Researching the Inter-Relationship of Health and Entrepreneurship

INTRODUCTION

Health is inarguably a significant topic in people's everyday lives, and unsurprisingly, scholars have taken great interest in exploring this issue. For example, marketing scholars have explored the health implications of “supersizing” food purchases (Haws & Winterich, 2013), the impact of health claims on product preference (Aschemann-Witzel & Hamm, 2010), and price sensitivity to healthy versus unhealthy food (Talukdar & Lindsey, 2013); operations scholars have explored capacity expansion in outpatient clinics (LaGanga, 2011), quality management practices and processes in hospitals (Goldstein & Iossifova, 2012), and the performance of health information technology (Queenan, Angst, & Devaraj, 2011); management scholars have explored the relationship between employee stress and health (Bono et al., 2013), the effects of sleep deprivation on workplace deviance (Christian & Ellis, 2011), and learning by surgical teams (Vashdi, Bamberger, & Erez, 2012); and strategy scholars have explored multinational firms' responses to disasters (Oh & Oetzel, 2011), the effects of diversification in the medical-device industry (Wu, 2013), and the effect of board characteristics on firms' strategic change in the healthcare industry (Goodstein, Gautam, & Boeker, 1994).

This chapter is based on Shepherd and Patzelt (2015).

Although there is some entrepreneurship research exploring the topic of health (e.g., work on how an entrepreneurial career impacts individuals' psychological [e.g., Kets de Vries, 1980; Tetrick, Slack, Da Silva, & Sinclair, 2000] and physical [Boyd & Gumpert, 1983; Buttner, 1992] well-being or work on biotechnology ventures developing new therapeutic treatments [e.g., Deeds, DeCarolis, & Coombs, 1999; Evans & Varaiya, 2003; Patzelt, Shepherd, Deeds, & Bradley, 2008]), there are still numerous opportunities for scholars to expand this body of knowledge and, by doing so, not only make significant contributions to people's lives but also deepen our understanding of entrepreneurial phenomena. When we refer to health, we mean both physical health—"the physiological and physical status of the body"—and mental health—"the state of the mind, including basic intellectual functions" (Shepherd & Patzelt, 2015, p. 22; Ware, Brook, Davies, & Lohr, 1981). To limit the scope of this chapter and make the topic a bit more manageable, we restrict our focus to an *individual's* health as these specific aspects of health have an obvious boundary—namely, they "end at the skin" (Shepherd & Patzelt, 2015, p. 22; Ware et al., 1981). Drawing on multiple health-related streams of research from different disciplines, we identify potential linkages between entrepreneurship and both the health of the entrepreneur and the health of others. From these linkages, we develop sets of research questions and suggest potential points of departure and trajectories for future research projects. We believe this chapter makes an important contribution and can stimulate fruitful future research for a number of reasons.

First, our proposed research agenda reflects our belief that the community of entrepreneurship scholars has the research capabilities to generate new insights that enhance our understanding of health, which in turn may lead to knowledge on how to better protect and improve people's health (World Health Organization, 2000). By better understanding the health of those who select an entrepreneurial career (and why) and the health consequences of pursuing entrepreneurship, we are a step closer to the lofty goal of helping protect and improve entrepreneurs' health.

Second, the continuously increasing number of research projects on environmental, social, developmental, and sustainable entrepreneurship (see also Chap. 5) provides evidence of many entrepreneurship scholars' desire to "do good" by providing a deeper understanding of the processes by which entrepreneurship can help alleviate social problems. Scholars can continue this focus on doing good by exploring the antecedents of entrepreneurial actions that improve others' health. Thus, we expect that

many members of the entrepreneurship scholarly community show a strong motivation to expand their research into studying the relationship between entrepreneurship and health.

Third, entrepreneurship research will hopefully contribute to knowledge that enhances the health of individuals (entrepreneurs and others). Although we take a psycho-social perspective as a basis for making conjectures on the relationship between entrepreneurship and an individual's health, we hope that we pique the interest of a broad range of scholars to further explore this topic beyond the individual level of analysis. Since one of the strengths of the entrepreneurship research community is its interdisciplinary composition, we hope that this chapter can inspire scholars focusing on other levels of analysis (e.g., teams, organizations, institutions, and regions) and draw on other theoretical perspectives (e.g., institutional entrepreneurship).

To develop our research agenda, we first explore how entrepreneurship might impact the entrepreneur's health. Specifically, we speculate on how entrepreneurship generates stress and both positive and negative emotions, which impact the entrepreneur's health, and we speculate on how entrepreneurship can improve the entrepreneur's health through enhancing socioeconomic status. Second, we explore how entrepreneurial action might impact the health of others. We explore the ways particular personal experiences, professional knowledge, and prosocial motivation can result in entrepreneurial action that improves the health outcomes of people aside from the entrepreneur him- or herself.

ENTREPRENEURSHIP AND THE HEALTH OF THE ENTREPRENEUR

An entrepreneurial career differs from a career as an employee in an established organization in multiple ways. For example, while entrepreneurs usually enjoy more decision autonomy (Shane, Locke, & Collins, 2003) and freedom in arranging their work environment (Forbes, Borchert, Zellmer-Bruhn, & Sapienza, 2006), their job demands are typically more complex (Lazear, 2005) and uncertain (Teoh & Foo, 1997) than those of employees. Further, research indicates that entrepreneurs are often subject to more occupational stress than non-entrepreneurs (Buttner, 1992; Stoner, Hartman, & Arora, 1990; Teoh & Foo, 1997; Williams, 1984) but that they nevertheless tend to experience fewer negative (Patzelt & Shepherd, 2011) and more positive (Baum & Locke, 2004; Cardon, Wincent, Shigh,

& Drnovsek, 2009; Cardon, Zietsma, Saporito, Matherne, & Davis, 2005; Smilor, 1997) emotions from work than employees. Finally, there is evidence that entrepreneurship can help achieve better financial income than other careers (Carter, 2011; Lazear, 2005; Nanda, 2008; Quadrini, 2000; for an exception, see Blanchflower & Shadforth, 2007). Based on these findings and specific characteristics of an entrepreneurial career, we now explore (1) the role of an individual's health status in his or her decision to pursue entrepreneurship as a career option and the ways the pursuit of an entrepreneurial career impacts the individual's health by influencing his or her (2) stress levels, (3) emotions, and (4) socioeconomic status.

Health and the Pursuit of an Entrepreneurial Career

There is evidence that people with health-related restrictions select into an entrepreneurial career. For example, groups who perceive obstacles to advancement in traditional employment roles are likely drawn to an entrepreneurial career (Callahan, Shumpert, & Mast, 2002; Kendall, Buys, Charker, & MacMillan, 2006). Specifically, people with disabilities are frequently drawn to an entrepreneurial career because it can provide greater accommodations for aspects of their work (Arnold and Seekins, Arnold & Seekins, 2002; Hagner & Davies, 2002), such as flexibility to manage work around visits to doctors and hospitals and days when poor health could negatively impact performance. Although accommodations related to physical access are generally made in the workplace for employees (Batavia & Schriener, 2001), people with disabilities desire other accommodations; they desire (and often require) flexibility to arrange work time around health problems and treatment, and they highly value autonomy (Arnold & Seekins, 2002; Hagner & Davies, 2002). Indeed, statistics demonstrate that people with disabilities are more than twice as likely to become self-employed than people without disabilities (US Census Bureau, 2002). Therefore, limitations caused by health-related problems appear to motivate such people to pursue an entrepreneurial career. In turn, an entrepreneurial career provides the flexibility to allow these individuals to accommodate their health needs and treatment, which likely has a positive impact on their health. These aspects and findings represent a number of research opportunities.

Flexibility and health. While entrepreneurial careers generally provide more flexibility than traditional employment, each entrepreneurial career path is different in terms of the amount and type of flexibility it offers.

For example, founders who seek and obtain external capital to grow their business often realize they must give up more decision-making authority and control in running their business compared to those who restrict business growth to activities that can be funded by internal sources, such as additional owner equity or funding acquired through bootstrapping (Wasserman, 2008). Furthermore, long-time and dominant alliance partners can limit founders' strategic flexibility in developing their venture's network in new directions (Maurer & Ebers, 2006). Indeed, different health problems may require different work-related flexibility. What are the different flexibility requirements stemming from major health problems, and how do they motivate an entrepreneurial career? How do these entrepreneurs use flexibility to enhance health or reduce health problems? Perhaps for entrepreneurs with specific health problems, there is a level of flexibility offered by an entrepreneurial career beyond which further increases are actually detrimental to health. For instance, some psychological disorders, such as attention deficit/hyperactivity disorder, are associated with high levels of impulsivity, and entrepreneurs suffering from these disorders might not be able to control themselves and function well under highly flexible conditions. That is, it is important to understand the activities, processes, and other mechanisms that entrepreneurs use to attain the types of flexibility that accommodates their health requirements and/or enhances their state of health because as we gain a deeper understanding of the "how," we can also begin to gain a deeper understanding of which mechanisms are most effective at managing health. Understanding the effectiveness of specific "flexibility mechanisms" in enhancing health through an entrepreneurial career would represent an important step toward providing advice to those considering such a career move. Perhaps training and education programs, especially for those with health-related problems, can one day provide concrete steps outlining how such people can pursue a rewarding entrepreneurial career that offers the appropriate types and levels of flexibility needed to also benefit their health.

The above discussion focuses on individuals drawn to the flexibility of an entrepreneurial career to cope with *health problems*, but perhaps other entrepreneurs (motivated by other reasons) can also use the flexibility of this career to pursue personal *health opportunities*. Perhaps the flexibility of an entrepreneurial career enables individuals to pursue their sporting or recreational activities. For example, Goldsby, Kuratko, and Bishop (2005) showed how small business owners' engagement in physical activities (e.g., running and weight-lifting) is positively associated with the intrinsic

and extrinsic rewards from entrepreneurship as well as increased firm sales. How do entrepreneurs use flexibility to enhance personal health? Again, we are interested in the activities, processes, and other mechanisms that entrepreneurs use to pursue these health opportunities as well as which are more effective in doing so. However, as we explore below, this is not a one-way street—the flexibility of an entrepreneurial career facilitates health, but health can also generate flexibility in an entrepreneurial career. For example, as an individual begins to overcome health-related problems, there are fewer constraints on entrepreneurial action. Similarly, the health opportunities, such as recreational activities, the entrepreneur pursues may help entrepreneurial action. Indeed, physical activity (associated with sporting, recreational, and leisure activities) is associated with enhanced cognitive functioning in terms of, for example, selective attention, working memory, and cognitive flexibility (in their review of the literature, Prakash, Voss, Ericvkson, and Kramer [2015] noted that while the results are quite strong for children, there are few studies of adults and that the results for adults are somewhat mixed); psychological functioning, such as higher self-esteem (Sonstroem & Morgan, 1989), reduced anxiety (Anderson & Shivakumar, 2015), decreased likelihood of depression (Camacho, Roberts, Lazarus, Kaplan, & Cohen, 1991), and reduced likelihood of mortality (Kampert, Blair, Barlow, & Kohl, 1996; Katzmarzyk, Janssen, & Ardern, 2003). Future research can explore the nature of this reciprocal relationship between time used for enhancing health and performance in an entrepreneurial career (perhaps even vis-à-vis a career as an employee). Obviously, there are likely limits to time spent enhancing health in terms of its positive impact on entrepreneurial performance—if an individual dedicates most of his or her time to surfing, then his or her personal health is likely enhanced but not necessarily the firm's financial health.

Autonomy and health. Self-determination theory (Deci & Ryan, 1985; Ryan & Deci, 2000) proposes that individuals have a basic need for autonomy, and people often pursue an entrepreneurial career because it provides more autonomy than working as an employee. However, different entrepreneurial ventures are likely to provide varying levels of autonomy, and entrepreneurs themselves are likely to desire more or less autonomy depending on their personal characteristics. Future research has an opportunity to more deeply explore the relationship between health-related problems and the desire for autonomy. Why are some health-related problems associated with a greater desire for autonomy than other health-related problems, and how do these manifest in the entrepreneurial

ventures formed? It could be that the desire for autonomy is associated with obtaining the flexibility to deal with health-related issues or opportunities (described above), but autonomy may provide additional psychological benefits. Haynie and Shepherd's (2011) research offered some initial insight; they found that people who were injured after obeying orders on the battlefield wanted more autonomy as did individuals who required a long period of hospitalization due to their health problems, during which they had to follow others' (e.g., nurses, doctors, therapists) instructions. These findings indicate that the more a health-related problem is associated with a loss of personal control (either directly causing the health problem or being caused by the health problem), the more the individual desires autonomy in an entrepreneurial career. Therefore, while the need for autonomy is considered a basic psychological need (Ryan & Deci, 2000), the weight and the nature of this need for autonomy likely vary across (potential) entrepreneurs and the amount offered by the careers they pursue. The key then becomes obtaining a fit between the level of autonomy needed and the entrepreneurial career (created or chosen). How do individuals achieve such a fit? Future research looking to address this question about fit may want to begin with the career literature, particularly the research on identity work discussing how individuals can modify themselves to achieve fit, modify the nature of the task to achieve fit, or both (e.g., Ibarra & Barbulescu, 2010; Nicholson, 1984; Pratt, Rockmann, & Kaufmann, 2006). This career literature has typically been developed such that changes to the task are relatively modest given a focus on employment; more research is needed exploring substantial changes to the task (e.g., an entrepreneurial career) (see Shepherd & Williams, 2017). To what extent have individuals created and changed the nature of their entrepreneurial role to satisfy their health-related needs for autonomy? It is likely that such accommodations have implications for the nature of the opportunities identified and pursued.

