

Identity and Resource Mobilization in New Ventures: A Model of Venture Identification

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Abstract

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This research adopts an identity perspective in examining the mobilization of resources for new ventures. The proposed conceptual model integrates organizational identity theory and individual identity theory to outline how the identity of an individual resource provider interacts with the identity of a new venture in the process of mobilizing resources for the venture. The concept of venture identification, which stems from the alignment of the entrepreneurial identity of a new venture and the individual identity of a resource provider, is offered as a key predictor of the allocation of resources to a new venture. I outline the cognitive and affective mechanisms underlying the process of venture identification, and describe how these mechanisms foster perceptions of venture attractiveness. I develop an instrument to measure entrepreneurial identity and apply it to examine whether identity alignment between a venture and resource provider is related to resource mobilization. The findings suggest that resource providers are more inclined to support new ventures that reflect an entrepreneurial identity similar to their individual identity. Under conditions of high uncertainty, the relationship between venture-resource provider identity matching and resource provider support for a new venture increases. This research contributes to the literature on organizational identity by providing a framework for classifying and analyzing entrepreneurial identity. By modeling resource mobilization as a two-sided matching process with identity as a connecting construct, it provides a more complete and nuanced view of the mechanisms that facilitate resource acquisition in entrepreneurship.

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INTRODUCTION

New companies are guilty until proven innocent. Most of them fail. Investors know this. Entrepreneurs don't—or at least choose not to believe this. Their company will be different from all others. Is this clash of views a problem? Businesses need capital so that they can invest in people, physical assets, inventory, and so on. But investors are gripped by the fear of failure and possible loss of precious capital. Of course they are intrigued by (and greedy for) the prize if the venture succeeds. Entrepreneurs are captivated by the opportunity and are blind to the possibility of failure. They have to be. Otherwise they wouldn't set out on the crazy journey of building a new company. How can the two sides come together? (Berkery, 2007, p. 1)

The above quote captures a fundamental tension in the entrepreneurial process. Creating a new organization is inherently risky; approximately 7 out of 10 new ventures fail within 10 years of being launched (Shane, 2008). Because of the risk associated with starting a new venture, resource providers are reluctant to allocate resources to entrepreneurial organizations for fear of losing their investment. Therefore, it can be very challenging for entrepreneurs to garner resources to bring a new venture into being (Katz & Gartner, 1988). How, then, can entrepreneurs access resources from external resource providers to create a new venture?

To address this question, some scholars have examined how venture capital investors make investment decisions (e.g., Shepherd, Zacharakis, and Baron, 2003; Zacharakis and Shepherd, 2001). Others have examined how features of a venture such as ex ante levels of human and social capital and ex ante technological quality are predictive of resource assembly in a new venture (Hsu, 2008). Some scholars have demonstrated that the reputation and social networks of the people behind a venture are key to accessing financial resources (Shane & Cable, 2002). While other scholars have considered what entrepreneurs can do to dress up a venture as a “good risk”—in so doing, they have highlighted how issues such as identity construction (Navis & Glynn, 2011); symbolic management (Zott & Huy, 2007); preparedness (Chen, Yao, & Kotha, 2009); and storytelling (Lounsbury & Glynn, 2001; Martens, Jennings, & Jennings, 2007) on the part of entrepreneurs have an impact on the decisions of potential resource providers.

While these research streams provide a useful base for understanding some of the macro and micro processes underlying the resource mobilization processes for new ventures, there is a significant gap in how new venture resource acquisition is conceptualized. Prior research in the area of new venture resource mobilization has generally only examined one side of the equation—either the investor perspective in looking at what investors do when making decisions to provide resources to new ventures, or the venture perspective in examining what makes a venture attractive to resource providers. Almost no prior research examines how variation on the side of the venture and on the side of the resource provider facilitates a matching process between certain venture-resource provider pairs.

To advance research in this area I examine the *dyadic* relationship between a broad range of potential resource providers and entrepreneurial ventures. More specifically, I consider how aspects of resources providers' individual identity interacts with the identity claims of a new venture in accounting for resource mobilization in new ventures. In so doing, I draw on the concept of “identification” which is used to describe how individuals identify more strongly with an organization when their “self-concept contains the same attributes as those in the perceived organizational identity” (Dutton, Dukerich, & Harquail, 1994, p. 239).

