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Person–entrepreneurship fit: why some people are more successful as entrepreneurs than others

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Abstract

Person–organization fit research suggests that the closer the match between individuals' attitudes, values, knowledge, skills, abilities, and personality, the better their job satisfaction and performance. We suggest that the closer the match between entrepreneurs' personal characteristics and the requirements of being an entrepreneur (e.g., creating new companies by transforming discoveries into marketable items), the more successful they will be. Specifically, we argue that to the extent entrepreneurs are high on a number of distinct individual-difference dimensions (e.g., self-efficacy, ability to recognize opportunities, personal perseverance, human and social capital, superior social skills) the closer will be the *person–entrepreneurship fit* and, consequently, the greater the likelihood or magnitude of their success. This framework offers potentially valuable new avenues for assisting entrepreneurs in their efforts to exploit opportunities through the founding of new ventures because the dimensions of individual differences we identify are readily open to modification (e.g., through appropriate, short-term training).

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1. Introduction

Person–organization fit research is concerned with the antecedents and consequences of compatibility between persons and the jobs they perform or the organizations in which they

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work (Kristof, 1996). The findings of such research indicate that individuals choose work environments as a result of many different factors, including their attitudes, values, abilities, personality, and various job dimensions, as well as factors relating to organizational structure and culture (Van Vianen, 2000). While traditional recruiting manuals emphasize matching a person's knowledge, skills, and abilities to the requirements of a particular job, the notion of person–organization fit emphasizes congruence in values, goals, attitudes, and personal preferences. Stated differently, people are attracted to work settings that are consistent with their values and fulfill their needs (Cable & Judge, 1996).

While much research in personnel selection has focused on important components of fit with respect to existing, well-established organizations and routines, far less attention has been directed to person–organization fit in the context of new venture formation. More notably, to date, neither person–organization fit literature nor entrepreneurship research offers concrete guidance as to the factors that make some persons, but not others, successful as technological entrepreneurs. This paper focuses primarily on the task of filling this gap. Specifically, we develop a model in which to identify various individual-difference factors that may play an important role in entrepreneurs' success. It is understood that entrepreneurial success takes many forms, but since entrepreneurs often create new companies, we explicitly conceptualize such success in these terms, primarily as success in launching a new company into the marketplace. Finally, we recognize that entrepreneurship is multidimensional, but since technological innovation is a key source of economic growth and prosperity, we cast our discussion to fit particularly well with such contexts.

The paper is divided into four major sections. In Section 1, we define two research domains—one encompassing person–organization fit and the other concerning person–entrepreneurship fit. In Section 2, we focus on some of the ways in which mature and start-up companies differ, and how these differences may be reflected in the role requirements for employees (of mature companies) and entrepreneurs who start new ventures. For example, the main and most obvious task entrepreneurs, but not others, embark on involves a series of actions leading to new venture formation. In Section 3, we discuss person–entrepreneurship fit and show how specific individual-difference variables are crucial for successful execution of key tasks and functions entrepreneurs fulfill. We conclude the third section by introducing a model of person–entrepreneurship fit and entrepreneurial success. In the final section, we suggest new directions for future research in which individual-difference factors can further our theoretical understanding of entrepreneurial activities and also describe practical implications of our framework.

2. Person–organization fit and person–entrepreneurship fit: some basic considerations

In this section, we review previous research on person–organization fit and examine recent research on person–entrepreneurship fit—a smaller but rapidly expanding body of knowledge. Research on person–organization fit is highly diverse; thus, a comprehensive examination of this topic is beyond the scope of the present paper. Instead, we present a brief overview of key findings in this domain, primarily as a means of establishing clear

boundaries and parameters (interested readers are referred to several reviews of this topic, including Cable & Judge, 1996, 1997; Chatman, 1991; Kristof, 1996; O'Reilly, Chatman, & Caldwell, 1991; Schneider, Goldstein, & Smith, 1995).

All organizations—established ones and newly founded ones—face intense competitive pressure. Literature on person–organization fit holds that one solution to this problem is to attract, recruit, and retain talented persons who invigorate the organization and mobilize it to achieve its performance goals. For example, Jack Welch personally interviewed all candidates for the top 500 ranking positions at GE. This view—that hiring the right people is crucial (Pfeffer, 1998)—has stimulated substantial research on person–organization fit. Research building on Kirton's (1976) Adaption–Innovation Theory of problem-solving style at work found that although cognitive misfit may not influence engineers' job performance, it does predict their turnover (after 3 years) (Chan, 1996). Similarly, Cable and Judge (1996) reported that value congruence (between job seekers and organizations) is more important than whether job seekers and organizational representatives share similar background. Controlling for the attractiveness of job attributes, they also report that high person–organization fit predicts both job choice and work attitudes. This suggests that when newcomers adequately evaluate their fit with an organization, it helps them to better manage their future work attitudes.

Interestingly, much research on the question of person–organization fit asks: To what extent is such fit a function of the person, the situation, or the interaction between the two? Although strong theoretical arguments have been made in support of each position, an increasing volume of research suggests that both persons and situations matter, and that the interaction between the two determines individual task performance and organizations' longevity (Bowen, Ledford, & Nathan, 1991). Moreover, if institutional environments shape organizational structures and outcomes, what is the role of strategic choice in managing organizations (Beckert, 1999)? Building on theories in evolution and organizational ecology, Ghoshal and Lovas (2000) proposed that organizational leaders play a *major* role in shaping their companies' direction and outcomes. According to this view, organizations, through managerial foresight and personnel action, have limited, yet consequential, degrees of freedom to maneuver within their environments. In other words, top management and entrepreneurs bring timely interventions that guide and shape the outcomes that firms experience (Balkin, Markman, & Gomez-Mejia, 2000).

We propose that because knowledge and intellectual property are becoming more important than physical capital, individuals now exert stronger relative control over the management of their own careers and vocations than was true in the past. The fact that individuals seek opportunities for professional growth, along with increased job mobility, suggests that notions of *person–career fit* may be more practical than the concept of person–organization fit. Indeed, highly skilled persons find that it is more difficult to change lines of work than to change employers. Or as suggested by Neal (1999), workers are more likely to change employers without changing careers than seek out feasible lines of work while working for the same employer.

Person–organization fit, which is frequently assessed by the compatibility between organizations and their incumbents (Kristof, 1996), has important implications both for

individual employees and their companies. To name just a few, compatibility between incumbents and their organization is commonly associated with job longevity, greater organizational commitment, better job performance, higher job involvement, improved employee attitudes, lower turnover and tardiness rates, higher levels of socialization and co-workers' likeability, and improved personal health and adaptation, (cf. O'Reilly et al., 1991). Schneider's (1987) attraction–selection–attrition (ASA) model holds that people are first attracted to organizations as a function of their perceived congruence between the institution and their own characteristics (Cable & Judge, 1997; Schneider et al., 1995). Then, a positive selection occurs when those hired also have the attributes the organization desires. And finally, once incumbents realize that there is no longer adequate fit with their work environment, they tend to leave. This indicates that people continuously shape, and are shaped by, their own workplace. On the basis of recent tests of the ASA model, which point out that organizations are indeed relatively homogeneous with respect to incumbents' personality attributes (Schneider, Smith, Taylor, & Fleenor, 1998), Van Vianen (2000) has suggested that a match between newcomers' characteristics and those of tenured incumbents also determines a good person–organization fit. Not surprisingly, congruence between persons and their organization is—at least to some extent—a function of similarity: the extent to which individuals share attitudes and values, demographic and social backgrounds, work ethics, and a host of other factors (e.g., professional interests, needs, aspirations, etc.).