Competence and health. Over and above physical accommodations, flexibility, and autonomy, what other requirements do people with health problems seek when deciding whether to pursue an entrepreneurial career or deciding between different entrepreneurial career alternatives? According to self-determination theory, people also need to satisfy the psychological needs for competence and belonging (Deci & Ryan, 1985; Ryan & Deci, 2000). It appears that when poor health prevents one from doing tasks, there is an even greater desire to pursue an entrepreneurial career in which the individual can build and use his or her competen-

cies (Haynie & Shepherd, 2011). To the extent that an entrepreneurial career enables people who have lost confidence in their ability to rebuild that confidence, then there are likely health benefits (especially benefits arising from improved psychological well-being). How does poor health impact the need for competence, and how does this need for competence impact the choice and pursuit of an entrepreneurial career? It would seem that an entrepreneurial career provides the opportunity for an individual to best utilize his or her competences (Sarasvathy, 2001) and therefore satisfy the psychological need for competence caused by health-related problems. However, an entrepreneurial career also provides feedback on that competence. Even negative feedback can help satisfy the need for competence if that feedback allows the individual to further enhance his or her competences. However, receivers do not always interpret negative feedback as an unambiguous blessing (i.e., as a way to improve their competences); rather, they may interpret it as a signal of incompetence that cannot be overcome. Future research can investigate why some people who receive negative feedback interpret it in a way that satisfies their need for competence while others interpret it in a way that thwarts their need for competence. Of particular interest to this chapter is how the health problem underlying the need for competence impacts (if at all) how individuals interpret negative feedback from an entrepreneurial career. Perhaps health problems caused by a traumatic injury—an injury that shatters the individual's assumptions about him- or herself, others, and the nature of the world—may result in a more negative interpretation of negative feedback from entrepreneurial action than non-traumatic health problems. On the flip side, perhaps positive feedback from entrepreneurial action is interpreted as more positive by those who experienced traumatic injuries than those with non-traumatic health problems. There is much to explore in terms of the psychological need for competence, the nature of individuals' health, and the continued pursuit of an entrepreneurial career.

Belongingness and health. In addition to needs for autonomy and competence, people also strive to fulfill a need for belongingness to a social group (Deci & Ryan, 1985; Ryan & Deci, 2000). However, poor health can lead to loneliness (Molloy, McGee, O'Neill, & Conroy, 2010), including active avoidance of people who are healthy (Hazer & Boyle, 2010). Loneliness is an emotional state caused by feeling alienated and/or misunderstood by others, thereby leading individuals to feel a lack of social integration and/or emotional intimacy (Donaldson & Watson, 1996; Rook, 1984). Loneliness is not the same as being alone, which individuals occa-

sionally seek out for their own enjoyment. Due to its characteristics, loneliness can sometimes make health problems worse (Hawkey & Cacioppo, 2010; Sugisawa, Liang, & Liu, 1994; Thurston & Kubzansky, 2009). For example, Holt-Lunstad, Smith, and Layton (2010) found that the mortality rate among lonely individuals is 45% higher than among individuals who are not lonely. What influence does pursuing an entrepreneurial career have on health-related loneliness? On the one hand, entrepreneurs are often seen as “lone wolves,” and “being the boss” separates them from their employees, which can result in feelings of loneliness and isolation (Akande, 1994; Gumpert & Boyd, 1984; Hannafey, 2003). However, on the other hand, entrepreneurs are often able to choose with whom they want to work (Forbes et al., 2006), and many ventures are created by founding teams instead of one individual (Ucbasaran, Lockett, Wright, & Westhead, 2003), thus leading to strong friendships that can ease feelings of loneliness (Deborah & William, 2000). Future research can further contribute by investigating the extent to which health-related problems caused by loneliness are exacerbated or minimized by the pursuit of an entrepreneurial career. More than likely, the answer is going to be “it depends,” and it will likely be more productive to explore the following questions: why are some individuals able to avoid loneliness when having an entrepreneurial career (and the subsequent negative health consequences) and others are not, and why are some entrepreneurs with health problems able to use their entrepreneurial career to avoid or overcome loneliness while others are unable to do so?

Some possible answers to these questions may come from exploring the entrepreneurial venture (e.g., number of employees, industry, and location); the venture’s human-resource management approach (e.g., selecting people who “fit” in the venture, developing a supportive organizational culture, having a participative management style, sharing venture equity); and/or the venture’s network with suppliers, customers, investors, and other stakeholders. While some entrepreneurs may structure (deliberately or not) their business to avoid loneliness, others may satisfy their need for belongingness (and thus reduce loneliness and its negative health consequences) through their non-work-related identity. An entrepreneur may feel completely comfortable with the isolation of his or her entrepreneurial career and not feel lonely because his or her non-work life involves active engagement in a sporting team, a large family, an online gaming community, or membership in any other form of community. Therefore, future research can explore not only how an entrepreneurial career impacts lone-

liness and/or how entrepreneurs' non-work lives are structured to avoid loneliness but also why some entrepreneurs focus on internal structures (i.e., social contacts within the venture) whereas others focus on structuring social aspects external to their entrepreneurial venture.

Finances and health. Although for the reasons stated above, individuals with health-related problems may find an entrepreneurial career more desirable, the costs associated with their health-related problems may make an entrepreneurial career less viable. For example, poor health is often expensive, leading to out-of-pocket costs, lost earnings, and a reduction in household assets (Poterba, Venti, & Wise, 2010). In turn, such expenses may decrease the personal financial resources one has free to start an entrepreneurial venture. However, when entrepreneurship is viewed as the pursuit of opportunity *beyond* the resources one currently controls (Baker & Nelson, 2005; Brown, Davidsson, & Wiklund, 2001; Stevenson, 1983) and considering the recent work on effectual reasoning that stresses the means an entrepreneur currently has as a starting point (Sarasvathy, 2001), entrepreneurial action is still conceivable even with limited available resources. Indeed, some health-related problems might not only restrict the financial resources available to the entrepreneur but also impact his or her potential to capitalize on the few resources available, for example, by diminishing the creativity needed to identify opportunities or ways to exploit them with few resources at hand. Thus, the question remains: how do health-related financial costs influence individuals' decision to start an entrepreneurial venture?

It might be that financial resources constrain the search for potential opportunities to those based on the combination and recombination of local resources (i.e., the resources at hand). However, we do not yet have a good understanding of how the "resource situation" impacts the nature of potential opportunities identified or, for that matter, the nature of this opportunity pursuit itself. For example, perhaps the resource slack necessary for distant search provides a basis for opportunities to generate radical or discontinuous innovations (Benner & Tushman, 2007), whereas a resource-constrained local search (e.g., bricolage and effectuation) may lead to potential opportunities that are more incremental in nature (Rosenkopf & Nerkar, 2001). Therefore, those with health problems that cause financial constraints may generate and pursue potential opportunities of a fundamentally different nature than those with health problems that do not cause financial constraints (or do so to a lesser extent). However, it could be that health problems lead to financial constraints related to

search depth—“how frequently the firm re-uses its existing knowledge”—and search scope—“how widely the firm explores new knowledge” (Katila & Ahuja, 2002, p. 1183)—but also provide a source of knowledge that facilitates search depth and scope. Future research can explore the multi-dimensional implications of health problems on the nature of search and the resulting potential opportunities.

Over and above differences in the nature of the opportunity, the financial costs of health-related issues may impact the scale of the venture founded to exploit the potential opportunity. The greater the financial burden from health problems, the more likely the entrepreneur will begin with a smaller-scale venture unless he or she is able to raise additional equity from a business angel or venture capital firm. How do potential investors assess entrepreneurs with health-related problems? When engaging with potential investors (and even potential stakeholders for that matter), entrepreneurs may use impression-management strategies (Bird & Jelinek, 1988; Zott & Huy, 2007) to compensate for their health-related problems, which could include keeping them hidden or minimizing their effects.

Time and health. Not only can health-related problems drain resources, they can also be costly in terms of lost time (Stewart, Ricci, Chee, Morganstein, & Lipton, 2003; Weiss, Sullivan, & Lyttle, 2000) and energy from work-related tasks. How do entrepreneurs with health-related problems manage their time differently from others (if at all), and why are some better at time management than others? However, research has shown that time-management behaviors (e.g., goal and priority setting) can be associated with higher employee stress (Macan, 1994). As such, can entrepreneurs’ time-management practices to overcome the time costs associated with poor health lead to additional health issues? Alternatively, the additional stress created by time management may be more than offset by the time dedicated to addressing (and hopefully solving) the health problem. Indeed, when engaging in health-entrepreneurship research, we need to be careful not to assume that the nature of people’s health problems is static; rather, such problems could be highly dynamic and fluctuate with changes in the entrepreneurial process. Although a static perspective might suggest that poor health will suck energy out of an entrepreneurial venture, a more dynamic perspective allows us to consider whether and how the individual’s investment of energy into the entrepreneurial venture transforms the health issue. Thus, future research should investigate the generation, reduction, and flow of energy in the relationship between health and entrepreneurial actions.

While we previously proposed that poor health might motivate some to pursue an entrepreneurial career in the first place, there is also some evidence that an entrepreneurial career path can impact the health of the entrepreneur over time. Specifically, the existing literature has emphasized that entrepreneurship is often stressful (Buttner, 1992; Stoner et al., 1990; Teoh & Foo, 1997; Williams, 1984) and highly emotional (Baron, 2008; Shepherd, 2003), both of which can lead to health-related problems, to which we now turn.

Pursuit of an Entrepreneurial Career, Stress, and Health

Stress occurs in the relationship between a person and his or her environment (Lazarus & Folkman, 1984, 1987) when the requirements of a particular situation require more resources than the person has on hand and the person appraises the situation as involving harm, threats of harm, or (more positively) a challenge (Lazarus, 1990). While some stress can provide positive motivation for individuals to engage in some sort of action and some stress can enhance health, the health literature has established a clear link between high levels of stress over extended periods and poor health outcomes (DeLongis, Folkman, & Lazarus, 1988; for a review, see Schneiderman, Ironson, & Siegel, 2005), such as depression (see Hammen, 2005; Kendler, Karkowski, & Prescott, 1999), anxiety disorders (Faravelli & Pallanti, 1989; Finlay-Jones & Brown, 1981), and cardiovascular disease (Brownley, Hurwitz, & Schneiderman, 2000; for a review, see Hemingway & Marmot, 1999).

There is some research connecting entrepreneurs to high levels of stress (Buttner, 1992; Stoner et al., 1990; Teoh & Foo, 1997; Williams, 1984). For example, researchers have shown that compared to employees, entrepreneurs tend to have heavier workloads (Eden, 1975; Harris, Saltstone, & Fraboni, 1999; Lewin-Epstein & Yuchtman-Yaar, 1991), face greater business risk, and ultimately experience greater job stress (Harris et al., 1999; Jamal & Badawi, 1995). However, the direct link between an entrepreneurial career and stress may not be so clear. A number of studies have found no significant difference between entrepreneurs and employees in terms of strain (Rahim, 1996), life stress (Parasuraman & Simmers, 2001), and depression/anxiety (Grzywacz & Bass, 2003), and some have even found that entrepreneurs experience less stress (Eden, 1975; Tetrick et al., 2000) than employees. Although these mixed findings on the relationship between entrepreneurship and stress muddy the waters somewhat, they also represent a number of research opportunities.

Individual differences and stress. Perhaps the differences in findings in research on entrepreneurial stress are due to heterogeneity in individual differences in the appraisal of and reaction to events as potential stressors. These individual differences could be due to differences in resilience. When confronted with difficulty, loss, and/or trauma, resilient individuals are able to maintain relatively normal psychological and physical functioning, and their capacity for positive emotions and personal growth remains intact (Bonanno, 2004; Bonanno, Papa, & O'Neill, 2001; see also Sutcliffe & Vogus, 2003; Williams & Shepherd, 2016). Are resilient people more likely to select into an entrepreneurial career (and/or non-resilient individuals select out)? Alternatively, it could be that people who pursue an entrepreneurial career develop psychological and emotional capabilities that are the foundations for resilience. This notion of building the resources and capabilities for resilience is particularly important in entrepreneurship as entrepreneurs generally face uncertain environments and often some form of adversity. Why do some entrepreneurs develop resilience while others do not or are slow in doing so? Positive psychology research (Seligman, Steen, Park, & Peterson, 2005), including that on positive emotions (Fredrickson, 2001), hardiness (Florian, Mikulincer, & Taubman, 1995), and optimism (Seligman, 2011), may provide some insights into why some individuals are more resilient than others. However, to understand why some are able to become more resilient may involve a different set of factors. For example, perhaps those who have experienced a negative health event and have learned to deal with (i.e., live with or reduce) a health problem have built up the resources and capabilities of resilience that are useful in the pursuit of an entrepreneurial career. It could also be that in pursuing an entrepreneurial career, the individual builds resources and capabilities of resilience that are useful in functioning in the face of a health problem. It is important that we gain a deeper understanding of resilience in the health-entrepreneurship context.