Applying this concept to an entrepreneurial context, I examine if and how identity alignment between a potential resource provider and a new venture accounts for why some resource providers choose to provide support to entrepreneurial organizations. To do this, I develop a measure of a venture's entrepreneurial identity (Fauchart & Gruber, 2011; Navis & Glynn, 2011), and examine how aspects of a venture's entrepreneurial identity match with identity claims of resource providers in predicting which resource providers will show support for a new venture.

To study the two-sided identity matching process between resource providers and entrepreneurial ventures, this dissertation is organized into five chapters.

Chapter 1 provides a review the literature on organizational identity, entrepreneurial identity, and resource mobilization in new ventures. Through such a review, the need for the research described in this document is established.

Chapter 2 outlines a conceptual model that describes how the individual identity of a resource provider interacts with the entrepreneurial identity of a new venture in explaining how and why investors choose to provide resources to a new venture. The concept of *venture identification* is defined and proposed as a key predictor of the allocation of resources to a new venture. The antecedents and outcomes of venture identification are elaborated on as a series of testable propositions.

Chapter 3 defines and describes the key dimensions of entrepreneurial identity and the development of an instrument to assess and measure the entrepreneurial identity of a new venture.

Chapter 4 examines if a match between venture identity and resource provider identity predicts resource provider support for a new venture. A dataset of approximately 18,500 resource provider decisions is analyzed to assess the extent to which the alignment of a venture's identity and a resource provider's identity accounts for resource provider support for the venture.

Chapter 5 concludes with the outcome of this research.

1 LITERATURE REVIEW

The aim of this chapter is to review the literature on entrepreneurial identity and new venture resource mobilization. Through such a review, I establish a need for the research described in this document. Prior to reviewing the scholarly work on entrepreneurial identity, I provide an overview of the literature on *organizational identity* out of which the concept of entrepreneurial identity emerged. Thereafter, I review the literature on *entrepreneurial identity*, and then reflect on the most significant theoretical and empirical contributions examining resource acquisition in new ventures. Based on a review of the entrepreneurial identity and new venture resource mobilization literatures, I highlight the research gaps that emerge at the intersection of these two research streams.

1.1 RESEARCH ON ORGANIZATIONAL IDENTITY

Identity, as a research construct, was first examined at the *individual level* of analysis in scholarly work on developmental psychology, psychodynamics, and social psychology (e.g., Baumeister, 1986; Money, 1955, Stoller, 1968). Identity is “the set of meanings that define who one is when one is an occupant of a particular role in society, a member of a particular group, or claims particular characteristics that identify him or her as a unique person” (Burke & Stets, 2009, p. 3). At the individual level, the identities that people claim are related to the choices they make and the actions that they undertake (Hogg, Terry, & White, 1995; Rosenburg, 1981).

Albert and Whetten (1985) are credited with transitioning identity research from a focus on individuals to a focus on organizations, and in so doing, they initiated a stream of research that examines identity dynamics at the *organizational level* (Corley et al., 2006). Albert and Whetten suggest that organizational identity is a set of self-referential claims made by an organization with respect to its “central character, distinctiveness, and temporal continuity” (p.

265). Building on their conceptualization, organizational identity is defined as a set of constructs organizational members believe to be the *central, enduring, and distinctive* (CED) character of their organization (Ashforth & Mael, 1996; Corely et al., 2006; Dutton & Dukerich, 1991; Livengood & Reger, 2010; Reger, Gustafson, Demarie, & Mullane, 1994; Whetten, 2006).

Two key issues are central to understanding organizational identity. First, it is *self-referential claims* made by organization members about the organization—it represents how the organization views itself (Navis & Glynn, 2011). Second, it is a set of collective claims—it represents “the members’ consensual understanding of ‘who we are as an organization’” (Nag, Corley, & Gioia, 2007, p. 824).

