Transcending Death Through Organizational Birth

by

Matthew J. Fox

Business Administration
Duke University

Date: _____

Approved:

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Kimberly A. Wade-Benzoni, Supervisor

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Richard Burton

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Aaron Chatterji

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Sim Sitkin

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Amy Wrzesniewski

Dissertation submitted in partial fulfillment of
the requirements for the degree of Doctor of Philosophy
in Business Administration
in the Graduate School
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ABSTRACT

In this dissertation, I develop and test a theory linking the legacy motive to entrepreneurship. After examining evidence in support of the desire to make a lasting impact as a source of motivation for the founders of new organizations, I propose that the importance of this motive has been overlooked, due to a lack of conceptual clarity regarding the legacy construct. I argue that examining the relationship between entrepreneurship and the legacy motive contributes greatly to understanding of both phenomena. I develop a theory of entrepreneurial legacies, in which I explain how understanding the connection between the legacy motive and entrepreneurship requires recognizing the variety of lasting impacts different people can choose to pursue. I then examine the implications of the different desired legacies for the entrepreneurs and their organizations, particularly for critical funding decisions at the beginning of the new venture, and for decisions related to succession, when the organization needs to replace the founder. Next, I conducted two studies to examine the effects of the legacy motive on entrepreneurial decision making. In the first study, I tested the relative strength of the legacy motive among firm founders and those who work for others. I developed new measures of the intended benefits and beneficiaries of a legacy, to examine their relationship to each other and related variables using an online sample of engineers. I found that engineers high on the legacy motive are more likely to indicate founding the firm they currently work for, own more of their current employer, and have filed more patents. In the second study, I conducted a qualitative examination of medical startups, examining the processes that led executives in these firms to the current stage of their

careers, and the elements of their work lives that they experience as meaningful. Finally, I discuss the implications of the link between the entrepreneurship and the legacy motive, and the different ways in which people define what makes these two constructs meaningful.

DEDICATION

To my son, Miles Fox, a daily joy and inspiration in my life.

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SECTION I: INTRODUCTION

As research on entrepreneurship has grown, so has interest in the cognitive processes of entrepreneurs (Mitchell, Busenitz, Bird, Gaglio, McMullen, Morse & Smith, 2007). The question of why individuals choose to pursue entrepreneurial opportunities has proven surprisingly vexing. In particular, scholars have struggled to explain why people would choose to start new companies, when a majority of entrepreneurs would be better served, financially, by pursuing employment commensurate with their education and experience at established firms (Hamilton, 2000; Moskowitz & Vissing-Jorgensen, 2002). While a variety of non-pecuniary benefits to entrepreneurship have been proposed, findings in prominent areas of study, such as risk preferences, have been mixed (Stewart & Roth, 2001; Miner & Raju, 2004). This has led to calls for additional research into the effects of a broader set of psychologically inspired independent variables (Hisrich, Langan-Fox, & Grant, 2007) on a broader set of dependent variables (Cohen, Smith, & Mitchell, 2007). I propose that the desire to leave a legacy constitutes an important aspect of entrepreneurial motivation.

Definitions

Understanding the relationship between the legacy motive and entrepreneurship begins with an understanding of the definition of the terms themselves. Defining key terms takes on particular urgency in this dissertation. Research on legacies is relatively nascent, and the term is not widely understood, while the term entrepreneurship applies to a variety of phenomena, and its definition is contentious within the field.

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For the purposes of this dissertation, I define legacy as an enduring meaning, connected to the identity of an individual actor, apparent in behaviors that are intended to have an impact after the actor is gone. This definition is central to understanding the phenomenon of the legacy motive as it relates to entrepreneurship.

Because this dissertation is concerned with the motivational aspects of legacy, this definition emphasizes intention, meaning, and identity. This definition would not apply to certain uses of the term, unless the enduring nature of the lasting impact is deliberate and meaningfully attached to the identity of the person leaving it. For example this dissertation is not interested in a legacy of inefficiency, or a legacy information technology system that is long overdue for an upgrade, because such legacies do not reflect the intentions of the person who left them behind. This distinction is important, because research streams on important facets of entrepreneurship have occasionally used the term legacy more broadly. For example, research on imprinting (e.g. Burton & Beckman, 2007) has used the term legacy in reference to any enduring effect of parent firms or founding individuals, without regard to whether the person leaving the legacy saw the nature of the impact as meaningful, or took deliberate steps to bring the legacy into existence. This dissertation adds to those literatures by seeking to better understand the role of the legacy motive among entrepreneurs, separate from those elements of lasting impact that arise outside of the intentions of the person making the lasting impact. Other sources of lasting impact are both real and important, but are outside the scope of this dissertation.

The intention that the legacy persists after the actor is gone is another critical element of this definition, which distinguishes legacies from other kinds of impact that a

person may wish to have. While this can refer to an impact that lasts after an actor dies, actors can be removed from the social exchange context in a variety of ways, including retirement, graduation, or simply moving away (Wade-Benzoni & Tost, 2009; Fox, Tost, & Wade-Benzoni, 2010). The context in which the legacy motive arises is likely to determine the events that an individual perceives as relevant to distinguishing what counts as lasting after they are gone. When people consider the legacy they will have with their children, they may be likely to focus on death as the mechanism that will sever the relationship, but for those individuals who pursue a lasting impact through entrepreneurship, the event that defines when they are gone is when they are no longer with the firm. This can occur when they sell the firm, leave it to their children, hire a professional manager, or when the firm fails or the board of directors dismisses the founders from the firm they started. The legacy motive would then apply to the kind of impact the individual hopes to achieve through entrepreneurship, in the expectation that it will remain meaningful, even beyond their tenure with the firm.

The above discussion of emphasizes firm founding in seeking to understand the relationship between entrepreneurship and the legacy motive. In reality, researchers have defined and operationalized the term entrepreneurship in reference to a variety of phenomena (Shane & Venkataraman, 2000), and these definitions and operationalizations remain the subject of debate and dispute (Shane, 2012). As a result, the measurement of entrepreneurship in a paper can run afoul of the preferred definition of the intended audience, or even the stated definition of authors, and need bear no resemblance to the definition of entrepreneurship in use by the individuals engaged in the phenomenon (Shane, 2012). Indeed, research on entrepreneurial identity suggests that individuals

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engaged in seemingly uniform entrepreneurial activities, such as firm founding, may have disparate ideas as to what it means to be an entrepreneur (Gruber & Fauchart, 2011; Cardon, Wincent, Singh, & Drnovsek, 2009) This ongoing dissensus has constituted a significant obstacle to entrepreneurship research (Shane 2012).

Rather than limit this examination to a single definition of entrepreneurship, I seek to better understand the robustness of the relationship between the legacy motive and entrepreneurship, across a variety of potential definitions. For the sake of simplicity and clarity, I begin by building theory based on firm founding, which is the most common operationalization of what it means to be an entrepreneur (Shane, 2012). In the empirical chapters, I examine the robustness of the relationship to alternative definitions of entrepreneurship. In the quantitative study, I operationalize entrepreneurship in the form of: 1) new venture creation, measured as firm founding; 2) self-employment, measured as firm ownership; and 3) the creation of innovative new products, measured as filing patents, to see if the relationship between the legacy motive and entrepreneurship holds across these various conceptualizations of what entrepreneurship is. In the qualitative chapter, I focus on new firms in a particularly innovative industry, but allow executives within those firms to define for themselves what entrepreneurship means and what makes it meaningful. Starting with a commonly used, narrow conceptualization of entrepreneurship allows me to build a clear, precise theory of the role of the legacy motive in entrepreneurship. Subsequently expanding the potential field of entrepreneurial behaviors in the empirical studies allows for a more comprehensive understanding this relationship, and how it might apply differently across the variety of activities to which the term entrepreneurship has been applied.

This dissertation addresses the link between the legacy motive and entrepreneurship in three main parts. First, I develop a theoretical model linking the legacy motive to entrepreneurship, building on past work on the legacy motive and on qualitative work in the field of entrepreneurship to illustrate both the degree to which firm founders wish to leave a legacy, and kinds of legacies that founders may wish to leave. Second, I examine these relationships in an online survey of engineers, finding significant empirical support for the model. Third, I conduct a qualitative examination of the motivation of executives in medical startups, finding that entrepreneurs often describe being motivated to make a lasting impact, but the nature of the impact they wish to leave is determined by their entrepreneurial identities, and in particular whether they see their entrepreneurial output to characterized by the creation of new organizations or the innovative technologies those organizations produce. Finally, I conduct an exploratory integration of the quantitative and qualitative studies, and examine the implications for future research.

To develop a conceptual model of entrepreneurial legacies, I begin by reviewing the evidence that emerges from nascent research on entrepreneurial motivation suggesting that the desire to make a lasting impact drives much of the behavior of firm founders. In keeping with this research, and for purposes of overall clarity, I focus on entrepreneurship as the founding of new organizations, though I allow for broader definitions of entrepreneurship as the identification and exploitation of opportunities, and narrower definitions that focus on new innovative, high growth companies. I then examine the nature of legacies more broadly, with an emphasis on two key questions that must be addressed by anyone who wishes to leave a legacy: What would the benefactor

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like to leave behind, and whom do they wish to benefit from that act? I note that legacies can seek to provide resource based or values based benefits, and that those benefits can be targeted towards the benefactor, others with whom the benefactor shares a direct interpersonal relationship, or depersonalized groups to which the benefactor belongs. I then describe factors that are likely to influence which kind of legacy is considered most meaningful, and how the answers to these questions guide entrepreneurs in making critical decisions, particularly at the very beginning of the organization and towards the end of the founder's involvement with the firm, when the legacy motive is likely to be particularly salient.

I tested critical elements of this theoretical model with an online survey of engineers. Engineers have relatively high rates of firm founding, increasing the statistical power of the survey examining a low frequency event, and their patenting activities offer a useful measure of an alternative definition of entrepreneurship focusing on technological innovation. I find that participants indicating a strong desire to leave a legacy were more likely to have founded and owned a higher percentage of their current employer, and filed more patents over time and in the past year. Furthermore, I find that entrepreneurs pursuing individualistic legacies, benefitting themselves, were more likely than entrepreneurs pursuing relational legacies, benefitting specific others, or collectivistic legacies, benefitting groups, to emphasize resource based, as opposed to values based benefits, and that they has higher incomes.

Finally, I sought to generate new theory on entrepreneurship and the legacy motive with a qualitative investigation of entrepreneurial motivation among executives in medical startups. I found that these executives spoke frequently about the opportunity

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that entrepreneurship presented them to make a lasting impact, but the way they talked about that lasting impact differed, depending on whether they emphasized the creation of new organizations or technologies at the heart of their entrepreneurial identities. Founders, for whom the new organization was central to their identity, described the energy they derived from building new firms and getting involved in all aspects of the organization, considered their lasting impact accomplished upon the sale of the venture, while inventors described the creation of new technologies as a way to make a meaningful impact in the lives of people with serious medical needs, and remained attached to the success or failure of the technology, even after the organization was sold. Organizations often had a mix of founders and inventors, with the founders managing the technology based legacy motive of inventors as part of their organizational responsibilities, while inventors rarely discussed the motives of founders, occasionally misperceiving a purely monetary drive disconnected from the desire to make a lasting impact.

In sum, this dissertation provides evidence of both *how important the legacy motive is* to entrepreneurs and *how the legacy motive is important* to entrepreneurs. I show that while previous research has not directly addressed the question of entrepreneurial legacies, this link has strong theoretical foundations in the largely parallel streams of research on the psychology of legacy motive and the motivation of entrepreneurs. I show that engineers high on the legacy motive are more likely to work in a firm that they founded, own more of their firms, and file more patents, while executives in medical startups often describe the appeal of entrepreneurship as derived, in part, from the opportunity it presents to make a meaningful lasting impact. I further find that the

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intended beneficiaries of the lasting impact of entrepreneurial engineers shapes firm growth strategies, and the organizational or technological basis of identity among executives in medical startups shapes their perceptions of what makes an entrepreneurial legacy meaningful.

This dissertation has important implications for future research on the legacy motive, adding to the richness of our understanding of not only when people care about their impact on future generations, but also the different kinds of legacies individuals pursue and the implications of those choices. This dissertation also has important implications for entrepreneurship research, suggesting a largely neglected source of motivation for entrepreneurs, and its implications for entrepreneurial behavior, and confirming that, even within a single firm, individuals engaged in the practice of entrepreneurship have different understandings of what it means to be an entrepreneur. In the conclusion, I review some of the most promising avenues for this future research.

SECTION II: THEORY DEVELOPMENT AND HYPOTHESES

This chapter outlines a theoretical model of how the legacy motive guides entrepreneurial decision-making from the decision to create a new firm to the decision to sell or retire from that firm. I begin by reviewing the nascent literature on entrepreneurial legacies, with an emphasis on evidence that emerges from recent qualitative work on entrepreneurial motivation. While this literature does not directly address the nature of how entrepreneurs seek to use their firms to make a lasting impact, it is suggestive that the legacy motive can be important to entrepreneurial decision-making, throughout the life of a venture. I then turn my focus to the nature of legacies, and draw from the literature on intergenerational conflict, terror management theory, and generativity to suggest that while legacies can be an important driver of behavior in firm founders and others, the degree of its importance has been obscured by a failure to recognize the different forms that legacies can take. In particular, people who wish to make a positive impact on future generations must decide whether they wish to focus on leaving resource or values based benefits. People also need to determine whom they wish to benefit from the resources or values they leave behind. Legacies can be crafted to benefit specific people, depersonalized groups, or even the person leaving the legacy. The desired benefits and beneficiaries of a legacy are likely to be linked, such that people wishing to benefit themselves are more likely to emphasize resource based legacies, while those wishing to benefit groups of future others are more likely to emphasize values based legacies, with those wishing to benefit specific others falling somewhere in between.

I draw on the evidence suggesting that firm founders are concerned about their legacies and the newly developed framework of legacy benefits and beneficiaries to make

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several predictions as they relate to entrepreneurial decision making. As entrepreneurs seek to attract resources in the early stages of their firms' existence, those founders pursuing individualistic, resource based legacies are likely to make tradeoffs that allow them to maximize the growth of their companies, while founders who wish to leave collectivistic, values based legacies are likely to make choices that allow them to retain as much control over the firm as they can. The legacy motive can also play a critical role in succession events, leading to decisions that can have a significant impact on the likelihood that the firm survives after the founder departs. Both the strength of the legacy motive and the nature of the impact entrepreneurs wish to have are likely to shift throughout the life of the venture, with the legacy motive being most salient at the beginning and end of the founder's time at the firm, and an increasing preference for collectivistic and values based legacies as time goes on.

Entrepreneurial Motivation

Several scholars have recently used grounded theory and case studies to address novel questions of entrepreneurial motivation. This research contributes significantly to our understanding of why individuals choose to found firms, which opportunities they discover or create, and how they understand success in the context of these objectives. This research has not sought to directly address the importance of entrepreneurial legacies, but examining the studies for patterns and threads of overlap yields an accumulation of evidence that leaving an enduring impact is important to firm founders.

For example, Fauchart and Gruber (2011) interviewed the founders of 49 sporting equipment manufacturers. These entrepreneurs discussed creating firms for Darwinian

(personal financial gain), communitarian (strengthening ties to specific members of a community), or missionary (social or environmental causes) motives, depending on the social identity of the founders. While Darwinian entrepreneurs emphasized traditional strategic measures of success, such as profit and market share, communitarians were focused on their relationships with the consumers of their products, while missionaries pursued a cause they considered more important than money. Entrepreneurs identified opportunities and designed their companies in ways that maximized their impact on the beneficiaries they identified as most important (Gruber & Fauchart, 2013).

Similarly, Haynie and Shepherd (2011) found that participants in a program to help medically discharged members of the armed forces transition to entrepreneurship as civilians struggled when they were focused on their desire to provide for their families economically, while veterans were more likely to succeed in creating a business if they discussed their ventures in passionate terms. This passion seemed to have generative origins, as participants described the need to create and grow something from nothing, set an example for their children or fellow veterans, or provide something of value to society, and their descriptions of the impact they would like to have seem to overlap considerably with Fauchart and Gruber (2011), with the exception that their desire to benefit others emphasized setting an example for a younger generation, rather than contemporary peers.

Graebner (2009) examined the behavior of entrepreneurs that were selling their company, and found that, when going through acquisitions, sellers of companies were generally unwilling to sell their firms to buyers they didn't trust. This trust was not a matter of financial outcomes, but rather preserving the elements of the organization that were most important. As one seller put it, "We wanted to work for ourselves and create a

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great work environment, and if we can create something of lasting value, great. I'm not saying that money doesn't matter. But it's not the most important thing." (2009: 463) Preserving the essential elements of the business that the sellers associated with their creation determined whether they were willing to consider a buyer's offer. Again, they described their concerns in ways that centered on themselves ("If I felt in any way like… the things I was doing weren't valued or valuable, I would have been gone,") specific others ("I care deeply about how they are treating my people"), or a broad impact for their product ("We believe in the technology, and want to see it work. I want to see the product succeed.")

In a mirror image of the Graebner's (2009) findings on legacy concerns when selling a company, Walsh and Bartunek (2011) found that organizational death can lead to rebirth, through the creation of ex-morte organizations such as alumni associations, corporate museums, and commercial ventures. These ventures retold the narrative of better days, sustained meaningful connections and sometimes jobs for former employees, or provided new life for discontinued products perceived as having ongoing value to former customers, thus preserving the essential elements of defunct firms in a new generation of organizations. An active member of the alumni group of a defunct technology firm described how "You can see SysTech's legacy at the alumni group meetings [and] in all of the business ventures that former employees have started in the SysTech mold" (Walsh & Bartunek, 2011: 1029).

Good nascent research provides suggestive theoretical insights to inform and inspire future research (Edmondson & McManus, 2007), and these studies are no exception. Across this stream of research asking firm founders open-ended questions

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about their motives, successful entrepreneurs frequently described the desire to make a lasting impact, but the exact nature of entrepreneurial legacies remains elusive. While each of the above studies contains evidence that informs our understanding of the lasting impact entrepreneurs wish to have, none tackles the question directly, either in the body of the paper, or even in the discussion of future directions.

That entrepreneurs would talk about their desire to have a lasting impact is not surprising, nor is it limited to recent qualitative studies. Rather, those studies call attention to a recurrent theme in entrepreneurship that has been surprisingly neglected. Scholars of entrepreneurship have highlighted the vital role of metaphors in the processes of sensemaking and sensegiving in new ventures (Aldrich & Fiol, 1994; Hill & Levenhagen, 1995; Lounsbury & Glynn, 2001; Cornelissen & Clarke, 2011), but this research has largely ignored the most prominent metaphor in entrepreneurship, that of parenthood (Cardon et al., 2005).

The prevalence of generative language in the entrepreneurial domain offers insight into the meaning derived from the practice of entrepreneurship. While research on metaphors has tended to emphasize their use in gaining legitimacy from external sources (Lounsbury & Glynn, 2001; Cornelissen & Clarke, 2010), Hill and Levenhagen (1995) also note the importance of metaphors in helping entrepreneurs reach an understanding of vague feelings for which full description is not yet available. Although people use metaphors to communicate their understanding of complex or abstract concepts, metaphors can also fundamentally alter the thought process when they are extended in ways that are less relevant to the context in which they are applied (Landau, Meier, & Keefer, 2010; Zhong & Liljenquist; 2006), or when they persist after that context has

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changed (Hill & Levenhagen, 1995). Thus, widespread use of the metaphor of

parenthood to describe the entrepreneurial process likely reflects a meaningful

understanding of a complex and abstract concept, and at the same time, leads individuals

engaged in entrepreneurship to perceive their actions as increasingly generative in origin,

and may increase the desire to have a positive impact on future generations.

Entrepreneurs' focus on making a lasting impact and the prominence of the

metaphor of parenthood reflect the fact that establishing a new organization that produces

an output of value to others in the community is an inherently generative activity (Wade-

Benzoni, 2013). In his early descriptions of the concern for establishing and guiding the

next generation, Erikson (1968: 138) specifically applied the term to "people who, from

misfortune or because of special and genuine gifts in other directions, do not apply this

drive to offspring of their own, but to other forms of altruistic concern and creativity

which may absorb their kind of parental drive," and declared that "the concept of

generativity is meant to include productivity and creativity." McAdams and De St. Aubin

(1992) found that personal narratives of generative individuals describe creating new

products and ideas, maintaining products, projects, and traditions, offering of the self or

the self's products, purposeful interaction with the next generation, and references to

having an enduring influence or leaving behind products that will outlive one's physical

existence. The generative processes of creating and maintaining new products, processes,

and ideas fall are essential to founding new firms and fall squarely within definitions of

entrepreneurship at the nexus of the individual and the opportunity (Shane &

Venkataraman, 2000). Furthermore, individuals who wish to make an offering of

themselves and have an enduring influence beyond their physical existence can find a powerful outlet for that desire in the construction of new organizations and products.

Psychological factors may further contribute to entrepreneurs' perception of their firms as a means by which to leave a legacy. Founders, by definition, have built their firms, a process by which they become likely to overvalue their creation and to wish to see it preserved (Norton, Mochon, & Ariely, 2012). While the percentage of their legal ownership of the firm may vary from complete to merely symbolic, founders are likely to identify with (Boivie, Lange, McDonald, & Westphal, 2011) and to experience psychological ownership (Pierce, Kostova, & Dirks, 2001) towards their firms by virtue of their control over, intimate contact with, and investing the self into the business, leading to both an endowment effect (Kahneman, Knetsch, & Thaler, 1991), whereby they highly value the firm they see as theirs, and a sense of stewardship, whereby they feel obligated to protect, develop, and make sacrifices for the firm (Pierce et al., 2001, Wasserman, 2006).