Differences in tasks and the level of stress. Perhaps the mixed findings on the relationship between entrepreneurship and stress reflect substantial variation in entrepreneurial tasks and roles and/or in the entrepreneur's fit with those tasks and roles. The entrepreneurial process often involves the identity roles of inventor, founder, and developer, and just as entrepreneurs likely differ in their passion across these different roles (Cardon et al., 2009), they also likely differ in the stress they experience from these different roles. For example, an individual who is passionate about the inventor role may feel more stress from the founder and/or developer roles. Underlying this passion-based conjecture of stress is an

implicit assumption that people are less stressed in domains about which they are passionate—an assumption worthy of further theorizing and empirical testing. Indeed, Brigham, De Castro, and Shepherd (2007) showed that entrepreneurs tend to be more satisfied when their primary decision-making style complements their firm's formalization and structure. Therefore, because entrepreneurs and ventures are heterogeneous, it is likely that the fit between the two will help clarify an entrepreneur's level of stress. While we are starting to gain a firmer grasp on the many tasks an entrepreneurial role requires (Chen, Greene, & Crick, 1998) and the ways these tasks change as a venture matures (Fichman & Levinthal, 1991; Shepherd, Douglas, & Shanley, 2000) and grows (Wasserman, 2008; Zimmerman & Zeitz, 2002) and as the entrepreneur prepares for exit (DeTienne, 2010; Wennberg, Wiklund, DeTienne, & Cardon, 2010), numerous opportunities still exist to learn more about how stress links to these entrepreneurial micro-tasks and multiple and changing roles.

Third, although time may reveal a pattern for how entrepreneurial tasks and roles change over time, sometimes the change is less predictable. For example, in dynamic environments—for instance, markets that are unstable as a result of continuing changes (Keats & Hitt, 1988)—the nature of tasks can transform and involves considerable role ambiguity. Role ambiguity has been shown to be a source of stress (Caplan & Jones, 1975; Rizzo, House, & Lirtzman, 1970), and these possible stressors are likely to be exacerbated in highly complex environments. Eisenhardt and Brown (1998) referred to managing entrepreneurial ventures in dynamic and complex environments (i.e., high-velocity environments) as managing on the edge of chaos. Entrepreneurs can face other environmental events, such as severe economic downturns (Bradley, Aldrich, Shepherd, & Wiklund, 2011), disruptive technologies (Carayannopoulos, 2009; Christensen, 1997), and emerging markets (George & Prabhu, 2000; Venkataraman, 2004). Future research can further explore the effect that competitive and natural environments have on entrepreneurs' stress, the mechanisms they use to effectively manage this stress, and the impact this stress has on the nature of entrepreneurial action (and the interesting feedback loops).

Level of stress and its health consequences. The above discussions are relevant to the extent that entrepreneurial stress causes health outcomes. Although this link is well established at high levels of stress, future research can deepen our understanding of this relationship. As we mentioned, lower levels of stress can actually improve health (Quick, Horn, &

Quick, 1987). As such, at what level does stress become unhealthy, and what explains differences among entrepreneurs in terms of the “optimal” level of stress? Further, when certain events do cause high levels of stress, it could be that some entrepreneurs are able to quickly cope with that stress, thereby reducing or eliminating any detrimental health consequences. We know, for example, that entrepreneurs utilize different strategies to cope with stress (Patzelt & Shepherd, 2011). However, is there a less negative relationship between initial stress and health for entrepreneurs with highly refined coping skills compared to those with less developed coping skills? In addition, physical exercise may have a direct positive influence on entrepreneurs’ health as well as an indirect positive impact on health, with physical exercise reducing stress (Nabkasorn et al., 2006; Salmon, 2001). Do entrepreneurs who are more physically fit (or engage in more physical exercise) experience less stress, or do they experience fewer of the health-related implications of a given level of stress or both? Future research can add to this body of knowledge in important ways by theorizing on and empirically testing mediators and moderators of the relationship between stress and health in the entrepreneurial context.

Pursuit of an Entrepreneurial Career, Emotion, and Health

Health has also been linked to emotions. Positive emotions have been found to be associated with optimal health and well-being and negative emotions with anxiety, depression, and stress-related health problems (Fredrickson, 2000; Tugade, Fredrickson, & Feldman Barrett, 2004). Further, research has linked entrepreneurial careers with positive emotional outcomes (Baum & Locke, 2004; Cardon et al., 2005, 2009; Smilor, 1997). For example, self-employment can lead to experiences of passion, “a consciously accessible, intense positive feeling” (Cardon et al., 2009, p. 7); excitement; happiness; flow (Komisar, 2000; Rai, 2008; Schindehutte, Morris, & Allen, 2006); and job satisfaction (Blanchflower, Oswald, & Stutzer, 2001; Bradley & Roberts, 2004; Thompson, Kopelman, & Schriesheim, 1992). Along with being linked to positive emotions, entrepreneurial action has also been linked to negative emotions, such as fear and anxiety (Boyd & Gumpert, 1983), loneliness and social isolation (Akanke, 1994; Hannafey, 2003), frustrations (Du Toit, 1980), and grief (Byrne & Shepherd, 2015; Jenkins, Wiklund, & Brundin, 2014; Shepherd, 2003), as well as the co-existence of highly positive and highly negative emotions (see Fong, 2006; Fong & Tiedens,

2002; Larsen, McGraw, & Cacioppo, 2001; Larsen, McGraw, Mellers, & Cacioppo, 2004). While it seems that entrepreneurial action can generate positive and negative emotions, there is insufficient theorizing and empirical research on the links between the emotions generated throughout the entrepreneurial process and their health consequences.

Positive emotions. First, a fine-grained investigation of the relationship between positive emotions and health might contribute to the literature by linking the generation of specific emotions to specific health outcomes in an entrepreneurial context (i.e., both positive emotions and health are multi-dimensional constructs). Furthermore, there are some questions about whether more is always better. For example, Cardon et al. (2009) proposed that there is an inverse U-shaped relationship between entrepreneurial passion and creative problem solving. Indeed, Vallerand et al. (2003) argued that the possible obsessiveness resulting from high levels of passion can result in negative health outcomes. Do continually increasing positive emotions have diminishing returns for an entrepreneur's health (or is there an optimal level of emotions after which further increases diminish health)? For example, at extremely high levels of passion, perhaps entrepreneurs do not allocate sufficient time for sleeping; exercise; or preventative actions, such as receiving regular doctor check-ups and eating healthy foods. Therefore, it is interesting to explore why some entrepreneurs' health benefits from positive emotions, such as passion, more than other entrepreneurs and why some may experience health problems from their highly positive emotional state. Perhaps these effects are different for different types of entrepreneurial passion (for more on the different types of entrepreneurial passion, see Cardon et al., 2009).

Second, although entrepreneurship can generate positive emotions, we assume there is heterogeneity in the extent of those positive emotions. Why do some entrepreneurs experience more positive emotions than others? Perhaps some entrepreneurs have a stronger "fit" with their ventures and thus generate more positive emotions from performing venture-related tasks. Perhaps in building and managing their ventures, some entrepreneurs use techniques that facilitate positive emotions, such as reflecting on (or engaging in) helping others (Seligman et al., 2005), undertaking cognitive reframing (Seligman, Rashid, & Parks, 2006), performing loving-kindness meditation (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008), and/or using humor (Folkman & Moskowitz, 2000; Menninger, 1963). If positive emotions are associated with improved health, it is important that future research explore how entrepreneurs are

able to generate positive emotions to improve health, whether there are indeed negative health outcomes for high levels of positive emotions and/or passion, and how entrepreneurs regulate positive emotions to avoid health problems.

Third, over and above the notion of fit, it is likely that entrepreneurs who do good for others, such as those who pursue potential opportunities to preserve the natural environment (Dean & McMullen, 2007), help maintain community and customs (Peredo & Chrisman, 2006), improve people's lives (Shepherd & Patzelt, 2011), and alleviate suffering (Shepherd & Williams, 2014; Williams & Shepherd, 2016, 2017), feel more positive emotions than those who create neutral or negative value for others. Research has found that acts of kindness toward others generate positive emotions in the giver (Buchanan & Bardi, 2010; Seligman et al., 2005). As we detail below, entrepreneurs can pursue opportunities that enhance the health of others. In doing so, the entrepreneur is doing good, which can generate positive emotions that enhance his or her health. That is, in helping to improve others' (or the natural environment's) health through their actions, entrepreneurs may be improving their own health. Such a relationship provides the basis for a virtuous prosocial spiral. Future research can provide explanations for what starts, perpetuates, and stops these prosocial spirals of entrepreneurship and health.

Negative emotions. First, the most severe negative emotional response in the entrepreneurial context appears to stem from business failure. The stream of research on this topic explores how the failure of an entrepreneurial project or business characterizes the loss of something important to the entrepreneur and thus causes a negative emotional reaction—namely, grief—which can inhibit learning from failure (Byrne & Shepherd, 2015; Shepherd, 2003). Although the psychology literature has established a strong link between grief and depression (Bruce, Kim, Leaf, & Jacobs, 1990; Clayton, 1990), anxiety-related disorders (Parkes & Weiss, 1983), increased doctor visits (Mor, McHorney, & Sherwood, 1986), poor physical health (Kaprio, Koskenvuo, & Rita, 1987), and higher risk of mortality (Kraus & Lilienfeld, 1959), research to date has failed to explore the health-related outcomes of entrepreneurial failure. This lack of research is surprising given the significant number of entrepreneurial businesses that fail every year. For example, 914,015 businesses filed for Chap. 7 bankruptcy in the USA in the year ending June 30, 2012 (uscourts.gov/FederalCourts/Bankruptcy.aspx). This number even understates failure because it ignores those businesses that simply closed or were forced into

an acquisition or merger to avoid legal bankruptcy. What are the health-related costs to entrepreneurs of failed business? If we find and can explain variance in grief and/or the relationship between grief and health, we might be a step closer toward helping a large number of entrepreneurs reduce the negative health implications of business failure. For example, perhaps the oscillation between a loss and a restoration orientation that reduces grief (Shepherd, 2003; Shepherd, Patzelt, & Wolfe, 2011) also reduces the negative health consequences of business or project failure. Although we have assumed that grief from failure is the most extreme negative emotion, such an assumption requires investigation. It could be that fear, loneliness, and concern can also have a substantial impact on entrepreneurial health. Again, to the extent researchers can unpack the construct of negative emotions (and, for that matter, grief) to enable a finer-grained investigation of how these different emotions have different health consequences, future research can make important contributions to the literature. As this is done, advances in emotion regulation may be found to have an important outcome in terms of entrepreneurs' health. Specifically, we could teach emotion regulation in entrepreneurship classes to help individuals maintain health during negative entrepreneurial events.

Second, while positive and negative emotions can co-exist (Fong, 2006; Fong & Tiedens, 2002; Larsen et al., 2001, 2004), positive emotions seem to be able to "undo" negative emotions as well as extend and build lasting personal resources (Fredrickson, 1998, 2001). Therefore, the negative health outcomes caused by negative emotions may be short lived in the presence of positive emotions because if the source of the health problem is eliminated, then so might its effect—the health problem. Therefore, the health consequences of a negative emotional reaction likely depend on how quickly those negative emotions can be reduced, which likely partly depends on the entrepreneur's experience of positive emotions. However, the undoing effect of positive emotions might not reverse some health problems, which may, once started, perpetuate or magnify even in the absence of the trigger—the negative emotional reaction. Future research can make a valuable contribution by exploring the generation of negative emotions throughout the entrepreneurial process, the type and extent of health problems arising from those negative emotions, and the ways the cause (i.e., negative emotions) or the consequence (i.e., health problems) can be reduced.

Finally, there is an opportunity for future research to explore how the entrepreneurial context facilitates (or constrains) the undoing effect of

positive emotions on negative emotions. Why is this undoing effect stronger for some entrepreneurs than others, in some ventures than in others, and in some environments than in others? For example, entrepreneurs with more emotional intelligence (Sonstroem & Morgan, 1989) may be more capable of using positive emotions to control and reduce negative emotions, or perhaps entrepreneurs in organizations (Huy, 1999) or families (Shepherd, 2009) that are more emotionally capable receive help in using positive emotions to undo negative emotions. Similarly, entrepreneurs in fast-moving environments (e.g., high-velocity markets [Eisenhardt & Brown, 1998]) may be more capable of using positive emotions to *rapidly* undo negative emotions. Future research is needed to explore the dynamic relationship between positive and negative emotions and its impact on health throughout the entrepreneurial process.