To recap, research suggests that interactively, persons and their institutions affect attitudes, behaviors, and task performance; that job seekers are attracted to organizations whose mission and values are congruent with their own; that incumbents select job candidates who match their values and even background; and finally, that a lack of congruence between persons and organizations will result in high attrition or turnover rate (e.g. Chatman, 1991).

3. The intersection between person–organization fit and person–entrepreneurship fit

Shane and Venkataraman (2000) define entrepreneurship as a “scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited” (p. 218). Consequently, in the context of the high-tech industry, entrepreneurs are persons who evaluate, discover, and exploit technology-based opportunities. Successful entrepreneurs have the insight to match technical discoveries with buyers' needs and the stamina, knowledge, skills, and abilities to fruitfully deploy their offerings in the market. This suggests that the main, but not the only, tasks entrepreneurs embark upon while creating new companies range from transforming technological discoveries into marketable items, working intensely despite uncertainty and limited capital to establish market foothold, and fending off retaliatory actions from rivals in the marketplace. Another role that many entrepreneurs fulfill, particularly when launching high-growth ventures, is dealing with informed investors. While entrepreneurs deal with a small, homogeneous, and highly involved group of investors (e.g., business angels, venture capitalists, and bankers), incumbents are normally accountable to heterogeneous stockholders exhibiting diffused ownership.

An appreciation of the diverse roles that entrepreneurs fulfill is particularly apparent when considering the key differences between emerging and existing organizations. Indeed, a growing stream of research suggests that although entrepreneurial firms share much in common with established organizations, managerially and operationally, these two company types differ in important respects. To name several distinctions, entrepreneurial firms are substantially smaller and have fewer resources, their product line is limited and largely unknown, and they lack name recognition. That is, young firms suffer from the liabilities of smallness, newness, and legitimacy (Aldrich & Fiol, 1994). Entrepreneurship also entails considerably higher internal change and instability than that commonly observed among more established firms (Shane & Venkataraman, 2000). In fact, not only do entrepreneurs face market volatility, but also their very pursuits of “new combinations” (Schumpeter, 1934) actively instigate further turbulence. The processes of firm creation (either as an independently formed venture or as a spin-off new business unit within an established corporation) take place when teams or individuals successfully convert original discoveries into innovative products and services that benefit society (Arrow, 1962; Kirzner, 1997). While many established firms innovate and compete under adverse market conditions, entrepreneurial firms must—simultaneously—build their internal infrastructure. New ventures and established organizations also vary in terms of access to resources, available capability and assets, and knowledge capital, which again give rise to challenges characteristic of the liabilities of newness and legitimacy. These and other distinct differences explain why young and mature firms often use different operations, strategies, and tactics to achieve distinct and contrasting goals (Miller & Friesen, 1982).

Given the distinctions mentioned above, to what extent are persons who choose to create new organizations different from those who, instead, choose to work for established organizations? Several views suggest that entrepreneurs and nonentrepreneurs differ with respect to a number of personal characteristics (cf. Baron, 1998, 2000). Person–organization fit theory advises that the inclination and motivation to develop novel technology, products, or services that no one has perceived or harvested before and create organizational infrastructures to sell them are not the same even among persons enjoying similar levels of knowledge, skills, and ability. For example, many entrepreneurs—as compared to employees with comparable backgrounds and experience—earn lower income with lower earnings growth. Hamilton (2000) explains that such earning differentials reflect entrepreneurs’ readiness to forgo high pay in exchange for the nonpecuniary benefits such as increased professional autonomy and a sense of personal control. Additionally, motivational paradigms such as goal setting theory suggest that individual performance in almost any context depends, to an important extent, on personal goals held by such persons (Locke & Latham, 1991). Building on the view that achievement is determined by personal variability in ability and motivation, Seligman (1991) adds that optimists are more likely to make the effort necessary to achieve their objectives. Additional evidence suggests that persons who create new companies and those who work for existing ones may perceive and react to risk differently (Busenitz, 1999; Busenitz & Barney, 1997). Entrepreneurs pursue businesses without fully knowing how the market will react and whether their new products or services will succeed. Since many first-movers and visionary innovators fail to capture the market

only to see closely following second-movers reap these rewards (Tyagi, 2000), persons who create new companies shoulder substantially more risk than persons who run established companies.

Empirical studies also offer support for the view that where entrepreneurship is concerned, individual differences do indeed matter—different people may be better suited to exploit commercial opportunities or create new companies than others. According to learned helplessness theory, it is only when individuals believe that they can achieve a desired objective that they will make the effort necessary to attain that objective (Bandura, 1995; Seligman, 1991). Starting from this premise, Markman and Baron (under review) reasoned that because transforming new technological discoveries into attractive products or services is difficult, launching a new high-tech venture requires high conviction in one's ability to overcome unavoidable challenges. In support of this reasoning, they found that patent inventors who start new ventures show significantly higher levels of perseverance and self-efficacy than do inventors who chose to work for established organizations. In fact, the annual earnings of the most perseverant inventors (top 20% of the sample) were more than US\$35,000 higher than the annual earnings of the least persisting inventors (bottom 20%).

Perceptions and cognitive biases also shape how individuals cope with risks inherent in their decisions to start ventures. Research indicates that several biases such as *illusion of control* and the belief in the *law of small numbers* lowered perceived risk, suggesting that entrepreneurs might not realize that certain tasks, important to ventures' longevity, are beyond their control (Simon, Houghton, & Aquino, 2000). Other evidence suggests that entrepreneurs and nonentrepreneurs may react to environmental complexity differently and may exhibit variability in their ability to cognitively reduce it to manageable levels. Studying the relationship between organizational complexity and information processing, McGaffey and Christy (1975) argued that since entrepreneurs try to reduce complexity associated with their new firms, they might differ from nonentrepreneurs in their cognitive processes. Meyer and Dean (1990) suggested that professional managers frequently replace founding entrepreneurs when the latter reach the "executive limit," whereby they fail to adequately reduce complexity and thus limit the growth of their own venture. Other scholars found that entrepreneurs, more so than managers, tend to be *less* comprehensive in their decision styles (Fredrickson & Mitchell, 1984). Kaish and Gilad (1991) report that founders of young firms spent significantly more time searching for information and paid attention to different risk cues than did executives of established firms. In contrast, Busenitz and Barney (1997) found that entrepreneurs, as compared with managers, gathered significantly less information, utilized less formal techniques to analyze problems, and followed less rational decision processes. Others noted that entrepreneurs recognize patterns in their field and make quick decisions (Bird, 1988; Eisenhardt, 1989; Stevenson, Grousbeck, Roberts, & Bhidé, 1999). Finally, evidence confirms that shared or common cognitive scripts not only explain similarities in venture decision-making among entrepreneurs across cultures but also behavioral differences between entrepreneurs and nonentrepreneurs within countries (Mitchell, Smith, Seawright, & Morse, 2000).