The sum of this evidence suggests a mutually causal positive relationship between the legacy motive and entrepreneurship.

> *Proposition 1a: Individuals for whom the legacy motive is chronically salient are disproportionately likely to become entrepreneurs.*
>
> *Proposition 1b: Becoming an entrepreneur is likely to increase the salience of the legacy motive.*

The Legacy Motive

One reason scholars of entrepreneurship have not focused more directly on the legacy motive may stem from a lack of conceptual clarity as to what a legacy is. A legacy

is an enduring meaning, connected to the identity of an individual actor, apparent in behaviors that are intended to have an impact that endures even after the actor is gone (Wade Benzoni & Tost, 2009), but that impact can take different forms. For example, firm founders have a unique ability to use their firms in an instrumental fashion, drawing on the organization's resources and capabilities to craft a lasting impact on the social and ecological health of their community (Fauchart & Gruber, 2011) or to contribute to the financial or socioemotional wealth of future generations of family members (Gomez-Mejia, Haynes, Nunez-Nickel, Jacobson, & Moyano-Fuentes, 2007). Alternatively, legacy building can take the form of institutional legacies, in which members of organizations work to ensure the long-term viability of an organization, while preserving the values they perceive as essential to the organizational identity (Fox et al., 2010). Making sense of how entrepreneurs make these choices requires a more sophisticated understanding of what a legacy is or ought to be.

Drawing on previous research on social identity, intergenerational conflict, terror management theory, and generativity, I provide an integrative framework to understand the legacy construct by emphasizing the benefits and beneficiaries that define activities concerned with intergenerational impact. Ultimately, individuals for whom the legacy motive is salient must determine what kind of benefit they would like to provide, and to whom, but again, there are a wide variety of possible benefits and beneficiaries to choose from. When people wish leave a legacy, they can seek to provide future generations with resources, but they can also focus on perpetuating values that will serve future generations well or make the world a better place after they are gone. Legacies can deliver these resources or values for the benefit of specific known individuals or

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depersonalized groups of others. Alternatively, individuals can seek to craft a legacy that will last after they are gone in ways that benefit their present or future selves. The different benefits and beneficiaries of legacies are likely to be related, such that people who wish to have their lasting impact benefit themselves are likely to emphasize resource based benefits, while those who seek to benefit groups of future others are likely to emphasize values. By teasing apart these differences in desired impact, we can begin to more fully appreciate the role of the legacy motive in guiding entrepreneurial decision making.

Benefits of Legacies

Individuals wishing to make a lasting impact must determine what constitutes an appropriate benefit to leave behind. Previous research has not directly addressed contexts in which different kinds of impacts may be more or less appropriate, but two main categories of benefits have emerged. Research on intergenerational conflict has emphasized the distribution of resources over time, while research on terror management and generativity suggests that systems of value and meaning are central to understanding the cognitive processes underlying the pursuit of symbolic immortality. Resource based and values based legacies are not mutually exclusive, and indeed each can be used in service of the other, but as individuals ponder their legacies, they tend to give precedence to one or the other, and they can be quite dismissive of the value of legacies that are inconsistent with their own ideas of what a meaningful legacy would be.

Experimental research on intergenerational conflict provides important insights into why people choose to make sacrifices in the present for the benefit of the next generation, by examining decisions involving the transfer of resources to specific real

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individuals or hypothetical groups after the decision maker is removed from the social exchange process. This research has shown that that individuals are more generous to future generations when they perceive themselves as benefitting from the actions of previous generations (Wade-Benzoni, 2002), when there is a danger of future generations receiving nothing (Wade-Benzoni, Hernandez, Medvec, & Messick, 2008), when they are primed with power (Wade Benzoni et al., 2008) when their impact on future generations is framed in negative terms (Wade-Benzoni, Sondak, & Galinsky, 2010), when they feel an affinity to future generations (Wade-Benzoni, 2008), and when mortality is made salient (Wade-Benzoni, Tost, Hernandez, & Larrick, 2012).

This stream of research suggests that under these conditions, entrepreneurs will be more likely to seek to provide financial resources to future generations, to enhance the durability of their products such that they can be enjoyed by future generations, or to restrict their consumption of resources to preserve the ability of future generations to enjoy those resources. When entrepreneurs are concerned about conveying resources to future generations, they can focus on profit-making over the long term. Firm founders can give their heirs the money they earn through their salaries or profits, or future generations can benefit from intergenerational resource transfers through their ownership of or employment in a family firm.

In a parallel stream of research, individuals craft their intergenerational impact around the values they hold. Terror management theorists (Becker, 1973; Greenberg et al., 1997) have argued that the distinguishing feature of humanity is the self-awareness that no person lives forever, combined with the raw animal instinct to stay alive. People confront the fear of death by attaching themselves to cultural worldviews that allow them

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to believe that their lives count in the universe more than merely physical things count (Becker, 1975). In this research, the belief that life has order and meaning relies on standards of value to promise protection and death transcendence to those who meet those standards of value (Greenberg et al., 1997). When confronted with their own mortality, people judge ethical violations more harshly, perceive greater consensus on moral issues, and strive to meet cultural standards of value (Greenberg et al., 1997). Terror management theory typically examines the role of immediate threats to cultural worldviews, but for those worldviews to function as death anxiety buffers implies a key role for the intergenerational transfer of values that has not been fully explored.

The intergenerational transfer of values is also prominent in generativity research. Erikson (1968) argues that all institutions serve to codify the ethics of generative succession. Kotre (1984) describes four forms of generativity: biological, parental, technical, and cultural. Of these, the biological occupation with begetting, bearing, and nursing offspring does not apply to entrepreneurship, metaphors notwithstanding, but parental, technical, and cultural types revolve around extending culture, tradition, and knowledge to future generations. These value laden, metaphysical elements of identity provide meaningful self-extension to the benefactor, but fully realizing their power requires their successful adoption, mastery, and extension by future generations.

The choice to emphasize resources or values when crafting a lasting impact takes on additional importance in light of persistent findings that firm founders can expect to work longer hours for less money than they would make as employees of established firms. If financial returns are not sufficient to drive entrepreneurial behavior, then some other powerful psychological mechanism must allow them to persist in pursuing their

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goals. Passion has been linked to entrepreneurial self-efficacy (Haynie & Shepherd, 2011) and the ability to attract critical resources (Chen, Yao, & Kotha, 2009). Meaning derived from entrepreneurial identities underlies entrepreneurial passion (Cardon, Wincent, Singh, & Drnovsek, 2009), thereby facilitating persistence in the face of difficulties (Cardon et al., 2005). Both values based and resource based legacies can provide that identity based passion.

Yet while both accumulating resources and perpetuating values can promote a sense of meaning that justifies long hours and sacrifices (Baumeister, 1991), those differing sources of meaning suggest that individuals with different work orientations would make those sacrifices in pursuit of different goals. To the extent that entrepreneurs are primarily concerned with physical legacies, their behavior may conform largely to economic models, as the process of acquiring resources to spend on oneself is often consistent with the process of acquiring resources to transfer to future generations, although the time frames of profit maximization may differ. On the other hand, entrepreneurs who wish to leave metaphysical legacies, emphasizing values, may need to make sacrifices in terms of growth or profit, in order to stay true to those values. The tradeoff between control and wealth is a difficult one for many founders to accept, but founders who fail to make a choice risk having one imposed upon them, as their inability to relinquish control limits growth, or the outside investors that facilitate growth demand that the founder step down (Wasserman, 2008).

In sum, this evidence suggests that the intergenerational transfer of values can be as important to legacies as the intergenerational transfer of resources, but significant questions remain as to whether, or under what conditions these benefits are orthogonal,

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complementary, or competing for the attention of individuals who are concerned with their legacies. More research is needed to properly understand these relationships, which become entangled, as resource transfers can be used as a mechanism to perpetuate values (Bradford, 2009), while some values are transmitted for their utilitarian role in acquiring, preserving, and enhancing resource stocks.

Beneficiaries of Legacies

The benefits that people wish to provide to future generations are intertwined with the target recipients of that legacy. Scholars of generativity (Erikson, 1968; McAdams & De St. Aubin, 1992) and terror management (Greenberg et al., 1997) emphasize the role of identity in the desire to have an impact on future generations, but the complexities of identity deserve closer examination. The locus of individual identity can emphasize a personal self, independent and distinct from others, a relational self, with ties to and role relationships with specific others, or a collective self, depersonalized and defined by group memberships. These perceptions guide judgments as to whose interests should be given priority when interests conflict (Brewer & Chen, 2007), and shifts in the inclusiveness of self-representations alter the nature of social motivation, the bases for the content of the self-concept, and the frame of reference for evaluations of self-worth (Brewer & Gardner, 1996). In intergenerational conflicts, decision makers must decide whether to make a sacrifice in the present that will benefit others in the future (Wade-Benzoni & Tost, 2009). While under normal circumstances, people favor benefits in the present over the future, and benefits for themselves over others, in intergenerational contexts, these factors can be reversed, making people more willing to make sacrifices in

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the present to benefit future others (Wade-Benzoni, 2008; Wade-Benzoni, Tost, Hernandez, & Larrick, 2012). When individuals craft their impact on future generations, they can do so with the intention of benefitting specific, known individuals, strengthening and tying themselves to groups whose identities overlap with their own self-concept, or even improving their own standing in the present.

Perhaps the most familiar targets of legacies are relational in nature. Parents think about the resources and values they want to leave to their children (Bradford, 2009). Leaders train their successors and mentor new members of an organization in the behavioral norms and keys to success. The relational impact of one's generative acts can be seen in a child, an apprentice, or a disciple (Kotre, 1984). Resource based relational legacies are codified in law, as a deceased person's belongings are transferred to their children by default, while any other disposition requires deliberate action. Deviating from this relational default is often perceived as inappropriate. When Alfred Nobel asked several Swedish scientific bodies and the Norwegian Parliament to distribute awards from his estate for the good of humanity, as opposed to leaving it to his relatives, his family sued to have the will thrown out, and the organizations Nobel designated to award the first prizes initially refused to carry out his last request as their members debated whether it was moral to do so over the objections of his family (Sohlman, 1929).

Yet, Nobel was not alone in his desire to leave a legacy that was not tied to individuals. Wealthy businessmen Bill Gates and Warren Buffett have engaged in an effort to get fellow billionaires to commit half of their wealth to charitable works, echoing Andrew Carnegie's earlier call upon his wealthy peers to commit all of their resources to establish institutions in support of values such as health and education, rather

than give their money to their heirs (Carnegie, 1889/2006). Carnegie (1889/2006) was particularly dismissive of direct gifts to heirs or other needy individuals, which he felt not only squandered the opportunity to more good for a larger number of people, but also had a corrosive effect on the values and long term well-being of the beneficiaries of such generosity.

Groups make appropriate targets as legacy beneficiaries for a number of reasons. Terror management theorists focus on the role of groups as an outlet for the legacy motive, because they offer the benefactor both permanence and meaning. Greenberg and his colleagues (1997: 65) argued that "symbolic immortality is provided through identification with entities larger and longer lasting than the self, such as the nation, or the corporation." As members of these groups adopt the cultural worldview espoused by the group, they encounter concepts and structures that help organize their world, answer basic cosmological questions, and promote an understanding of the universe as stable, orderly and meaningful, in ways that allow them to reconcile their knowledge of the inevitability of death and their animal instinct to survive. Generativity scholars have suggested a similar role for groups. McAdams and De St. Aubin (1992) described how acting on behalf of future generations fulfills an inner need to be needed, to relate, and to be one with others, and an external obligation to a society that comes to demand that individuals take responsibility for the next generation, and provides occupational, ideological and lifestyle opportunities and resources, as well as constraints that provide a structure by which adults shape and motivate their generative inclinations.

Collectivistic legacies are often linked to the values that define those groups (Fox & Wade-Benzoni, 2013). Beyond their direct descendants, people contribute lasting

works of value as measured by their contribution to culture, religion, natural order, or some other sense of eternal or ultimate value (McAdams, 1993). For some forms of generativity, the abstract skills or values to be passed on become more central than the specific individuals to receive them, reaching targets less explicitly personal, and more social, encompassing collectivities of various breadth (Kotre, 1984). In some cases, individuals seek to strengthen the long term health of the group that is the source of the values, for example, by leaving a bequest to a church or university. Alternatively, groups with self-transcendent values may be best served by reaching outside the group, as when religious groups provide housing in impoverished nations, regardless of the beliefs of the recipients, or when doctors volunteer their time serving uninsured patients.

In some cases, the intent of intergenerational beneficence is not for the benefit of the target, but for the glory of the giver. Fox and his colleagues (Fox et al., 2010, Fox & Wade-Benzoni, 2013a) argue that mortality salience can lead to legacy behavior that is consistent with self-interest, as when students receiving merit aid recruit future generations of merit-based aid eligible high school students (Fox & Wade-Benzoni, 2013b), who could not only contribute to the academic reputation and financial strength of the organization, after the current crop of students is gone, but also raise the prestige of the institution on the graduates' resumes. Where Erikson (1968) described intergenerational acts that emphasize creating and caring for the next generation, Becker (1973) and the terror management theorists he inspired emphasized the extension of the self into the future. Greenberg and his colleagues complement their argument for the defense of a worldview that gives meaning to the universe with an individualistic impulse to demonstrate that one is a valuable member of that world. From this perspective, what

is important is often not the benefit that others receive, but that the things one creates are recognized to be of lasting worth and meaning. While groups define the terms on which symbolic immorality is to be judged, this effect is achieved through "the ongoing tangible reflections of one's existence, such as children, money, and culturally valued achievements" (Greenberg et al., 1997).

The idea of individualistic legacies is consistent with theories of agentic generativity (Kotre, 1984; McAdams, 1993), but is somewhat at odds with Erikson's (1963) original construct, because Erikson's focus on establishing and guiding the next generation is lost when the focus shifts from future others to the present self. In Kotre's (1984: 18) description of agentic generativity, "the progenitor loves himself in the generative object," and "is willing to devour progeny, to possess them narcissistically and feed himself on their talents. Kotre (1984) gives the example of Ali, a recovering substance abuser who eagerly advocates on behalf of Alcoholics Anonymous, not so much because of the value to the next generation of people getting clean, but because it helps Ali himself to stay clean and to bolster his own shaky self-image. This more closely resembles Erikson's (1968: 138) discussion of stagnation, the developmental crisis that emerges in the absence of generativity, wherein individuals "often begin to indulge themselves as if they were their own – and one another's – one and only child," and suffer from "a retardation in the ability to develop true care."

McAdams (1993) offered a means to reconcile these perspectives, arguing that, rather than supplanting identity concerns, intimacy and generativity are best understood as evolved forms of identity, adding to and extending existing identity based concerns regarding agency and communion. The idea of creating a lasting impact to assert, expand,

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and develop oneself through a self-defining legacy offered to a group that provides a meaningful cultural worldview is entirely consistent with Erikson's (1968) work on identity, in which he suggested that the transition to adulthood is marked by simultaneous drives to gain acceptance by conforming to the expectations of a group valued by the individual and to clarify what makes one unique and valued within that group. In groups with an expectation of crafting a lasting impact far into the future, an individual whose legacy is particularly large, public, or representative of group values both demonstrates their fit within the group and highlights their unique and praiseworthy contributions in the eyes of their peers. Such an emphasis on the self in behavior with legacy implications may not be generative, in an Eriksonian sense, but would be consistent with ongoing identity needs. Somewhat problematically, despite McAdams' (1993) suggestion that agentic and communal elements of generativity are comprised of very different motives and behaviors, his measures, including the Loyola Generativity Scale (LGS; McAdams & De St. Aubin, 1992; the generative behavior checklist (GBC; McAdams & De St. Aubin, 1992), and the coding scheme for the life story interview (McAdams et al., 1997) confound agentic and communal generativity, and research attempting to disentangle agency and communion in life narratives yields mixed results (Mansfield & McAdams,1996) with regard to the agentic generativity, suggesting a need for more systematic research.

Linking benefits to beneficiaries

The beneficiaries and benefits of legacies are likely to be intertwined. Individualistic legacies are often resource based. Kotre (1984) suggests that agentic generativity draws the veneration of a community away from its values and towards the

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self. Kotre's (1984: 84) profile of the agentic Erzsabet Domier ends as she describes her desire to write a book, so that people three generations in the future would know who she was, because a book is "something that integrates all of the gathering. And I'm going to leave something like that behind. Many somethings." Dr. Byram Karasu, a psychoanalyst in Manhattan, argues that "All of the philanthropy you see – the buildings named after people for giving $50 million to this museum or Columbia – is the result of one man after another trying to conquer his mortality" (Konigsberg, 2008). Attribution is often central to individualistic legacies' goal of accentuating the self, and books, buildings, and other physical products are well suited to carry one's name far into the future.

Collectivistic legacies, on the other hand, often seek to deliver values based benefits to future generations. Trying to provide a resource based legacy to all of humanity will often appear impractical, although great works of art or certain technological innovations may satisfy this need. More importantly, group memberships provide the cultural worldviews that are often the source of the values that provide individuals with symbolic immortality (Greenberg et al., 1997). For terror management theorists, the cultural worldview is a set of values to be defended against change (Jost, Glaser, Kruglanski, & Sulloway, 2003), but in some cases, individuals seek to create legacies of values that they consider underappreciated by society or the groups to which they belong. The power of such a legacy is in gaining wide adoption of the values, and groups can provide a means by which to reach a large audience. As a founder concerned about environmental issues told Gruber & Fauchart (2013: 21) "I had this idea to start the company, and said 'hey that's a cool way of actively doing something about the

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situation'." Values considered universal can be considered a special case in which the appropriate beneficiary is the largest possible group – all of humanity.

Relational legacies can provide either type of benefit, or both. In her study of intergenerational asset dispositions, Bradford (2009) finds that inheritances are often given in such a way as to provide a lasting sense of financial security or as a reminder of previous generations, but they can also be given in certain forms or with certain restrictions, to support values based legacies unrelated to the exchange value of the item. She describes how one executive's grandfather groomed him to take over part of the family business, not to provide him with a job or a nest egg, but to teach him the family values, while another man's parents refused to give him or his brothers the firm they had created, because as he put it, "none of us took it seriously enough to care about it, [and] they believe in closing the doors if they feel that their kids are going to ruin their name" (Bradford, 2009: 94). Others in Bradford's (2009) study described a more utilitarian account of intergenerational wealth transfers, describing either a desire to provide a lasting resource that can meet the recipient's needs for years to come, or even a less enduring gift, designed to meet the more immediate needs of the next generation. The variety of priorities among individuals wishing to leave relational legacies suggests that the likelihood the nature of the benefits to be provided will be harder to predict, less likely to be resource based (and more likely to be values based) than individualistic legacies, and less likely to be values based (and more likely to be resource based) than collectivistic legacies.

Proposition 2a: Individualistic legacies will tend to be resource based.

Proposition 2b: Collectivistic legacies will tend to be values based.

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Proposition 2c: Relational legacies will be less likely than individualistic legacies and more likely than collectivistic legacies to be resource based.

Proposition 2d: Relational legacies will be more likely than individualistic legacies and less likely than collectivistic legacies to be values based.

Implications of Legacy Targets for Entrepreneurial Decision Making

The founders of new ventures must make critical decisions throughout the life of their firms. Of particular interest to this theory of entrepreneurial legacies are the decisions entrepreneurs make at the very beginning of the new venture, when entrepreneurs are setting the course for how their new organization will help them achieve the kind of legacy they want, and the decisions at the very end of their tenure, when entrepreneurs are making the decisions that will determine what the firm will look like after they are no longer associated with it. Not only are these decisions of particular importance to firm founders' ability to craft a legacy through their organization, the use of metaphors such as organizational birth and death suggests that such situations are analogous to life events that are known to stimulate the legacy motive, including the birth of a child (McAdams & De St. Aubin, 1992) and mortality salience (Wade-Benzoni et al., 2012). The early days of a new venture are filled with decisions that establish a path dependent course for the firm. Entrepreneurs must determine which products to sell to which customers, who to include in their founding teams, and how to balance tradeoffs between growth and control. The desired benefits and beneficiaries of a legacy are likely to influence these decisions in important ways.

The founders of new organizations end up making a series of decisions early in the life of those firms involving tradeoffs between growth and control (Wasserman,

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2012). One reason for this is that as they seek more money to try to grow their firms, providers of that money often impose conditions that limit the entrepreneurs control over the venture. Many angel investors can provide funding to fledgling businesses while allowing founding executives room to operate the business as they see fit, but the sums involved tend to be less than what is available through venture capitalists, who often take a more active role in the firm, including seats on the board of directors and regular meetings in which they seek to direct the founder's energy according to the investor's priorities. Control oriented founders can seek to retain control of the firm by bargaining away some of their claim to a firm's profits, offering anti-dilution protections or lower valuations, in exchange for provisions, such as more say over the composition of the board of directors or drag along rights, that preserve the founder's influence over key decision processes (Wasserman, 2012), but previous research has not examined the psychological processes underlying these choices.