Pursuit of an Entrepreneurial Career, Socioeconomic Status, and Health

Individuals with low socioeconomic status are known to have, on average, worse health than those with high socioeconomic status in terms of minor ailments, such as headaches, and major health problems, including life-threatening disease and mortality (Matthews & Gallo, 2011). Indeed, there is a substantial health disparity between high and low socioeconomic groups (Chen & Miller, 2013; U.S. Department of Health and Human Services, 2012). Those from the lowest socioeconomic groups are two to seven times more likely to have repeat hospitalizations in one year (National Center for Health statistics) and three to five times more likely to face disease-related activity limitations (Braveman, Cubbin, Egerter, Williams, & Pamuk, 2010). Further, individuals of low socioeconomic status have fewer financial resources (in reserve or access to them) to reduce the stress from negative events (Cohen, Janicki-Deverts, & Miller, 2007; Everson-Rose & Lewis, 2005; Matthews & Gallo, 2011). They also have a diminished belief in their ability to master or control important aspects of their lives, low self-esteem, and low optimism about the future (Gallo & Matthews, 2003; Rasmussen, Scheier, & Greenhouse, 2009; Uchino, 2006), all of which together represent a diminished endowment of resilience resources for preventing health problems (Bosma, Schrijvers, & Mackenbach, 1999; Matthews, Gallo, & Taylor, 2010). Over and above an individual's socioeconomic status, the socioeconomic status of his or her neighborhood impacts that individual's

health (Pickett & Pearl, 2001). For example, individuals in low socioeconomic neighborhoods face greater asthma problems (Sternthal, Jun, Earls, & Wright, 2010; Wright et al., 2004), risk of cardiovascular disease (Sundquist et al., 2006), and disability and chronic pain (Coker, Smith, Bethea, King, & McKeown, 2000) and are more likely to witness violence (Buka, Stichick, Birdthistle, & Earls, 2001; Crouch, Hanson, Saunders, Kilpatrick, & Resnick, 2000; Margolin & Gordis, 2000). A consequence of violence in the neighborhood is fewer safe places to exercise, which has negative health consequences (Lovasi, Hutson, Guerra, & Neckerman, 2009). This is exacerbated by the limited access to healthy food in these neighborhoods (Lovasi et al., 2009) and greater noise pollution, air pollution, second-hand smoke, and crowding, all of which elevate health risks (Matthews & Gallo, 2011). These neighborhoods are also characterized by low social capital and an unwillingness to formulate and contribute to common goals (Coleman, 1988; Putnam, 2001; Sampson, Raudenbush, & Earls, 1997), which are in turn associated with cardiovascular disease (Chaix, Lindström, Rosvall, & Merlo, 2008; Sundquist et al., 2006), higher mortality risk (Lochner, Kawachi, Brennan, & Buka, 2003), and lower self-reported health (Kawachi, Kennedy, & Glass, 1999). Moreover, poorer families face greater financial stress that can negatively impact the quality of relationships among family members (Conger & Elder, 1994). This conflict and dysfunction have been found to be linked to negative health outcomes (Repetti, Taylor, & Seeman, 2002; Troxel & Matthews, 2004), including increased risk of asthma (Klinnert et al., 2001), diabetes (Miller-Johnson et al., 1994), and illness and mortality (Lundberg, 1993).¹ We propose that entrepreneurship may play a role in the relationship between health and socioeconomic status.

Pursuing an entrepreneurial career is not highly dependent on socioeconomic status. There are substantial institutional constraints to enhancing one's economic position. With low education, it is difficult (but not impossible) to climb the corporate ladder (Hartog & Oosterbeek, 2007; Pfeffer, 1977). Indeed, some high-paying jobs, such as those in medicine, architecture, law, and the sciences, require graduate degrees. Such education is financially expensive and time consuming (Nemetz & Cameron, 2006). Although entrepreneurship may be advanced by a university degree, people are less constrained by the lack of a (prestigious university) degree in achieving success in an entrepreneurial career than in employment (Van der Sluis, Van Praag, & Vijverberg, 2008). That is, an entrepreneurial career is based more on the value created for customers

than on the symbols of status that are useful in the political environment of employment (for such signals, see Spence, 1973), requires different criteria than those used for selection into university programs (Shepherd, Douglas, & Fitzsimmons, 2008), and benefits less from the static knowledge taught in some business schools (Ghoshal, 2005). Indeed, people facing career constraints, such as disability (Arnold & Seekins, 2002; Kendall et al., 2006) or discrimination (Kets de Vries, 1977; Scase & Goffee, 1987; Stanworth & Curran, 1976), often seek an entrepreneurial career (as discussed above).

An entrepreneurial career to change socioeconomic status. Second, although some studies have indicated that income, on average, drops moving from employment to self-employment (Blanchflower, 2004; Blanchflower & Shadforth, 2007), others have shown that entrepreneurs are wealthier than those in employment (Cagetti & De Nardi, 2006; Lazear, 2005; Nanda, 2008; Quadrini, 2000). Indeed, Carter (2011, pp. 44–45) argued that when we move from focusing on one individual's income to focusing on household wealth, we find a "tight relationship between being an 'entrepreneur' and being rich" (Cagetti & De Nardi, 2006, p. 838). Therefore, while employment can provide incremental adjustments to salary (based on performance or otherwise), entrepreneurship provides an opportunity to make a substantial shift in income (Cagetti & De Nardi, 2006; Lazear, 2005; Nanda, 2008; Quadrini, 2000). Although there is ample evidence of a link between socioeconomic status and health (as detailed above), many of the issues that Carter (2011) raised about capturing the economic implications of entrepreneurship apply to the socioeconomic status construct, and this indicates the need for "new multi-dimensional measures of economic well-being that provide a broader perspective on the variety of reward mechanisms available to the entrepreneur" (Carter, 2011, p. 46). Developing such measures and linking them to health are important challenges for future research.

A finer-grained understanding of socioeconomic status. As we conceptualize the economic well-being of individuals more broadly (e.g., "earnings, wealth, assets, savings, and pensions as well as highly subjective and individualized measures of consumption, lifestyle and living standards" [Carter, 2011, pp. 46–47] in the context of their household), we not only gain a deeper understanding of the impact of entrepreneurial action but also provide a basis for research on entrepreneurship and health. While an overarching measure of economic well-being is likely to be useful, there are many opportunities for future research on health and

entrepreneurship arising from a fine-grained analysis based on the underlying dimensions of socioeconomic status. That is, which dimensions of socioeconomic status are influenced (positively and negatively) by pursuing an entrepreneurial career (versus salaried employment), and what are the different health consequences of these different paths? For example, if becoming an entrepreneur lowers earnings but increases wealth, what is the likely overall impact on health? Specifically, which health problems are exacerbated by reduced income, and which problems are alleviated by increased wealth?

The irregularity of entrepreneurial income and health consequences. The irregularity of income from entrepreneurship may lead to decisions and actions that have health consequences. For example, we detailed above how the socioeconomic status of the community in which people live has health implications. Purchasing a house in a region with a higher socioeconomic status requires a larger mortgage (holding savings constant), and obtaining a larger mortgage is more difficult when future income is uncertain and irregular. Similarly, regular health insurance payments may also be more difficult with an uncertain, irregular income. Despite having a potentially higher mean income than those in employment (Cagetti & De Nardi, 2006; Lazear, 2005; Nanda, 2008; Quadrini, Quadrini, 2000), entrepreneurs may have highly variable and/or uncertain incomes. What are the health implications of the greater uncertainty and irregularity of entrepreneurs' income (and thereby socioeconomic status)?

Counter-intuitively, perhaps when it comes to entrepreneurial income, greater uncertainty and irregularity of socioeconomic status can even generate health benefits. For example, it appears that entrepreneurial households more readily adjust consumption (i.e., expenditure) in tough economic times and temper consumption in good times to save for a "rainy day" (Cagetti & De Nardi, 2006; Carter, 2011; Quadrini, 2000). One form of rainy day could be swiftly dealing with a health problem that would otherwise deteriorate without such savings.

The entrepreneurial process and socioeconomic status. The extent and nature of socioeconomic status derived from entrepreneurship may depend on where in the entrepreneurial process economic well-being is captured. For example, entrepreneurial income from creating a new venture is likely to be low, highly uncertain, and highly irregular early in the venture's life but high, certain, and regular once the business becomes established. That is, the positive link between entrepreneurship and health

from enhanced socioeconomic status will likely strengthen over time. However, even this more dynamic perspective requires a finer-grained analysis. More specifically, the uncertainty of income generated early in the entrepreneurial process may have a differential effect on different aspects of socioeconomic status, which can then affect different aspects of health. Also, as the venture ages, so too does the entrepreneur, meaning that some potential health problems may become more problematic. Future research can investigate the direct and indirect effects of time on the relationship between entrepreneurial action, socioeconomic status, and health.

Future research. In Fig.7.1, we offer a sketch of a model on the role of health in the pursuit of an entrepreneurial career as the basis for future research. The choice to pursue an entrepreneurial career can be influenced by an individual's health and health-related issues at least partly due to the flexibility it offers. The choice to pursue an entrepreneurial career can directly impact the individual's psychological, emotional, and socioeconomic status, or this impact can be indirect through psychological well-being and/or personal resources. An entrepreneurial career influences the individual's satisfaction of his or her needs for autonomy, belongingness, and competence, which can influence the entrepreneur's psychological and emotional states. An entrepreneurial career can also influence the

Fig. 7.1 A sketch of the role of health in the pursuit of an entrepreneurial career

individual's personal financial resources (which can impact socioeconomic status) and time resources. In turn, a change in socioeconomic status can influence personal finances, and personal resources (i.e., financial and time) can influence the pursuit of an entrepreneurial career. Indeed, all outcomes—psychological, emotional, and socioeconomic—can influence both the entrepreneur's health and his or her entrepreneurial career.

ENTREPRENEURSHIP AND THE HEALTH OF OTHERS

Entrepreneurs can impact the health of others through the opportunities they identify and exploit. To do so, entrepreneurs must believe that there is an opportunity for someone (third-person opportunity) to improve the health of others and that this identified opportunity is one that they personally want to pursue (first-person opportunity). Knowledge and motivation influence both the identification of opportunities and the evaluation that the identified opportunity is a personal opportunity (McMullen & Shepherd, 2006). Although the process of opportunity identification and exploitation to enhance health can be similar to the processes for all other opportunities that provide economic gain for the entrepreneur, we focus on aspects of the process specific to health. That is, entrepreneurs who identify and act on opportunities to enhance others' health likely attend to (at least some) different aspects of the environment and are motivated differently than entrepreneurs solely focused on economic gain (or other non-health-related outcomes). In the sections that follow, we explore the role of (1) personal experiences, (2) professional knowledge, and (3) prosocial motivation on the identification, evaluation, and exploitation of opportunities to enhance others' health.

Knowledge, Entrepreneurship, and Others' Health

Recognizing which individuals have prior knowledge of health problems in the community will likely point to the individuals who are best able to identify and act upon opportunities that improve others' health. While some people are fortunate enough to have good health and do not have to deal with health-related issues, other individuals are not as fortunate. Some individuals have health issues of their own, while others become acquainted with community health problems through their loved ones' medical issues. By either directly or indirectly experiencing health problems, individuals are not only able to more deeply understand the nuances

of these problems but also obtain more knowledge of current solutions and the ways these solutions fail to fully solve the problems at hand. This deeper understanding of community health problems and solutions can in turn lead to increased insight into latent demand. For example, after fleeing Vietnam in the 1980s, Han Pham got a bacterial infection from an accident with a “dirty” vaccination needle. When immigrating to Denmark, she entered a graduate program in design and came up with a solution for needle-stick injuries by developing the YellowOne Needle Cap design, a yellow plastic cap that fits on soft drink cans to accept discarded needles without letting them come out (www.designtoimprovelife.dk/antivirus).

Personally experiencing a health problem impacts the opportunity-identification process. First, personally experiencing a health problem likely provides deeper knowledge of the cause of the problem, the inter-related parts of the problem, and the inadequacy of current solutions. Second, does experiencing health problems motivate the sort of cognitive processes (e.g., analogical thinking [Grégoire & Shepherd, 2012]) and/or perseverance necessary for identifying potential opportunities? Perhaps high levels of motivation (from experiencing a health problem) generate an urgency that focuses attention on potentially rapid but superficial features (e.g., threatening symptoms of the health problem) rather than the deeper structural thinking often associated with opportunity identification (e.g., the underlying causes of and solutions to the health problem) (Grégoire, Barr, & Shepherd, 2010). Finally, do the consequences of experiencing health problems (e.g., pain, discomfort, distraction) obstruct opportunity identification? For example, is experiencing a health problem similar to dealing with negative emotions (Fredrickson, 1998) or appraised threats (Staw, Sandelands, & Dutton, 1981) in that it constricts thinking in a way that reduces creativity and encourages reliance on tried-and-tested current approaches? That is, some health problems may obstruct the knowledge and motivation usually gained from experiencing health problems, thereby preventing opportunity identification.