Since accumulating evidence suggests that entrepreneurial firms are different than more established firms and that entrepreneurs are different—at least along certain personal

dimensions and roles—from nonentrepreneurs, a related question arises: To what extent do successful entrepreneurs differ from less successful ones? It is to this question that we now turn.

4. Individual differences and entrepreneurial success

Person–organization fit theory advises that environmental forces and situations exert strong influence on entrepreneurial activities, but we agree with [Shane and Venkataraman \(2000\)](#) who point that individuals (and opportunities) constitute the core of the entrepreneurship phenomenon. Indeed, much research on the role of individual differences in business contexts distinguishes between “strong situations” that curtail much of the expression of human variation, and “weak situations” in which individual differences may have profound impact on the situation ([Chatman, 1989](#)). Since emerging ventures are just beginning to form and evolve as institutions, we view entrepreneurship and entrepreneurial undertaking as relatively “weak situations.” Young firms are noticeably more open to change than mature ones and thus human variation seems to bear more pronounced weight. This also suggests that individuals who actually persist and so see their new ventures grow may wield strong and enduring influences on their environment including their emerging company.

Although it has been noted elsewhere that incorporating individual-difference factors can further management theory, research, and practice ([Mitchell & Mickel, 1999](#)), initial entrepreneurship research, often relying on ecological perspectives, questioned the utility of individual-difference dimensions and person–entrepreneurship fit. Further, early investigations seeking to differentiate entrepreneurs from other persons, or successful entrepreneurs from ones who are less successful in terms of individual-difference factors, were met with only modest success. Unfortunately, these preliminary failures led some to conclude that individual differences are largely irrelevant to entrepreneurship ([Gartner, 1988](#); [Shaver & Scott, 1991](#)). However, the idea that individual differences do indeed matter remained compelling ([Pfeffer, 1998](#)), and currently, even economists suggest that firm performance and personal success are determined—to an important extent—by human variability rather than mere exogenous factors such as product differentiation, barriers to entry, or economies of scale (cf. [Bhidé, 2000](#)). For instance, recent findings show that young firms’ performance and positive cash flow are more significantly related to their human and organizational resources (e.g., owner’s industry experience and commitment, staff skills) than to their strategy ([Brush & Chaganti, 1999](#)). Others have suggested that entrepreneurial success and performance are a function of achievement motivation, risk-taking propensity, preference for innovation ([Stewart, Watson, Carland, & Carland, 1999](#)), and the capacity to adapt to and tolerate ambiguity ([Bhidé, 2000](#)).

Our review of recent entrepreneurship research designed to elucidate factors that influence both performance of new ventures and their market success identified individual-difference variables that seem to distinguish those who successfully start companies from those who do not. While these factors are diverse, our review centers on ones for which empirical evidence for links to entrepreneurial success are strongest: high *self-efficacy* ([Chen, Greene, & Crick,](#)

1998; Markman, Balkin, & Baron, under review), ability to spot and *recognize opportunities* (Busenitz, 1999; Kirzner, 1997), high personal *perseverance* (Markman & Baron, under review; Stoltz, 2000), high *human and social capital* (Honig, 1998), and superior *skills* (Baron & Markman, 2000). Other important dimensions, such as the “Big Five” dimensions may also be important, but have not, as yet, been systematically investigated with respect to their potential role in the success of new ventures. In the following discussion, we review evidence regarding the impact of the variables listed above on entrepreneurs’ success.

4.1. *Self-efficacy*

Self-efficacy refers to the extent to which persons believe that they can organize and effectively execute actions to produce given attainments (Bandura, 1997; Chen et al., 1998). As explained below, we propose that entrepreneurs high in self-efficacy will outperform those who are lower on this dimension. This rationale is based on social cognitive theory and a rich body of research in applied psychology showing that adaptive human functioning is motivated, regulated, and directed by the ongoing exercise of self-efficacy. According to the theory’s triadic reciprocal causation model, self-efficacy operates as an interacting determinant to bidirectionally influence behaviors (Bandura, 1997). For instance, empirical research shows that high self-efficacy is fundamental in most human functioning, including efforts at overcoming substance abuse (Bandura, 1999), avoiding homelessness (Epel, Bandura, & Zimbardo, 1999), attaining high academic achievement and social influence (Bandura, Pastorelli, Barbaranelli, & Caprara, 1999), learning and mastering educational tasks (Bandura, 1993) and—most importantly from the present perspective—organizational performance (cf. Bandura, 1997).

Since self-efficacy positively affects diverse human functioning, we suggest that it will have similar consequences in the context of entrepreneurship. For example, individuals high in self-efficacy not only prefer challenging activities; they also display higher staying power in those pursuits (Bandura, 1997). Thus, it stands to reason that entrepreneurs who have high self-efficacy will outperform entrepreneurs with lower levels of self-efficacy. Similarly, because the incentive to act is highest when entrepreneurs believe that their actions (e.g., starting a new company) lead to attainable outcomes (e.g., successful venture), high self-efficacy is an important determinant of successful entrepreneurial behaviors. Interestingly, empirical research shows that self-efficacy successfully differentiates entrepreneurs from nonentrepreneurs (Chen et al., 1998). Others proposed that because the ability to start a new venture (i.e., obtain needed funding, recruit key partners and talented employees, and transform discoveries into salable products or services) requires high levels of conviction, personal success will be determined, to an important degree, by one’s level of self-efficacy. Indeed, in a study of patent inventors, Markman et al. (under review) found that high self-efficacy was a significant predictor of personal success as measured by annual earnings and that high self-efficacy reliably distinguished between technical entrepreneurs and technical nonentrepreneurs (technical entrepreneurs being significantly higher on this dimension). Taken together, social cognitive theory and empirical evidence support the view that entrepreneurial success is significantly influenced by individual differences in self-efficacy.

4.2. Opportunity recognition

Individuals differ greatly in their abilities to capture, recognize, and make effective use of abstract, implicit, and changing information (Miller, 1996). Notions of opportunity recognition suggest that the ability to identify high-potential from low-potential opportunities and to spot obstacles before they become insurmountable would lead to the creation of superior ventures. Because newness and ambiguity of emerging markets create a powerful incentive for entrepreneurs to obtain superior information, we suggest that those who are more alert and better at monitoring and processing information would stand a better chance than those who are less adept on these dimensions. Our perspective is that individual differences in cognitive processes (e.g., mental models) may facilitate identification of previously unrecognized factors that can raise the likelihood of success of new businesses. We suspect that although most individuals scan their environment, successful entrepreneurs may be better at discovering opportunities embedded in that environment. Stated differently, alertness, or “lookout for hitherto unnoticed features of the environment” (Kirzner, 1997, p. 72), allows successful entrepreneurs to spot high-potential opportunities and thus use them to overcome commercial newness. Since new product development is inherently uncertain, lacking information regarding its use and market size exacerbates the uncertainties and heightens the chances of failure. The benefit of alertness is exemplified by research showing that failing to understand customers, designing cost-ineffective products, and disregarding intermediate and end-users’ needs, were prescriptions for new-venture failure (Dougherty, 1992).