This tradeoff carries particular relevance to individuals who found firms as a way to leave a legacy, as the preferences for growth or control are likely to differ depending on benefits and beneficiaries that the founders see as appropriate to the legacy they want to leave. Entrepreneurs wishing to leave a resource based legacy benefit from a growth oriented perspective that maximizes the value of the firm and their ownership stake in it. For those entrepreneurs whose individualistic approach to legacy emphasizes making large and public impacts on future generations to enhance their own standing in the present, high firm valuations provide an attractive metric of comparison by which to demonstrate their lasting impact. Such entrepreneurs will see a symmetry between their interests and the interests of the investors looking for a financial return, limiting the

potential negative effects of ceding control. Entrepreneurs wishing to leave a values based legacy will likely prefer to retain control, not wanting to leave the fate of their lasting impact in the hands of investors pursuing financial returns. After all, founders cannot use their firms to promote their values, if they have been replaced by executives they did not choose, and who may not share those values. This is especially true for entrepreneurs whose collectivistic approach to legacy involves depersonalized impact on future generations of people with whom they share a common bond, regardless of whether they have ever met. The founders in Walsh and Bartunek's (2011) study of ex-morte organizations often blamed the failure to adhere to the essential processes and culture of the institution for its demise in a process often driven by outsiders who lacked the proper respect for what made the company strong in the first place. To preserve the essential legacy of the defunct businesses, they required control over the systems and culture of the new organizations they created.

> *Proposition 3a: Entrepreneurs wishing to leave individualistic, resource based legacies will choose to emphasize growth in their firms, even at the expense of control.*
>
> *Proposition 3b: Entrepreneurs wishing to leave collectivistic, values based legacies will choose to emphasize control over their firms, even at the expense of growth.*

Work value orientations are likely to mediate this process. Research on work value orientations suggests that people approach their work as either a job, a career, or a calling (Bellah et al., 1985; Wrzesniewski et al., 1997). Job oriented individuals see work as a necessary activity they engage in for pay. They have little attachment to their work,

spend little time thinking about it when they go home, and tend not to put in the kind of long hours that are essential to getting a fledgling business of the ground. Career oriented individuals see work as a means to social status. Past research indicates that they focus on advancing through organizational hierarchies (Wrzesniewski et al., 1997, Gandal et al., 2005), which would indicate that founding a new organization with themselves on top is likely to appeal to career oriented individuals, as they not only compare favorably in the hierarchy of the organization, but the firm provides a system of metrics, such as revenues, profits, employees, and market share, by which they can compare their success to other firms. This social comparison is less relevant to calling oriented individuals, who seek fulfillment through work. Calling oriented individuals feel that they have particular talents and a passion towards a cause or ideology that makes the world a better place. This sense of moral duty leads calling oriented individuals to work long hours and make personal sacrifices that would help them to succeed in any number of employment situations, but it also means that they hold management to a very high standard, and when their employers fail to respect those values or make the same sacrifices, it is a significant source of stress for the calling oriented employees (Bunderson & Thompson, 2009). Founding new organizations can ease this tension, as calling oriented individuals gain the ability to determine for themselves the values of the organization.

Career orientations help illuminate why the desire to leave individualistic, resource based legacies leads to choices that maximize growth. Individuals wishing to leave individualistic legacies emphasize the benefits to themselves gained through their impact on others in the future, and maximizing these benefits involves making public contributions that are recognized as the product of the product of the person leaving the

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legacy. In seeking to emphasize the benefits to the self, entrepreneurs pursuing individualistic legacies are likely to understand their relationship to work through a career orientation. Accepting the self as a primary value base legitimates the advancement of self through career channels as a valued activity, and career oriented individuals engage in short term self-sacrifice, in order to glorify and benefit the self in the long run (Baumeister, 1991). Recent research on career orientation has emphasized promotions and advancement as the means to success for career oriented individuals (Wrzesniewski et al., 1997; Dobrow & Tosti-Kharas, 2011), but Bellah and his colleagues' (1985) original conception of career success defined by concrete measures of their performance, such as revenue, profits, and span of control in relation to others better fits the socially agreed upon understanding of entrepreneurial success. Maximizing success according to the standards of a career orientation involves prioritizing growth over control.

The work value orientation that best connects collectivistic, values based legacies to the prioritization of control in entrepreneurial decision making is that of calling. Individuals pursuing values based, collectivistic legacies seek to benefit groups of others, often by preserving and extending the core values of the organizations they are members of. People who engage the organizations they are a part of to hold the groups to shared standards of value are likely to view their work as a calling (Thompson & Bunderson, 2003), and to view themselves and the organization as having a moral duty that demands sacrifices in support of that cause (Bunderson & Thompson, 2009). Entrepreneurs who found organizations in order to benefit society, some segment thereof, or intangible principles will need to maintain control over the organization. People who feel constrained in their pursuit of a calling first seek to adapt their work environment to meet

their needs, but when that avenue is closed down, they resort to pursuing their calling away from work, often experiencing regret and stress (Berg, Grant, & Johnson, 2010). Yielding decision making authority to other organizations, such as venture capital or other funding sources, might lead to value interpenetration and psychological contract breach (Thompson & Bunderson, 2003). Thus, maximizing success according to the standards of a calling orientation requires prioritizing control over growth.

> *Proposition 4a: Career work value orientations will mediate the positive connection between the desire to leave resource based, individualistic legacies and entrepreneurial decisions that favor growth over control.*

> *Proposition 4b:Calling work value orientations will mediate the positive connection between the desire to leave values based, collectivistic legacies and entrepreneurial decisions that favor control over growth.*

Perhaps the most obvious legacy related decision for firm founders has to do with CEO succession. Leadership changes are frequently followed by changes in performance (Khurana & Nohria, 1999), and the initial CEO transition in a new firm is particularly challenging (Wasserman, 2012; Haveman & Khaire, 2004). Given the very different goals of founders pursuing different kinds of legacies, the mechanism by which they impact firm performance after succession event is likely to vary as well.

For firm founders crafting individualistic legacies, succession events are a significant threat to their ability to convey the lasting meaningfulness of their accomplishments. CEOs who consider themselves central to their organization often pursue risky strategies, resulting in extreme and fluctuating performance (Chatterji & Hambrick, 2007). This places these CEOs at risk of being replaced as extreme

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performance, including extreme success, is associated with greater turnover of founder CEOs. Founders are often surprised when they are asked to step aside after completing product development or new rounds of funding (Wasserman, 2003). On the other hand, boards of directors may want to keep founders with the company in some other capacity, particularly when they have been successful. Founders enjoy longer tenures as CEO when succession events are likely to lead them to leave the company (Wasserman, 2003). Founders pursuing individualistic legacies may be particularly unwilling to accept a diminished role, which would impair their ability to receive the social adulation that led them to found the company in the first place. They are also less concerned with the outcomes for the company, its employees and customers, and its impact on the world, once the success of those groups is less tied to their own relative standing. Entrepreneurs pursuing individualistic legacies may even feel that their legacy is enhanced if those individuals and groups suffer after the founders leave the firm (Casamatta & Guembel, 2010).

> *Proposition 5a: Founder executives pursuing individualistic legacies are less likely to remain with the company after being replaced as CEO.*
>
> *Proposition 5b: New ventures led by founder executives pursuing individualistic legacies are less likely to replace their founder executive after successful completion of product development or new rounds of funding.*
>
> *Proposition 5c: New ventures led by founder executives pursuing individualistic legacies are more likely to experience diminished performance after replacing the founder as CEO.*

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Founders pursuing relational legacies are particularly concerned about the outcomes to their employees and customers after they leave or sell the firm. While this makes them more likely than founders pursuing individualistic legacies to stay with the firm after being replaced, and to facilitate the firm's continued strong performance when they do leave, they face a different set of challenges. Their concern for the outcomes of their colleagues may lead them to select founding teams based on characteristics other than the contribution of each member to the organization's performance. They may also be reluctant to replace or reassign their friends or family who lack the skills to properly perform their role, either because they were a bad fit from the beginning, or because the firm's success has resulted in their position requiring skills that were previously unnecessary. Replacing these founding executives may provide an opportunity to attract better talent to the firm, without losing the founder's strengths. Relational founders may wish to remain with the company to continue to contribute to the outcomes experienced by employees and customers, and they may find that once they have been demoted, it is easier to ask their colleagues and cofounders to accept a role more in line with their abilities.

> *Proposition 6a: Founder executives pursuing relational legacies are more likely to remain with the company after being replaced as CEO.*
>
> *Proposition 6b: New ventures led by founder executives pursuing relational legacies are more likely to replace their founder executive after successful completion of product development or new rounds of funding.*

Proposition 6c: New ventures led by founder executives pursuing relational legacies are more likely to experience enhanced performance after replacing the founder as CEO.

The implications of the departure of a founding executive focused on creating a collectivistic legacy are less clear. Evidence regarding the profitability and survival of firms that integrate corporate social responsibility into their activities is decidedly mixed (Margolis & Walsh, 2001). For example, Meznar, Nigh, & Kwok (1994) found that firms choosing to withdraw from their operations in South Africa experienced a significant drop in their stock price around the time that the decision was announced, and they suggest that although this decision came at a cost to stock holders, managers benefitted from an improved ability to see themselves as ethical, and from reduced aggravation of having to deal with anti-apartheid activists. Taking non-economic factors into account is more common among founders, and this decision can increase the risk of failure (Gomez-Mejia et al., 2007). Replacing such founders may increase performance and the probability of survival.

On the other hand, the desire to benefit specific groups or all of humanity through one's business can confer certain advantages. Steve Jobs, discussing the problems at Apple after his departure, claimed that his replacement, John Scully, "ruined Apple, and he ruined it by bringing in a set of values to the top of Apple which were corrupt." Jobs argued that Apple's greatness was centered around a collectivistic, values based legacy of "something important, that would last, that a lot of people contributed to." Scully was concerned with profits, which Jobs felt cost the company its future (Sen, 1995), because the people who wanted to create a product that changed the world left, were forced out, or

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adopted the short term financial orientation of the new CEO. To the extent that the pursuit of collectivistic legacies attracts key employees or facilitates premium pricing, it may enhance the probability of survival. Alternatively, survival can be enhanced by having an owner who is willing to accept lower returns because the firm satisfies motives unrelated to profit, thereby lowering the rate of return required for the firm to stay in business (Scott-Morton & Podolny, 2002). Replacing such a founding executive might improve performance, as the firm shifts to a profit maximizations strategy, but it also may diminish survival as the required rate of return rises, or the new executive is unwilling to pursue the firm's goals with the same passion as the founder (Casamatta & Guembel, 2010; Haveman & Khaire, 2004).

McWilliams and Siegel (2001) noted that a concern for groups other than shareholders and the values those groups espouse can either be consistent with profit maximization, which they term strategic CSR, or can impair the pursuit of profit. They argued non-strategic use of corporate social responsibility endangers firm survival, while strategic corporates social responsibility promotes it. McWilliams and Siegel (2001) further suggested that strategic CSR may be motivated by either genuinely altruistic concern for those groups, or by simple profit maximization if catering to the interests of those groups allows the firm to lower costs, as they appeal to employees who wish to make a similar impact, or raise revenues, as consumers are willing to consume more of or pay more for the product. Evidence in support of this theory can be seen in Haveman and Khaire's (2004) finding that when early American magazines replaced ideologically zealous founding editors, the threat of failure rose, but only when the founder was engaged in the production of ideological content, and not when the founder served in the

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role of publisher. They show that in the timeframe they examined, magazines with ideological content outperformed their competitors. Thus, it appears that replacing a founder pursuing a collectivistic legacy will impair the firm's profitability when the founder's efforts to change the world are central to the firm's competitive advantage, while replacing such a founder may be advantageous when the founder's legacy aspirations are tangential to the firm's operations.

> *Proposition 7a: New ventures led by founders pursuing collectivistic legacies are more likely to experience diminished performance after replacing the founder, when the organization's ideology gives it a competitive advantage with customers and key employees.*

> *Proposition 7b: New ventures led by founders pursuing collectivistic legacies are more likely to experience enhanced performance after replacing the founder, when the target beneficiary is not central to the organization's operations.*

Changes Over Time

Having discussed the importance of the legacy motive and the targeted benefits and beneficiaries to critical decisions made at the beginning and end of founders' relationships with their ventures, it is important to acknowledge that these motives can change over time. Not only can the salience of the legacy motive wax and wane throughout the life of an entrepreneur and a start-up, but the nature of the impact that the founder wishes to make through their firm can shift as well.

Although the legacy motive may be a persistent source of motivation for some people, for others, the desire to leave a lasting positive impact is often latent, arising only under circumstances that make it salient. One reason to focus on how legacy benefits and

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beneficiaries can affect decision making at firm founding and entrepreneurial exits is that

founders are likely to be particularly aware of their legacies at these points. As discussed

above, some entrepreneurs appear to found organizations for the purpose of leaving a

legacy, and a variety of factors contribute to the legacy motive becoming more salient

over time. Entrepreneurs leaving or selling the firms they founded are likely to be

particularly concerned about their lasting impact at the business. Research has shown that

the birth of a child can trigger generative impulses (Kotre, 1984; McAdams & De St.

Aubin, 1992), and thoughts of death can trigger the desire to leave a legacy (Wade-

Benzoni et al., 2012; Fox & Wade-Benzoni, 2013b), and the entrepreneurial sensemaking

process underlying the metaphor of parenthood (Cardon et al., 2005) suggests that

analogous events in the life of a business will engage similar cognitive processes. Yet the

myriad of immediate operational concerns, such as payroll and purchasing, may not lend

themselves as easily to legacy thinking, directing founders' attention away from their

lasting impact for much of the life of their firms.

> *Proposition 8: Entrepreneurs will be particularly concerned with their legacies*
>
> *when they found the firm and as they prepare to leave or sell it, but the legacy*
>
> *motive is will be less salient in between, as founders attend to the day to day*
>
> *operations of the firm.*

In addition to changes in the strength of the legacy motive, the desired target of

the legacy motive can also change over time. As founders age and their firms grow and

evolve, they may come to perceive different benefits and beneficiaries as more or less

appropriate outlets for the desire to leave a lasting impact, and may be particularly likely

to lead founders to pursue collectivistic legacies over time. Yvon Chouinard, founder of

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sporting goods and apparel maker Patagonia, got frustrated with the quality of rock climbing equipment available, and began making equipment to use himself and sell to friends (Chouinard, 2006), much like the communitarians described by Fauchart and Gruber (2011). As his firm grew, he came to see it as an outlet for more missionary objectives. Chouinard now describes Patagonia as "my resource to do something good. It's a way to show that corporations can lead examined lives," supporting his desire to expand his lasting impact beyond a close circle of friends to benefit all people, and the entire planet by rigorously measuring, disclosing, and minimizing environmental impact, using organic and recycled materials, and just as importantly, donating to environmental organizations and teaching other firms how to profitably craft a similarly broad impact (Stevenson, 2012).

Changes in the desired benefits and beneficiaries of entrepreneurial legacies can also affect the kinds of companies founded by serial entrepreneurs. Bill Gates' legacy at Microsoft appears to be individualistic in nature. Gates took a very public role and a great deal of personal credit for the company's success, which was defined in Darwinistic terms of profits and market share (Lowe, 1998). As he transitioned to found the Gates foundation, his legacy became more communal in nature. Gates defined success in different terms, such as helping 4.1 million farm households increase their yields by 50%, or to cut the mortality rate of children under 5 in half (Gates, 2011). Rather than competing with other organizations, the Gates Foundation pursues partnerships with governments, non-profits, and other foundations to maximize the impact he can have on people he will never meet.

The aging process can contribute to an increasing emphasis on collectivistic legacies. The willingness to make personal sacrifices for the benefit of future others – a characteristic of relational and collectivistic legacies, but not individualistic legacies – rises from young adulthood through middle age (Erikson, 1968; Kotre, 1984). This effect is particularly pronounced in men (Ochse & Plug, 1986; McAdams & De St. Aubin, 1992), who are both more likely to have collectivistic perceptions of interdependence (Gabriel & Gardner, 1999; Maddux & Brewer, 2005) and three times as likely as women to be self-employed (Carter, Shaw, Lam, & Wilson, 2007). This shift towards collectivistic legacies may be accompanied by a shift from resource based legacies towards legacies that promote and extend the values those groups espouse, and evidence suggests that older male entrepreneurs become less concerned with financial outcomes and more motivated by altruistic concerns (Wasserman, 2012).

Firm size can also contribute to an increasing preference for collectivistic legacies over time. Entrepreneurs who run smaller firms are more likely to know most, if not all of their employees, but as the firm grows over time, their personal connection to specific individuals within the firm may give way to a depersonalized group orientation. This logic is consistent with psychological research demonstrating that priming individuals to think of their interpersonal relationships made them more likely to define themselves in terms of their group memberships when the groups were large, rather than small (Brewer and Gardner, 1996). In the context of entrepreneurial legacies, the tendency think about large groups in collectivistic terms relates to firm size. Founders of firms that remain small may therefore be more likely to pass the firm on to their family members, work out an employee ownership plan, or restrict the sale of the company to buyers that express a

willingness to support the interests of current employees. For new firms that a founder

creates from scratch, size is inherently small at founding, limiting the role of size in

shaping how the legacy motive impacts decision making, but as entrepreneurs prepare to

sell or retire from the company they founded, the size of the firm is likely to play a larger

role in determining who the entrepreneurs sees as an appropriate beneficiary of their

legacy, and their subsequent decision making in pursuit of that goal. As successful firms

grow, this should lead their founders to increasingly favor collectivistic legacies.

Proposition 9: Entrepreneurs are likely to increasingly emphasize collectivistic

legacies over time.

Discussion

Entrepreneurial legacies constitute a promising avenue for future research on

entrepreneurial motivation. Despite accumulating evidence that entrepreneurs think about

their lasting impact, the topic has not gained significant scholarly attention, due in part, to

a lack of conceptual clarity regarding what a legacy is and the different kinds of legacies

a firm founder may wish to leave. Recognizing the differences in the desired benefits and

beneficiaries of the lasting impact that entrepreneurs wish to have and the implications of

those distinctions for the critical decisions that entrepreneurs need to make can enhance

our understanding of the survival of new firms and the success of firm founders in

achieving their goals.

Understanding differences in the desired benefits and beneficiaries of a legacy is

critical to understanding behaviors intended to impact future generations. People wishing

to leave a legacy must decide what they wish to leave behind, and whom they wish to

benefit from that act. Legacies can be vehicles for providing resource based benefits to

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future generations, or for perpetuating a set of closely held values far into the future, and those benefits can be targeted to benefit specific individuals with whom the benefactor has some personal relationship, depersonalized groups on whom the benefactor would like to make a positive impact, or resources and values can be conveyed across generations in such a way as to promote the benefactor's own interests. The different intended benefits and beneficiaries of a legacy are related to a variety of psychological and demographic factors, as well as to each other.

Unpacking the different intended benefits and beneficiaries of an entrepreneurial legacy helps us to understand the decisions that entrepreneurs make in the early stages of their ventures. As entrepreneurs make inevitable tradeoffs between growth and control, those who wish to leave individualistic and resource based legacies are likely to make choices that maximize the growth of their firms to achieve their goals in terms of social comparison and financial returns. Firm founders wishing to leave collectivistic and values based legacies, on the other hand, are likely to make choices that retain control of their firms, because such control is necessary to achieve their goals in terms of social impact.

Unpacking the different target beneficiaries of an entrepreneurial legacy also helps us to understand the end of the entrepreneurial process as new firms transition from founder managed firms to professionally managed. The transition from a founder CEO to their initial successor is a critical decision, fraught with danger for a young firm. Founding CEOs pursuing individualistic legacies are likely to respond poorly to being replaced, even when this is in the best interests of the firm, being unwilling to accept that their skills are no longer suited to the business's changing needs, and unwilling to facilitate the transition. As a result, replacing such founders is likely to lead to diminished

performance, making them less likely to be replaced than other founders with similar performance. Founding CEOs pursuing relational legacies are likely to be particularly concerned with what happens to their employees and customers after they are gone, and are therefore likely to be more cooperative in transitioning to a new CEO, as they seek to ensure that the relational targets of their legacy receive the benefits they had in mind. Replacing such founders may well enhance firm performance, as it provides an opportunity to replace employees whose skill sets may not fit their job description, as long as those employees are provided with more suitable roles or provided with the resources to assist in their own transition in a way that is consistent with the founder's legacy motives. The effect of replacing a founding CEO pursuing a collectivistic legacy is likely to be contingent upon the centrality of the founder's ideology to the firm's strategy. When the founder intends to benefit groups seen as particularly worthy by customers and employees, replacing that founder can harm the firm, as their successor may lack commitment to the cause or credibility with stakeholders, but when the founder seeks to benefit groups that provide no competitive advantage to the firm, replacing the founder can allow the organization to better pursue goals that promote the survival of the firm itself.

SECTION III: EMPIRICAL INVESTIGATION

In the previous section, I suggested that the study of entrepreneurial legacies exists in a nascent state, as the legacy motive may provide an answer to the surprising finding that entrepreneurs would typically be better off working for someone else. In this section, I seek to establish quantitative, empirical support for a subset of those propositions using a survey of engineers to establish the basic positive correlation between the previously the legacy motive and entrepreneurship, developing new measures of the intended benefits and beneficiaries of a legacy to establish how legacy complexity can shape entrepreneurial behavior. Further acknowledging the nascent state of research on entrepreneurial legacies, I also conduct a qualitative investigation of motivation among executives in startup medical firms, to allow entrepreneurs to describe for themselves whether the opportunity to make a lasting impact was important to them, and the nature of the impact they wish to have.