While it is likely that someone who either directly or indirectly experiences health problems is both knowledgeable and motivated to identify an opportunity for someone (i.e., have a third-person opportunity belief), that individual may not be adequately knowledgeable and motivated to act on the opportunity him- or herself (i.e., have a first-person opportunity belief). For example, exploiting an opportunity to introduce a product to solve people’s health problems likely necessitates knowledge of sector-specific production, marketing, and management as well as the

resources to go to market. For example, the invention of the YellowOne Needle Cap was based on Pham's knowledge about design gained at a design graduate school. An individual who creates a solution to overcome his or her own health-related problem and then uses that innovation may initiate (perhaps unintentionally) a process that results in the adoption, technical enhancement, and full-scale exploitation of the potential health opportunity. Indeed, research on this type of process could contribute to the stream of work building on user innovation research (Shah & Tripsas, 2007; von Hippel, 1988) to investigate health entrepreneurship. Since user innovation is likely a significant source of entrepreneurial actions that improve health, we argue that future research investigating this process among users of health-related technologies, products, and services is likely to make important contributions to the user innovation literature as well as to the (hopefully) emerging health-entrepreneurship literature.

Building on sources of knowledge other than health-related experiences. People who do not personally have health-related problems can still have the knowledge to first identify and then exploit opportunities that enhance health. Some individuals might have considerable knowledge of technologies that could be fashioned into health solutions. For example, engineer Dean Kamien realized that there was a lack of safe drinking water for many people in developing countries. He set out to, in his opinion, solve the biggest world problem because poor-quality drinking water is a major source of microbial pathogens, which, along with poor sanitation and hygiene, account for 1.7 million deaths per year (Ashbolt, 2004). Building on his knowledge of engineering and inventing things, Kamien came up with the Slingshot—a portable low-power water-purification system.² Future research can explore how people apply their knowledge of technology to a health problem that they have not personally experienced (including vicariously experienced health problems through loved ones). That is, how do individuals (e.g., engineers, technologists, inventors) find a health problem to solve? Perhaps they take an analytical approach of finding the biggest problem and setting out to solve it (as Dean Kamien did with the Slingshot), or maybe it involves some other selection process, such as perspective taking to develop a deep knowledge of the nature of the health problems people face. Indeed, it could be that not personally experiencing the health problem provides the level of detached perspective taking necessary to take the creative mental leaps for opportunity identification.

In particular, most medical professionals have developed in-depth knowledge of health problems from treating numerous patients, which could facilitate opportunity identification (Simmons, 2002). For instance, using patent data from the American Medical Association, Chatterji, Fabrizio, Mitchell, and Schulman (2008) demonstrated that doctors filed nearly 20% of all medical-device patents in the USA from 1990 to 1996. However, many medical professionals may be reluctant to act upon the potential opportunities they identify for reasons related to decreased desirability and/or a lack of apparent feasibility. There are likely to be high opportunity costs for doctors who choose to exploit opportunities (i.e., entrepreneurial action is less desirable), or they may believe they lack the personal knowledge needed to fully exploit an opportunity (i.e., entrepreneurial action is seen as infeasible). This type of scenario opens up numerous paths for future research.

Combining the identification of a health opportunity identified with its exploitation. When an opportunity to improve health is identified but not exploited, it represents a potentially wasted resource (and, worse, people may continue to suffer who otherwise would have benefited from the exploitation of the opportunity). Therefore, it is vital for researchers to question and empirically investigate our initial premise: do medical professionals detect health opportunities (third-person opportunities) that they do not end up personally acting upon? If so, why not? In the end, what happens to these potentially valuable opportunities that are recognized but not exploited? Perhaps the medical professionals who initially identify these ideas share them with their colleagues, who in turn ultimately agree that they do represent opportunities for someone but not for them due to their lack of knowledge and/or motivation to act upon them. However, some individuals do end up acting upon the opportunities they identify to improve health. Why do only some individuals do this and not others? Entrepreneurship programs could be a useful addition to medical professionals' education and training. Future research should investigate the characteristics and benefits (if any) of such entrepreneurship programs for medical professionals.

While researchers often view the entrepreneurial process as involving only one actor (e.g., one individual, team, and/or venture), this assumption is an artificial limitation to our conceptualization of the practice of entrepreneurship, especially when others' health is the outcome of that practice. When a medical professional identifies an opportunity but does not believe it represents a personally desirable or feasible opportunity, can

he or she “pass” the opportunity on to someone else with the knowledge and motivation needed to successfully exploit it? If we are able to gain deeper insights into the mechanisms behind a successful exchange of this type, we could uncover important practical implications for the ways organizations manage and reward medical professionals. In addition, new doctors who are educated about health problems but lack experience with current solutions could be important sources of new health-related innovations. Indeed, as research has shown, new entrants into an industry frequently introduce radical innovations (Anderson & Tushman, 1990; Christensen, 1997) because of their higher tendency to challenge the status quo. Do new medical professionals also do this? Again, although being a new entrant into the medical field may result in the identification of potential opportunities to solve health-related problems, the difficulties associated with exploitation could be even greater (yet different) for this group. For instance, new medical professionals generally spend their time and energy on learning and adapting their knowledge and expectations to fit their new roles (Pratt et al., 2006) and thus will have less time to consider an entrepreneurial endeavor “on the side.”

Motivation, Entrepreneurship, and Others' Health

As we mentioned earlier, an individual does not need to personally have health problems to identify and act on opportunities to improve others' health.

Prosocial motivation and the identification and exploitation of potential health-related opportunities. Some people naturally have prosocial motivations—“the desire to expend effort based on a concern for helping or contributing to other people” (Grant & Berry, 2011, p. 77)—which can in turn shape their cognitive processing (Kunda, 1990; Nickerson, 1998). For instance, Grant and Berry (2011) showed that prosocial motivation often leads to perspective taking that helps individuals become more creative in generalizing useful ideas. Perspective taking is “a cognitive process in which individuals adopt others' viewpoints in an attempt to understand their preferences, values, and needs” (Grant & Berry, 2011, p. 79), which provides insights into health problems that are needed to identify solutions to these problems. For example, although prosocial motivation does not exclude self-interested actions, to a certain extent, the “rubber meets the road” with patents (i.e., to what extent is the intellectual property protection–strategy consistent with a prosocial

motivation). For instance, in explaining why he did not seek patents for his Solar Ear (i.e., a hearing aid that was cheap, durable, and powered by solar energy), the founder Howard Weinstein explained that the cost of intellectual property protection would drive up the costs of the product and that he wanted the product to be copied and widely spread to address the health problem on the largest scale possible (<https://www.ashoka.org/fellow/howard-weinstein>). Therefore, prosocial motivation not only molds individuals' cognitions to provide knowledge about potentially valuable solutions to health problems but also motivates individuals to exploit these identified opportunities and informs the means and scope by which these potential opportunities are exploited.

Making a difference by acting entrepreneurially to solve health problems. Although prosocial motivation has been found to lead to perspective taking and ultimately useful innovations in employees (Grant & Berry, 2011), there is an opportunity to extend this research to better understand the nature of the relationship between entrepreneurship and health. Prosocially motivated individuals are likely drawn to those with health problems because such problems can cause considerable suffering. It is important to note that prosocial motivation does not preclude benefits accruing to the actor, only that the actor has a desire to (and hopefully creates outcomes that) help or contribute to other people (Grant, 2007; Grant & Berry, 2011). In a similar way, we propose that health entrepreneurship can generate profit for the entrepreneur but emphasize that it has the potential to enhance the health of others. Scholars can also investigate a phenomenon that can “make a difference”—with health as the dependent variable—while at the same time advancing their career by publishing high-quality highly impactful research. We hope that scholars will be prosocially motivated in their choice of research topics.

Differences across entrepreneurs in prosocial motivation. There is likely to be considerable heterogeneity among entrepreneurs in their prosocial motivation. What is the impact of heterogeneity in prosocial motivation on health entrepreneurship? Perhaps only highly prosocially motivated individuals identify and exploit health opportunities. Due to the high likelihood of financial success in this sector, however, it is more probable that a wide variety of entrepreneurs enter this sector. Thus, more fruitful research may come from trying to understand heterogeneity in the potential opportunities exploited in terms of entrepreneurs' prosocial motivation. For instance, do entrepreneurs with higher prosocial motivation act on health opportunities that are more radical compared to those

with lower prosocial motivation? If so, is it because these entrepreneurs tend to conduct more perspective taking to identify opportunities that are better at overcoming health problems (consistent with Grant & Berry, 2011), and/or does being prosocially motivated enhance entrepreneurs' willingness to accept uncertainty in order to exploit more radical potential opportunities? It could be that individuals who are more prosocially motivated are more interested in exploiting opportunities with the highest probability of relieving suffering. Scholars can also explore why some prosocially motivated entrepreneurs are attracted to opportunities that improve others' health problems while other prosocially motivated entrepreneurs are attracted to opportunities that help others' in non-health-related ways.

A potential dark side of prosocially motivated pursuits of potential health-related opportunities. The pursuit of potential opportunities that enhance the health of others can have a dark side—or at least research can explore this potential dark side: (1) Pursuing opportunities that improve others' health can itself lead to negative health consequences for entrepreneurs. While entrepreneurs are likely to gain some benefits to their psychological well-being from assisting others, doing so may also come with health costs (as discussed above). (2) As with all potential opportunities, potential health opportunities are characterized by uncertainty, and pursuing what one believes represents an opportunity may ultimately end in failure. What influence does such failure have on health? Does it negatively impact the health of those the entrepreneur was trying to assist (e.g., through false hope and early commitments) and/or the entrepreneur him- or herself? Maybe entrepreneurial grief is most severe when the business failure also means that others' suffering will persist because the business can no longer alleviate it. In this context, entrepreneurs are likely to be a vital source of health assistance to others, thus making the implications for their own health resulting from entrepreneurial actions even more important.

Future Research. In Fig. 7.2, we offer a sketch of a model of the impact of entrepreneurial action on others' health as the basis for future research. Knowledge of health, such as experience with a health problem (directly or indirectly) or from education and experience as a medical professional provides a basis for the identification and exploitation of potential opportunities to enhance health. However, this relationship is magnified by knowledge of technology and/or entrepreneurial knowledge, both of which facilitate finding a (technically and commercially appropriate)

Fig. 7.2 A sketch of the role of entrepreneurial action in enhancing others' health

solution to health problems. Prosocial motivation can directly impact the pursuit of a potential opportunity to enhance others' health as well as indirectly impact this pursuit by facilitating perspective taking. The pursuit of such potential opportunities may not only enhance others' health but also generate (intrinsic and extrinsic) rewards for the entrepreneur. As indicated in the previous section (and illustrated in this figure), the outcomes of entrepreneurial action can impact the entrepreneur's personal health, which can impact his or her knowledge, personal motivation, and subsequent entrepreneurial action.

DISCUSSION AND CONCLUSION

Health is an important topic as health problems cause suffering. In this chapter, we propose that an entrepreneurial career can impact the entrepreneur's health and that a person who acts entrepreneurially can enhance others' health. Entrepreneurship scholars have a good idea of how entrepreneurial action generates economic benefits for the entrepreneur (Cagetti & De Nardi, 2006; Lazear, 2005; Nanda, 2008; Quadri, 2000) and the local economy (Audretsch & Feldman, 2004; Audretsch & Thurik, 2001), and there is growing understanding of how entrepreneurship can impact the natural environment (Dean & McMullen, 2007; Patzelt & Shepherd, 2011) and communities (Peredo & Chrisman, 2006; Shepherd & Williams, 2014; see also Chap. 5). We provide a first step and a roadmap for ways entrepreneurship scholars can extend current research efforts to build a better understanding of how entrepreneurship impacts health (of the entrepreneur and others) and how health impacts entrepreneurship.

In the face of criticism that a threat to entrepreneurship as a field is that it lacks a "unifying" dependent variable, we interpret this as a rich opportunity throughout this book in general and in this chapter specifically. Indeed, entrepreneurship as the nexus of opportunity and individuals provides entrepreneurship scholars the chance to apply and extend our trade to society's most important problems—such as health—at varying levels of analysis. Although social entrepreneurship primarily focuses on developing economies, health problems exist locally in all economies. That is, entrepreneurship scholars can do research in their local community and make a difference. Many health problems appear to vary across regions. Rather than focus on some omnibus measure of health, we have the opportunity to exploit specific health problems (e.g., visual problems, obesity,

and childhood asthma). However, which problems should entrepreneurship scholars research first? Similar to an individual who experiences a health problem (directly through his or her personal health or indirectly through an unhealthy family member) identifying and pursuing a potential opportunity, entrepreneurship scholars may draw on their idiosyncratic knowledge of health problems and their personal motivations to identify potential research opportunities to deepen our understanding of the relationship between entrepreneurial action and specific health outcomes.

As we develop this deeper understanding of the role that entrepreneurship plays in enhancing health outcomes, we complement the body of research on health innovation in large established organizations. We are not saying that research on large established organizations' health innovations is not important—clearly it is—but that the actions of entrepreneurial individuals and teams also generate positive health outcomes and require researchers' attention. We hope that this chapter's proposed research agenda inspires scholars to develop this important research stream and, in doing so, contribute to both enhancing scholarship and improving people's lives.

NOTES

1. We also acknowledge that poor health can reduce socioeconomic status. For example, poor health can be costly in terms of money and time (Poterba, Venti, & Wise, 2013) and negatively impact salary increases and promotion.
2. The system is called the Slingshot based on the story of David taking down the giant Goliath with his slingshot. Kamen views bad water as the Goliath of the current century, with little villages (Davids) having to fight it with the Slingshot (<http://www.wired.com/2008/03/colbert-and-kam>).

