p < 0.0001 \)
in step 3, preference for innovation \( t = 3.54, p < 0.0001 \) in step 4, and risk-taking
propensity \( t = 4.86, p < 0.0001 \) in step 5. In all three tests, entrepreneurs scored signi-
cantly higher than managers, supporting hypotheses 1a, 2a and 3a.

Differences between Small Business Owners and Managers

Hypotheses 1b, 2b and 3b posited that small business owners would exhibit higher scores
on need for achievement, risk-taking propensity and preference for innovation, respec-
tively, than would corporate managers. Table 3 displays \( t \)-tests on comparisons between
small business owners and managers for achievement motivation \( t = .20, p > 0.10 \)
in step 3, preference for innovation \( t = .97, p > 0.10 \) in step 4, and risk-taking propen-
sity \( t = 3.78, p < 0.0001 \) in step 5. The results support only one hypothesis. Small busi-
ness owners tend to exhibit a higher risk-taking propensity than do corporate managers.
TABLE 4  Wald Tests of Differences between Entrepreneurs and Small Business Owners

<table>
<thead>
<tr>
<th>Step</th>
<th>Variables</th>
<th>$\chi^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td>5.75</td>
<td>0.016*</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>0.10</td>
<td>0.754</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>0.68</td>
<td>0.408</td>
</tr>
<tr>
<td></td>
<td>Black</td>
<td>0.15</td>
<td>0.695</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>0.03</td>
<td>0.859</td>
</tr>
<tr>
<td>2</td>
<td>Wholesale</td>
<td>1.04</td>
<td>0.308</td>
</tr>
<tr>
<td></td>
<td>Manufacturing</td>
<td>0.19</td>
<td>0.666</td>
</tr>
<tr>
<td></td>
<td>Retail</td>
<td>0.77</td>
<td>0.379</td>
</tr>
<tr>
<td></td>
<td>Service</td>
<td>0.43</td>
<td>0.511</td>
</tr>
<tr>
<td>3</td>
<td>Need for achievement</td>
<td>10.75</td>
<td>0.000*</td>
</tr>
<tr>
<td>4</td>
<td>Preference for innovation</td>
<td>9.56</td>
<td>0.002*</td>
</tr>
<tr>
<td>5</td>
<td>Risk-taking propensity</td>
<td>2.19</td>
<td>0.020*</td>
</tr>
</tbody>
</table>

* $p < 0.05$.  
* $p < 0.01$.  
* $p < 0.001$.  

Differences between Entrepreneurs and Small Business Owners

Hypotheses 3a, 3b and 3c predicted that entrepreneurs would exhibit higher scores on need for achievement, risk-taking propensity and preference for innovation, respectively, than would small business owners. The testing of these hypotheses requires a comparison of the two groups through a series of Wald tests, run on the same model as presented above, to compare the two previous LOGIT regressions, and are displayed in Table 4.

As illustrated in Table 4, when compared with small business owners, entrepreneurs scored significantly higher on all three indices; need for achievement ($\chi^2 = 10.75, p < 0.001$), risk-taking propensity ($\chi^2 = 2.19, p < 0.05$), and preference for innovation ($\chi^2 = 9.56, p < 0.01$). These findings provide support for hypotheses 3a, 3b and 3c. It should be noted that the magnitude of statistical significance for risk-taking propensity is not as strong as for the other two constructs. We show the elasticities of the variables in Table 5, which are useful for determining the practical significance of the effect sizes, particularly for risk-taking.

DISCUSSION OF THE FINDINGS

Many of the expectations conveyed in the hypotheses were supported. In terms of the entrepreneurs, the findings were consistent with the majority of our rationale. Our por-

TABLE 5  Average Individual Variable Elasticities for Significant Variables

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable(s)</th>
<th>Entrepreneurs</th>
<th>Small Business Owners</th>
<th>Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td>-0.249</td>
<td>0.847</td>
<td>-0.653</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>-0.523</td>
<td>-0.644</td>
<td>0.838</td>
</tr>
<tr>
<td>2</td>
<td>Manufacturing</td>
<td>-0.018</td>
<td>-0.047</td>
<td>0.457</td>
</tr>
<tr>
<td></td>
<td>Retail</td>
<td>0.416</td>
<td>0.106</td>
<td>-0.054</td>
</tr>
<tr>
<td>3</td>
<td>Achievement</td>
<td>2.723</td>
<td>-0.455</td>
<td>-0.312</td>
</tr>
<tr>
<td>4</td>
<td>Innovation</td>
<td>1.318</td>
<td>-0.125</td>
<td>-0.217</td>
</tr>
<tr>
<td>5</td>
<td>Risk taking</td>
<td>0.866</td>
<td>0.133</td>
<td>-0.302</td>
</tr>
</tbody>
</table>