Study 1: Quantitative Examination of the Legacy Motive and Entrepreneurship

In the preceding chapter I proposed a model of entrepreneurial decision making wherein entrepreneurs use their firms to craft their legacies around different target benefits and beneficiaries. Understanding these new constructs and their proposed relationships to other variables requires the development of new measures. In Study 1, I develop scales for individualistic, relational, and collectivistic legacy beneficiaries, and resource and values based legacy benefits. To validate the measures and to begin to test the underlying theories, I use a national internet survey sample and examine the proposed link between entrepreneurial activity and the desire to leave a legacy (Proposition 1), the

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relationship between the benefits individuals wish to leave behind and the desired

beneficiaries of that act (Proposition 2), the connection between legacy benefits and

beneficiaries and work value orientations (Proposition 4), and changes in the strength of

the legacy motive (Proposition 8) and the desired benefits and beneficiaries of

entrepreneurial legacies over time (Proposition 9). Thus, this study aims to both validate

the new measures for use in future work, and to test hypotheses derived from the

propositions in the preceding chapter.

As described in more detail in the preceding chapter, I expect entrepreneurs to be

particularly motivated by their legacies. This is both because the founding of

organizations is a powerful form of self extension, and because firm founders are likely

to increasingly perceive their firms and products as items of value that they would like to

persist after they are gone.

Hypothesis 1: People high on the legacy motive will be more likely to pursue

entrepreneurship than people low on the legacy motive.

I also expect the benefits and beneficiaries of legacies to be related to each other.

Individualistic legacies, by nature of their emphasis on glorifying the self, will tend to

emphasize resource based legacies that can be explicitly tied to the benefactor.

Collectivistic legacies, on the other hand will be more likely to be values based, as the

cultural worldviews that unite the group define the values that are to be preserved,

maintained, or extended. Relational legacies can provide either resource based or values

based benefits to specific individuals in the future, and are thus likely to fall between

individualistic legacies and collectivistic legacies in terms of the nature of the benefits to

be provided.

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Hypothesis 2a: People pursuing individualistic legacies will tend to prefer that their legacies be resource based.

Hypothesis 2b: People pursuing collectivistic legacies will tend to prefer that their legacies be values based.

Hypothesis 2c: People pursuing relational legacies will be less likely than those pursuing individualistic legacies and more likely than those pursuing collectivistic legacies to prefer that their legacies be resource based.

Hypothesis 2d: People pursuing relational legacies will be more likely than those pursuing individualistic legacies and less likely than those pursuing collectivistic legacies to prefer that their legacies be values based.

People's preferences regarding the benefits and beneficiaries of their legacies are likely to be reflected in their work value orientations. People wishing to leave individualistic, resource based legacies can best satisfy their goals by making public measurable contributions in socially valued ways that are consistent with career work value orientation that emphasizes competitive performance as seen in promotions, profits, and supervisory responsibilities. Alternatively, people wishing to leave collectivistic, values based legacies can best satisfy their goals by investing their selves in work that serves an entity larger, more permanent, and more meaningful than themselves in ways that are consistent with the sense of destiny and moral purpose associated with a calling orientation.

Hypothesis 3a: People pursuing individualistic, resource based legacies will tend to view their work as a career.

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Hypothesis 3b: People pursing collectivistic, values based legacies will tend to view their work as a calling.

Participants

To provide evidence for the importance of legacies to entrepreneurial decision-making, I recruited 286 engineers through a market research firm to participate in an online survey. By limiting the scope of this investigation to engineers, I limit the extent to which rates of firm founding are affected by differences in industry, while focusing on a group with relatively high levels of self-employment (Levie et al., 2004). Focusing on engineers also allows for meaningful differences in the level of patenting activity as an alternative measure of the exploitation of opportunities to complement firm founding.

Demographic information was collected by the market research firm, separately from the survey. The sample was 27% female, had an average age of 48, and had four years education beyond high school. 21% of the sample indicated they worked for a firm that they had founded, a rate comparable to other surveys of entrepreneurship among scientists and engineers (NSF, 2012).

Measures

Participants were first asked to report their income, the number of employees at their company, and their level of ownership of their current employer. Then, using questions adapted from the Panel Survey of Entrepreneurial Dynamics (Gartner, Shaver, Carter, & Reynolds, 2004), participants were asked to indicate whether they founded their current employer, whether they ever founded any company, whether they were trying to start a new company, and whether they were seeking to create a new venture for their current employer.

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Participants were then asked to respond to several items on seven point Likert scales indicating the extent of their agreement with statements regarding their desire to leave a legacy, including their overall desire to leave a legacy, and new scales designed to elicit whether they wished to leave resource based or values based legacies to individualistic, relational, or collectivistic beneficiaries. The new scales all exceeded Nunnally's (1967) recommended threshold of a Chronbach's alpha of .60 for reliability for early stage research. Questions examined the overall strength of the legacy motive (Wade-Benzoni et al., 2012), and the desired benefits (appendix A) and beneficiaries (appendix B) of the legacy. Items for the strength of the legacy motive include: *It is important to me to leave a positive legacy for future generations*. Sample items for legacy benefits include: *My legacy will be visible in the financial and physical products I leave behind* (resource based, Chronbach's $\alpha = $ .869); *My legacy reflects intangible values* (values based, $\alpha = $ .822). Sample items for legacy beneficiaries include: *I get an ego boost from making a lasting impact* (individualistic, $\alpha = $ .794); *I have specific people in mind that I want to benefit from my legacy* (relational, $\alpha = $ .841); *I want to ensure that the groups I'm a part of are made stronger by my legacy* (collectivistic, $\alpha= $ .752). One item intended to be included in the new collectivism scale: *When I think about my impact on future generations, I don't have specific people in mind*, reduced the reliability of the scale from .752 to .602, and was dropped to improve the scale's usefulness in this and future studies.

To measure work value orientations, I use the measures developed by Wrzesniewski and her colleagues (Wrzesniewski et al., 1997; Gandal et al., 2004) to examine participants' work value orientations, which in contrast to other measures of

calling (c.f. Wrzesniewski et al., 1997; Bunderson & Thompson, 2009; Duffy & Sedlacek, 2007; Dobrow & Tosti-Kharas; 2011), also capture career and job orientations. The measures include the sample items: *My work makes the world a better place* (calling); *I expect to be in a higher level job in five years* (career); *I would retire if I could* (job). One item from the career orientation scale, *I don't think success is measured by promotion*, proved particularly problematic for the reliability of the scale. This scale has raised reliability concerns in some studies and not in others. For example, Dobrow & Tosti-Kharas (2011) found relatively high reliability among professional managers, but low reliability among musicians, artists, and business students. In the current study, the item reduced the reliability of the scale from .735 to .477, and the item was removed on this basis.

Noting that these items have not previously been used on a sample of entrepreneurs, and the career items in particular raise questions of interpretation among firm founders, I also asked participants to indicate their similarity to the individuals in the scenarios originally described by Wrzesniewski et al. (1997). While the meaning of an entrepreneur's agreement with the statement *I expect to be in a higher level job in five years* raises questions of interpretation, that same entrepreneur's indication that he or she is similar to a person who sees promotion as *a sign of his success in competition with his coworkers* is rather more straight forward. Ultimately, responses to the paragraphs were generally consistent with responses to the items on the matching scales, suggesting that, with the exception of the third calling item, entrepreneurs felt comfortable applying these descriptions of more traditional work environments to their own lives. For purposes of

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overall clarity and consistency with prior work, the below results report the relationships

between the newly developed legacy scales and the work value orientation scales.

Results

As noted earlier, entrepreneurship has been operationalized in different ways, and

in reference to different behaviors. To more fully understand the relationship between the

legacy motive and entrepreneurship, I examine the connection in relation to the creation

of new firms (firm founding), self-employment (firm ownership), and technological

innovation (patents). I further examine the relationship between different kinds of legacy

benefits and beneficiaries, and whether work value orientations connected to these legacy

attributes mediate the connection between the legacy motive and firm founding.

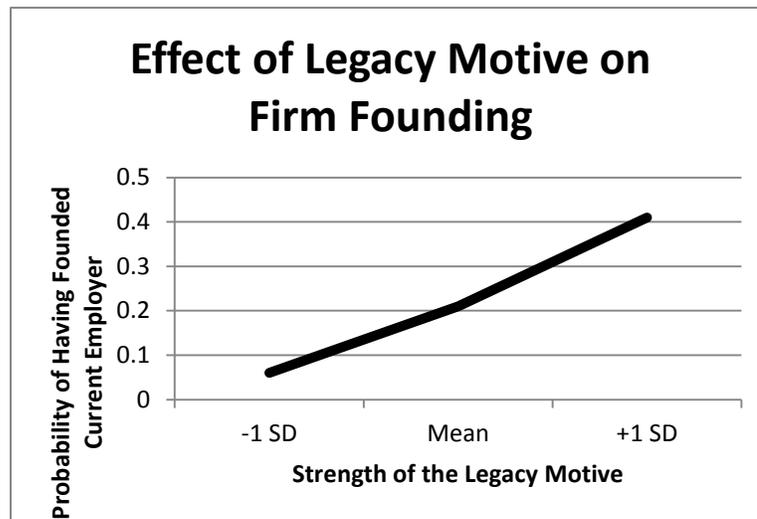**Figure 1: Rates of firm founding as a function of the legacy motive**

Firm Founding. I conducted a logistic regression of firm founding on the legacy

motive. After controlling for gender, age, and education the legacy motive was a strong

predictor of having founded the firm one currently works for (b = .567; SE = .216; Wald

= 6.858; *p* = .006). Engineers high on the legacy motive are twice as likely as average,

and seven times more likely than engineers low on the legacy motive, to have founded their current employer.

Table 1: Effects of the Legacy Motive on Firm Founding

| | Binomial Model of Firm Founding | |
	Model 1	Model 2
Gender	0.391	0.399
Age	-0.011	-0.009
Education	-0.073	-0.046
Legacy Motive		0.567***

** $p < .01$

Self-Employment. I regressed ownership of participants' current employer on the control variables and the legacy motive. While the legacy motive was positively related to self-employment (b = 4.618; SE = 2.035, t = 2.269, p = .025), this effect was driven almost entirely by having founded ones' current firm, with neither firm founders (b = -5.547, SE 9.420, t = -.756, p = .456) nor non-founders (b = 1.592, SE = 1.4, t = 1.137, p = .258) displaying statistically significant differences in their firm ownership as a function of their legacy motivation after separating the two groups.

Table 2: Effects of the Legacy Motive on Firm Ownership

	Percentage Ownership	
	Model 1	Model 2
Gender	0.041	0.042
Age	-0.007	-0.001
Education	-0.008	0.011
Legacy Motive		1.82*
* $p < .05$	$R^2 = .002$	$\Delta R^2 = .033$

Innovation. Due to skewness in the distribution of patents, I performed a logarithmic transformation of their patenting activity, before regressing it on the control variables and the legacy motive. After again controlling for age, gender, and education, the legacy motive was again a strong predictor of entrepreneurial activity, this time as seen by the innovation demonstrated by the patenting activities of the engineers in the sample ($b = .069$, $SE = .17$, $t = 4.068$, $p < .001$).

Table 3: Effects of the Legacy Motive on Patenting

	Log Patents	
	Model 1	Model 2
Gender	-.086	-.089
Age	-.249*	-.233*
Education	.160	.190
Legacy Motive		.301***
* $p < .05$, *** $p < .001$	$R^2 = .086$	$\Delta R^2 = .089$

In addition to the effect of the legacy motive on the three measures of entrepreneurship, the results provided partial support for Hypothesis 2. After controlling for the overall strength of the legacy motive, participants targeting individualistic beneficiaries were both the most likely to wish to leave resource-based benefits (b = .436, SE = .055, t = 7.924, p < .001), and the least likely to wish to leave values-based benefits (b = .030, SE = .041, t = .739, p = .461). However, in contrast to hypotheses 2b-c, the desire to leave resource based benefits was weakest among participants whose legacies targeted relational beneficiaries (b = .172, SE = .064, t = .2688, p = .008) than those targeting collectivistic beneficiaries (b = .340, SE = .065, t = 5.257, p < .001), with the desire to leave values based benefits at comparably high levels when targeting either relational (b = .325, SE = .048, t = 6.807, p < .001) or collectivistic (b = .301, SE = .048, t = 6.227, p < .001) beneficiaries.

Work Value Orientations. Participants' legacy motivation was linked their work value orientations in ways with important implications for the creation of new firms. As expected, a career orientation was more common engineers pursuing individualistic (b = .584, SE = .099, t = 5.919, p < .001) legacies than engineers pursuing relational (b = -.034, SE = .114, t = -.294, p = .769), or collectivistic (b = .177, SE = .116, t = 1.529, p = .127) legacies, while a calling orientation was more common among engineers pursuing collectivistic (b = .316, SE = .081, t = 3.906, p < .001) legacies than those pursuing individualistic (b = -.009, SE = . 069, t = -.133, p = .894), or relational (b = -.041, SE = .080, t = -.517, p = .606) legacies. Job orientations were most common among engineers pursuing relational legacies (b = .243, SE = .110, t = 2.215, p = .028), as compared to

engineers pursuing individualistic (b = -.007, SE = .095, t = -.076, p = .939), or collectivistic (b = .002, SE = .011, t = .021, p = .984) legacies.

Discussion

This study revealed a strong link between the legacy motive and entrepreneurship. Engineers high on the legacy motive were significantly more likely to indicate founding their current employer, owned more of their current employer, and filed more patents than those engineers lower on the legacy motive. The study provided some support for distinguishing between legacy benefits and beneficiaries, demonstrating that the pursuit of individualistic legacies was linked to a strong desire to leave resource based, as opposed to values based legacies, and the intended beneficiaries of the legacy motive were linked to work value orientations.

Study 2: Qualitative Examination of the Legacy Motive and Entrepreneurship

In the first study I confirmed *how important the legacy motive is* to entrepreneurs. In this study I seek to extend our understanding of *how the legacy motive is important* to entrepreneurs. As noted in the theoretical development, any individual who wishes to make a lasting impact must determine what they want that impact to be. One part of the appeal of entrepreneurship is the ability to pursue whichever legacy is most meaningful, due to the autonomy most entrepreneurs enjoy in their startups. Understanding the importance of the legacy motive to entrepreneurs requires understanding how the desire to leave and entrepreneurial legacy differs from the desired legacies of individuals who choose to work in more established firms. Understanding any differences that may exist from on entrepreneur to the next in the nature of the legacy they wish to leave is similarly important. In the context of legacy, which I earlier defined as an enduring meaning, attached to the identity of an individual actor, apparent in behaviors intended to have an impact after the actor is gone, entrepreneurial legacies should reflect both how entrepreneurs define themselves, and the nature of the lasting impact that best reflects that identity.

Although much recent qualitative research has indicated a role for the legacy motive as an important factor affecting entrepreneurial behavior, because the legacy motive has not been central to the primary question at the heart of that research, the exact nature of the lasting impact entrepreneurs wish to have remains a mystery. Furthermore, past research has typically not sought to compare the motives of multiple members of a single firm, or the extent to which they are motivated to leave a legacy, much less the

different elements they see as particularly important to the kind of lasting impact they want to have. As a result, formulating firm hypotheses about what those differences might be is nearly impossible. When the extant research is insufficient to form hypotheses, nascent qualitative research can facilitate the development of an inductive theory that explains how a novel phenomenon unfolds (Edmondson & McManus, 2007). By specifically contrasting various members of organizations in companies at different stages of development, such a study can contribute to efforts to make entrepreneurship research more distinctive (Shane, 2012).

As research on entrepreneurship has grown, so has interest in the cognitive processes of entrepreneurs (Mitchell, et al., 2007). Yet, the question of why individuals choose to pursue entrepreneurial opportunities has proven surprisingly vexing. In particular, scholars have struggled to explain why people would choose to start new companies, when a majority of entrepreneurs would be better served, financially, by pursuing employment commensurate with their education and experience at established firms (Hamilton, 2000; Moskowitz & Vissing-Jorgensen, 2002). While a variety of non-pecuniary benefits to entrepreneurship have been proposed, findings in prominent areas of study, such as risk preferences, have been mixed (Stewart & Roth, 2001; Miner & Raju, 2004). This has led to calls for additional research into the effects of a broader set of psychologically inspired independent variables (Hisrich, Langan-Fox, & Grant, 2007) on a broader set of dependent variables (Cohen, Smith, & Mitchell, 2007).

In response to the underdeveloped field of entrepreneurial motivation, (Mitchell et al., 2007), recent research (e.g. Graebner, 2009; Haynie & Shepherd, 2011; Walsh & Bartunek, 2011; Fauchart & Gruber; 2011) has begun to identify promising new lines of

inquiry by taking the simple, but surprisingly unusual step of asking entrepreneurs to talk about what they do and why. This nascent research begins to explain the unexpected finding that most firm founders pay an economic price for their career choice, by questioning the assumption that economic motives form the basis of the entirety of their decision-making. This research introduces distinctly non-economic values, such as passion, communitarian identities, and legacies, to explore the boundary conditions and fill in the gaps in our understanding.

One promising avenue of research to emerge from these studies is the connection between the creation of new firms and the desire to make a lasting impact (Fox & Wade-Benzoni, 2014). Although recent qualitative research has provided evidence consistent with the legacy motive playing an important role in entrepreneurial behavior, because the legacy motive has not been central to the primary question at the heart of that research, the exact nature of the lasting impact entrepreneurs wish to have remains a mystery. Furthermore, past research has typically not sought to compare the motives of multiple members of a single firm, or the extent to which they are motivated to leave a legacy. Even to the extent that we can accept, based on the qualitative evidence, that entrepreneurs are disproportionately concerned with making a lasting impact, questions remain regarding what they want their legacy to be and how they use the creation of new firms to satisfy the legacy motive. As a result, formulating firm hypotheses about what those differences might be is especially challenging. When the extant research is insufficient to form hypotheses, nascent qualitative research can facilitate the development of an inductive theory that explains how a novel phenomenon unfolds (Edmondson & McManus, 2007). By specifically contrasting various members of

organizations in companies at different stages of development, such a study can contribute to efforts to make entrepreneurship research more distinctive (Shane, 2012).

Entrepreneurial Identity

Identity plays a central role in the legacy motive (Tost & Wade-Benzoni, 2008) and entrepreneurship (Fauchart & Gruber, 2011; Cardon, et al, 2009). Individuals seek self-extension and symbolic immortality by leaving a meaningful part of themselves behind (McAdams & De St. Aubin, 1992; Greenberg, Solomon, & Pyszczynski, 1997). When choosing to make a lasting impact, individuals must determine which facets of the self-concept are most relevant and meaningful (Fox, Tost, & Wade-Benzoni, 2010), and when using entrepreneurship as an outlet for the legacy motive, they must determine what is most meaningful about being an entrepreneur.

Entrepreneurship scholars are just beginning to understand the complexity of entrepreneurial identity. Historically, research has sought to understand what distinguishes entrepreneurs from people who choose to work in large, established companies (Aldrich & Martinez, 2001; Gartner, 2010). Increasingly, research suggests that entrepreneurs do not all share the same sense of what makes the activity meaningful (Cardon et al., 2009; Fauchart & Gruber, 2011). Even the definition of entrepreneurship is in dispute. As Shane and Venkataraman's (2000) definition of entrepreneurship as the identification, evaluation, and exploitation of opportunities has gained wider acceptance, it has increasingly been challenged by scholars who reject the concept of the discovery of opportunities, in favor of their creation (Alvarez & Barney, 2007; 2011), and by scholars favoring the more historical definition new firm formation (Reynolds, 2009), with still other entrepreneurship scholars choosing to focus their efforts only on the relatively small

subset of new firms whose processes and products diverge significantly from existing organizations, sometimes resulting in radical innovations (Aldrich & Martinez, 2001).

More recently, scholars have examined how entrepreneurs define themselves according to the different activities they are passionate about (Cardon, et al., 2009) or the intended outcomes of their entrepreneurial activities (Fauchart & Gruber, 2011; Walsh & Bartunek, 2011). Rather than attempt to reconcile divergent views of what entrepreneurship is, this research embraces the diversity entrepreneurial identities and behaviors, and seeks to understand what entrepreneurship means to the people involved in the phenomenon. Qualitative research is particularly well suited to understanding the differences that emerge within entrepreneurs, as opposed to between entrepreneurs and managers (Gartner, 2010). To the extent that some people who found new firms behave differently than other people who found new firms, or similarly to those who join established firms, understanding the nature of those differences and similarities is critical, regardless of the labeling. In this study, I examine the meaningfulness underlying the identities entrepreneurs claim for themselves, and their behaviors intended to have an impact that lasts after they are gone.

Methods

I employ a grounded theory approach to understanding how the legacy motive is important to entrepreneurs. A qualitative approach is appropriate, given the absence of prior research to inform theorizing around the link between the legacy motive and entrepreneurship, a research question focusing on processes, and understanding the world from the perspective of those studied (Edmondson & McManus, 2007; Pratt, 2009, Graebner, Martin, & Roundy, 2012). As such, I do not articulate hypotheses to be tested,

but draw on the rich descriptions of organizational informants to inductively derive new theory regarding the phenomenon of entrepreneurial legacies (Edmondson & McManus, 2007). In presenting this research, my goal is to honor the worldview of the informants, provide sufficient evidence for my claims, and significantly contribute to extant theory (Pratt, 2009).