REFERENCES

- Akande, A. (1994). Coping with entrepreneurial stress: Evidence from Nigeria. *Journal of Small Business Management*, 32(1), 83–87.
- Anderson, E., & Shivakumar, G. (2015). Effects of exercise and physical activity on anxiety. In F. B. Schuch, N. Rocha, & E. L. Cadore (Eds.), *Progress in physical activity and exercise and affective and anxiety disorders: Translational studies, perspectives and future directions* (pp. 46–49. [Frontiers in Psychiatry]).

- Anderson, P., & Tushman, M. L. (1990). Technological discontinuities and dominant designs: A cyclical model of technological change. *Administrative Science Quarterly*, 35(4), 604–633.
- Arnold, N. L., & Seekins, T. (2002). Self-employment: A process for use by vocational rehabilitation agencies. *Journal of Vocational Rehabilitation*, 17(2), 107–113.
- Aschemann-Witzel, J., & Hamm, U. (2010). Do consumers prefer foods with nutrition and health claims? Results of a purchase simulation. *Journal of Marketing Communications*, 16(1–2), 47–58.
- Ashbolt, N. J. (2004). Microbial contamination of drinking water and disease outcomes in developing regions. *Toxicology*, 198(1), 229–238.
- Audretsch, D. B., & Thurik, A. R. (2001). What's new about the new economy? Sources of growth in the managed and entrepreneurial economies. *Industrial and Corporate Change*, 10(1), 267–315.
- Audretsch, D. B., & Feldman, M. P. (2004). Knowledge spillovers and the geography of innovation. In J. V. Henderson & J.-F. Thisse (Eds.), *Handbook of regional and urban economics* (Vol. 4, pp. 2713–2739). San Diego, CA: Elsevier.
- Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329–366.
- Baron, R. A. (2008). The role of affect in the entrepreneurial process. *Academy of Management Review*, 33(2), 328–340.
- Batavia, A. I., & Schriener, K. (2001). The Americans with disabilities act as engine of social change: Models of disability and the potential of a civil rights approach. *Policy Studies Journal*, 29(4), 690–702.
- Baum, J. R., & Locke, E. A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 89(4), 587–598.
- Benner, M. J., & Tushman, M. (2007). Process management, technological innovation, and organizational adaptation. In V. Grover & M. L. Markus (Eds.), *Business process transformation* (pp. 317–326). New York: Routledge.
- Bird, B., & Jelinek, M. (1988). The operation of entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 13(2), 21–29.
- Blanchflower, D. G. (2004). Self-employment: More may not be better. National Bureau of Economic Research.
- Blanchflower, D. G., Oswald, A., & Stutzer, A. (2001). Latent entrepreneurship across nations. *European Economic Review*, 45(4), 680–691.
- Blanchflower, D., & Shadforth, C. (2007). Entrepreneurship in the UK. *Foundations and Trends in Entrepreneurship*, 3(4), 257–364.
- Bonanno, G. A. (2004). Loss, trauma, and human resilience. *American Psychologist*, 59(1), 20–28.

- Bonanno, G. A., Papa, A., & O'Neill, K. (2001). Loss and human resilience. *Applied and Preventive Psychology*, 10(3), 193–206.
- Bono, J., Glomb, T., Shen, W., Kim, E., & Koch, A. (2013). Building positive resources: Effects of positive events and positive reflection on work-stress and health. *Academy of Management Journal*, 56(6), 1601–1627.
- Bosma, H., Schrijvers, C., & Mackenbach, J. P. (1999). Socioeconomic inequalities in mortality and importance of perceived control: Cohort study. *British Medical Journal*, 319(7223), 1469–1470.
- Boyd, D. P., & Gumpert, D. E. (1983). Coping with entrepreneurial stress. *Harvard Business Review*, 61(2), 44–64.
- Bradley, S. W., Aldrich, H. E., Shepherd, D. A., & Wiklund, J. (2011). Resources, environmental change, and survival: Asymmetric paths of young independent and subsidiary organizations. *Strategic Management Journal*, 32(5), 486–509.
- Bradley, D. E., & Roberts, J. A. (2004). Self-Employment and job satisfaction: Investigating the role of self-efficacy, depression, and seniority. *Journal of Small Business Management*, 42(1), 37–58.
- Braveman, P. A., Cubbin, C., Egerter, S., Williams, D. R., & Pamuk, E. (2010). Socioeconomic disparities in health in the United States: What the patterns tell us. *American Journal of Public Health*, 100(S1), S186–S196.
- Brigham, K. H., De Castro, J. O., & Shepherd, D. A. (2007). A person-organization fit model of owner-managers' cognitive style and organizational demands. *Entrepreneurship Theory and Practice*, 31(1), 29–51.
- Brown, T. E., Davidsson, P., & Wiklund, J. (2001). An operationalization of Stevenson's conceptualization of entrepreneurship as opportunity-based firm behavior. *Strategic Management Journal*, 22(10), 953–968.
- Brownley, K., Hurwitz, B., & Schneiderman, N. (2000). Cardiovascular psychophysiology. In J. Cacioppo, L. Tassinary, & G. Berntson (Eds.), *Handbook of psychophysiology* (2nd ed., pp. 224–264). New York: Cambridge University.
- Bruce, M. L., Kim, K., Leaf, P. J., & Jacobs, S. (1990). Depressive episodes and dysphoria resulting from conjugal bereavement in a prospective community sample. *American Journal of Psychiatry*, 147(5), 608–611.
- Buchanan, K. E., & Bardi, A. (2010). Acts of kindness and acts of novelty affect life satisfaction. *Journal of Social Psychology*, 150(3), 235–237.
- Buka, S. L., Stichick, T. L., Birdthistle, I., & Earls, F. J. (2001). Youth exposure to violence: Prevalence, risks, and consequences. *American Journal of Orthopsychiatry*, 71(3), 298–310.
- Buttner, E. H. (1992). Entrepreneurial stress: Is it hazardous to your health. *Journal of Managerial Issues*, 4(3), 223–240.
- Byrne, O., & Shepherd, D. A. (2015). Different strokes for different folks: Entrepreneurial narratives of emotion, cognition, and making sense of business failure. *Entrepreneurship Theory and Practice*, 39(2), 375–405.

- Cagetti, M., & De Nardi, M. (2006). Entrepreneurship, frictions, and wealth. *Journal of Political Economy*, 114(5), 835–870.
- Callahan, M., ShumPERT, N., & Mast, M. (2002). Self-employment, choice and self-determination. *Journal of Vocational Rehabilitation*, 17(2), 75–85.
- Camacho, T. C., Roberts, R. E., Lazarus, N. B., Kaplan, G. A., & Cohen, R. D. (1991). Physical activity and depression: Evidence from the Alameda county study. *American Journal of Epidemiology*, 134(2), 220–231.
- Caplan, R. D., & Jones, K. W. (1975). Effects of work load, role ambiguity, and type A personality on anxiety, depression, and heart rate. *Journal of Applied Psychology*, 60(6), 713.
- Carayannopoulos, S. (2009). How technology-based new firms leverage newness and smallness to commercialize disruptive technologies. *Entrepreneurship Theory and Practice*, 33(2), 419–438.
- Cardon, M. S., Zietsma, C., Saporito, P., Matherne, B. P., & Davis, C. (2005). A tale of passion: New insights into entrepreneurship from a parenthood metaphor. *Journal of Business Venturing*, 20(1), 23–45.
- Cardon, M. S., Wincent, J., Shigh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3), 511–532.
- Carter, S. (2011). The rewards of entrepreneurship: Exploring the incomes, wealth, and economic well-being of entrepreneurial households. *Entrepreneurship Theory and Practice*, 35(1), 39–55.
- Chaix, B., Lindström, M., Rosvall, M., & Merlo, J. (2008). Neighbourhood social interactions and risk of acute myocardial infarction. *Journal of Epidemiology and Community Health*, 62(1), 62–68.
- Chatterji, A. K., Fabrizio, K. R., Mitchell, W., & Schulman, K. A. (2008). Physician-industry cooperation in the medical device industry. *Health Affairs*, 27(6), 1532–1543.
- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13(4), 295–316.
- Chen, E., & Miller, G. E. (2013). Socioeconomic status and health: Mediating and moderating factors. *Annual Review of Clinical Psychology*, 9, 723–749.
- Christensen, C. (1997). *The innovator's dilemma: When new technologies cause great firms to fail*. Boston, MA: Harvard Business Press.
- Christian, M. S., & Ellis, A. P. (2011). Examining the effects of sleep deprivation on workplace deviance: A self-regulatory perspective. *Academy of Management Journal*, 54(5), 913–934.
- Clayton, P. J. (1990). Bereavement and depression. *Journal of Clinical Psychiatry*, 51, S34–S40.
- Cohen, S., Janicki-Deverts, D., & Miller, G. E. (2007). Psychological stress and disease. *Journal of the American Medical Association*, 298(14), 1685–1687.

- Coker, A. L., Smith, P. H., Bethea, L., King, M. R., & McKeown, R. E. (2000). Physical health consequences of physical and psychological intimate partner violence. *Archives of Family Medicine*, 9(5), 451–457.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, 95–120.
- Conger, R., & Elder, G. H. (1994). *Families in troubled times*. Hawthorne, NY: Aldine de Gruyter.
- Crouch, J. L., Hanson, R. F., Saunders, B. E., Kilpatrick, D. G., & Resnick, H. S. (2000). Income, race/ethnicity, and exposure to violence in youth: Results from the national survey of adolescents. *Journal of Community Psychology*, 28(6), 625–641.
- Dean, T. J., & McMullen, J. S. (2007). Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action. *Journal of Business Venturing*, 22(1), 50–76.
- Deborah, H. F., & William, R. S. (2000). Friendship within entrepreneurial teams and its association with team and venture performance. *Entrepreneurship Theory and Practice*, 25(2), 5–21.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deeds, D. L., Decarolis, D., & Coombs, J. E. (1999). The impact of firm-specific capabilities on the amount of capital raised in an initial public offering: An empirical investigation of the biotechnology industry. *Strategic Management Journal*, 20, 953–968.
- DeLongis, A., Folkman, S., & Lazarus, R. S. (1988). The impact of daily stress on health and mood: Psychological and social resources as mediators. *Journal of Personality and Social Psychology*, 54(3), 486–495.
- DeTienne, D. R. (2010). Entrepreneurial exit as a critical component of the entrepreneurial process: Theoretical development. *Journal of Business Venturing*, 25(2), 203–215.
- Donaldson, J. M., & Watson, R. (1996). Loneliness in elderly people: An important area for nursing research. *Journal of Advanced Nursing*, 24(5), 952–959.
- Du Toit, D. F. (1980). Confessions of a successful entrepreneur. *Harvard Business Review*, 58(6), 44–58.
- Eden, D. (1975). Organizational membership vs. self-employment: Another blow to the American dream. *Organizational Behavior and Human Performance*, 13(1), 79–94.
- Eisenhardt, K. M., & Brown, S. L. (1998). Competing on the edge: Strategy as structured chaos. *Long Range Planning*, 31(5), 786–789.
- Evans, A. G., & Varaiya, N. P. (2003). Assessment of a biotech market opportunity. *Entrepreneurship Theory and Practice*, 28(1), 87–105.
- Everson-Rose, S. A., & Lewis, T. T. (2005). Psychosocial factors and cardiovascular diseases. *Annual Review of Public Health*, 26, 469–500.

- Faravelli, C., & Pallanti, S. (1989). Recent life events and panic disorder. *American Journal of Psychiatry*, 146(5), 622–626.
- Fichman, M., & Levinthal, D. A. (1991). Honeymoons and the liability of adolescence: A new perspective of duration dependence in social and organizational relationships. *Academy of Management Review*, 16(2), 442–468.
- Finlay-Jones, R., & Brown, G. W. (1981). Types of stressful life event and the onset of anxiety and depressive disorders. *Psychological Medicine*, 11(4), 803–815.
- Florian, V., Mikulincer, M., & Taubman, O. (1995). Does hardiness contribute to mental health during a stressful real-life situation? The roles of appraisal and coping. *Journal of Personality and Social Psychology*, 68(4), 687.
- Folkman, S., & Moskowitz, J. T. (2000). Stress, positive emotion, and coping. *Current Directions in Psychological Science*, 9(4), 115–118.
- Fong, C. T. (2006). The effects of emotional ambivalence on creativity. *Academy of Management Journal*, 49(5), 1016–1030.
- Fong, C. T., & Tiedens, L. Z. (2002). Dueling experiences and dual ambivalences: Emotional and motivational ambivalence of women in high status positions. *Motivation and Emotion*, 26(1), 105–121.
- Forbes, D. P., Borchert, P. S., Zellmer-Bruhn, M. E., & Sapienza, H. J. (2006). Entrepreneurial team formation: An exploration of new member addition. *Entrepreneurship Theory and Practice*, 30(2), 225–248.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2(3), 300–319.
- Fredrickson, B. L. (2000). Cultivating positive emotions to optimize health and well-being. *Prevention and Treatment*, 3(1), 1–25.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218–226.
- Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open hearts build lives: Positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology*, 95(5), 1045.
- Gallo, L. C., & Matthews, K. A. (2003). Understanding the association between socioeconomic status and physical health: Do negative emotions play a role? *Psychological Bulletin*, 129(1), 10.
- George, G., & Prabhu, G. N. (2000). Developmental financial institutions as catalysts of entrepreneurship in emerging economies. *Academy of Management Review*, 25(3), 620–629.
- Ghoshal, S. (2005). Bad management theories are destroying good management practices. *Academy of Management Learning and Education*, 4(1), 75–91.
- Goldsby, M. G., Kuratko, D. F., & Bishop, J. W. (2005). Entrepreneurship and fitness: An examination of rigorous exercise and goal attainment among small business owners. *Journal of Small Business Management*, 43(1), 78–92.