Organizational identity is established and elaborated through narratives told by organizational authors (Czarniawska-Joerges, 1994; Lounsbury & Glynn, 2001; Martens et al., 2007) and through such discourse, the organization *reflects* and *constitutes* its identity (McMillan, 1987). Leaders are considered to be important authors of an organization’s identity (Scott & Lane, 2000) because they create meaning for organizations (Barnard, 1938; Lyles & Schwenk, 1992; Pettigrew, 1979; Pfeffer, 1981; Selznick, 1957). Organizational leaders can influence the cognitive representations people have of an organization through their interpretation of environmental events and organizational capabilities (Dutton & Jackson, 1987; Lyles & Schwenk, 1992) and through their translation of cues into meaning (Daft & Weick, 1984).

The role of leaders and leadership discourse in the construction and maintenance of identity is considered critical in situations of high ambiguity and high uncertainty (Gioia & Chittipeddi, 1991; Schweiger & DeNisi, 1991). People who experience ambiguity and uncertainty often look for clues in the environment that may help them interpret the situation (Weick, 1985). Pfeffer (1981) indicates that leaders can use times of uncertainty and change to

create a common understanding about the organization and the environment. “These understandings, these shared meanings, provide organizational participants with a sense of belonging and identity as well as demarcating the organization from its environment and assisting in the control and commitment of those within the organization” (Pfeffer, 1981, p. 13).

In summary, the research on organizational identity suggests that the self-referential claims made by organizational members about what is central, enduring, and distinctive in an organization are important for sense-making and sense-giving in organizations, especially in uncertain times and ambiguous situations. Leaders play an important role in making and reinforcing such claims, and through such claims they can provide meaning to organizational stakeholders.

1.2 RESEARCH ON ENTREPRENEURIAL IDENTITY

Scholarly work on entrepreneurial identity builds off research on organizational identity. Entrepreneurial identity is defined as the “the constellation of claims around the founders, organization, and market opportunity of an entrepreneurial entity that gives meaning to questions of ‘who we are’ and ‘what we do’” (Navis & Glynn, 2011, p. 479). Although this definition has only recently been proposed in the literature, concepts related to an entrepreneurial identity have been discussed in the literature for a number of years.

Past research on entrepreneurial identity can be categorized into three broad research streams. The first stream examines the relationship between entrepreneurial identity and the acquisition of resources in a new venture. The second considers the role of identity mechanisms in the emergence of new markets. The third research stream examines how individuals grapple with identity issues in the entrepreneurial process. The literature is summarized in Table 1.1 to 1.3. Below I will elaborate on the important elements of each research stream.

1.2.1 Entrepreneurial identity and resource acquisition

Four papers have addressed the link between identity claims of entrepreneurs and their likelihood of accessing resources for a new venture. Two of these papers are conceptual in nature, and the other two papers examine the relationship in an empirical setting. The main aspects of each paper are summarized in Table 1.1, and the contribution of each paper is addressed after the table.

Table 1.1 Entrepreneurial identity and resource acquisition

Reference	Type of Study	Context	Primary Level(s) of Analysis	Explanatory Variables	Dependent Variables	Major Contribution
Lounsbury & Glynn (2001)	Conceptual	N/A	Organization.	Entrepreneurial stories (timing, nature and content of stories).	Entrepreneurial identity that legitimates a new venture.	Entrepreneurial storytelling establishes an identity for a new venture such that the new venture can access capital.
Martens, Jennings & Jennings (2007)	Empirical (large sample; deductive)	169 firms in three high-tech industries (semiconductor, biotech, Internet) filing for an IPO between 1996-2000.	Organization.	The narrative in an IPO prospectus highlighting a firm's identity, providing an explanation for firm actions and embedding contextually familiar and unfamiliar elements).	Resource acquisition in the IPO process).	Narratives in an IPO prospectus are related to the amount of resources accessed by a firm. Effective narratives within an IPO prospectus enable firms to: (1) construct an unambiguous identity; (2) highlight how risk will be attenuated without providing overly complex explanations; and (3) invoke familiarity to contextualize ground what is unfamiliar.
Zott & Huy (2007)	Empirical (multiple case study; inductive)	7 new ventures based in London founded between 1999-2000.	Individual & organization.	Symbolic action (conveying personal credibility, professional organizing, organizational achievement, and quality stakeholder relationships).	Resource acquisition in young, privately held firms).	Symbolic actions that convey personal credibility, professional organizing, organizational achievement, and quality stakeholder relationships are associated with resource acquisition.
Navies & Glynn (2011)	Conceptual	N/A	Individual & organization.	Entrepreneurial identity claims. Market context.	New venture plausibility.	Entrepreneurial identity is the constellation of claims around the founder, new venture, and market opportunity as to who we are and what we do. Entrepreneurial identities are judged favorably when they are legitimately distinctive, and that such judgments are influenced by market context, and mediated by identity narratives that provide institutional primes and equivocal cues in investor sense making.