Study Setting

To understand the role of different entrepreneurial identities and the diversity of legacy motivation those identities imply when driving entrepreneurial behavior, I focused on executives in startup medical firms at various levels of development. Qualitative research makes use of theoretical sampling, often relying on extreme cases, in which the dynamics being studied are particularly visible (Eisenhardt, 1989; Corbin & Strauss, 2008). Medical firms are an appropriate population in which to examine the entrepreneurial identities and the legacy motive for two main reasons. First, individuals holding both medical and managerial roles sometimes face difficult tradeoffs in terms of the obligations of their multiple roles to patient care and profit maximization. As such, medical startups provide their executives with the opportunity to craft different kinds of legacies, forcing them to grapple with tradeoffs between different possible benefits and beneficiaries that are central to understanding entrepreneurial legacies. Second, these executives meet a variety of criteria that have been used to define entrepreneurship. In startups, the person who started the firm is often still there, or easily accessible to interview, the firm and its employees are actively involved in the identification, creation, evaluation, and exploitation of opportunities, and along with technology firms, medical startups are responsible for a disproportionate amount innovation and productivity gains

associated with economic growth (Reynolds, Hay, & Camp, 1999). Given the inconsistent usage of the term entrepreneurship, executives in such firms will have flexibility in determining what makes entrepreneurship meaningful to them. Understanding how the complexities of the legacy motive drive the decision making processes of key decision makers in such firms has important implications for our understanding of the phenomenon and the strategic and public policy decisions that drive much of the interest in entrepreneurship as a field.

Sample

Firms were identified through affiliations with entrepreneurship centers and incubators in North Carolina. Some of these affiliations came as a result of having been supported by the centers and incubators in the early stages of development, while others came through the personal efforts of individuals associated with the firms, as a way of giving back – a legacy behavior that emerged as common in the sample, which was not limited to the focal centers and incubators that served as an initial point of contact with the firms in the sample. I will discuss the phenomenon of giving back in more detail later.

I interviewed twenty executives who had been part of the ten medical firms within five years of the firms' founding. I began with a focus on interviewing executives who had been with their firms since founding, and other executives at the same firm who had entered later. Consistent with the iterative theory building and theory checking approach of grounded theory (Corbin & Strauss, 2008), I checked the responses of these employees against each other and found little to justify the distinction between those who had always been with the firm, and those who had joined later. Instead, key differences emerged between *founders*, who saw themselves as the creators of new organizations, and

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inventors, who saw themselves as the creators of new technologies. Again in keeping with grounded theory methodologies (Corbin & Strauss, 2008), I adjusted my sampling accordingly to seek input from founders and inventors within firms, whenever possible. I will further discuss the justifications for this shift in sampling below in the findings.

Data Coding and Analysis

The unit of analysis for this study is the individual, and the key questions are centered on how the executives at startups think about their legacies, and how the legacy motive affects the decisions they make as the leaders of relatively young firms with the opportunity to make various lasting impacts, including the both the potential to make large sums of money and to make a large impact on the lives of others. Drawing on McAdams' (1992; 2006; McAdams et al., 2001) work on the self-narratives of generative individuals, the interview encourages executives to think of their lives as having chapters. Informants were asked to describe the significant events and important persons of the chapter immediately preceding their involvement with the current company, the chapter that describes their work at the moment, and the future chapter that will follow the one that describes their current work, and to tie these chapters together with a dominant theme or message. Encouraging entrepreneurs to describe what is important to them, rather than directly inquiring about their legacy motivation, avoids constraining their responses to fit the questions and allows more fruitful exploration of their motives. Follow up probes sought to connect to the pieces of entrepreneurs' stories that related to the benefits of being involved in new and emergent companies with the desire to make a lasting impact, while providing the opportunity to confirm or disavow the interviewer's emerging understanding of the entrepreneurs' motives.

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In keeping with my grounded theory approach, I continuously compared data with emerging theoretical constructs (Glaser & Strauss, 1967, Corbin & Strauss, 2008). I alternated between conducting interviews and analyzing the content, using what I had learned to develop provisional theories that informed subsequent data collection by asking supplementary questions and revising the theoretical sampling approach to more accurately capture the details and nuances of motivation among entrepreneurs in medical startups. The analysis involved three major steps: 1) Open coding, in which I identified and labeled key empirical themes, 2) Axial coding, in which I established connections between categories and subcategories in a set of relationships, and 3) Selective coding, in which I selected entrepreneurial identity as the core category, and systematically related the other categories back to that core in a coherent theoretical framework (Corbin & Strauss, 2008). Throughout this process, I regularly returned to the literature, to ground my emerging interpretation in existing theories (Suddaby 2006; Besharov, 2014).

Step 1: Open Coding. I first sought to analyze the interviews by breaking down, examining, comparing, and conceptualizing the data (Corbin & Strauss, 2008). I compared themes across and within transcripts to refine the boundaries of each one examining relevant passages to see if they fit the themes as they emerged. When they did not, I revised the coding scheme. For example, my initial sampling approach, distinguishing founders from non-founders on the basis of whether or not they had been a part of the firm since its inception, turned out to be an inadequate basis for categorizing informants. Several entrepreneurs described discovering the appeal of entrepreneurship while working in startups created by someone else, and others described how the growth of any startup over time sometimes diminished the value they associated with working in

new and emerging organizations. Instead, executives in medical startups tended to describe their entrepreneurial experiences on the basis of whether they focused on the process of creating new companies or the problems that could be solved by new technologies. In coding statements conveying these identities, I found that some entrepreneurs explicitly rejected one identity in favor of another, while other respondents described elements of both, with one identity figuring more prominently. This distinction between would become particularly important in making sense of the relationship between entrepreneurial identity and the lasting impact that informants described as a central desired outcome of their activities. In keeping with grounded theory methodologies (Glaser & Strauss, 1967; Strauss & Corbin, 2008), I adapted my sampling procedure, as tenure with the firm proved not to be meaningful distinction, and adapted my questioning to include more follow-up questions seeking to understand how these identities shaped the way entrepreneurs sought to achieve their goals through their work.

Step 2: Axial Coding. In the second stage of the analysis, I consolidated and abstracted empirical themes, putting data back together in new ways, by making connections between categories (Corbin & Strauss, 2008). This process entailed continually comparing events, incidents, and happenings in the data to one another and to my conceptual categories. As part of the process of abstracting these first order codes and grounding them in a firm understanding the academic literature (Gioia, Corley, & Hamilton, 2011), it became apparent that these self-identified descriptions echo Cardon's (Cardon et al., 2009; 2013) descriptions of the identities that underlie entrepreneurial passion. I therefore borrowed her terminology, labeling entrepreneurs focused on the process of creating new companies *founders*, and entrepreneurs seeking technical

solutions to specific medical problems *inventors*. This connection to the literature helped

to illuminate connections to how process-oriented founders and problem-oriented

inventors initially got involved in entrepreneurship, and how they subsequently managed

the tradeoffs inherent in simultaneously developing economically viable companies and

technologically viable solutions to important medical needs, as they pursued their

primary desired lasting impact.

Step 3: Selective Coding. In the final stage of the analysis, I sought to integrate

the empirical themes into a theoretical model, centered around the process-focused and

problem-focused bases of entrepreneurial identity and focused on how those identities

drew from and contributed to the desire to make a lasting impact throughout

entrepreneurs' life course. Consistent with a definition my definition of legacy as an

enduring meaning, attached to the identity of an individual actor apparent in behaviors

meant to have an impact after the actor is gone, I find meaningful differences in how

process-focused founders and problem-focused inventors defined themselves as

entrepreneurs, why being involved in startups was important to their ability to satisfy that

motivation, and the choices and behaviors they undertook to insure that the lasting impact

they made through their firms is meaningfully attached to that identity.

Findings

> *I never had any predestined ideas of the kind of company I wanted to create. I almost really don't care… I like the energy and the mechanics and the process of building a company or product and taking it from scratch from an idea to a full blown viable and sustainable organization.* (W.J. – CEO, software firm)

> *There's two types of people. There's people who'd be like, oh wait, you're saying I could be successful and I could flip it in like two years, and then I could go on to another startup? Yeah, absolutely I'd take that… I feel like they're passionate about the process more than they're passionate about the problem… For me, I'm*

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passionate about solving the problems we're working on. (B.D. – CEO, software firm)

This study examines how entrepreneurs use the creation and development of new firms and technologies to satisfy their desire to make a lasting impact. Executives in medical startups saw entrepreneurship as an important part of who they were, and found it hard to imagine working in large, established firms, but they differed in what they found most meaningful about being an entrepreneur and how entrepreneurship allowed them to leave a legacy. Below, I begin by reviewing how process-oriented founders and problem-oriented inventors defined themselves as entrepreneurs and what they found most meaningful about that self-ascribed identity. I then examine how these identities led entrepreneurs out of more traditional work environments and into startups. Finally, I examine how entrepreneurs steer their firms to maintain alignment with their goals, particularly in light of the fact that these goals may or may not overlap with those of their cofounders and investors.

Entrepreneurial Identities

Founder Identity. Founders described the process of building new businesses as inherently meaningful, because it gave them a sense of having created something of value. Their personal narratives emphasize the sense of accomplishment they got from building new companies and products. As one such process-oriented founder described:

> *You can see the asset being created. It's yours, and you have a value set at the time and actuating that into a sale down the way gives you, not only the salary, but also the win and the American dream from the selling of the asset down the road.* (W.D. – CEO, device firm)

This description could imply a focus on money or competition, but founders suggested that such an account would miss the point. For example, the above CEO was

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not alone among entrepreneurs with a founder identity in using the language of winning, leading the interviewer to ask if comparing their success to others was important, which founders generally downplayed. As one put it:

> *That's true, but that's not the whole point or the whole story. I mean, the other part of it is just doing it, period, where others aren't, is interesting to me, so it might not be better than somebody else's, or whatever else might be out there, but just doing it, where most won't, is interesting to me.* (W.J. – CEO, software firm)

Thus, while comparing one's accomplishments to others might provide one standard by which to assess the value of the creation, the ultimate source of meaning came from having created something of value.

Financial outcomes were another potential marker of the value of the creative product. Founders often described the potential for a big payout as appealing, but they perceived a high income to be relatively meaningless unless it was tied to bringing something new into the world. One described a conversation with his son, in which he unsuccessfully tried to dissuade him from becoming an investment banker:

> *Maybe you could work it out, financially, in banking and make big bonuses, but you're never gonna make it, personally, in terms of feeling you've achieved something, in environments where all you're doing is pouring your life units in exchange for some repayment.* (M.M. – CEO, device firm)

For these process-focused entrepreneurs, the generative act of creating something from scratch was a meaningful demonstration of competence. One founder succinctly integrated this perspective on the role of competitiveness and financial success as a measure of their accomplishments:

> *If you measure entrepreneurs through the size of their exits, we haven't exited here yet, so the score is not final yet.* (W.J. – CEO, software firm)

Inventor Identity. Despite being engaged in very similar activities to the process-oriented founders in my sample, entrepreneurs whose identity was focused on finding

technological solutions to specific problems described the meaningfulness of those activities in very different ways. In contrast to the founders who derived meaning from the sense of accomplishment they got from the process of building a company from the ground up, inventors found meaning in the way their technologies solved the problems of people with specific unmet medical needs.

> *I want to make a bigger impact than just inventing my own company and selling it, selling my product, and going public or whatever… I want to invent things that make a greater change.* (M.A. – CEO, device firm)

For her and her fellow problem-focused inventors, creating a company was only valuable to the extent it brought solutions to people in need. Some inventors had scientific PhDs and academic appointments, but advanced scientific coursework was neither necessary nor sufficient for an entrepreneur to adopt an inventor identity. Several executives with founder identities received graduate education in scientific disciplines, but remained focused on the process of building firms, and several inventors maintained an emphasis on technical solutions to the problems they were trying to solve, despite receiving degrees in business or social science. What they shared was a focus on the specific problems they were trying to solve. Because of this focus on problems, rather than process, working in a startup that lacked that emphasis would be less meaningful.

Entrepreneurial Legacies

Both founders and inventors described the opportunity to make a lasting impact as an important element of what led them into entrepreneurship, but their narratives made clear that they had different ideas in mind as to what made an entrepreneurial legacy meaningful. When they described how entrepreneurship allowed them to make a lasting

impact, they seemed to be discussing different ideas not only of the nature of the impact they wanted to have, but also what it would mean for that impact to last.

The meaning of impact. If people use entrepreneurship as a way to leave a legacy, defined as an enduring meaning, attached to the identity of an individual actor, apparent in behaviors that are intended to have an impact after the actor is gone, then the meaning underlying founder and inventor identities should be apparent in the behaviors of different entrepreneurs throughout their lives and the lives of their firms. While both founders and inventors saw the creation of new firms and technologies as meaningful, the experiences that led them to the startup environment differed in important ways.

Process-focused founders often found themselves pushed towards entrepreneurship, because of experiences in large firms they found stifling. These experiences often centered on two frustrations they identified in the large organizations. The first was politics. One representative founder explained how in his experience at a large consumer products company, "Politics played more of a role than did accomplishment, and I understood accomplishment, but I didn't understand politics." This led him to become increasingly frustrated, because:

> *I had a lot of big ideas, and I realized that no one was really listening to my big ideas… I felt that that was an environment that was somewhat of a squelching kind of environment, and my interest was how do I take this good idea and turn it into reality?* (W.D. – CEO, device firm)

When he got the opportunity to work at a startup he realized that specialization was another limitation of bigger firms noting that as an entrepreneur:

> *What happens very often in larger organizations, which I didn't like, it just wasn't me, is that you were told to do a job that was just a small piece of the overall value creation within the company.* (W.D. – CEO, device firm)

Whereas founding a company:

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"Was the real way that you could put your mark on something… Where you're absolutely looking at the project from a commercial, intellectual property, scientific, clinical development point of view, rather than looking at it purely from your little silo." (W.D. – CEO, device firm)

Ultimately, founders wanted the sense of accomplishment they got from the process of building a firm from the ground up. The autonomy they enjoyed in the startup environment freed them from the politics of large organizations that impaired their ability to make their mark, and the organizational silos that obscured the connection between their good work and meaningful organizational outcomes.

Problem-focused inventors often described a different process by which they got involved in entrepreneurship. They began with a problem they encountered that they believed they had the ability to solve. These problems ranged from particularly specific medical needs in the domain of the inventor's PhD, to mental health issues that affected the children they interacted with at work, to systemic problems that could be addressed by decision support software. Inventors tended to describe being pulled into entrepreneurship along a more idiosyncratic, serendipitous path, by which they came to realize that starting a company was the best way to create, refine, and disseminate their solutions to the problems they cared about. Their involvement in startups came about, as one inventor (A.M. – CEO, device firm) put it, "kind of an accident."

In several cases, the technology was developed by professionals attempting to address a problem in a specific client population. Only after a period of success using their novel treatments on patients in the course of their work at schools and hospitals did they realize that starting a company could bring the innovation more people in need. For example, one inventor relayed being prodded into entrepreneurship by a satisfied client:

When I started all of this stuff, it was because of a patient who came to me and said, "You've got some good ideas. You should think about patenting it." So, we started a company together. (R.G. – Chair, device firm)

Other inventors were recruited to start-ups to work on the problems they were concerned about, by refining, testing, and improving technologies first developed by others. One described how she was lured to become the CEO of her first startup after the firm she was working for went through a merger, because of the opportunity to focus on the problems that were important to her:

I wasn't sure I wanted to be in that big combined merged company… I really loved that commitment to patients, and rare diseases, and high unmet medical needs [in the company that had been acquired]… What I like about the small company concept is really good people, everybody in it for the right reasons. They could be making more money in a big company, but they like being in a small company because they can make a real difference. (S.C. –Chair, software firm)

Her description points to another important difference between founders and inventors. While founders emphasized the process of developing something from nothing and often saw financial compensation as a meaningful marker of the value of their contribution, inventors tended to be less concerned with ownership or attribution, and often saw a focus on financial success as undermining the appropriate focus on patient outcomes.

The meaning of lasting. In addition to clarifying what is meaningful about an entrepreneurial identity, the process of launching a startup illuminates the distinction between impact and legacy, because it clarifies the conditions that define impact after the actor is gone. Specifically, the departure of the entrepreneur from their startup is the relevant event that distinguishes the entrepreneurs' legacy from other kinds of impact. Prior to firm founding, informants' narratives make disentangling the desire to make an impact from the desire to make a lasting impact nearly impossible. They describe little in the way of efforts to distinguish between the two. As founders and inventors enacted the

creation of new firms and technologies, however, the salience and urgency of the temporal dimensions of impact were enhanced. Regardless of where their firms stood in the developmental process, when entrepreneurs described their thoughts about exiting their firms, they clarified what they wanted to leave behind and how their choices, going back to the earliest days of the firm, supported that legacy.

Once entrepreneurs with a process-oriented founder identity got into startup environments, they saw their role shepherding the firm through the early stages of growth, before handing it off. Their success was dictated by their ability grow the company as quickly as possible and sell it for the highest possible price.

> *In my life's mission, I have defined that that's my role, is to get it off the ground, and get it to the point of somebody else picking it up and moving it on.* (M.M. – CEO, device firm)

One reason passing the organization off is important is to get out before the politics creep in, something founders sometimes recognized as startups transition towards becoming established firms. Perhaps more importantly, a sale locks in the founders' accomplishments. One founder described a successful exit as similar to a trophy, or the "win" that came up in multiple interviews. That success was something that could never be taken away from them. As a result, several founders described a general indifference to the organization's success after they were gone. One took it even farther, suggesting that:

> *I would like to think that what we have built is something that is not dependent on me being there or [my partner] being there ... at a certain point the thing will be something that is able to walk on its own. Is it going to be hard, ... especially if the company starts doing amazingly well, and it grows after we had some sort of acquisition, or something like that? Would it be hard to know that it did even more if I wasn't there? You know, a little bit.* (K.J. – CEO, software firm)

The point, across the narratives that these process-oriented founders told, was that the firm represented a meaningful accomplishment for them. The success of their successors did not belong to the founders, and was therefore not a meaningful piece of their legacies.

For inventors, the point of entrepreneurship was solving the problem they cared about. As such, making a considerable amount of money on the sale of the firm, and then going to start another one was "not any definition of success for me" (B.D. – CEO, software firm). Inventors could be deeply ambivalent or even hostile to the idea of selling the firm, even if they acknowledged that it may become necessary. As one put it:

> *I want this product to reach as many people as it can, because I think it addresses so many needs… I would love to run with this as long as I can… I don't want it to just be something that I sell and is taken out of my hands.* (M.A. – CEO, device firm)

But at the same time, she said:

> *I don't want it to be something that you know, just kind of fizzles out. I want it to be something that, you know, a larger… distributor latches onto. I would love to see this thing in five, ten years with [major brand] slapped across the front of it being used at all of these major distributors.* (M.A. – CEO, device firm)

Many inventors shared this understanding that big established firms had distribution networks that had the potential to reach a wide audience, but they were also concerned that:

It's probably seldom the case that the acquirer and what they want to do with it is what you had in mind. (B.D. – CEO, software firm).

One inventor described a firsthand experience with watching the fortunes of his technology falter after a multimillion dollar sale:

> *They couldn't do justice to the [product]. They couldn't hire enough people to sell them. They couldn't make all the different variations.* (R.G. – Chair, device firm)

He seemed more frustrated by the failure to develop the product than the fact that the low sales kept the firm from hitting the sales targets that would have triggered an additional payout for him. Fortunately, given the inventor's goals, the acquirer's struggles landed them in bankruptcy, where the patents were sold to a large firm with considerably more resources and commitment to the product, as a result:

> *The big thing now is orthopedists use it… Urologists use it… Gynecologists love using it… It's very gratifying.* (R.G. – Chair, device firm)

While the result of the bankruptcy proceedings did not help him recover the payout he lost as a result of the buyer's struggles, the life of the technology was extended in the way that he had hoped, salvaging the lasting impact he wanted to have.

These self-narratives reveal how all of the entrepreneurs in this sample described the opportunity to make a meaningful lasting impact as one of the strongest appeals of entrepreneurship, but these executives in medical startups diverged in how they defined their entrepreneurial identities and what made an entrepreneurial legacy meaningful. Entrepreneurs focused on the process of building firms from scratch took on a founder identity. They felt stifled by the politics and siloed bureaucracies of large established firms. Founders created or joined startups for the sense of accomplishment they got from building something from nothing, and they saw a successful exit as an enduring measure of the value they had created. Entrepreneurs focused on building technical solutions to specific medical problems took on an inventor identity. Inventors often stumbled into creating new firms as they looked for ways to get their technologies built and distributed to the people who needed them, and they worried that an exit at any price took the future of their technologies out of their hands, possibly undermining their desire for the technology to reach as many people as possible. These identities proved to be powerful

guides for the behavior of the entrepreneurs who espoused them, and as I will show

below, set the tone for interactions among the leadership teams in startups.

Entrepreneurial Integrity

Entrepreneurs sought way to maintain alignment between their entrepreneurial

identities and legacies and the behavior of themselves and others in their firms, but

differences emerged in how founders and inventors perceived the compatibility of the

lasting impacts they associated with the different identities.

For the purposes of clarity, this study has largely focused on drawing sometimes

stark differences between founders and inventors. This is a useful simplification,

particularly when examining those choices entrepreneurs must make involving tradeoffs

between organizational and patient-centric impact. Relaxing this constraint allows a more

nuanced understanding of entrepreneurial identity, while continuing to distinguish

between the general tendencies of process focused and problem focused entrepreneurs.

As noted above, the desire to make a lasting impact through one's accomplishments in

creating an organization from scratch could sometimes come into conflict with the desire

to have a lasting impact on the patients and users who benefit from the technology. This

conflict arose within individual entrepreneurs, as well as between them. Founders and

inventors had different approaches to reconciling these conflicts within their own minds

and with their cofounders, with founders generally perceiving the different motives to be

more compatible and inventors more likely to prioritize their problem oriented approach,

at the expense of the process orientation of an inventor identity.