- Goldstein, S. M., & Iossifova, A. R. (2012). Ten years after: Interference of hospital slack in process performance benefits of quality practices. *Journal of Operations Management*, 30(1), 44–54.
- Goodstein, J., Gautam, K., & Boeker, W. (1994). The effects of board size and diversity on strategic change. *Strategic Management Journal*, 15(3), 241–250.
- Grant, A. M. (2007). Relational job design and the motivation to make a prosocial difference. *Academy of Management Review*, 32(2), 393–417.
- Grant, A. M., & Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal*, 54(1), 73–96.
- Grégoire, D. A., Barr, P. S., & Shepherd, D. A. (2010). Cognitive processes of opportunity recognition: The role of structural alignment. *Organization Science*, 21(2), 413–431.
- Grégoire, D. A., & Shepherd, D. A. (2012). Technology-market combinations and the identification of entrepreneurial opportunities: An investigation of the opportunity-individual nexus. *Academy of Management Journal*, 55(4), 753–785.
- Grzywacz, J. G., & Bass, B. L. (2003). Work, family, and mental health: Testing different models of work-family fit. *Journal of Marriage and Family*, 65(1), 248–261.
- Gumpert, D. E., & Boyd, D. P. (1984). The loneliness of the small business owner. In H. Levinson (Ed.), *Designing and managing your career*. Boston, MA: Harvard Business School Publishing.
- Hagner, D., & Davies, T. (2002). “Doing my own thing”: Supported self-employment for individuals with cognitive disabilities. *Journal of Vocational Rehabilitation*, 17(2), 65–74.
- Hammen, C. (2005). Stress and depression. *Annual Review of Clinical Psychology*, 1, 293–319.
- Hannafey, F. T. (2003). Entrepreneurship and ethics: A literature review. *Journal of Business Ethics*, 46(2), 99–110.
- Harris, J. A., Saltstone, R., & Fraboni, M. (1999). An evaluation of the job stress questionnaire with a sample of entrepreneurs. *Journal of Business and Psychology*, 13(3), 447–455.
- Hartog, J., & Oosterbeek, H. (2007). What should you know about private returns to education. In J. Hartog & H. M. v. d. Brink (Eds.), *Human capital: Moving the Frontier*. Cambridge, UK: Cambridge University Press.
- Hawkey, L. C., & Cacioppo, J. T. (2010). Loneliness matters: A theoretical and empirical review of consequences and mechanisms. *Annals of Behavioral Medicine*, 40(2), 218–227.
- Haws, K., & Winterich, K. (2013). When value trumps health in a supersized world. *Journal of Marketing*, 77(3), 48.
- Haynie, J. M., & Shepherd, D. A. (2011). Toward a theory of discontinuous career transition: Investigating career transitions necessitated by traumatic life events. *Journal of Applied Psychology*, 96(3), 501–524.

- Hazer, O., & Boylu, A. A. (2010). The examination of the factors affecting the feeling of loneliness of the elderly. *Procedia-Social and Behavioral Sciences*, 9, 2083–2089.
- Hemingway, H., & Marmot, M. (1999). Evidence based cardiology-psychosocial factors in the aetiology and prognosis of coronary heart disease: Systematic review of prospective cohort studies. *British Medical Journal*, 318(7196), 1460–1467.
- Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLoS Medicine*, 7(7), e1000316.
- Huy, Q. N. (1999). Emotional capability, emotional intelligence, and radical change. *Academy of Management Review*, 24(2), 325–345.
- Ibarra, H., & Barbulescu, R. (2010). Identity as narrative: Prevalence, effectiveness, and consequences of narrative identity work in macro work role transitions. *Academy of Management Review*, 35(1), 135–154.
- Jamal, M., & Badawi, J. A. (1995). Job stress and quality of working life of self-employed immigrants: A study in workforce diversity. *Journal of Small Business & Entrepreneurship*, 12(1), 55–63.
- Jenkins, A. S., Wiklund, J., & Brundin, E. (2014). Individual responses to firm failure: Appraisals, grief, and the influence of prior failure experience. *Journal of Business Venturing*, 29(1), 17–33.
- Kampert, J. B., Blair, S. N., Barlow, C. E., & Kohl, H. W. (1996). Physical activity, physical fitness, and all-cause and cancer mortality: A prospective study of men and women. *Annals of Epidemiology*, 6(5), 452–457.
- Kaprio, J., Koskenvuo, M., & Rita, H. (1987). Mortality after bereavement: A prospective study of 95,647 widowed persons. *American Journal of Public Health*, 77(3), 283–287.
- Katila, R., & Ahuja, G. (2002). Something old, something new: A longitudinal study of search behavior and new product introduction. *Academy of Management Journal*, 45(6), 1183–1194.
- Katzmarzyk, P. T., Janssen, I., & Ardern, C. I. (2003). Physical inactivity, excess adiposity and premature mortality. *Obesity Reviews*, 4(4), 257–290.
- Kawachi, I., Kennedy, B. P., & Glass, R. (1999). Social capital and self-rated health: A contextual analysis. *American Journal of Public Health*, 89(8), 1187–1193.
- Keats, B. W., & Hitt, M. A. (1988). A causal model of linkages among environmental dimensions, macro organizational characteristics, and performance. *Academy of Management Journal*, 31(3), 570–598.
- Kendall, E., Buys, N., Charker, J., & MacMillan, S. (2006). Self employment: An underutilized rehabilitation strategy. *Journal of Vocational Rehabilitation*, 25, 197–205.
- Kendler, K. S., Karkowski, L. M., & Prescott, C. A. (1999). Causal relationship between stressful life events and the onset of major depression. *American Journal of Psychiatry*, 156(6), 837–841.

- Kets De Vries, M. (1977). The entrepreneurial personality: A person at the cross-roads. *Journal of Management Studies*, 14(1), 34–57.
- Kets de Vries, M. (1980). Stress and the entrepreneur. In C. L. Cooper & R. Payne (Eds.), *Current concerns in occupational stress*. New York: John Wiley and Sons.
- Klinnert, M. D., Nelson, H. S., Price, M. R., Adinoff, A. D., Leung, D. Y., & Mrazek, D. A. (2001). Onset and persistence of childhood asthma: Predictors from infancy. *Pediatrics*, 108(4), e69–e69.
- Komisar, R. (2000). Goodbye career, hello success. *Harvard Business Review*, 78(2), 160–174.
- Kraus, A. S., & Lilienfeld, A. M. (1959). Some epidemiologic aspects of the high mortality rate in the young widowed group. *Journal of Chronic Diseases*, 10(3), 207–217.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3), 480–498.
- LaGanga, L. R. (2011). Lean service operations: Reflections and new directions for capacity expansion in outpatient clinics. *Journal of Operations Management*, 29(5), 422–433.
- Larsen, J. T., McGraw, A. P., & Cacioppo, J. T. (2001). Can people feel happy and sad at the same time? *Journal of Personality and Social Psychology*, 81(4), 684–696.
- Larsen, J. T., McGraw, A. P., Mellers, B. A., & Cacioppo, J. T. (2004). The agony of victory and thrill of defeat mixed emotional reactions to disappointing wins and relieving losses. *Psychological Science*, 15(5), 325–330.
- Lazarus, R. S. (1990). Theory-based stress measurement. *Psychological Inquiry*, 1(1), 3–13.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, 1(3), 141–169.
- Lazear, E. M. (2005). Entrepreneurship. *Journal of Labor Economics*, 23(4), 649–680.
- Lewin-Epstein, N., & Yuchtman-Yaar, E. (1991). Health risks of self-employment. *Work and Occupations*, 18(3), 291–312.
- Lochner, K. A., Kawachi, I., Brennan, R. T., & Buka, S. L. (2003). Social capital and neighborhood mortality rates in Chicago. *Social Science & Medicine*, 56(8), 1797–1805.
- Lovasi, G. S., Hutson, M. A., Guerra, M., & Neckerman, K. M. (2009). Built environments and obesity in disadvantaged populations. *Epidemiologic Reviews*, 31(1), 7–20.
- Lundberg, O. (1993). The impact of childhood living conditions on illness and mortality in adulthood. *Social Science & Medicine*, 36(8), 1047–1052.
- Macan, T. H. (1994). Time management: Test of a process model. *Journal of Applied Psychology*, 79(3), 381–391.

- Margolin, G., & Gordis, E. B. (2000). The effects of family and community violence on children. *Annual Review of Psychology*, 51(1), 445–479.
- Matthews, K. A., Gallo, L. C., & Taylor, S. E. (2010). Are psychosocial factors mediators of socioeconomic status and health connections? In N. E. Adler & J. Stewart (Eds.), *Annals of the New York academy of sciences* (Vol. 1186, pp. 146–173). New York: Wiley.
- Matthews, K. A., & Gallo, L. C. (2011). Psychological perspectives on pathways linking socioeconomic status and physical health. *Annual Review of Psychology*, 62, 501.
- Maurer, I., & Ebers, M. (2006). Dynamics of social capital and their performance implications: Lessons from biotechnology start-ups. *Administrative Science Quarterly*, 51(2), 262–292.
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31(1), 132–152.
- Menninger, K. (1963). *The vital balance: The life process in mental health and illness*. New York: Viking.
- Miller-Johnson, S., Emery, R. E., Marvin, R. S., Clarke, W., Lovinger, R., & Martin, M. (1994). Parent-child relationships and the management of insulin-dependent diabetes mellitus. *Journal of Consulting and Clinical Psychology*, 62(3), 603–610.
- Molloy, G. J., McGee, H. M., O'Neill, D., & Conroy, R. M. (2010). Loneliness and emergency and planned hospitalizations in a community sample of older adults. *Journal of the American Geriatrics Society*, 58(8), 1538–1541.
- Mor, V., McHorney, C., & Sherwood, S. (1986). Secondary morbidity among the recently bereaved. *The American Journal of Psychiatry*, 143, 158–163.
- Nabkasorn, C., Miyai, N., Sootmongkol, A., Junprasert, S., Yamamoto, H., Arita, M., & Miyashita, K. (2006). Effects of physical exercise on depression, neuroendocrine stress hormones and physiological fitness in adolescent females with depressive symptoms. *The European Journal of Public Health*, 16(2), 179–184.
- Nanda, R. (2008). Cost of external finance and selection into entrepreneurship. *Harvard Business School Entrepreneurial Management Working Paper*. Cambridge, MA: Harvard Business School.
- Nemetz, P. L., & Cameron, A. (2006). Higher education out of control: Regaining strategic focus in an age of diminishing resources. *Academy of Management Learning & Education*, 5(1), 38–51.
- Nicholson, N. (1984). A theory of work role transitions. *Administrative Science Quarterly*, 29(2), 172–191.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2(2), 175–220.
- Oh, C. H., & Oetzel, J. (2011). Multinationals' response to major disasters: How does subsidiary investment vary in response to the type of disaster and

- the quality of country governance? *Strategic Management Journal*, 32(6), 658–681.
- Parasuraman, S., & Simmers, C. A. (2001). Type of employment, work–family conflict and well-being: A comparative study. *Journal of Organizational Behavior*, 22(5), 551–568.
- Parkes, C. M., & Weiss, R. S. (1983). *Recovery from bereavement*. New York: Basic Books.
- Patzelt, H., & Shepherd, D. A. (2011). Negative emotions of an entrepreneurial career: Self-employment and regulatory coping behaviors. *Journal of Business Venturing*, 26(2), 226–238.
- Patzelt, H., Shepherd, D. A., Deeds, D., & Bradley, S. W. (2008). Financial slack and venture managers' decisions to seek a new alliance. *Journal of Business Venturing*, 23(4), 465–481.
- Peredo, A. M., & Chrisman, J. J. (2006). Toward a theory of community-based enterprise. *Academy of Management Review*, 31(2), 309–328.
- Pfeffer, J. (1977). Effects of an MBA and socioeconomic origins on business school graduates' salaries. *Journal of Applied Psychology*, 62(6), 698–705.
- Pickett, K. E., & Pearl, M. (2001). Multilevel analyses of neighbourhood socioeconomic context and health outcomes: A critical review. *Journal of Epidemiology and Community Health*, 55(2), 111–122.
- Poterba, J. M., Venti, S. F., & Wise, D. A. (2013). *Health, education, and the post-retirement evolution of household assets* (No. w18695). National Bureau of Economic Research.
- Poterba, J. M., Venti, S. F., & Wise, D. A. (2010). *The asset cost of poor health* (No. w16389). National Bureau of Economic Research.
- Prakash, R. S., Voss, M. W., Erickson, K. I., & Kramer, A. F. (2015). Physical activity and cognitive vitality. *Annual Review of Psychology*, 66, 769–797.
- Pratt, M. G., Rockmann, K. W., & Kaufmann, J. B. (2006). Constructing professional identity: The role of work and identity learning cycles in the customization of identity among medical residents. *Academy of Management Journal*, 49(2), 235–262.
- Putnam, R. D. (2001). *Bowling alone: The collapse and revival of American community*. New York: Simon and Schuster.
- Quadrini, V. (2000). Entrepreneurship, saving, and social mobility. *Review of Economic Dynamics*, 3(1), 1–40.
- Queenan, C. C., Angst, C. M., & Devaraj, S. (2011). Doctors' orders—If they're electronic, do they improve patient satisfaction? A complements/substitutes perspective. *Journal of Operations Management*, 29(7), 639–649.
- Quick, J. D., Horn, R. S., & Quick, J. C. (1987). Health consequences of stress. *Journal of Organizational Behavior Management*, 8(2), 19–36.
- Rahim, A. (1996). Stress, strain, and their moderators: An empirical comparison of entrepreneurs and managers. *Journal of Small Business Management*, 34(1), 46–58.