Past research on opportunity recognition and alertness has assessed entrepreneurs’ behaviors, background, and cognitions. For example, Cooper, Folta, and Woo (1995) suggest that novice entrepreneurs tend to search for information *less* extensively than more seasoned entrepreneurs. Kaish and Gilad (1991), who assessed the number of reading materials or amount of time spent thinking about their business, report that entrepreneurs and managers scan and search for information differently. For example, entrepreneurs spent more time on nonverbal scanning and paid special attention to risk cues about new opportunities, whereas the executives tended to focus on the economics of the opportunity. Although a replication study failed to support the entrepreneurial alertness hypothesis (Busenitz, 1996), it still remains to be seen whether successful entrepreneurs are indeed more adept than less successful ones at identifying viable opportunities that exist “out there” in the environment. Thus, what the specific stimulus configuration of such opportunities is, and the processes (e.g., complex pattern recognition) through which successful entrepreneurs identify them, remains to be determined.

Shane (2000) found that individuals from different technological backgrounds who assess the same technological invention (i.e., 3DP) recognize and then develop different business opportunities. His study offers support for the view that contrasting personal and vocational backgrounds have important and lasting effects. Additional support for the view that individual differences play an important role in entrepreneurship is provided by Sarasvathy, Simon, and Lave (1999), who used think-aloud verbal protocols to show that entrepreneurs and bankers think about and process information concerning problems differently. These authors report that while entrepreneurs assume that risk is inevitable, focus on controlling

outcomes, and take greater personal responsibility for these outcomes, bankers focus on controlling risk and avoiding situations, which involve higher levels of personal responsibility. Moreover, research in cognitive and social psychology reports consistent individual differences with respect to alertness (Miller, 1996). Clearly, only additional research can reconcile the debate on whether successful entrepreneurs are better able to spot opportunities than less successful ones. Nonetheless, because markets and technological innovations present diverse profit possibilities, it seems reasonable to suggest that individual differences in the ability to identify high-potential from low-potential opportunities do indeed play an important role in entrepreneurs' success.

4.3. *Perseverance*

Entrepreneurs try to create and sell “new combinations” and as such they encounter substantial uncertainty regarding market acceptability and buyers' demand. In fact, the more radical the innovation, the harsher the skepticism they must endure, and the more likely they are to incur additional costs stemming from efforts to educate investors and persuade disinclined buyers. Starting a new company also incurs many personal costs; entrepreneurs bear the opportunity cost of other alternatives, a liquidity premium for time and capital, risk stemming from uncertainty, financial and social perils, and other hazards due to rapid technological development and obsolescence (cf. Shane & Venkataraman, 2000). Creating a new company entails doing more with less; entrepreneurs suffer from limited resources, unfamiliar brand name, limited product offerings, and questionable access to markets. Inherent in such undertaking is a constant vulnerability to failure, precipitated by ambiguous conditions under which new firms are created. Thus, until success is achieved, entrepreneurs bear numerous disincentives, including unpredictable markets and unknown competitive rivals. Success often comes at a price of high financial, technological, and legal liabilities. Inseparable from risk of failure are the ambiguous conditions under which new firms are created; conditions precipitated by the nature of entrepreneurial work and technological innovation. This suggests that individuals who engage in venture formation incur, sometimes personally, substantial amount of financial and social adversity.

Research indicates that under challenging circumstances, individuals high in perseverance perform more adeptly, whereas individuals who fail to persevere not only perform inadequately, but also experience increased anxiety and negative affect (cf. Bandura, 1997). We noted above that to be successful, entrepreneurs must rise above numerous obstacles including working intensively despite very uncertain outcomes, establishing market foothold with frail economic power, fending off retaliatory actions from established and resourceful rivals, and overcoming liabilities of newness, smallness, and legitimacy. Entrepreneurs also endure very harsh private difficulties, such as personal and financial liabilities and periods of social isolation (cf. Baron & Markman, 2000). Since entrepreneurs encounter repeated obstacles with many uncertain outcomes, the ability to withstand and quickly overcome adversity would be an important personal advantage.

Learned industriousness theory states that depending on their history of persistent and effortful behavior, different individuals display contrasting levels of perseverance (Quinn,

Brandon, & Copeland, 1996). Stoltz (2000), who studied personal resilience through what he terms the *Adversity Quotient* (AQ), assessed the AQ of over 100,000 persons from diverse organizations. On the basis of Stoltz's work, Markman and Baron (under review) suggested that our ability to handle adversity determines our success. They note that in the face of adversity, some tend to give up while others persist depending on their *explanatory styles*—the customary ways in which individuals explain setbacks and failures. Their study, which provided additional evidence that resilience is a major factor underlying success in entrepreneurial settings, reports two interesting findings. First, inventors who used the patents they were awarded to start or continue to build new companies had significantly higher AQ scores than those who did not use their patents for that purpose. Second, successful entrepreneurs had significantly higher AQ score than less successful entrepreneurs. More specifically, successful entrepreneurs, as measured by higher personal earnings, exhibited higher levels of perceived control over adversity they face and higher accountability for the outcome of the adversity (regardless of its origin).

While more research is certainly necessary, such studies suggest that perseverance in the face of business and technological difficulties may be more important than the idea or the opportunity itself. If this is so, then perhaps venture capitalists and corporate leaders could rely on measures of AQ to screen and identify technical people who will then be successful as champions of new business units. To recap, since perseverance reliably predicts personal effectiveness and performance under difficult circumstances, and since creating a new company is an ongoing challenge where success is a function of lasting personal persistence, perseverant entrepreneurs will tend to outperform those who are less persistent.

4.4. *Human and social capital and social skills*

In the past, means of production constituted a major share of an organization's tangible assets. Today, however, human talent is capital; talented persons carry within them, in their knowledge and expertise, important aspects of the means of production. Firms' capacity to compete is imbedded in incumbents' capability, education, and experience. Intellectual capital and talented labor force is now central to many business enterprises (Rivette & Kline, 2000) and so persons who have access to vital information become powerful agents of processes leading to business creation (Shane & Venkataraman, 2000). Human capital encompasses both abilities, which are influenced in part by genetic factors (e.g., intelligence, health, personality, attractiveness) as well as acquired skills such as education, job training, tenure, work experience, and interpersonal relationships (Shanahan & Tuma, 1994). Several arguments support the view that a high level of human capital is related to firm survival and growth (cf. Pennings, Lee, & Van Witteloostuijn, 1998). First, Gimeno, Folta, Cooper, and Woo (1997) found that even among firms of equal economic strength, survival was a function of variability in human capital. Research on the role of CEO characteristics shows that human capital affects firm performance (Boone, De Brabander, & Van Witteloostuijn, 1996). Similarly, since professionals endowed with a high level of human capital consistently deliver high-quality services, firms championed by such persons

are better able to attract and retain clients and strategic allies. Finally, potential investors use human capital, such as professional credentials and accolades, as screening devices. To echo Arrow (1974), since persons successful in their domain have better access to their professional circles than do less successful persons, professional degrees and industry experience function as screening and filtering techniques to identify high-potential individuals.