Intrapersonal alignment. Obviously, the desire to have meaningful

accomplishments through the creation and development of new organizations is not

always in conflict with the desire to make a meaningful impact on the lives of patients and users through the creation of new technologies. Prioritizing one does eliminate the other. Founders often described patient impact as desirable on its own merits, not merely a means to organizational growth, and inventors took genuine pride in their organizations' growth and success. Associating an entrepreneurial identity with only one of these motives is simply an acknowledgement that the different motives and identities are distinct, and people with a complex entrepreneurial identity tend to prioritize one set of motives when they do conflict. As it turns out, they also have different approaches to reconciling conflicting motives.

Founders tended to downplay the conflict between meeting medical needs and achieving organizational success. Consistent with an identity that emphasized a confidence in playing any role in the organization, they tended to believe they could do it all. Even the founder who declared that "I never had any predestined ideas of the kind of company I wanted to create. I almost really don't care" (W.J. – CEO, software firm) later described the appeal of his latest venture, relative to his previous startup, as at least partly based on its impact in people's lives:

> *Building websites for radio stations and selling advertising on them isn't going to do anything for anybody. It might make you rich, if you're good at it… and you could take some of that largesse and use it in ways to help people… For me, over time, I just felt like I needed something more substantial, more meaningful.* (W.J. – CEO, software firm)

Though he later wavered on the patient impact of the current firm:

> *Does this company have impact? No. It doesn't. Is what I'm doing important? Yeah, but if we weren't doing it, there's plenty of people around that would be doing it… Whatever that impact is of that work, that project, that medical, that scientific research, I don't attribute anything, I don't attribute any special quality of that to us… So, it's meaningful work that we do, and that's fulfilling, but I don't think about impact in that regard.* (W.J. – CEO, software firm)

This approach to what makes a startup environment meaningful first appeared paradoxical, but ultimately helped to clarify the differences between founders and inventors. For this founder, the impact on patients was pleasant and desirable, but the link between his efforts and the impact on medical needs was too indirect to feel any ownership over it, in the same way he felt the connection to the organization's success that drove him to be an entrepreneur. The characteristics of the problem he was trying to solve were not tied to his entrepreneurial identity, and were therefore unrelated to the impact he wanted to have after he was gone.

Other founders were more enthusiastic in embracing their impact on patients, but largely because they seemed to find it easier to connect that patient impact to their personal contribution and the process of creating something from nothing. For example, somewhat counterintuitively, founders were more likely than inventors to talk about their patents. Entrepreneurship scholars often examine patents as a measure of innovation, but a patent also represents a claim of ownership of a new idea, which appeals to founders' sense of accomplishment, and a restriction on the dissemination of the invention, which can undermine inventors' impact on patients and users. One founder described his pride in his son's patent in terms very similar to how he described his own creation of new organizations:

> *I said... You will always have this on your record… This will be a demonstration that you created a thought or an idea, or a concept that no one else has ever done, and that's a really cool thing... You'll always have that.* (M.M. – CEO, device firm)

Thus, when founders could readily attribute patient impact to their own creative process, it was every bit as meaningful a part of their entrepreneurial identity as organizational impact.

Inventors were more likely to perceive a conflict between organizational impact and patient impact. Their focus on problems rather than process threw any conflict in outcomes into stark relief. One inventor, who had an MBA from a top business school, described trying to explain to people why he had left a good paying job to survive without a salary under tremendous financial strain:

> *The reason I'm doing what I'm doing, is that I don't care about money… I've had to explain this to family, people close to me for a very long time…If I'm not inspired by what I'm doing for work, I can't, I'm not, I just won't be functional, and I won't be good at it… I couldn't be successful faking it, because I'm not, I'm just too, I think pure and genuine about, like I just can't fake it.* (B.D. – CEO, software firm)

He clearly did not want to be associated with process-oriented entrepreneurship.

> *You could say to me, [that I'm a serial entrepreneur]. I've worked on a number of start-ups. I find that almost an offensive term… It makes me feel like the implication is I'm just I'm looking for success. That's not what I'm looking for.* (B.D. – CEO, software firm)

Although he tried to be clear that he "I'm not saying anything bad about these people, I'm just saying we're different" he also elaborated that, "there's a purity to this mission," that he was unwilling to compromise:

> *If you had told me like two years ago… I've got something that you could do. Go build a startup you'll be successful. You won't change the world, but you'll be successful. Maybe you build it, maybe you could sell it, maybe sell it for 10, 20 million dollars… I'd be like well, ok, what is it? It's [a] coupon app. I'd be like fuck you.* (B.D. – CEO, software firm)

Some inventors were more willing to claim the financial benefits of starting a successful company. As one put it:

> *It is both. I mean, I just want to see the technology out there. Sometimes, I get the feeling I'd like to see the technology succeed, even if I didn't make any money, but yeah, I'd like to make some money at it, too.* (W.A. – Chair, Device Firm)

While he considered financial considerations legitimate, his focus was clearly extrinsic, rather than emphasizing an intrinsic legacy motivation towards the sense of accomplishment founders got from starting and selling companies. This helped to explain why he left a successful real estate firm he had started with his father – "He saw I had this talent in engineering science and said you can have more of an impact doing that," – and why he maintained his academic position rather than run his company full time:

> *It's about having a job that is also your passion, so this is my hobby also. I'm not dinking around playing golf every week. This is what I love to do. I love the science."* (W.A. – Chair, Device Firm)

Leaving his lab to run the company had the potential to increase or decrease his income, depending on the firm's success, but it unquestionably would have forced him into a set of activities he perceived to be less meaningful. By continuing to serve on the board he was able to exert significant influence on the future of the technology, without sacrificing his core identity.

Interpersonal Alignment

These within entrepreneur differences in the perceived compatibility of entrepreneurial identities likely contributed to subsequent differences that emerged in terms of the compatibility of collaborators with different identities within a single startup.

Founders typically saw inventors as valuable contributors to the goal of building a successful organization from scratch and handing it off. While they recognized that the two groups were motivated by different things, founders saw the desire to address specific unmet medical needs as a useful motivator. For example, one founder, in response to a question about autonomy and his relationship with his board, which was

chaired by a problem focused inventor who had created the technology, described his

approach as:

> *Understanding what's important to people, what's important to the board. I always try and understand where they're coming from. If you can understand that, perhaps you can provide a context for them, that will get them over that… [the Chair] and I get along very well. [He] will tell you that he doesn't have the skills to run a business like Oncoscope, and I've told him I don't have the skills to run a lab… He and I have respect for each other, but it didn't start out that way. [I had to tell him] this isn't about you… this is about the technology that you invented, and while you have a big role in contributing to the development of that technology and improvement therein, I'm not sure that this business needs two CEOs.* (G.P. – CEO, device firm)

Like other founders, he tried to engage inventors with leadership behaviors, seeking to

inspire his colleagues with a clear sense of purpose that was energizing, and

individualized consideration for their needs as he tried to get them to reach their full

potential.

Founders were more concerned with colleagues who seemed to approach their

role in the startup as if it were any ordinary job. Another founder described coming up

with a solution to a technical problem with his firm's product, and taking it to the

physician who had designed the prototype and the engineer tasked with refining it. They

were initially skeptical, but what really bothered him was the fact that the solution to the

technical problem to meet patient needs failed to arouse their passions.

> *My scientific guy, who I resent… had enough professional diligence to pull these things, to test them, to get the data, but it didn't mean anything to them. That one was five times stronger than the other? This is bothering the hell out of me. It's like, why doesn't this bother them? I'm just a business guy… I'm excited about this, but … my two technical guys couldn't get past the [earlier] failed study.* (M.M. – CEO, device firm)

Eventually, the confirmation of the positive finding inspired the physician, thereby

supporting their productive collaboration, but the relationship with the engineer (the only

person who declined to be interviewed, out of all of the sample firms) never recovered.

Inventors could be more cautious about the motives of founders. They were less

likely to bring up the motives of others in their firm, but when prompted, they often

described people whose motivation was characterized by the desire to start new firms as a

potential threat to the goal of disseminating the technology widely. Inventors wanted to

find people with strong business skills, who shared their values, but recognizing such

people could be hard to find, sought to retain control, even if it meant passing up

additional resources. One inventor described how, as he struggled to find a way to get his

product to people in need:

> *I took my napkin sketch, and I took it to an engineering firm, and they said "Yeah, we can make that. It's a hundred thousand dollars"… so I don't have a thousand dollars, I work for the school system, and they said, "well this is a great idea, we'd love to partner with you… Do you have a company?" … I said well, I … "No, but I'm thinking about forming one." … They said, "We'll partner with you. We want to take full advantage of these parents, and you know, we'll charge way more money than it has to be. We'll make a lot of money together, it'll be great," and I said, "Well, I'm not interested in that. I want to charge the least amount of money we can, to try to get it to as many people as we can, because a lot of people need help," and they said, "Well, that's not the way you do business," and I said "Well, your way's not the way you do business."* (B.R. – CEO, device firm)

Although he needed partners to bring his technology to people in need, he saw a focus on

simply growing a profitable business, not as an opportunity to be leveraged through

leadership processes that recognized the validity of those values, but as a threat to be

managed through attraction, selection, attrition processes to ensure the adherence to

values that focused on solving the problems faced by patients.

> *My values are very important, so coming from a helping profession is an interesting position to enter, sort of laterally into business. Business, traditionally*

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I think, is all about bottom line profit, and people come second… My core beliefs toward running a company are to treat every person, every customer as if they're the most important customer, and to price things fairly. (B.R. – CEO, device firm)

He recognized that as the firm grew, he might need particular skills that might be best served by someone more focused on the process of building businesses. With some reluctance, he was willing to bring in people with different values, if they were the best match for the needed skills. For that to work, however, he needed to maintain control, to keep the focus on solving patients' problems at the core of the organization.

I hate to say that it's about control, but... I certainly like the idea of being able to control my own destiny in the future, being able to control, you know, how my product comes out, and how we treat our people, our consumers. (B.R. – CEO, device firm)

In addition to their differences in what made a lasting impact meaningful, process-focused founders and problem-focused inventors differed in the extent to which they worried that maximizing organizational growth was often incompatible with maximizing the benefits of the product to patients and users. Founders saw the desire to have a positive impact on patients as personally meaningful, if not necessarily at the core of their entrepreneurial identities. When they encountered possible colleagues who were focused on the problems they wanted to solve, founders saw an opportunity to build more successful organizations, engaging in leadership behaviors meant to motivate inventors through individualized consideration and inspiring them with a sense of purpose. Inventors were much more likely to describe a passion for building successful organizations as either orthogonal or opposed to their passion for addressing unmet medical needs. On a personal level, they saw their companies' growth and profitability primarily as a means to an end, rather than desirable in its own right. They worried that founders' values were misaligned with their own, and sought to either keep them out of

the organization or to retain sufficient control to prevent a focus on organizational growth and profitability from undermining the appropriate focus on patient care.

Discussion

The objective of this study was to explore the role of the legacy motive in entrepreneurship. While past research has suggested that the desire to make a lasting impact may be important to entrepreneurs, this study fills in the details in important ways. Notably, I find that not all entrepreneurs share the same understanding of the benefits derived from working in startups, or what constitutes a meaningful lasting impact. While the desire to make a lasting impact is often important, the ways in which it is important vary, depending on whether entrepreneurs focus their identity on the process of creating new organizations or the problems solved by creating new technologies. For founders, entrepreneurship is about the process of building new organizations from the ground up. They get involved in startups for the opportunity to build something valuable from the ground up, and the sale of the company is a measurable achievement that cannot be taken away from them. For inventors, entrepreneurship is about the problems and unmet medical needs that the technologies they develop can solve. They get involved in startups as a way of ensuring their innovations reach the people who need them, and the sale of the company represents an opportunity to reach a wider audience, but also a potential threat to their core values and commitment to solving the problems they care about. These findings add essential depth to understanding of both entrepreneurship and the legacy motive, emphasizing that, while the desire to make a lasting impact appears to play an important role in the motivation of a broad swath of entrepreneurs, not all of them are pursuing the same thing.

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Contribution to Entrepreneurial Motivation

This study contributes to the nascent, but growing body of knowledge on the non-pecuniary motives of entrepreneurs in several important ways. The self-narratives relayed by executives in medical startups in this study reveal differences in what it means to be an entrepreneur, as well as what makes entrepreneurship meaningful. I identify the desire to make a lasting impact as an important source of motivation for executives in startups that has been previously overlooked, while noting that the nature of the legacies that entrepreneurs depend, not based on when they joined the firm, but rather whether they focus their entrepreneurial identity on the creation of new organizations or new products and technologies. These findings have important implications, and open up promising new avenues of research on both entrepreneurship and the legacy motive.

The field of entrepreneurship research has yet to come to consensus on a definition of the phenomenon it seeks to understand. This study suggests that disagreement is not merely academic. Even within a single startup, members of the executive team sometimes differ in what entrepreneurship means to them. The juxtaposition of founders focused on creating new firms and inventors focused on creating new technologies suggests that, at least when exploring entrepreneurial motivation, scholars may need to accept that entrepreneurship means different things to different people, and merely contrasting entrepreneurs with managers and executives in established firms risks overlooking the sometimes substantial differences in how entrepreneurs define themselves and the goals they are pursuing. While in the past, research has tended to focus on the differences between entrepreneurs and managers in

established firms, differences in motivation and cognition among entrepreneurs may prove to be particularly fertile ground for future research.

This distinction is critical to understanding the role the legacy motive plays in entrepreneurship. Any research focusing only on those legacies that focus on solving the problems faced by patients and users, while ignoring those legacies that entail building a valuable commercial venture from the ground up and cementing that accomplishment through a sale, might underestimate the role the legacy motive plays in entrepreneurship. It is only by accepting and understanding the diversity of entrepreneurial identities that we can fully understand how important the legacy motive is, and the different ways it can guide the behavior of the leaders of new and emerging organizations. Given the limited amount of attention given to entrepreneurs' pursuit of a lasting impact, the ways in which the legacy motive promotes and shapes entrepreneurship warrants closer investigation.

As interesting as the different entrepreneurial identities and legacies are, the absence of a meaningful distinction based on when executives join a firm carries equally important and somewhat counterintuitive implications. In labeling entrepreneurs focused on the creation of new organizations founders, I am conforming to the labeling used by Cardon and her colleagues (2009), but departing from the common usage that restricts usage of the term only to individuals who have been with the firm since its inception. This is perhaps less surprising in light of the difficulty in determining when exactly a firm has officially come into existence, and the absence any strong theoretical basis for assuming such individuals would be motivated differently than the people they would choose to hire to help run their firms. Nevertheless, this finding suggests there may be value in a closer examination of when the motives, behaviors, and decisions of

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individuals who seek employment in startups not of their own making will conform more to models of entrepreneurship, and when they will be better described as employees in a more traditional sense.

Contribution to Research on the Legacy Motive

This study also contributes to enhanced understanding of the legacy motive more broadly. Past research on the legacy motive has tended to focus on the extent to which people wish to leave a legacy. While this is an important question that has driven a great deal of valuable research, the different ways in which entrepreneurs in this study describe what makes a lasting impact meaningful reveals the importance of recognizing that when people are particularly inclined to leave a legacy, they still need to make choices about what they want their legacy to be. Future research on the factors that influence how people decide what attributes they want their legacies to have, and the implications of those preferences, can greatly advance our understanding of this important phenomenon.

This study also contributes to understanding of what it means to make a lasting impact after one is gone. While we often think about legacies in terms of what is left after the benefactor is dead, or at the very least, as a lasting impact the benefactor will be unable to observe, this study illustrates a context in which that is not the case, and why the distinction is important. Among the founders and inventors in this study who had sold or left the firms and technologies they had created, all were able to observe what happened after they were gone. Among those still intimately involved in their first startup, they had the opportunity to anticipate observing what happened to their creation after they no longer had the ability to influence its trajectory. The fact that inventors continued to care deeply about what happened to the individuals they hoped to benefit

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through their technologies represents a clear instance of the importance of the legacy motive in entrepreneurial settings, while the fact that founders experienced an enduring meaning untethered to the subsequent outcomes at the firms they created suggests a need to further explore what makes a legacy meaningful, and the conditions under which legacies are intended and expected to benefit future generations, and when it is sufficient that the person leaving the legacy derives personal value from the impact they have had.

Conclusion

The desire to make a lasting impact can help to explain why people become entrepreneurs, why they persist despite the difficulties that entails, and the choices they make about how to develop the new firms and technologies they create. Recognizing that executives in startups define their entrepreneurial identities differently, and pursue different forms of self-extension as an outlet for their legacy motive, can help us to move past conflict about how academics will define entrepreneurship, to recognize that people engaged in similar activities may do so for different reasons, and to benefit from the opportunities that emerge in examining how entrepreneurs differ from each other, in addition to the differences between entrepreneurs and managers in established firms. This more nuanced and comprehensive understanding of the phenomenon of entrepreneurship can form a useful foundation for both promising future research and practice and policy.

Exploratory Integration

Studies 1 and 2 were designed independently and conducted concurrently. As such, the findings of the qualitative work were not integrated into the design and hypotheses of quantitative study, or vice versa. Nevertheless, both studies provide evidence for the complexity of the legacy motive and how it informs different definitions of entrepreneurship. As such, integrating the findings can further understanding of the link between the two constructs. Notably, the ways in which founders and inventors in Study 2 described the lasting impact they were pursuing share some commonalities with the individualistic and collectivistic beneficiaries of Study 1. This overlap has important implications, not only for the way the informants in Study 2 define their own entrepreneurial identities, but also for the different academic operationalizations of entrepreneurship examined in Study 1.

In Study1, engineers high on the legacy motive were more likely to have founded the firm they currently work for, owned more of their current employer, and filed more patents. For the purposes of that study, these measures of different conceptualizations of what entrepreneurship is were treated as a robustness check. The strong link between the legacy motive in general and each of these operationalizations of entrepreneurship suggested that the positive relationship between the legacy motive and entrepreneurship held, whether entrepreneurship was defined as starting new businesses, self-employment, or developing innovative new products. The new measures of legacy beneficiaries were not tested with relation to entrepreneurship more broadly, due to a lack of theoretical justification for the test.

A closer examination of Study 2 provides such a justification. One way to generalize the findings of Study 2 is to further abstract the nature of the lasting impact described by the executives in medical startups, and examine whether that description applies to a broader population, such as the engineers in Study 1. For example, informants in Study 2 appeared to describe different intended beneficiaries of the lasting impact they hoped to achieve through entrepreneurship. When founders talked about making their mark or positioning to win, they described individualistic legacies, in which they left behind a meaningful accomplishment that could never be taken away from them, rather than emphasizing their lasting impact on others. Inventors, on the other hand, tended to describe a desire to leave collectivistic legacies, tying their entrepreneurial identities to their ability to create and develop new technologies that solved the problems faced by groups of unnamed others to whom the shared no direct personal relationship. These differences in the intended beneficiaries of the entrepreneurial legacies in Study 2 appeared to influence, not only their desire to work in startup environments, but also their decisions related to patenting and ownership.

While one might reasonably expect entrepreneurs focused on creating new technologies to file more patents, founders were more likely than inventors to talk about their patents as meaningful manifestations of their entrepreneurial identities. In doing so, they emphasized how patenting contributed to their sense of accomplishment. One founder (G.P. – CEO, device firm) combined the building of companies and products, along with patents and publications as "tangible signs of my existence." Another (M.M. – CEO, device firm) described his irritation when the firm's engineer placed his own name ahead of the founder's on the patent for a procedure that the founder had developed.

These perspectives reflect the fact that a patent not only demonstrates the quality of the idea, but also allocates credit for that idea to the filer of the patent, and provides official confirmation of the value of the innovation. This official recognition of the innovation and its creators is more inherently meaningful to the individualistic legacies of founders than the collectivistic legacies of inventors.

Furthermore, a patent fundamentally serves to limit access to a technology. While funds derived from the patent can be used in such a fashion as to expand production or produce new innovations, the patent itself may be more instrumental than meaningful in the pursuit of collectivistic legacies. Consistent with this interpretation, when inventors did discuss intellectual property, they suggested that patenting was an important tool, but in contrast to founders, they generally did not describe the filing of patents as particularly meaningful to their entrepreneurial identities.

This more nuanced understanding of patenting adds a layer of distance between patenting as a measure and the development of innovative new products as the definition of entrepreneurship. At the same time, it more accurately captures the meaning of entrepreneurship to the identities of people who consider themselves to be entrepreneurs – the process focused founders and problem focused inventors. Recognizing the diverse meanings ascribed to patenting as it relates to entrepreneurial legacies suggests that entrepreneurs pursuing individualistic legacies may file more patents.

Provisional Hypothesis 1: Individuals pursuing individualistic legacies may file more patents than individuals pursuing relational or collectivistic legacies.

While inventors were less likely than founders to talk about patents, they were more likely to talk about control. This is somewhat surprising, in light of founders' desire

to feel ownership of the organizations they create. Yet, founders derived that sense of ownership, not from their control over the organization, but from escaping the politics and bureaucracy of large firms and being able to play any role in helping the startup to grow and succeed. They were more concerned with the psychological ownership of the firm's success than the legal ownership of the firm itself. Inventors, on the other hand, were concerned with the organization's values, and saw more traditional business processes as a potential threat to those values. One way inventors described maintaining control over the organization's values was to maintain the legal ownership of the firm. The control they maintained through ownership minimized the pressure to focus on financial measures of success that could be misaligned with the kind of lasting social impact they hoped to achieve, and contributed to their concerns about what would happen to the technology if the inventor sold company. These descriptions of maintaining control through ownership suggest that individuals pursuing collectivistic legacies may own larger shares of their current employer.