- Rai, S. K. (2008). Indian entrepreneurs: An empirical investigation of entrepreneur's age and firm entry, type of ownership and risk behaviour. *Journal of Services Research*, 8(1), 213–228.
- Rasmussen, H. N., Scheier, M. F., & Greenhouse, J. B. (2009). Optimism and physical health: A meta-analytic review. *Annals of Behavioral Medicine*, 37(3), 239–256.
- Repetti, R. L., Taylor, S. E., & Seeman, T. E. (2002). Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin*, 128(2), 330–366.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, 15(2), 150–163.
- Rook, K. S. (1984). The negative side of social interaction: Impact on psychological well-being. *Journal of Personality and Social Psychology*, 46(5), 1097–1108.
- Rosenkopf, L., & Nerkar, A. (2001). Beyond local search: Boundary-spanning, exploration, and impact in the optical disk industry. *Strategic Management Journal*, 22(4), 287–306.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- Salmon, P. (2001). Effects of physical exercise on anxiety, depression, and sensitivity to stress: A unifying theory. *Clinical Psychology Review*, 21(1), 33–61.
- Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, 277(5328), 918–924.
- Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243–263.
- Scase, R., & Goffee, R. (1987). *The real world of the small business owner*. London: Croom Helm.
- Schindehutte, M., Morris, M., & Allen, J. (2006). Beyond achievement: Entrepreneurship as extreme experience. *Small Business Economics*, 27(4–5), 349–368.
- Schneiderman, N., Ironson, G., & Siegel, S. D. (2005). Stress and health: Psychological, behavioral, and biological determinants. *Annual Review of Clinical Psychology*, 1, 607–628.
- Seligman, M. E. (2011). *Learned optimism: How to change your mind and your life*. New York: Random House.
- Seligman, M. E., Rashid, T., & Parks, A. C. (2006). Positive psychotherapy. *American Psychologist*, 61(8), 774–788.
- Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60(5), 410–421.

- Shah, S. K., & Tripsas, M. (2007). The accidental entrepreneur: The emergent and collective process of user entrepreneurship. *Strategic Entrepreneurship Journal*, 1(1–2), 123–140.
- Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human Resource Management Review*, 13(2), 257–279.
- Shepherd, D. A. (2003). Learning from business failure: Propositions of grief recovery for the self-employed. *Academy of Management Review*, 28(2), 318–328.
- Shepherd, D. A. (2009). Grief recovery from the loss of a family business: A multi- and meso-level theory. *Journal of Business Venturing*, 24(1), 81–97.
- Shepherd, D. A., Douglas, E. J., & Fitzsimmons, J. R. (2008). MBA admission criteria and an entrepreneurial mind-set: Evidence from “Western” style MBAs in India and Thailand. *Academy of Management Learning & Education*, 7(2), 158–172.
- Shepherd, D. A., Douglas, E. J., & Shanley, M. (2000). New venture survival: Ignorance, external shocks, and risk reduction strategies. *Journal of Business Venturing*, 15(5–6), 393–410.
- Shepherd, D. A., & Patzelt, H. (2011). The new field of sustainable entrepreneurship: Studying entrepreneurial action linking “what is to be sustained” with “what is to be developed”. *Entrepreneurship Theory and Practice*, 35(1), 137–163.
- Shepherd, D. A., & Patzelt, H. (2015). Harsh evaluations of entrepreneurs who fail: The role of sexual orientation, use of environmentally friendly technologies, and observers’ perspective taking. *Journal of Management Studies*, 52(2), 253–284.
- Shepherd, D. A., Patzelt, H., & Wolfe, M. (2011). Moving forward from project failure: Negative emotions, affective commitment, and learning from the experience. *Academy of Management Journal*, 54(6), 1229–1259.
- Shepherd, D. A., & Williams, T. A. (2014). Local venturing as compassion organizing in the aftermath of a natural disaster: The role of localness and community in reducing suffering. *Journal of Management Studies*, 51(6), 952–994.
- Shepherd, D. A., & Williams, T. (2017). Hitting rock bottom after job loss: Bouncing back to create a new positive work identity. *Academy of Management Review*. doi:[10.5465/amr.2015.0102](https://doi.org/10.5465/amr.2015.0102).
- Simmons, J. G. (2002). *Doctors and discoveries: Lives that created today’s medicine*. Boston: Houghton Mifflin.
- Smilor, R. W. (1997). Entrepreneurship: Reflections on a subversive activity. *Journal of Business Venturing*, 12(5), 341–346.
- Spence, A. M. (1973). *Market signaling: Information transfer in hiring and related processes*. Cambridge, MA: Harvard University Press.
- Sonstroem, R. J., & Morgan, W. P. (1989). Exercise and self-esteem: Rationale and model. *Medicine & Science in Sports & Exercise*, 21(3), 329–337.

- Stanworth, M., & Curran, J. (1976). Growth and the small firm: An alternative view. *Journal of Management Studies*, 13(2), 95–110.
- Staw, B. M., Sandelands, L. E., & Dutton, J. E. (1981). Threat-rigidity effects in organizational behavior: A multilevel analysis. *Administrative Science Quarterly*, 26(4), 501–524.
- Sternthal, M., Jun, H., Earls, F., & Wright, R. J. (2010). Community violence and urban childhood asthma: A multilevel analysis. *European Respiratory Journal*, 36(6), 1400–1409.
- Stevenson, H. H. (1983). *A perspective on entrepreneurship*. Cambridge, MA: Harvard Business School.
- Stewart, W. F., Ricci, J. A., Chee, E., Morganstein, D., & Lipton, R. (2003). Lost productive time and cost due to common pain conditions in the US workforce. *The Journal of the American Medical Association*, 290(18), 2443–2454.
- Stoner, C. R., Hartman, R. I., & Arora, R. (1990). Work-home role conflict in female owners of small businesses: An exploratory study. *Journal of Small Business Management*, 28(1), 30–38.
- Sugisawa, H., Liang, J., & Liu, X. (1994). Social networks, social support, and mortality among older people in Japan. *Journal of Gerontology*, 49(1), S3–S13.
- Sundquist, K., Theobald, H., Yang, M., Li, X., Johansson, S.-E., & Sundquist, J. (2006). Neighborhood violent crime and unemployment increase the risk of coronary heart disease: A multilevel study in an urban setting. *Social Science & Medicine*, 62(8), 2061–2071.
- Sutcliffe, K. M., & Vogus, T. J. (2003). Organizing for resilience. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship: Foundations of a new discipline* (pp. 94–110). San Francisco, CA: Berrett-Koehler.
- Talukdar, D., & Lindsey, C. (2013). To buy or not to buy: Consumers' demand response patterns for healthy versus unhealthy food. *Journal of Marketing*, 77(2), 124–138.
- Teoh, H. Y., & Foo, S. L. (1997). Moderating effects of tolerance for ambiguity and risktaking propensity on the role conflict-perceived performance relationship: Evidence from Singaporean entrepreneurs. *Journal of Business Venturing*, 12(1), 67–81.
- Tetrick, L. E., Slack, K. J., Da Silva, N., & Sinclair, R. R. (2000). A comparison of the stress-strain process for business owners and nonowners: Differences in job demands, emotional exhaustion, satisfaction, and social support. *Journal of Occupational Health Psychology*, 5(4), 464–476.
- Thompson, C. A., Kopelman, R. E., & Schriesheim, C. A. (1992). Putting all one's eggs in the same basket: A comparison of commitment and satisfaction among self-and organizationally employed men. *Journal of Applied Psychology*, 77(5), 738–743.
- Thurston, R. C., & Kubzansky, L. D. (2009). Women, loneliness, and incident coronary heart disease. *Psychosomatic Medicine*, 71(8), 836–842.

- Troxel, W. M., & Matthews, K. A. (2004). What are the costs of marital conflict and dissolution to children's physical health? *Clinical Child and Family Psychology Review*, 7(1), 29–57.
- Tugade, M. M., Fredrickson, B. L., & Feldman Barrett, L. (2004). Psychological resilience and positive emotional granularity: Examining the benefits of positive emotions on coping and health. *Journal of Personality*, 72(6), 1161–1190.
- Ucbasaran, D., Lockett, A., Wright, M., & Westhead, P. (2003). Entrepreneurial founder teams: Factors associated with member entry and exit. *Entrepreneurship Theory and Practice*, 28(2), 107–127.
- Uchino, B. N. (2006). Social support and health: A review of physiological processes potentially underlying links to disease outcomes. *Journal of Behavioral Medicine*, 29(4), 377–387.
- U.S. Census Bureau. (2002). Census 2000 summary file. Retrieved from <http://www.factfinder.census.gov>
- U.S. Department of Health and Human Services. (2012). *Healthy people 2010*. Washington, DC: Office of Disease and Preventative Healthcare Promotion, US Dep. Health Human Services.
- Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratelle, C., Léonard, M., et al. (2003). Les passions de l'âme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, 85(4), 756–767.
- Van der Sluis, J., Van Praag, M., & Vijverberg, W. (2008). Education and entrepreneurship selection and performance: A review of the empirical literature. *Journal of Economic Surveys*, 22(5), 795–841.
- Vashdi, D., Bamberger, P., & Erez, M. (2012). Can surgical teams ever learn? Towards a theory of transitive team learning in action teams. *Academy of Management Journal*. Advance online publication.
- Venkataraman, S. (2004). Regional transformation through technological entrepreneurship. *Journal of Business Venturing*, 19(1), 153–167.
- von Hippel, E. (1988). *The sources of innovation*. New York: Oxford University Press.
- Ware Jr., J. E., Brook, R. H., Davies, A. R., & Lohr, K. N. (1981). Choosing measures of health status for individuals in general populations. *American Journal of Public Health*, 71(6), 620–625.
- Wasserman, N. (2008). The founder's dilemma. *Harvard Business Review*, 86(2), 102–109.
- Weiss, K. B., Sullivan, S. D., & Lyttle, C. S. (2000). Trends in the cost of illness for asthma in the United States, 1985–1994. *Journal of Allergy and Clinical Immunology*, 106(3), 493–499.
- Wennberg, K., Wiklund, J., DeTienne, D. R., & Cardon, M. S. (2010). Reconceptualizing entrepreneurial exit: Divergent exit routes and their drivers. *Journal of Business Venturing*, 25(4), 361–375.
- World Health Organization. (2000). The world health report 2000: Health systems: Improving performance. WHO.

- Williams, A. (1984). Stress and the entrepreneur role. *International Small Business Journal*, 3, 11–25.
- Williams, T. A., & Shepherd, D. A. (2016). Victim entrepreneurs doing well by doing good: Venture creation and well-being in the aftermath of a resource shock. *Journal of Business Venturing*, 31(4), 365–387.
- Williams, T., & Shepherd, D. (2017). Building resilience or providing sustenance: Different paths of emergent ventures in the aftermath of the haiti earthquake. *Academy of Management Journal*. Forthcoming.
- Wright, R. J., Mitchell, H., Visness, C. M., Cohen, S., Stout, J., Evans, R., & Gold, D. R. (2004). Community violence and asthma morbidity: The inner-city asthma study. *American Journal of Public Health*, 94(4), 625–632.
- Wu, B. (2013). Opportunity costs, industry dynamics, and corporate diversification: Evidence from the cardiovascular medical device industry, 1976–2004. *Strategic Management Journal*, 34(11), 1265–1287.
- Zimmerman, M. A., & Zeitz, G. J. (2002). Beyond survival: Achieving new venture growth by building legitimacy. *Academy of Management Review*, 27(3), 414–431.
- Zott, C., & Huy, Q. N. (2007). How entrepreneurs use symbolic management to acquire resources. *Administrative Science Quarterly*, 52(1), 70–105.

Open Access This chapter is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, duplication, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the work's Creative Commons license, unless indicated otherwise in the credit line; if such material is not included in the work's Creative Commons license and the respective action is not permitted by statutory regulation, users will need to obtain permission from the license holder to duplicate, adapt or reproduce the material.