Social capital, in contrast to human capital, refers to opportunities enabled by social structure (Maman, 2000); it is a proxy of resources made available through organizational positions, elite institutional ties, social networks and contacts, and relationships with others. Not surprisingly, human and social capital are complementary. High levels of social capital facilitate flows of knowledge and thus determine access to resources and may contribute to one's success (Nahapiet & Ghoshal, 1998). Accumulating research suggests that high social capital provides entrepreneurs with enhanced access to information and increased cooperation and trust from others. Indeed, a study of 1700 new business ventures in Germany reports a positive relationship between social capital and venture success (Bruderl & Preisendorfer, 1998). Moreover, entrepreneurs who possess high social capital (as based on extensive social networks, status, personal ties, and referrals) are more likely to receive funds from venture capitalists than entrepreneurs who are lower on this dimension (Cable & Shane, 1999). Honig (1998), who studied Jamaican entrepreneurs, reports that high social capital and high human capital (e.g., vocational and college education)—controlling for other factors—were positively related to business profitability. Others suggested that variability in human capital results in significant differences in the viability and longevity of new ventures (Boden & Nucci, 2000).

Research in applied and social psychology has repeatedly found that social skills—competencies that enable individuals to interact effectively with others—play a key role in many forms of social and professional interactions (Baron & Markman, 2000). Effective social skills can positively influence the outcomes experienced by individuals in many different contexts, including job interviews (Riggio & Throckmorton, 1988), performance reviews (Robbins & DeNisi, 1994), and even legal proceedings (McKelvie & Coley, 1993). For instance, in one large-scale study involving more than 1400 employees in a wide range of jobs, Wayne, Liden, Gran, and Ferris (1997) found that social skills were the single best predictor of job performance and promotion ratings. Social skills have also been found to influence negotiation outcomes (Lewicki, McAllister, & Bies, 1998), the frequency with which individuals engage in conflict and aggression (Baron and Richardson, 1994), and even personal happiness (Thomas, Fletcher, & Lange, 1997). Since entrepreneurs are embedded in a social context (Steier, 2000), we suggest that many of the tasks entrepreneurs must accomplish in order to succeed involve elements of socialization. Raising external capital, generating enthusiasm and commitment in employees, communicating effectively with people from a wide range of backgrounds, attracting effective partners and employees, developing business networks and relationships, establishing trust and legitimacy, and negotiating with others over diverse issues, are only some of the interactions entrepreneurs must initiate and manage. Since the creation of new companies entails the ability to work effectively with many constituencies in numerous contexts and under varying degrees of

uncertainty, we propose that, *ceteris paribus*, proficiency in dealing with others may be a key ingredient in entrepreneurs' success.

Baron and Markman (2000), who conducted a study with entrepreneurs from two very different industries (cosmetics and high-tech), obtained support for the hypothesis that the higher the entrepreneurs' social skills, the greater their financial success. Their study reported that high accuracy in perceiving others (i.e., skill in social perception) was a significant predictor of financial success for both groups of entrepreneurs and that social adaptability (the ability to adapt to a wide range of social situations and to interact with individuals from many different backgrounds) was a significant predictor of financial success for entrepreneurs in the cosmetics industry. Their study implies that while high levels of human and social capital may be particularly crucial in facilitating access to resources, social skills might be particularly important once such access is attained—that is, during the building stages of a new venture. The success or failure of new organizations hinges in part, on entrepreneurs' ability to work together to commercialize their discoveries (e.g., [Ensley et al., 2002](#)). Moreover, a high level of social skills may assist entrepreneurs in several other ways—for example, in forming mutually beneficial strategic alliances with other companies (e.g., [Gulati & Westphal, 1999](#)), in securing orders from new customers, hiring desirable employees, and so on. Moreover, the fact that in entrepreneurial firms on-the-job and trial-and-error learning are important ([Bhidé, 2000](#)), suggests that hiring and investment decisions should be based, in part, on whether candidates have high human and social capital *as well as* sound social skills. Given the wide and positive impact social skills have on diverse human functioning, it is surprising that entrepreneurs, researchers, and investors have, until recently, been somewhat reluctant to recognize it as an important factors in such contexts. The foregoing discussion provides a foundation for our model of person–entrepreneurship fit and entrepreneurial success ([Fig. 1](#)).

Briefly, this model suggests that becoming an entrepreneur places people in a situation where certain individual-difference factors will be instrumental to their success: the greater the person–entrepreneurship fit, the higher the likelihood of entrepreneurial success. As drawn, the model presents a “snapshot” of the process at a single point in time, however, in essence, it incorporates both iterative and recursive interactions. That is, the model captures the nonlinear interplay among several individual-difference factors (e.g., self-efficacy, ability to recognize opportunities, personal perseverance, human and social capital, and superior social skills) in the context of tasks that entrepreneurs undertake (e.g., evaluate, deploy to market, and exploit technology-based opportunities via firm formation) to achieve entrepreneurial success, multifariously defined. We couched our arguments to suggest causality, but we acknowledge that in fact, the relationships illustrated are successively and reciprocally causal in nature. For example, as articulated throughout this discussion, people with high self-efficacy or human capital become more successful entrepreneurs at the same time that entrepreneurial success fosters stronger self-efficacy and raises one's human capital. Our model also suggests equifinality ([Gresov & Drazin, 1997](#)). There are multiple ways in which all or only some of the five elements discussed and their dynamic interplay may lead to high person–entrepreneurship fit and subsequently to entrepreneurial success. Finally, the model is not meant to be inclusive with respect to individual-difference factors;

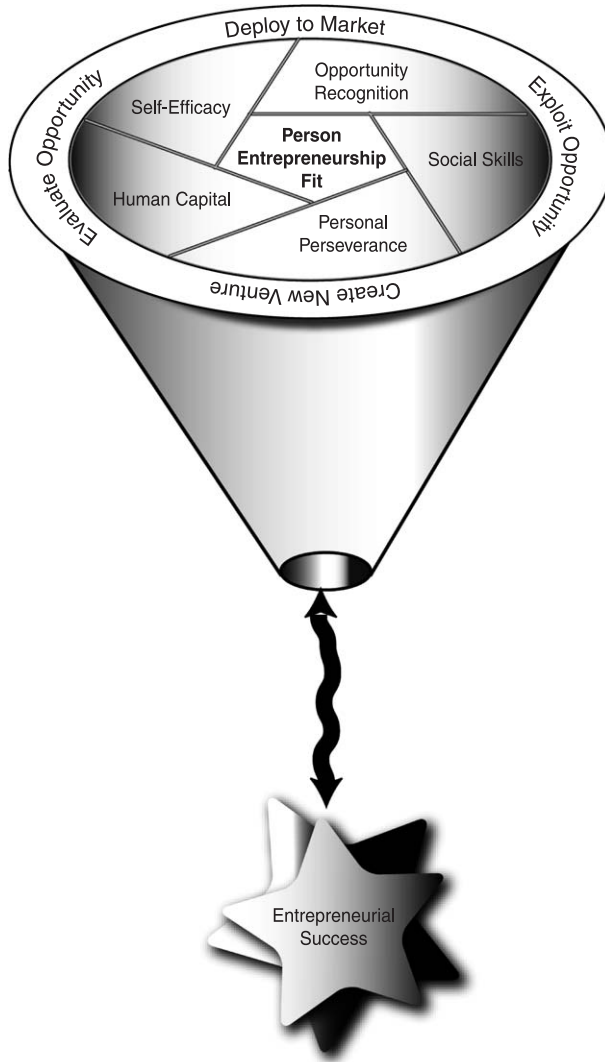


Fig. 1. Model of person–entrepreneurship fit and entrepreneurial success.

rather, other factors not discussed here probably also play a role with respect to person–entrepreneurship fit.