> *Provisional Hypothesis 2a: Individuals pursuing collectivistic legacies will own more of their current employer than those pursuing relational or individualistic legacies.*

Other factors might push inventors to relinquish more control over the organization, as a way to maintain its values. While they were certainly cautious about bringing in people with the wrong values, inventors understood the critical importance of bringing in people with the appropriate skills. To the extent that finding people with the right values does not diminish the need to find people with the right skills, inventors may need to pay a premium to attract employees and investors who can simultaneously meet

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both needs. In cash strapped startups, ownership may be the only available resource with which to pay such a premium. The tendency among many inventors to disavow financial motives may further contribute to their willingness to surrender ownership. To the extent that relinquishing ownership helps inventors to attract the right kind of employees and inventors, individuals pursuing collectivistic legacies may own smaller shares of their current employer.

> *Provisional Hypothesis 2b: Individuals pursuing collectivistic legacies will own less of their current employer than those pursuing relational or individualistic legacies.*

Supplementary analyses

To answer these questions, I conducted supplementary analyses of the survey of engineers, looking at the intended beneficiaries of their legacies, and their level of patenting and ownership. The exploratory integration further probed the data collected in Study 1, using the full sample of 286 engineers. No additional data was collected.

Consistent with provisional hypothesis 1, the pursuit of individualistic legacies predicted the filing of patents, over and above the control variables and the general legacy motive (b = .066; SE = .030, t = 2.796, p = .029). The unhypothesized marginal negative effect of the pursuit of collectivistic legacies (b = -.056; SE = .032, t = -1.715, p = .088) is also consistent with the concern, sometimes expressed by inventors in the interviews, that getting the technology out to as many people as possible is one of their most important objectives. Thus, the positive effect of the legacy motive on patenting appears to be enhanced in the case of individualistic legacies, but attenuated in the case of collectivistic legacies.

The ways in which founders and inventors discussed patenting activities in the interviews of Study 2 suggest that this difference does not reflect an underlying difference in innovation or scientific advancement, but rather a difference in the perceived value of the legal filing of a patent for achieving the goals of the individual engaged in the innovative activity. People pursuing individualistic legacies intrinsically value the recognition a patent grants them as the builders of something new and valuable, while people pursuing collectivistic legacies may see the intrinsic value they place on getting their inventions out to as many people as possible impaired by a legal claim that limits others' use of that technology.

Table 4: Patents and Legacy Beneficiaries

	Log Patents		
	Model 1	Model 2	Model 3
Gender	-.086	-.089	-.095
Age	-.249*	-.233*	-.199*
Education	.160	.190*	.196**
Legacy Motive		.301***	.325**
Individual			.263*
Relational			-.034
Collectivistic			-.222 †
	$R^2 = .086$	$\Delta R^2 = .089$	$\Delta R^2 = .030$

† $p < .10$
* $p < .05$
** $p < .01$
*** $p < .001$

Similarly, the pursuit of collectivistic legacies marginally reduced the positive relationship between the legacy motive and self-employment (b = -6.602; SE = 3.966, t = -1.665, p = .098). This result suggests that in contrast to Provisional Hypothesis 2a, individuals pursuing collectivistic legacies are not relying on ownership to retain control of their organizations. Instead, consistent with Provisional Hypothesis 2b, they may be sacrificing ownership to attract employees and inventors who not only bring the firm valuable resources, but also share the values at the heart of the organization.

Table 5: Ownership and Legacy Beneficiaries

	Percentage Ownership		
	Model 1	Model 2	Model 3
Gender	0.041	0.042	.042
Age	-0.007	-0.001	-.006
Education	-0.008	0.011	.015
Legacy Motive		1.82 *	.342 **
Individualistic			.092
Relational			-.064
Collectivistic			-.236 †

* $p < .05$	$R^2 = .002$	$\Delta R^2 = .033$	$\Delta R^2 = .024$
† $p < .10$			

The link between legacy beneficiaries and innovation and self-employment provides further confirmation of the validity and generalizability of the findings in Study 2. Much like the executives in medical startups who took on a founder identity in the

qualitative study, engineers pursuing individualistic legacies filed more patents, while the pursuit collectivistic legacies attenuated the positive effects of the legacy motive on patenting and firm ownership, suggesting that, like the inventors in the qualitative study, these engineers were less interested in protecting their intellectual property claims and may have needed to pay a premium to attract employees and investors who shared their values.

These findings should be interpreted with caution, however. The provisional hypotheses derived from the qualitative study were not a part of the original study design for the survey, and the effects of the pursuit of collectivistic legacies were significant at a level that falls outside the 95% confidence threshold. While the effects provide additional support for the findings the qualitative study, additional studies are necessary to better understand this phenomenon, and will be discussed further in the conclusion of the dissertation.

DISCUSSION

The idea that the desire to leave a legacy – defined as an enduring meaning, attached to the identity of an individual actor, apparent in behaviors meant to have an impact after the actor is gone – can lead individuals to create new firms, technologies, and opportunities is intuitively appealing and consistent with much of the research on both legacies and entrepreneurship. Yet, research on the legacy motive and entrepreneurship has remained almost entirely in parallel. In this dissertation, I connect these streams of research in ways that enhance our understanding of both of these important phenomena. In this summary and conclusion, I briefly review my findings, and lay out some important opportunities for future research and application.

Summary

In developing a theory of the legacy motive and entrepreneurship, I explain how the legacy motive and entrepreneurship can reinforce each other in a positive feedback loop. The legacy motive can lead to entrepreneurship, as the creation of new firms, technologies, and opportunities can be a meaningful outlet for the desire to make a lasting impact, while the psychological ownership entrepreneurs feel towards their firms can similarly enhance the legacy motive as they increasingly come to feel a sense of stewardship towards the firm they created. I further show how differences in the intended benefits and beneficiaries of entrepreneurs' legacies can lead to divergent behaviors that might otherwise obscure the importance of the legacy motive in firm founding.

In Study 1, I provide evidence of the link between the legacy motive and entrepreneurship, and demonstrate the value of distinguishing between different benefits and beneficiaries of the legacy motive. I find the desire to leave a legacy that benefits

oneself in linked to the desire to leave behind tangible resources and a career work value orientation. I also find that the desire to make a lasting impact on groups is linked to leaving both resources and values behind, and a calling orientation, while the desire to benefit specific others with whom one shares a personal connection is linked to a reduced desire to leave behind resources, in favor of values, and these relation legacies are also associated with a job orientation.

In Study 2, I find that executives in medical startups describe the opportunity to make an impact as one of the primary benefits of entrepreneurship. Important differences emerge based on the underlying basis for these executives' entrepreneurial identities. Founders focus on the process of creating new organizations. They are drawn to entrepreneurship by the opportunity to build something of value, which once sold, is a lasting accomplishment that can never be taken from them. Inventors focus on specific medical problems that their new technologies can solve. They are drawn to entrepreneurship as a way to make an impact on the people whose lives can be improved by the technologies they invented.

Put together, this research shows that the legacy motive constitutes an important source of entrepreneurial motivation, but that the desire to make a lasting impact is more complex than is commonly understood. These findings have important implications for research and practice.

Future Research

One important area for future work is the causal flow between the legacy motive and entrepreneurship. While chapter two provides theoretical evidence that the legacy motive and entrepreneurship are mutually causal, Study 1 shows a positive correlation

between the two and Study 2 shows that entrepreneurs discuss the ability to make a lasting impact as an important factor underlying their desire to work in a startup environment, the low response rate to the failed study described in Appendix C means that our understanding of the causal model could be strengthened by an experimental approach. Future experimental research could examine how framing the potential success of a startup in terms of economic or social impact at entry or exit impacts the decision to pursue entrepreneurial opportunities.

Another area of opportunity lies in the implications of different legacy benefits and beneficiaries in entrepreneurship and beyond. While past research on generativity has indicated tensions between agentic and communal generativity, existing measures, such as the Loyola Generativity Scale (McAdams & De St. Aubin, 1992) fail to distinguish among between desired legacies, leaving open questions about the implications of people pursuing different kinds of legacies. One such question relates to the tradeoffs made by entrepreneurs between growth and control. The inventors in Study 2 often spoke of how control of the new organization allowed them to stay faithful to their commitment to put patients first, supplementary analyses in the exploratory integration indicates that entrepreneurs pursuing collectivistic legacies tended to own lower percentages of their firms, reducing their control over the organization. One possible explanation for this discrepancy is that inventors are paying a premium to bring in people with the right values, as well as the right skills, which would be consistent with research suggesting that people will accept a lower price when selling items they are emotionally attached to, when the buyer intends to use the objects in a manner consistent with the sellers' values (Brough & Issac, 2012). Future research could more rigorously disentangle when

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different desired legacies will lead entrepreneurs to tighten or loosen their control over the firms they found.

The present research has emphasized the importance of the legacy motive to entrepreneurship, regardless of the characteristics of the new organization, but this should not be interpreted to mean that the legacy motive is equally important to all new firms, nor should we assume the legacy motive is important in the same way across all startups. Two kinds of new organizations warrant particular attention in future examinations of the legacy motive and entrepreneurship. First, scholars may wish to pay particular attention to social entrepreneurs, who are likely to be particularly concerned with making a lasting impact, and particularly inclined towards leaving collectivistic and values based legacies. Second, scholars should investigate the role of the legacy motive in the founding of family firms. While research on family business often implies that the owners of family firms inherited their firms from previous generations, research testing this assumption suggests that while self-employed individuals are particularly likely to have self-employed parents, relatively few of them inherited their organizations from their parents (Sorenson, 2007; Aldrich, Renzulli, & Langton, 1997). A fuller understanding of resource and values based legacies may help to answer questions regarding when founders of family businesses will seek to leave their business to their children, and the nature of the impact they are seeking when they choose not to.

Disentangling the benefits and beneficiaries of the legacies people wish to leave behind also has important implications beyond the entrepreneurial context. For example, research has shown that not only can mortality salience can make people more concerned about their legacies (Wade-Benzoni et al., 2012), it can also shape how people think

about the kind of impact they wish to have, depending on how those thoughts of death are processed (Cozzolino, Myers, Staples, & Sambocetti, 2004; Grant & Wade-Benzoni, 2009). Future research should examine whether death anxiety and death reflection have differential effects on the intended benefits and beneficiaries of the legacy motive stimulated by mortality salience.

Practical Implications

This research also has important implications for practice. Many different institutions are seeking to promote entrepreneurship, for a variety of reasons. Given the link between the legacy motive and entrepreneurship, such institutions should consider promoting the opportunity to make a lasting impact as a way of motivating nascent entrepreneurs to overcome the inherent obstacles to commercializing their best ideas. Entrepreneurs motivated to leave particular kinds of legacies also need to be aware of the tradeoffs they are making. In Study 2, several inventors described their concerns regarding their desire to maintain sufficient control to remain true to their values, while achieve the scale necessary to maximize their impact. Recognizing and grappling with these tradeoffs is essential for individuals pursuing values-based, collectivistic legacies, or they risk failing to achieve the scale of impact they hoped to achieve, or losing control of the values they hope to keep at the heart of their entrepreneurial endeavor.

Conclusion

The persistence of entrepreneurs in the face of long odds, long hours, and more often than not, reduced financial compensation has led to a renewed interest in understanding the non-pecuniary sources of motivation for entrepreneurs. By expanding understanding of the legacy motive to include not only the extent of the desire to make a

lasting impact, but also the intended benefits and beneficiaries of that act, I provide a framework that explains both the link between the legacy motive and the decision to start a firm and important differences in some of the critical decisions made by entrepreneurs at key points throughout the life of their firms. My hope is that focusing the previously unexplored link between these concepts, I provide fertile ground for future research on legacies and entrepreneurship, independently and at their intersection.

APPENDIX A: LEGACY BENEFITS SCALES

I work hard to create and accumulate resources that I will leave to benefit future
generations.
My legacy will be visible in the financial and physical products I leave behind.
It is important to me that I have a concrete, measurable impact that lasts even after I'm
gone.

I try to act in such a way as to show future generations the right way to live.
I want my impact to be one where people have higher ideals and more deeply satisfying
ambitions than they would have if I never existed.
My legacy reflects intangible values.

APPENDIX B: LEGACY BENEFICIARIES SCALES

Leaving a legacy can make my life better.
I get an ego boost from making a lasting impact.
I would be disappointed if my efforts to leave a legacy weren't appreciated in my
lifetime.

I have specific people in mind that I want to benefit from my legacy.
I want to make an impact that individuals in my life enjoy after I'm gone.
When I think about my legacy, I focus on specific family members, mentees, and others
with whom I share a personal connection.

I want to have a lasting impact on people I've never met.
I contribute to organizations that will be around long after I'm gone.
I want to ensure that the groups I'm a part of are made stronger by my legacy.

APPENDIX C: FAILED FIELD EXPERIMENT

The original Study 2 – as presented in the dissertation proposal – failed, due to a remarkably low response rate. Despite sending it to 267 potential respondents in two separate entrepreneurship competitions, only 10 participants completed survey. Details of the design are discussed below, followed by potential fixes and follow-ups.

In the preceding chapter I proposed a model of entrepreneurial decision making wherein entrepreneurs use their firms to craft their legacies around different target benefits and beneficiaries, and those differences in the outlet for the legacy motive lead firm founders to different choices when faced with tradeoffs between growth and control.

In Study 2, I developed a legacy manipulation to differentiate between individualistic, resource based legacies and collectivistic, values based legacies, to predict whether nascent entrepreneurs would be more likely to seek funding from investors who typically provide limited resources and play a limited governance role, or from investors who typically provide greater resources, but demand much more control over the firm's operations (Proposition 3). I also intended to examine the proposed mediating role of work value orientations, as I expected individualistic, resource based legacy motives to lead to a career orientation that stimulated the desire to maximize firm growth, while collectivistic, values based legacy motives would lead to a calling orientation that stimulated the desire to maximize control over the organization (Proposition 4).

> *Hypothesis 1a: Nascent entrepreneurs primed with individualistic, resource based legacies will prefer to meet with investors who can maximize the rapid growth of their firms, even if that growth come at the expense of control over the firm.*

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Hypothesis 1b: Nascent entrepreneurs primed with collectivistic, values based legacies will prefer to meet with investors who will allow the entrepreneur to maximize their control over the firm, even if that control comes at the expense of rapid growth of the firm.

Hypothesis 2a: The positive relationship between individualistic, resource based legacies and growth motives will be mediated by work value orientations such that individualistic, resource based legacies stimulate a career orientation towards entrepreneurship, which then predicts a stronger focus on growth.

Hypothesis 2b: The positive relationship between collectivistic, values based legacies and control motives will be mediated by work value orientations such that collectivistic, values based legacies stimulate a calling orientation towards entrepreneurship, which then predicts a stronger focus on control.

Participants

I hoped to recruit 40 nascent entrepreneurs, who had taken some steps towards forming a new company, but who had not yet received funding or established a board of directors. Specifically, invitations were sent via email to the competitors in the business plan competition at a large university in the southeastern United States. 267 competitors from two separate instances of the competition were invited to participate in the research.

Procedures

Participants first took part in a memory recall prime of the legacy motive, in which they were asked to write about a time they left a legacy, but the details of the legacy prime differed across experimental conditions. Participants in the individualistic, resource based legacy condition were asked to "Please recall a particular incident in

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which you left a legacy. By legacy, we mean a situation in which you created something

public and tangible that will be associated with your name, both now and far into the

future. Examples of such a legacy range from winning an award in your area of expertise

to founding a company you name after yourself. Please describe this situation in which

you left a legacy — what happened, how you felt, etc." Participants in the collectivistic,

values based legacy condition, on the other hand, received instructions telling them to

"Please recall a particular incident in which you left a legacy. By legacy, we mean a

situation in which you helped sustain and advance a system of values held by a group that

is important to how you think about yourself. Examples of such a legacy range from

mentoring at risk youth to founding a company that places sustainability among its most

important goals. Please describe this situation in which you left a legacy — what

happened, how you felt, etc." After completing the legacy prime, participants completed

the measures of career and calling orientation from Study 1.

Dependent Variable

As part of recruiting nascent entrepreneurs to participate in the study, they were

entered in a lottery for the opportunity to meet with an investor who was selected based

on fit with the entrepreneur's needs. Upon completion of the experimental manipulation

and the measurement of the mediator, participants were reminded of the lottery, and

informed that we would attempt to find a person with expertise in funding start-ups in the

domain of the business described in their business plan. Participants received a

description of the differences between potential investors that reads "The amount of

funding an investor provides is often related to the amount of oversight they expect to

exercise. Some investors invest large sums upfront and immediately begin to exercise

significant control over the company, including taking seats on the board of directors and meeting regularly with the founders to discuss operations. Others invest smaller sums, at least initially, and tend not to get involved in the operations of the company, letting founders run the business as they see fit. As a result, businesses that receive larger initial investments often grow faster, but founders retain less control over the firm's direction, while businesses that receive lower levels of initial funding tend to grow slower, with the founders retaining more independence regarding the development of the product, the team, and the culture of the company." Participants were then asked to indicate whether they would prefer that the researchers match them with an investor whose style tends to involve investing smaller amounts and letting the founder run the firm as they see fit, or investing larger amounts and asserting more control over the firm, with the percentage choosing each forming the dependent variable.

Discussion

The low response rate for this study was quite remarkable. Despite the offering a chance to meet with skilled advisors and resource providers to a group of participants who had devoted significant effort to designing a business plan to submit to a competition, less than 5% of recipients responded to the email. While it might be possible to increase the total number of completed surveys by continuing to send out the survey, the likelihood that the respondents differed substantially from the rest of the sample in some unknown way would make interpretation of the results problematic.

Rather than simply collecting to more responses to an apparently flawed study, I propose redesigning the study to increase the response rate, in one of two ways. Upon consulting with one of the organizers of the business plan competition, a likely

explanation that emerged for the low response rate was the low rates of firm founding among the participants in the competition. To the extent that participants either never intended to start a firm, or took their failure to advance through the competition as a signal that their proposed startup was not viable, meeting with someone who could help refine the plan may well have been a disincentive to participation.

This problem could be fixed either by finding a more appropriate sample, or changing the incentive structure for participation in the study. A more appropriate sample might include participants further along in the startup process. I attempted to reach out to two other startup competitions, one of which was too small to be useful, and another that yielded similarly low rates of firm founding, thus limiting its ability to solve the response rate problem. Despite these failed attempts to find a suitable sample for the current design, finding a suitable sample at some time in the future remains a possibility with some promise, though not as part of this dissertation. Another alternative would be to change the structure of the design such that the opportunity to meet with advisors and potential funders would be purely hypothetical, and the incentive to participate in the study would instead consist of a small financial payment. Such a design might yield a better response rate, but would raise questions regarding the generalizability of the findings, if the additional participants were not actually considering becoming entrepreneurs.

APPENDIX D: ILLUSTRATIVE QUOTES FOR STUDY 2

Table 6: Entrepreneurial Identity – The Meaning of Entrepreneurship

	Founders	Inventors
Focus of Passion	**Process** My first company was acquired by another startup… I stayed there for seven years… I stayed there for so long because the company went from zero to $900 million in revenue, and it was a very exciting time… I created art, I created businesses, we launched products. It didn't have to be my little company that I'm running, I was running just a group within a company, but I had a lot of autonomy. (G.P. – CEO, medical device) I like the energy and the mechanics and the process of building a company or product and taking it from scratch from an idea to a full blown viable and sustainable organization. (W.J. – CEO, medical software)	**Problems** I saw a problem, working as a school psychologist, for kids, and what I thought to myself was there's got to be a solution that's out there, so I'll find it... Couldn't easily find a solution, and when I found one, it didn't really work… So what I said was, "I could build something better than that." (B.R. – CEO, device firm) That summer I started doing some research into it… What was already out there that people were using to solve these problems that I had, because I knew I wasn't the only one who had the problem, and all of the competitors that I found were not really good… So I kind of took all of that [research] and started designing an applicator that met the needs I wanted. (M.A. – CEO, device firm)
Creative Product	**Companies** For me the identification was, it's not just one product… I realized that my contribution is the ability to organize these things and get them delivered to certain points, and that's my contribution. That's what makes me feel good. That's why I like helping other guys start their companies. (M.M. – CEO, medical device) With one of the guys from (my previous employer) I was like, "hey do you want to start up a start up with me?" so the two of us, literally, like, started this software company, and I was like, here's what we should do. We should not start from scratch. We need to find a technology that already exists. (H.H. – Director, medical software)	**Technologies** I want to make a bigger impact than just inventing my own company and selling it, selling my product, and going public or whatever… I want to invent things that make a greater change. At first I was doing operations that would be done the conventional way, but I would pick cases to try the [new technology] to try to help the operation I was doing… When I started [commercializing] all of this stuff, it was because of a patient who came to me and said, "You've got some good ideas. You should think about patenting it," … So, we started a company together.