* Indicates the percentage change in the probability of being classified in the given group for every percentage change in the value of the given independent variable.
trait of an entrepreneur is an individual who is highly driven to succeed, a motivation that is also connected with a higher propensity for risk-taking. Concomitantly, the entrepreneur sparks innovation by altering the economic characteristics of products, markets or industries. Decades of research and theorizing about the entrepreneur indicate the confluence of these factors in distinguishing entrepreneurs from their corporate counterparts. The results of this study reinforce this conceptualization of the entrepreneur as an achieving, creative risk-taker.

Notably, this profile of those generally labeled as entrepreneurs is not consistent across both of the types of small business owner-managers. Small business owners present a different portrait. It is with the small business owners, who were expected to be more like the entrepreneurs than like the managers, where inconsistencies are apparent. The only characteristic that differentiated the small business owners from the managers was small business owners’ relatively higher propensity to take risks. Overall, this outcome suggests that, more than any other factor, it is risk-taking that distinguishes the small business owner-manager from the corporate manager. There is a measure of riskiness inherent in business ownership that is not necessarily present in the managerial role. This propensity to take more risks appears to delineate the choice of business ownership from the choice to assume a managerial position.

The differences exhibited between the small business owners and the entrepreneurs provide interesting outcomes of the research. Not only did the entrepreneurs differ dramatically from managers, but they also differed from small business owners. Small business owners are less risk oriented and are not as highly motivated to achieve as are entrepreneurs. Small business owners also lack the same degree of preference for innovation. Given the relative significance of innovativeness in entrepreneurs, it would appear that creativity necessitates extended risk, because it entails coping with the potential outcomes that are associated with untried venues. Small business owners appear to lack this coalition of creativity and risk-taking.

These findings logically coincide with the differences in the goals of small business owners and entrepreneurs. Psychological antecedents appear to be associated with entrepreneurial aspirations. Both types of owner-managers have goals that are related to their personalities. Entrepreneurs exhibit the psychological profile that is consistent with their goals of growth and profit, and with the use of systematic planning. It is intuitively appealing that relatively high achievement motivation, risk-taking propensity and preference for innovation are coupled with an emphasis on profit and growth. Alternatively, the psychological predispositions and actions of small business owners are more attuned to their personal goals and family income. The small business owner appears to be a conceptual link between the entrepreneur and the manager, exhibiting characteristics that are likened more to the manager than to the entrepreneur. Potentially, this may explain some of the inconsistencies of the findings in previous research where differences within samples of “entrepreneurs” were not examined. The results presented here indicate significant differences in the two types of owners’ proclivity toward entrepreneurship, suggesting that caution is necessary with operational definitions and sampling frames. It appears likely that a sample of entrepreneurs is likely to contain individuals with a wide array of psychological predispositions, goals and planning behaviors. Inattention to these differences may render sampling, replication and comparisons of findings problematic.

Although the purpose of this research was primarily to test theory, the results have important implications for theory development in entrepreneurship. The findings reinforce the differentiation that is made between small business management and entrepre-
neurship, where firms headed by entrepreneurs tend to be larger with concomitant higher risk and profit potential than the conventional small business (Luchsinger and Bagby 1987). Achievement motivation, risk-taking propensity and preference for innovation appear to represent a constellation of psychological antecedents that are associated with entrepreneurial behavior. In this study, those labeled entrepreneurs, with their higher entrepreneurial motivation, willingness to be creative in permutations of economic activity, and their concomitant risk postures, seem specially poised to recognize and capitalize on entrepreneurial opportunities in the Schumpeterian tradition of carrying out new combinations. Combined with this proclivity are goals of profit and growth and the use of strategic planning, which may clarify and enable entrepreneurial activity. Small business owners, while willing to assume the risks of business ownership, do not appear to have the same predisposition. A propensity for risk-taking in the absence of achievement motivation and creativity would appear to link small business owners with organizations that are relatively more static, given the owners’ goals and planning practices.