5. Discussion

We have proposed that an individual-difference perspective in assessing person–entrepreneurship fit has important implications for the field of human resource management. Specifically, we have suggested that to the extent that entrepreneurs are

high on a number of distinct individual-difference dimensions relevant to the entrepreneurial role (e.g., self-efficacy, opportunities recognition, perseverance, human and social capitals, and social skills), the closer will be their person–entrepreneurship fit and, consequently, the greater their success. We noted that given comparable conditions, *not* all individuals, even if equipped with similar knowledge, skills, and abilities, are equally adept in recognizing opportunities and in harvesting them through the creation of new ventures. Since new ventures are conspicuously more open to change than established firms (i.e., they are “weak situations”), human variation, as reflected in specific individual-difference factors, may exert stronger effects on emerging firms than on mature ones. Moreover, since it is the entrepreneurs who create new ventures, we suggest that the role of individual-difference factors in person–entrepreneurship fit merits closer attention.

We examined potential relationships between research on person–organization fit and entrepreneurship, but more empirical and conceptual work is needed in order to confirm and extend our preliminary framework. For example, what does the future hold for person–entrepreneurship fit research and theory? What are the consequences for emerging firms that do not possess the capital and credibility to attract key personnel that mature corporations possess? Our view is in agreement with Bowen et al. (1991), who criticized traditional selection practices that ignore personal characteristics and merely target employees whose knowledge, skills, and abilities fit with clearly defined job requirements. While new “body parts” for an organization (e.g., helping hands, muscles, or brute physical force) may sometimes be appropriate for established and resource-rich organizations, such practices are particularly detrimental to emerging, resource-starved firms. These issues and related ones were not fully addressed here, and they remain open and should be carefully examined in future research.

Because a new business creation is multidimensional with diverse jobs, multitasks, and transient duties, our perspective complements emerging trends in selection models that reject theories of person–job fit (O’Reilly et al., 1991; Schneider et al., 1995; Van Vianen, 2000). While several personal and organizational characteristics were assessed, future studies should also test these and other dimensions of individual characteristics and organizational outcomes. For instance, we discussed the usefulness of person–career and person–entrepreneurship fit, but additional research is needed to empirically assess concerns regarding the utility of selection procedures in these contexts. In sum, people differ, and individual variance as it applies to person–entrepreneurship fit should, at the very least, be taken into account in such human resource functions as selection, recruitment, placement, and retention programs (Mitchell & Mickel, 1999). This human variability may also be of interest to scholars who focus on motivation, teamwork, and organizational design.

It has been noted elsewhere (cf. Van Vianen, 2000) that practitioners are reluctant to rely on person–organization fit measures. This is so, at least in part, because existing selection procedures are open to manipulation by applicants, subject to legal challenge, and as noted above, even good person–organization fit may not necessarily lead to enhanced firm performance. Nonetheless, Van Vianen (2000) found that job candidates are

more likely to actually join an organization when their personal preferences fit with those of existing incumbents. Research on hiring suggests that interviewers can assess—with high levels of accuracy—applicant–organization value congruence, and that subjective fit assessments do impact hiring decisions (Cable & Judge, 1997). Given that in emerging ventures it is usually the founding team members who do the recruiting and the ones who, based on their reputation and personal attributes, try to attract new employees, entrepreneurs may have more influence on newcomers than they realize or suspect. Further, recruits are unable to fully assess the culture of the new organization until later in the socialization process. Again, this implies that newcomers' perceptions of founding teams—their personalities, attitudes, behaviors, reputations, and professional and social affiliations—carry heavy weight in evaluating subsequent fit. Interestingly, although many entrepreneurs are unaware of person–organization theory, they nevertheless rely on its principles. Silverman (1999) reports that small-business owners use ethnicity, race, and other identity cues as low-cost screening devices before they contract new employees, suppliers, and partners.

It is important to note that the individual-difference factors identified in our analyses are, in contrast to other aspects of personality, readily open to modification. Indeed, techniques for enhancing self-efficacy, alertness, personal perseverance, human and social capital, and social skills have been developed and used with considerable success in many contexts (e.g., Bandura, 1997; Stoltz, 2000). Seligman (1991) notes that cognitive styles like pessimism and helplessness can be changed through cognitive training techniques, whereby individuals can learn ways to overcome self-defeating beliefs. It seems possible that providing entrepreneurs with appropriate training in such skills and attributes might assist them in their efforts to exploit opportunities and launch new ventures. Since entrepreneurs' success and failure have significant ramifications not only for them personally, but their societies as well, efforts to provide them with skills serving to tip the balance in favor of success would appear to be well justified.

6. Conclusion

Although research on person–organization fit is diverse and rich (cf. Judge & Ferris, 1992; Kristof, 1996; Schneider et al., 1995), little effort has been made in the past to integrate its various conceptualizations, operationalizations, or measurement strategies with the field of entrepreneurship. In the present paper, we explored the potential contributions of a person–organization fit framework to address the basic question: “Why are some entrepreneurs more successful than others?” We proposed that person–entrepreneurship fit provides part of the answer. That is, the possession by would-be entrepreneurs of the skills, talents, abilities, and characteristics necessary for identifying opportunities and founding new ventures is one important component in their ultimate success. To the extent this suggestion is confirmed by future research, it would also appear that techniques could be developed for assessing the extent to which individuals are suited for entrepreneurial roles, just as standard techniques of personnel selection (cf. Smith, 1994) are used to

determine whether, and to what extent, job applicants are suited for specific jobs. To the best of our knowledge, this is a new and potentially fruitful perspective on entrepreneurship.

While we made the point that the absence of research on person–organization fit as it applies to the study of entrepreneurship renders our understanding of new business formation incomplete, it is important to note that we in no sense imply that the effects of individual-difference factors are stronger or more important than other variables in determining entrepreneurs' success. In fact, we fully share the perspective, reflected in strategic management research, that many factors—including market forces, industry trends, new technological discoveries, and so on—interact in complex ways to ultimately determine the success of entrepreneurial firms, (cf. Shane & Venkatarman, 2000). What we wish to emphasize here is that one important contributor to entrepreneurs' success is indeed the extent to which they possess “what it takes”—the skills, abilities, and characteristics required for creating a new venture. When they do—that is, when such person–entrepreneurship fit is high—John Dos Passos' (1959) comment that: “People don't choose their careers; they are engulfed by them,” may well ring true.