Table 7: Entrepreneurial Legacy – The Meaningfulness of Entrepreneurship

	Founders	Inventors
Meaning of Impact	**Accomplishment** You take a raw thing and turn it into something beautiful, or amazing, or functional, or utilitarian … for me that's … one of the greatest things … to get that feeling of accomplishment. (K.J. – CEO, software firm) [Founding a company] was the real way that you could put your mark on something… and execute and accomplish something… where you're absolutely looking at the project from a commercial, intellectual property, scientific, clinical development point of view, rather than looking at it purely from your little silo. (W.D. – CEO, device firm)	**Patient/User Benefits** I realized that if I wanted this technology to have an impact on clinical care – as a biomedical engineer, this is sort of one of our driving goals – in order for it to have that impact, it's got to be a commercial product that doctors can buy and use for diagnosing their patients, so turning around, realizing that no one was going to do it for me, I started a company and began commercialization. (W.A. – Chair, device firm) At the core of everything is science. That's where my energy comes from, but it isn't just science for science's sake. It is science that can actually make patient's lives or people's lives better: improve their quality of life, improve their lifespan. (S.C. – Chair, software firm)
Meaning of Lasting	**Sale Locks in Accomplishment** For the most part, I never really cared what happened to [the company] after I was gone. (W.J. – CEO, medical software) When I exit, I exit wholeheartedly… and leave it to the next guy to make millions on. (W.D. – CEO, medical device Once I let go, I'm so busy that there really isn't time to sit back and reflect… I can get the infrastructure in place, and I can pass it off. (P.B. – Treasurer, pharmaceutical) Is it going to be hard, … especially if the company starts doing amazingly well and it grows after we had some sort of of acquisition, or something like that? Would it be hard to know that it did even more if I wasn't there? You know, a little bit. (K.J. – CEO, medical software)	**Sale Threatens Patient/User Benefits** I want this product to reach as many people as it can… I don't want it to be something that I sell and is taken out of my hands. (M.A. – CEO, medical device) This is the devil I think people have to fight when they feel passionately about what they're doing, is that it's probably seldom the case that the acquirer and what they want to do with it is what you had in mind. (B.D. – CEO, medical software) I'd like to be the man at the wheel, because my fear is that if we build something really good and really sell it… and the morals and stuff are changed at the company. (B.R. – CEO, medical device)

Table 8: Entrepreneurial Integrity – The Meaning Maintenance of Entrepreneurship

	Founders	Inventors
Intrapersonal Alignment	**Technological Impact Complements Business Impact** The basic tenet of a business plan is to address a need. If there's no need then there's no need for a business… I see my mission in life as meeting an unmet need. You do that in a number of ways. (G.P. – CEO, device firm) I've never really thought about impact in terms of … the outward impact… Does this company have impact? No. It doesn't. Is what I'm doing important? Yeah, but … whatever that impact is of that work, that project, that medical, that scientific research, I don't attribute anything, I don't attribute any special quality of that to us… So, it's meaningful work that we do, and that's fulfilling, but I don't ever think of impact in that regard. (W.J. – CEO, medical software)	**Business Impact Competes with Technological Impact** My values are very important, so coming from a helping profession is an interesting position to enter, sort of laterally into business. Business, traditionally I think, is all about bottom line profit, and people come second (B.R. – CEO, device firm) Probably I could have been much more successful financially in my life if I had that… Where I could just go for the easy, but I don't, at all, so I'm just like no... There's a purity of this mission. (B.D., CEO – software firm)
Interpersonal Alignment	**Inspire Inventors Through Leadership** I always try and understand where they're coming from. If you can understand that, perhaps you can provide a context for them, that will get them over that… [the chairman] and I have respect for each other, but it didn't start out that way… [I had to tell him] this isn't about you… this is about the technology that you invented (G.P. – CEO, medical device)	**Isolate Founders Through ASA and Control Mechanisms** What I value more than anything else are the people who have reached out to us and said I believe in what you're doing. (M.L. – CMO, medical software) I hate to say that it's about control, but... I certainly like the idea of being able to control my own destiny in the future, being able to control, you know, how my product comes out, and how we treat our people, our consumers. (B.R. – CEO, medical device)

APPENDIX E: DISTINCTIONS BETWEEN ENTREPRENEURIAL IDENTITY, LEGACY, AND INTEGRITY

Table 9: Distinctions Between Founder and Inventor Identity, Legacy, and Integrity

	Founders	Inventors
Entrepreneurial Identity: The Meaning of Entrepreneurship	**Defining the Entrepreneurial Self:** Entrepreneur as creator of new organizations. Emphasis on process. Pushed to entrepreneurship by frustration with large companies.	**Defining the Entrepreneurial Self:** Entrepreneur as creator of new technologies. Emphasis on problems. Pulled to entrepreneurship by opportunity to help people in need.
Entrepreneurial Legacy: The Meaningfulness of Entrepreneurship	**Meaning of Impact:** Success defined by personal accomplishment. New firms clarify the link between personal and organizational success. **Meaning of Lasting:** Sale of company cements personal accomplishment. Unconcerned with organization's enduring success after sale.	**Meaning of Impact:** Success defined by user/patient benefits. New firms provide a vehicle to deliver benefits of technologies. **Meaning of Lasting:** Sale of company can threaten user/patient benefits. Deeply concerned with enduring success of invention.
Entrepreneurial Integrity: The Meaning Maintenance of Entrepreneurship	**Intrapersonal Alignment:** Experience user/patient outcomes as complementary to primary focus on personal accomplishment. User/patient benefits always desirable, but most meaningful when linked to accomplishment. **Interpersonal Alignment:** Appreciate inventors' commitment. Motivate inventors through leadership processes.	**Intrapersonal Alignment:** Experience personal accomplishment as competing with primary focus on patient/user outcomes. Personal accomplishment only desirable and meaningful when linked to user/patient benefits. **Interpersonal Alignment:** Question founders' values. Isolate founders through attraction-selection-attrition and control processes.

REFERENCES

Aldrich, H. E., & Fiol, C. M. (1994). Fools rush in? The institutional context of industry creation. *Academy of Management Review*, *19*(4), 645-670.

Aldrich, H. E., & Martinez, M. A. (2001). Many are called, but few are chosen: An evolutionary perspective for the study of entrepreneurship. *Entrepreneurship Theory and Practice*, *25*(4), 41-56.

Aldrich, H., Renzulli, L. A., & Langton, N. (1998). Passing on privilege: Resources provided by self-employed parents to their self-employed children.*Research in social stratification and mobility*, *16*, 291-318.

Alvarez, S. A., & Barney, J. B. 2007. Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1, 11-26.

Alvarez, S. A., & Barney, J. B. (2010). Entrepreneurship and epistemology: The philosophical underpinnings of the study of entrepreneurial opportunities.The *Academy of Management Annals*, *4*(1), 557-583.

Baumeister, R. F. (1991). *Meanings of life*. The Guilford Press.

Becker, E. (1973). *The denial of death*. New York: Free Press.

Becker, E. (1975). *Escape from evil*. New York: Free Press.

Bellah, R. N., Madsen, R., Sullivan, W. M., Swidler, A., & Tipton, S. M. (1985). *Habits of the heart*. Berkeley: University of California Press.

Berg, J. M., Grant, A. M., & Johnson, V. (2010). When callings are calling: Crafting work and leisure in pursuit of unanswered occupational callings. *Organization Science*, *21*(5), 973-994.

Boivie, S., Lange, D., McDonald, M. L., & Westphal, J. D. (2011). Me or we: The effects of CEO organizational identification on agency costs. *Academy of Management Journal*, *54*(3), 551-576.

Bradford, T. W. (2009). Intergenerationally gifted asset dispositions. *Journal of Consumer Research*, *36*(1), 93-111.

Brewer, M. B., & Chen, Y. R. (2007). Where (who) are collectives in collectivism? Toward conceptual clarification of individualism and collectivism. *Psychological Review*, *114*(1), 133-151.

Brewer, M. B., & Gardner, W. (1996). Who is this" we"? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, *71*, 83-93.

Brough, A. R., & Isaac, M. S. (2012). Finding a home for products we love: How buyer usage intent affects the pricing of used goods. *Journal of Marketing*,*76*(4), 78-91.Bunderson, J. S., & Thompson, J. A. (2009).

The call of the wild: Zookeepers, callings, and the double-edged sword of deeply meaningful work. *Administrative Science Quarterly*, *54*(1), 32-57.

Cardon, M. S., Gregoire, D. A., Stevens, C. E., & Patel, P. C. (2013). Measuring entrepreneurial passion: Conceptual foundations and scale validation. *Journal of Business Venturing*, *28*(3), 373-396.

Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, *34*(3), 511-532.

Cardon, M. S., Zietsma, C., Saparito, 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.

Carnegie, A. (2006). *The gospel of wealth essays and other writings*. Penguin Classic.

Carter, S., Shaw, E., Lam, W., & Wilson, F. (2007). Gender, entrepreneurship, and bank lending: the criteria and processes used by bank loan officers in assessing applications. *Entrepreneurship Theory and Practice*, *31*(3), 427-444.

Casamatta, C., & Guembel, A. (2010). Managerial legacies, entrenchment, and strategic inertia. *The Journal of Finance*, *65*(6), 2403-2436.

Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly*, *52*(3), 351-386.

Chen, X. P., Yao, X., & Kotha, S. (2009). Entrepreneur passion and preparedness in business plan presentations: a persuasion analysis of venture capitalists' funding decisions. *Academy of Management Journal*, *52*(1), 199-214.

Chouinard, Y. (2006). *Let my people go surfing: The education of a reluctant businessman*. New York: Penguin Books.

Cohen, B., Smith, B., & Mitchell, R. (2008). Toward a sustainable conceptualization of dependent variables in entrepreneurship research. *Business Strategy and the Environment*, *17*(2), 107-119.

Corbin, J., & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage publications.

Cornelissen, J. P., & Clarke, J. S. (2010). Imagining and rationalizing opportunities: inductive reasoning and the creation and justification of new ventures. *Academy of Management Review*, *35*(4), 539-557.

Cozzolino, P. J., Staples, A. D., Meyers, L. S., & Samboceti, J. (2004). Greed, death, and values: From terror management to transcendence management theory. *Personality and Social Psychology Bulletin*, *30*(3), 278-292.

Dobrow, S. R., & Tosti-Kharas, J. (2011). Calling: The development of a scale measure. *Personnel Psychology*, *64*(4), 1001-1049.

Duffy, R. D., & Sedlacek, W. E. (2007). The presence of and search for a calling: Connections to career development. *Journal of Vocational Behavior*, *70*(3), 590-601.

Edmondson, A. C., & McManus, S. E. (2007). Methodological fit in management field research. *Academy of Management Review*, *32*(4), 1155-1179.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, *14*(4), 532-550.

Erikson, E. H. (1968). *Identity: Youth and crisis.* New York: W.W. Norton.

Fauchart, E., & Gruber, M. (2011). Darwinians, communitarians, and missionaries: the role of founder identity in entrepreneurship. *Academy of Management Journal*, *54*(5), 935-957.

Fox, M., Tost, L. P., & Wade-Benzoni, K. A. (2010). The legacy motive: A catalyst for ethical decision making in organizations. *Business Ethics Quarterly*, *20*(2), 153-185.

Fox, M. J. & Wade-Benzoni, K. A. (2013a). *The meanings of legacy*. Working Paper. Duke University.

Fox, M. J. & Wade-Benzoni, K. A. (2013b). *Institutional legacies: How the desire to leave a lasting impact enhances and shapes organizational identification*. Working Paper. Duke University.

Gabriel, S., & Gardner, W. L. (1999). Are there his and hers types of interdependence? The implications of gender differences in collective versus relational interdependence for affect, behavior, and cognition. *Journal of Personality and Social Psychology*, *77*(3), 642-655.

Gandal, N., Roccas, S., Sagiv, L., & Wrzesniewski, A. (2005). Personal value priorities of economists. *Human Relations*, *58*(10), 1227-1252.

Gartner, W. B. (2010). A new path to the waterfall: A narrative on a use of entrepreneurial narrative. *International Small Business Journal*, *28*(1), 6-19.

Gartner, W. B., Shaver, K. G., Carter, N. M., & Reynolds, P.D. (Ed.). (2004). *Handbook of entrepreneurial dynamics: The process of business creation*. Sage.

Gates, B. (2011). *A report by Bill Gates to G20 leaders*. http://www.gatesfoundation.org/What-We-Do/Global-Policy/G20-Report

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research notes on the Gioia methodology. *Organizational Research Methods*, *16*(1), 15-31.

Glaser, B. G. (1967). *The discovery of grounded theory: Strategies for qualitative research.* Chicago: Aldine

Gómez-Mejía, L. R., Haynes, K. T., Núñez-Nickel, M., Jacobson, K. J., & Moyano-Fuentes, J. (2007). Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Administrative Science Quarterly*, *52*(1), 106-137.

Grant, A. M., & Wade-Benzoni, K. A. (2009). The hot and cool of death awareness at work: Mortality cues, aging, and self-protective and prosocial motivations. *Academy of Management Review*, *34*(4), 600-622.

Graebner, M. E. (2009). Caveat venditor: Trust asymmetries in acquisitions of entrepreneurial firms. *Academy of Management Journal*, *52*(3), 435-472.

Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and cultural worldviews: Empirical assessments and conceptual refinements. *Advances in Experimental Social Psychology*, *29*, 61-139.

Gruber M. & Fauchart, E., (2013). *Instrumental and symbolic benefits in entrepreneurship: An identity based analysis*. Working Paper. Ecole Politechnique Federale de Lausanne.

Hamilton, B. H. (2000). Does entrepreneurship pay? An empirical analysis of the returns to self-employment. *Journal of Political Economy*, *108*(3), 604-631.

Haveman, H. A., & Khaire, M. V. (2004). Survival beyond succession? The contingent impact of founder succession on organizational failure. *Journal of Business Venturing*, *19*(3), 437-463.

Haynie, J. M., & Shepherd, D. (2011). Toward a theory of discontinuous career transition: Investigating career transitions necessitated by traumatic life events. *Journal of Applied Psychology*, *96*(3), 501-524.

Hill, R. C., & Levenhagen, M. (1995). Metaphors and mental models: Sensemaking and sensegiving in innovative and entrepreneurial activities. *Journal of Management*, *21*(6), 1057-1074.

Hisrich, R., Langan-Fox, J., & Grant, S. (2007). Entrepreneurship research and practice. *American Psychologist*, *62*(6), 575-589.

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, *129*(3), 339.

Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *The Journal of Economic Perspectives*, *5*(1), 193-206.

Khurana, Rakesh*,* and Nitin Nohria*,* 2000*, The performance consequences of CEO turnover.* Working paper, MIT.

Kotre, J. N. (1984). *Outliving the self: Generativity and the interpretation of lives*. Baltimore: Johns Hopkins University Press.

Landau, M. J., Meier, B. P., & Keefer, L. A. (2010). A metaphor-enriched social cognition. *Psychological Bulletin*, *136*(6), 1045.

Levie, J., Brown, W., & Galloway, L. (2004). How entrepreneurial are university alumni? A Scottish and international comparison. In Jones M.V. and Dimotratos P. (eds.). *Emerging Paradigms in International Entrepreneurship*, 342-364.

Lounsbury, M., & Glynn, M. A. (2001). Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic Management Journal*, *22*(6-7), 545-564.

Lowe, J. (1998). *Bill Gates speaks: Insights from the world's greatest entrepreneur*. New York: Wiley

Maddux, W. W., & Brewer, M. B. (2005). Gender differences in the relational and collective bases for trust. *Group Processes & Intergroup Relations*, *8*(2), 159-171.

Mansfield, E. D., & McAdams, D. P. (1996). Generativity and themes of agency and communion in adult autobiography. *Personality and Social Psychology Bulletin*, *22*(7), 721-731.

Margolis, J. D., & Walsh, J. P. (2001). *People and profits?: The search for a link between a company's social and financial performance*. Psychology Press.

McAdams, D. P. (1993). *Stories we live by: Personal myths and the making of the self*. New York: Morrow.

McAdams, D. P., & De St Aubin, E. (1992). A theory of generativity and its assessment through self-report, behavioral acts, and narrative themes in autobiography. *Journal of Personality and Social Psychology*, *62*(6), 1003-1015.

McAdams, D. P., Diamond, A., de St Aubin, E., & Mansfield, E. (1997). Stories of commitment: The psychosocial construction of generative lives. *Journal of Personality and Social Psychology*, *72*(3), 678.

McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. *Academy of Management Review*, *26*(1), 117-127.

Meznar, M. B., Nigh, D., & Kwok, C. C. (1994). Effect of Announcements of Withdrawal from South Africa on Stockholder Wealth. *Academy of Management Journal*, 1633-1648.

Miner, J. B., & Raju, N. S. (2004). Risk propensity differences between managers and entrepreneurs and between low-and high-growth entrepreneurs: a reply in a more conservative vein. *The Journal of Applied Psychology*, *89*(1), 3.

Mitchell, R. K., Busenitz, L. W., Bird, B., Marie Gaglio, C., McMullen, J. S., Morse, E. A., & Smith, J. B. (2007). The central question in entrepreneurial cognition research. *Entrepreneurship Theory and Practice*, *31*(1), 1-27.

Moskowitz, T. J., & Vissing-J, A. (2002). The Returns to Entrepreneurial Investment: A Private Equity Premium Puzzle? *American Economic Review*, *92*(4), 745-778.

Norton, M. I., Mochon, D., & Ariely, D. (2012). The IKEA effect: When labor leads to love. *Journal of Consumer Psychology*, *22*, 453-460.

Nunnally, J. C. (1967). *Psychometric theory*. New York: McGraw-Hill.

Ochse, R., & Plug, C. (1986). Cross-cultural investigation of the validity of Erikson's theory of personality development. *Journal of Personality and Social Psychology*, *50*(6), 1240-1252.

Pierce, J. L., Kostova, T., & Dirks, K. T. (2001). Toward a theory of psychological ownership in organizations. *Academy of Management Review*, 298-310.

Pratt, M. G. (2009). From the editors: For the lack of a boilerplate: Tips on writing up (and reviewing) qualitative research. *Academy of Management Journal*, *52*(5), 856-862.

Reynolds, P. D. (2009). Screening item effects in estimating the prevalence of nascent entrepreneurs. *Small Business Economics*, *33*(2), 151-163.

Reynolds, P. D., Hay, M., & Camp, S. M. (1999). *Global entrepreneurship monitor*. Kansas City: Kauffman.

Scott-Morton, F. M., & Podolny, J. M. (2002). Love or money? The effects of owner motivation in the California wine industry. *The Journal of Industrial Economics*, *50*(4), 431-456.

Shane, S. (2012). Reflections on the 2010 AMR Decade Award: Delivering on the Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, *37*(1), 10-20.

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *The Academy of Management Review*. *25*(1). 217-226.

Sohlman, Ragnar. (1929). *Nobel, dynamite and peace*. New York: Cosmopolitan.

Sørensen, J. B. (2007). Closure and exposure: Mechanisms in the intergenerational transmission of self-employment. *Research in the Sociology of Organizations*, *25*(83), 83-124.

Stewart Jr, W. H., & Roth, P. L. (2001). Risk propensity differences between entrepreneurs and managers: A meta-analytic review. *Journal of Applied Psychology*, *86*(1), 145.

Stevenson, S. (2012). Patagonia's founder is America's most unlikely business guru. *Wall Street Journal Magazine*.

Thompson, J. A., & Bunderson, J. S. (2003). Violations of principle: Ideological currency in the psychological contract. *Academy of Management Review*, *28*(4), 571-586.

Wade-Benzoni, K. A. (2002). A golden rule over time: Reciprocity in intergenerational allocation decisions. *Academy of Management Journal*, *45*(5), 1011-1028.

Wade-Benzoni, K. A. (2008). Maple trees and weeping willows: The role of time, uncertainty, and affinity in intergenerational decisions. *Negotiation and Conflict Management Research*, *1*(3), 220-245.

Wade-Benzoni, K. A., Hernandez, M., Medvec, V., & Messick, D. (2008). In fairness to future generations: The role of egocentrism, uncertainty, power, and stewardship in judgments of intergenerational allocations. *Journal of Experimental Social Psychology*, *44*(2), 233-245.

Wade-Benzoni, K. A., Sondak, H., & Galinsky, A. D. (2010). Leaving a legacy: Intergenerational allocations of benefits and burdens. *Business Ethics Quarterly*, *20*(1), 7.

Wade-Benzoni, K. A., & Tost, L. P. (2009). The egoism and altruism of intergenerational behavior. *Personality and Social Psychology Review*, *13*(3), 165-193.

Wade-Benzoni, K. A., Tost, L. P., Hernandez, M., & Larrick, R. P. (2012). It's Only a Matter of Time Death, Legacies, and Intergenerational Decisions. *Psychological science*, *23*(7), 704-709.

Walsh, I. J., & Bartunek, J. M. (2011). Cheating the fates: Organizational foundings in the wake of demise. *Academy of Management Journal*, *54*(5), 1017-1044.

Wasserman, N. (2003). Founder-CEO succession and the paradox of entrepreneurial success. *Organization Science*, *14*(2), 149-172.

Wasserman, N. (2006). Stewards, Agents, and the Founder Discount: Executive Compensation in New Ventures. *Academy of Management Journal*, *49*(5), 960-976.

Wasserman, N. (2008). The founder's dilemma. *Harvard business review*, *86*(2), 102-109.

Wasserman, N. (2012). *The founder's dilemmas*. Princeton: Princeton

Wrzesniewski, A., McCauley, C., Rozin, P., & Schwartz, B. (1997). Jobs, careers, and callings: People's relations to their work. *Journal of Research in Personality*, *31*(1), 21-33.

BIOGRAPHY

Matthew Fox was born in Duluth, Minnesota on July 21, 1977. He got a B.A. in International Political Economy from Colorado College in 2000 and an M.B.A. from the University of Nevada in 2007. His primary research interest is in the legacy motive, which he has applied to questions of organizational behavior, leadership, entrepreneurship, and public health. His work has been published in the journal *Business Ethics Quarterly*, and the edited volume *Environmental Leadership*. He received an innovation fellowship from the Duke Innovation and Technology Policy Lab for his work on the legacy motive in entrepreneurship, and a Best Student Paper Award from the Cognition in the Rough Workshop at the Academy of Management for his work on the legacy motive among veterans.