The entrepreneurs and small business owners in this study had entered their businesses through a variety of modes, including start-up, franchising, purchase and inheritance. The results emphasize the importance of an entrepreneurial proclivity in the potential for value creation, not just new venture creation. Subsequently, the concept of value creation may be an important element in a theory of the entrepreneur. Overall, a psychological proclivity for entrepreneurship may be the foundation for a willingness to act entrepreneurially, and may be a key component of the individual considerations, which, combined with processes and choices (Shaver and Scott 1991), may present a more holistic view of the phenomenon of entrepreneurship. We believe that this perspective presents a significant opportunity for the refinement and extension of a theory of entrepreneurship where linkages might be drawn between these psychological constructs and other important elements of entrepreneurship, including goal setting, venture formation, strategic planning and performance.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The limitations of primary concern are those inherent in a survey design and the concomitant reliance on self-report data. Foremost among these limitations is the lack of control with a cross-sectional, correlational design, presenting rival hypotheses worthy of consideration. As always, there are also potential limitations associated with a non-random sample. Also, the study deals with psychological factors that indicate intentions to engage in a particular type of business role. Intentions do not automatically transfer into a specified behavior. All individuals who exhibit the psychological profile of the entrepreneur will not necessarily behave entrepreneurially. Furthermore, it is possible that being in business has contributed to the magnitude of the psychological constructs. Nonetheless, we are comfortable that the potential limitations do not inhibit the usefulness of the research.

The results of this study suggest a host of areas for additional research. One of the interesting outcomes of this study is the variation between entrepreneurs and small business owners. Some have questioned the validity and usefulness of identifying types of entrepreneurs, but this study suggests that the development of entrepreneurial taxonomies could be useful in more fully understanding owner-managers of all types. Moreover, the results also intimate the value of studying the confluence of psychological characteristics and behaviors. Although the focus here was on identifying the significance
of personality constructs, the implicit inclusion of goals and planning practices links the psychological antecedents with behavior. It appears that situation-trait interaction approaches to understanding entrepreneurship might be fruitful. Beyond these theoretical and methodological considerations, the results presented here emphasize the importance of several topic areas for additional inquiry.

Much attention has been devoted to managerial issues associated with the progression of an organization through the organizational life cycle and the perceived need for displacement of the entrepreneur by a capable manager (Timmons 1990). Organizations may indeed require different managerial styles as they grow, and the entrepreneur may need to undergo a style change or be replaced by a manager more capable of dealing with a given organizational stage. Given their psychological predispositions, however, there may be potential difficulties in adopting new managerial styles. A more complete understanding of psychological correlates of organization behavior and of the differences between managers and owner-managers could be used to investigate the interface between the entrepreneurial business and its organizational growth.

Interest in intrapreneurship, or corporate entrepreneurship, has escalated, although some consider entrepreneurship to be the opposite of corporate management (Vesper 1985). Although intrapreneurship was outside the scope of this study, it is important to learn more about how intrapreneurs and entrepreneurs are psychologically similar or diverse. How do similarities and differences lead them to choose and deal with different situations? How do the environments in which they operate influence the outcomes of psychological predispositions? Can managers be made more entrepreneurial? These questions suggest research that links the fields of entrepreneurship and corporate management, which some believe is important to the continued development of both fields (Stevenson and Jarillo 1990).

Potentially the most important topic in this line of research is the effects of psychological characteristics on performance, which, to date, have been inconclusive (Perry 1990). Robinson and Pearce (1984) noted that planning in small businesses, its antecedents and outcomes, was not well understood. Yet, formal planning appears to improve performance in small firms (Schwenk and Shrader 1993). Planning in small firms is dominated by the owner-manager, and evidence suggests that the characteristics of the owner-manager influence planning (Carland et al. 1989). By definition, those labeled entrepreneurs in this study engaged more extensively in strategic planning than did the small business owners. It is important to learn more about how psychological factors influence the process and outcomes of strategic thinking in small organizations. If entrepreneurs are more strategic in their planning than are small business owners, much is to be learned about the process of planning in these organizations, and about the concomitant effects on performance. Performance should be assessed in light of the owner’s aspirations for the venture. Also, balanced venture teams appear to improve the likelihood of entrepreneurial success (Timmons 1990). More knowledge concerning venture partners’ psychological predispositions may help explain team member conflict and could assist in enhancing venture team planning and performance. Such inquiry could produce fruitful research in both entrepreneurship and strategic management.

**CONCLUSION**

If indeed the individual entrepreneur is the most salient unit of analysis in entrepreneurship research and theory (Herron and Sapienza 1992; Lachman 1980), then a more com-
plete understanding of the entrepreneur is a necessary condition for the development of a refined understanding of the process of entrepreneurship. The differences exhibited in this study, not only relative to managers, but also illustrated between entrepreneurs and small business owners, suggest that a psychological proclivity toward entrepreneurship is an important consideration. The more these two groups of owner-managers are understood, the more likely it is that we will be able to meaningfully circumscribe the areas of entrepreneurship and small business management, and to more constructively address the needs of each in a rigorous, robust model of the entrepreneurial process.

REFERENCES


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