Lounsbury and Glynn (2001) incorporated the concept of a “new venture identity” into their theorizing about the role of stories and narratives in the entrepreneurial process. They argued that stories about the founders and their efforts to create a new venture serve to “*identify* and legitimate new ventures, thus mediating between extant stocks of entrepreneurial resources and subsequent capital acquisition and wealth creation” (p. 546). They draw from research on organizational identity (e.g., Czarniawska-Joerges, 1994) and new venture legitimacy (e.g., Aldrich and Fiol, 1994) to propose two basic means by which the content of entrepreneurial stories “shape and legitimate the identity of the entrepreneurial enterprise: (1) by emphasizing the distinctiveness of the new venture through a focus on identifying its unique characteristics, and (2) by stressing the normative appropriateness of the new venture by identifying its symbolic congruence with similar organizational forms and ideologies” (p. 550). In so doing, they outline the entrepreneurial tension between the value of firm distinctiveness, as described in the organizational-identity literature (e.g., Albert and Whetten, 1985) and the need for conformity, as described in the entrepreneurial-legitimacy literature (e.g., Aldrich and Fiol, 1994).¹

Lounsbury and Glynn (2001) create an opportunity for further theoretical development to clarify the construct of entrepreneurial identity and to describe its underlying dimensions (see Navis and Glynn, 2011, for theorizing in response to this gap).

Following Lounsbury and Glynn (2001), Martens et al. (2007) empirically examine the link between organizational narratives and resource acquisition for firms at the time of an Initial Public Offering (IPO). They argue that the narrative within an IPO prospectus serves to convey “*a comprehensible identity* for an entrepreneurial firm, elaborating the logic behind proposed

¹ Although Lounsbury and Glynn (2001) use entrepreneurial identity as a mediating variable between entrepreneurial stories and resource acquisition in their conceptual model, they don’t specifically define the construct or make any effort to distinguish it from organizational legitimacy.

means of exploiting opportunities and embedding entrepreneurial endeavors within broader discourses” (p. 1107), which enables firms to access more resources in the IPO process. In analyzing IPO data for firms from three high tech industries (semiconductors, biotechnology, and Internet content providers), they find evidence that narratives in an IPO prospectus help firms construct an unambiguous identity, which in turn allows a firm to access greater resources at the point of IPO. Their findings suggest that narratives influence resource providers in ways that go above and beyond the effects of more purely factual information about a firm’s resource endowments. They also found evidence that the authors of entrepreneurial narratives took the liberty to “re-present” the facts as they saw fit, thereby manipulating the messages portrayed about the organization in order to make the organization appear more attractive. On the whole, the study by Martens et al. (2007) provides evidence that narratives are used in public documents to construct an identity for an organization and the claims within such narratives are related to the acquisition of resources for the organization.