References

- Aldrich, H. E., & Fiol, C. M. (1994). Fools rush in? The institutional context of industry creation. *Academy of Management Review*, 19(4), 645–670.
- Arrow, K. (1962). Economic welfare and the allocation of resources for invention. In R. Nelson (Ed.), *The rate and direction of inventive activity: economic and social factors* (pp. 609–626). Princeton, NJ: Princeton University Press.
- Arrow, K. (1974). Limited knowledge and economic analysis. *American Economic Review*, 64(1), 1–10.
- Balkin, D. B., Markman, G. D., & Gomez-Mejia, L. R. (2000). Is CEO pay in high-technology firms related to innovation? *Academy of Management Journal*, 43(6), 1118–1129.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117–148.
- Bandura, A. (1995). Comments on the crusade against casual efficacy of human thought. *Journal of Behavior Therapy & Experimental Psychiatry*, 26(3), 179–190.
- Bandura, A. (1997). *Self-efficacy: the exercise of control*. New York: W. H. Freeman & Co.
- Bandura, A. (1999). A sociocognitive analysis of substance abuse: an agentic perspective. *Psychological Science*, 10(3), 214–217.
- Bandura, A., Pastorelli, C., Barbaranelli, C., & Caprara, G. V. (1999). Self-efficacy pathways to childhood depression. *Journal of Personality and Social Psychology*, 76(2), 258–269.
- Baron, R. A. (1998). Cognitive mechanisms in entrepreneurship: why and when entrepreneurs think differently than other people. *Journal of Business Venturing*, 13, 275–294.
- Baron, R. A. (2000). Counterfactual thinking and venture formation: the potential effects of thinking about “what might have been”. *Journal of Business Venturing*, 15, 79–91.
- Baron, R. A., & Markman, G. D. (2000). Beyond social capital: the role of social competence in entrepreneurs' success. *Academy of Management Executive*, 14(1), 106–116.
- Baron, R. A., & Richardson, D. R. (1994). *Human aggression* (2nd ed.). New York, NY: Plenum.
- Beckert, J. (1999). Agency, entrepreneurs, and institutional change. The role of strategic choice and institutionalized practices in organizations. *Organization Studies*, 20(5), 777–799.
- Bhidé, A. V. (2000). *The origin and evolution of new business*. New York: Oxford University Press.

- Bird, B. J. (1988). Implementing entrepreneurial ideas: the case for intention. *Academy of Management Review*, 13, 442–453.
- Boden Jr., R. J., & Nucci, A. R. (2000). On the survival prospects of men's and women's new business ventures. *Journal of Business Venturing*, 15(4), 347–362.
- Boone, C., de Brabander, B., & Van Witteloostuijn, A. (1996). CEO locus of control and small firm performance: an integrative framework and empirical test. *Journal of Management Studies*, 33(5), 667–699.
- Bowen, D. E., Ledford Jr., G. E., Nathan, B. R. (1991). Hiring for the organization. Not the job. *Academy of Management Executive*, 5(4), 35–51.
- Bruderl, J., & Preisendorfer, P. (1998). Network support and the success of newly founded businesses. *Small Business Economics*, 10(3), 213–225.
- Brush, C. G., & Chaganti, R. (1999). Businesses without glamour? An analysis of resources on performance by size and age in small service and retail firms. *Journal of Business Venturing*, 14(3), 233–257.
- Busenitz, L. W. (1996). Research on entrepreneurial alertness. *Journal of Small Business Management*, 34(4), 35–44.
- Busenitz, L. W. (1999). Entrepreneurial risk and strategic decision making: it's a matter of perspective. *Journal of Applied Behavioral Science*, 35(3), 325–340.
- Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: biases and heuristics in strategic decision-making. *Journal of Business Venturing*, 12(1), 9–30.
- Cable, D. M., & Judge, T. A. (1996). Person–organization fit, job choice decisions, and organizational entry. *Organizational Behavior and Human Decision Processes*, 67(3), 294–311.
- Cable, D. M., & Judge, T. A. (1997). Interviewers' perceptions of person–organization fit and organizational selection decisions. *Journal of Applied Psychology*, 82, 546–561.
- Cable, D. M., & Shane, S. (1997). A prisoner's dilemma approach to entrepreneur-venture capitalist relationships. *Academy of Management Review*, 22, 142–176.
- Chan, D. (1996). Cognitive misfit of problem-solving style at work: a facet of person–organization fit. *Organizational Behavior and Human Decision Processes*, 68(3), 194–207.
- Chatman, J. (1989). Improving interactional organizational research. *Academy of Management Review*, 14(3), 333–349.
- Chatman, J. (1991). Matching people and organizations: selection and socialization in public accounting firms. *Administrative Science Quarterly*, 36, 459–484.
- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13, 295–316.
- Cooper, A. C., Folta, T. B., & Woo, C. Y. (1995). Entrepreneurial information search. *Journal of Business Venturing*, 10(2), 107–120.
- Dos Passos, J. (1959, October 25). People don't choose their careers; they are engulfed by them. *New York Times*.
- Dougherty, D. (1992). A practice-centered model of organizational renewal through product innovation. *Strategic Management Journal*, 13, 77–92.
- Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, 32, 543–576.
- Ensley, M. D., Peterson, A. W., & Amason, A. C. (2002). Understanding the dynamics of new venture top management teams: cohesion, conflict, and new venture performance. *Journal of Business Venturing*, 17(4), 365–386.
- Epel, E. S., Bandura, A., & Zimbardo, P. G. (1999). Escaping homelessness: the influences of self-efficacy and time perspective on coping with homelessness. *Journal of Applied Social Psychology*, 29(3), 575–596.
- Fredrickson, J. W., & Mitchell, T. (1984). Strategic decision processes: comprehensiveness and performance in an industry with an unstable environment. *Academy of Management Journal*, 27, 399–423.
- Gartner, W. B. (1988). Who is the entrepreneur? Is the wrong question. *American Journal of Small Business*, 12, 11–32.
- Ghoshal, S., & Lovas, B. (2000). Strategy as guided evolution. *Strategic Management Journal*, 21, 875–896.

- Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. (1997). Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, 42(4), 750–783.
- Gresov, C., & Drazin, R. (1997). Equifinality: functional equivalence in organization design. *Academy of Management Review*, 22(2), 403–428.
- Gulati, R., & Westphal, J. D. (1999). Cooperative or controlling? The effects of CEO–board relations and the content of interlocks on the formation of joint ventures. *Administrative Science*, 44(3), 473–506.
- Hamilton, B. H. (2000). Does entrepreneurship pay? An empirical analysis of the returns to self-employment. *Journal of Political Economy*, 108(3), 604–631.
- Honig, B. (1998). What determines success? Examining the human, financial, and social capital of Jamaican microentrepreneurs. *Journal of Business Venturing*, 13, 371–394.
- Judge, T. A., & Ferris, G. R. (1992). The elusive criterion of fit in human resource staffing decisions. *Human Resource Planning*, 15(4), 47–67.
- Kaish, S., & Gilad, B. (1991). Characteristics of opportunities search of entrepreneurs versus executives: sources, interest, general alertness. *Journal of Business Venturing*, 6, 45–61.
- Kirton, M. (1976). Adaptors and innovators—a description and measure. *Journal of Applied Psychology*, 61(5), 622–635.
- Kirzner, I. (1997). Entrepreneurial discovery and the competitive market process: an Austrian approach. *Journal of Economic Literature*, 35, 60–85.
- Kristof, A. L. (1996). Person–organization fit: an integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology*, 49(1), 1–49.
- Lewicki, R. J., McAllister, D. J., & Bies, R. J. (1998). Trust and distrust: new relationships and realities. *Academy of Management Review*, 23(3), 438–458.
- Locke, E. A., & Latham, G. P. (1991). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice-Hall.
- Maman, D. (2000). Who accumulates directorships of big business firms in Israel?: Organizational structure, social capital and human capital. *Human Relations*, 53(5), 603–630.
- Markman, G. D., Balkin, D. B., & Baron R. A. (under review). Inventors' cognitive mechanisms as predictors of new venture formation.
- Markman, G. D., & Baron, R. A. (under review). Adversity quotient: bounce-back ability, innovation, and new business formation.
- McGaffey, T. N., & Christy, R. (1975). Information processing capability as a predictor of entrepreneurial effectiveness. *Academy of Management Journal*, 18(4), 857–863.
- McKelvie, S. J., & Coley, J. (1993). Effects of crime seriousness and offender facial attractiveness on recommended treatment. *Social Behavior and Personality*, 21(4), 265–277.
- Meyer, G. D., & Dean, T. J. (1990). An upper echelons perspective on transformational leadership problems in high technology firm. *Journal of High Technology Management Research*, 1, 223–242.
- Miller, S. M. (1996). Monitoring and blunting of threatening information: cognitive interference and facilitation in the coping process. In I. G. Sarason, G. R. Pierce, & B. R. Sarason (Eds.), *Cognitive interference: theory, methods, and findings* (pp. 175–190). Mahwah, NJ: Lawrence Erlbaum Associate Publishers.
- Miller, D., & Friesen, P. H. (1982). Innovation in conservative and entrepreneurial firms: two models of strategic momentum. *Strategic Management Journal*, 3, 1–25.
- Mitchell, T. R., & Mickel, A. E. (1999). The meaning of money: an individual-difference perspective. *Academy of Management Review*, 24(3), 568–578.
- Mitchell, R. K., Smith, B., Seawright, K. W., & Morse, E. A. (2000). Cross-cultural cognitions and venture creation decision. *Academy of Management Journal*, 43(5), 974–993.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242–266.
- Neal, D. (1999). The complexity of job mobility among young men. *Journal of Labor Economics*, 17(2), 237–261.

- O'Reilly, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: a profile comparison approach to assessing person–organization fit. *Academy of Management Journal*, *34*, 487–516.
- Pennings, J. M., Lee, K., & Van Witteloostuijn, A. (1998). Human capital, social capital, and firm dissolution. *Academy of Management Journal*, *41*(4), 425–440.
- Pfeffer, J. (1998). *The human equation: building profits by putting people first*. Boston, MA: Harvard Business School Press.
- Quinn, E. P., Brandon, T. H., & Copeland, A. L. (1996). Is task persistence related to smoking and substance abuse? The application of learned industriousness theory to addictive behaviors. *Experimental and Clinical Psychopharmacology*, *4*(2), 186–190.
- Riggio, R. E., & Throckmorton, B. (1988). The relative effects of verbal and nonverbal behavior, appearance, and social skills on evaluations made in hiring interviews. *Journal of Applied Social Psychology*, *18*(4), 331–348.
- Rivette, K. G., & Kline, D. (2000). *Rembrandts in the attic*. Boston, MA: Harvard Business School Press.
- Robbins, T. L., & DeNisi, A. S. (1994). A closer look at interpersonal affect as a distinct influence on cognitive processing in performance evaluations. *Journal of Applied Psychology*, *79*(3), 341–353.
- Sarasvathy, D. K., Simon, H. A., & Lave, L. (1999). Perceiving and managing business risks: differences between entrepreneurs and bankers. *Journal of Economic Behavior and Organization*, *33*, 207–225.
- Schneider, B. (1987). The people make the place. *Personnel Psychology*, *40*(3), 437–453.
- Schneider, B., Goldstein, H. W., & Smith, D. B. (1995). The ASA framework: an update. *Personnel Psychology*, *48*, 747–773.
- Schneider, B., Smith, D. B., Taylor, S., & Fleener, J. (1998). Personality and organizations: a test of the homogeneity of personality hypothesis. *Journal of Applied Psychology*, *83*, 462–470.
- Schumpeter, J. (1934). *Capitalism, socialism, and democracy*. New York: Harper & Row.
- Seligman, M. E. P. (1991). *Learned optimism*. New York: Knopf.
- Shanahan, S. E., & Tuma, N. B. (1994). The sociology of distribution and redistribution. In N. J. Smelser, & R. Swedberg (Eds.), *The handbook of economic sociology* (pp. 733–765). Princeton, NJ: Princeton University Press.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, *11*, 448–469.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, *25*, 217–226.
- Shaver, K. G., & Scott, L. R. (1991, Winter). Person, process, and choice: the psychology of new venture creation. *Entrepreneurship Theory and Practice*, 23–42.
- Silverman, R. M. (1999). Ethnic solidarity and black business: the case of ethnic beauty aids distributors in Chicago. *American Journal of Economics and Sociology*, *58*, 829–841.
- Simon, M., Houghton, S. M., & Aquino, K. (2000). Cognitive biases, risk perception, and venture formation: how individuals decide to start companies. *Journal of Business Venturing*, *15*(2), 113–134.
- Smith, M. (1994). A theory of the validity of predictors in selection. *Journal of Occupational and Organizational Psychology*, *67*, 13–31.
- Steier, L. (2000). Entrepreneurship and the evolution of angel financial networks. *Organization Studies*, *21*(1), 163–192.
- Stevenson, H. H., Grousbeck, H. I., Roberts, M. J., & Bhidé, A. (1999). *New business venture and the entrepreneur* (5th ed.). Boston, MA: Irwin McGraw-Hill.
- Stewart Jr., W. H., Watson, W. E., Carland, J. C., & Carland, J. W. (1999). A proclivity for entrepreneurship: a comparison of entrepreneurs, small business owners, and corporate managers. *Journal of Business Venturing*, *14*, 189–214.
- Stoltz, P. G. (2000). *Adversity quotient at work*. New York, NY: HarperCollins Publishers.
- Thomas, G., Fletcher, G. J. O., & Lange, C. (1997). On-line empathic accuracy in marital interaction. *Journal of Personality and Social Psychology*, *72*(4), 839–850.

- Tyagi, R. K. (2000). Sequential product positioning under differential costs. *Management Science*, *46*(7), 928–940.
- Van Vianen, A. E. M. (2000). Person–organization fit: the match between newcomers' and recruiters' preferences for organizational cultures. *Personnel Psychology*, *53*, 113–149.
- Wayne, S. J., Liden, R. C., Graf, I. K., & Ferris, G. R. (1997). The role of upward influence tactics in human resource decisions. *Personnel Psychology*, *50*, 979–1006.