Zott and Huy (2007) linked the *symbolic actions* of entrepreneurs with resource acquisition for ventures in the early stages of development. Through their inductive analysis of seven new ventures, they developed a conceptual model highlighting four categories of symbolic actions: (1) demonstrating personal credibility (e.g., displaying a business school degree from a prestigious university); (2) professional organizing (e.g., emphasizing the company’s website, its offices, or its dress code); (3) emphasizing organizational achievement (e.g., using prototypes, product demonstrations, trial sites, and awards to represent partially working organizational artifacts); and (4) highlighting stakeholder relationships (e.g., using high-profile names, mentioning relationships with famous people or companies, or involving prestigious outsiders as company representatives in meetings). These symbolic actions were related to the acquisition of

resources for the new ventures they examined (Zott & Huy, 2007). Zott and Huy (2007) don't make specific reference to the concept of an entrepreneurial identity in their research, yet their core argument is that symbolic actions of an entrepreneurial team influence people evaluating the venture. Other researchers have suggested that symbolic actions are strongly related to the construction and maintenance of an organizational identity (Corely et al., 2006, p. 90).

Therefore, it is appropriate to highlight a study on symbolic management in new ventures in reviewing the literature on entrepreneurial identity.

Navis and Glynn (2011) incorporate much of the prior work on entrepreneurial identity to conceptually clarify the construct, and to propose more nuanced relationships between entrepreneurial identity and resource acquisition for new organizations. First, they explicitly define the construct of entrepreneurial identity and then theorize on how identity serves as a touchstone for investor judgments of new venture plausibility. They define entrepreneurial identity as “the constellation of claims around the founders, organization, and market opportunity of an entrepreneurial entity that gives meaning to questions of ‘who we are’ and ‘what we do’” (p. 479). This definition embeds entrepreneurial identity at three levels of analysis: the individual level (founder), the organizational level (proposed new venture), and the market level (focal institutional sector).

Navis and Glynn (2011) also suggest that a desire for both legitimacy and distinctiveness creates a tension in the establishment of entrepreneurial identity. Legitimacy is achieved when entrepreneurs align an entrepreneurial endeavor with expectations arising from institutionalized conventions, and distinctiveness comes from distancing the endeavor from such institutionalized conventions. They observed, “[a] legitimately distinctive entrepreneurial identity is paradoxical because it embeds both conformity and deviance, containing identity elements that are

contradictory or oppositional” (Navis & Glynn, 2011, p. 480). They propose that the optimal way to manage this paradox is dependent on the market context. In a new market category, entrepreneurs draw legitimacy from the team in the form of “taken-for-granted understandings of the entrepreneurial role and activities” (p. 484), and they draw distinctiveness from the “novelty of the business concepts that make it distinctive from other market categories” (p. 484). In established markets, legitimacy comes from “alignment with the taken for granted logics and practices that define the market category” (p. 484) and distinctiveness comes from variation in the business concept that makes it unique from other players within market category (Navis & Glynn, 2011).

The literature on entrepreneurial identity and resource acquisition has focused primarily on how the construction of an identity for an entrepreneurial organization relates to the acquisition of resources for the organization. The research has described some of the mechanisms that are used by entrepreneurs to construct an identity for an entrepreneurial organization, and how such mechanisms are related to investors’ perceptions of the entity under different market contexts. Next, I will review the research that has examined the role of identity in the emergence of new markets.

1.2.2 Entrepreneurial identity and the emergence of new markets

Three recent research studies have examined how identity mechanisms affect new-market emergence. Because entrepreneurial firms are often active in facilitating the emergence of a new-market category (Aldrich & Fiol, 1994; Navis & Glynn, 2010), the relationship among entrepreneurial identity, market identity, and new-market emergences is relevant to this research.

Table 1.2 Entrepreneurial identity and market emergence

Reference	Type of Study	Context	Primary Level(s) of Analysis	Explanatory Variables	Dependent Variables	Major Contribution
Kennedy (2008)	Empirical (industry study, deductive).	Emergence of the market for desktop computer workstations 1980 to 1990.	Organization & market.	Reference to rivals in firm press releases.	Media attention. Firm survival.	Early entrants to a new market benefit from inviting media coverage that makes a few—but not too many—links to other entrants, helping audiences perceive an emerging category. Media coverage makes market entrants countable as a new population by embedding them in an emerging category. Audiences see market entrants as a distinct new population.
Santos & Eisenhardt (2009)	Empirical (multiple case study; inductive).	5 firms that emerged in the new market space at the confluence of the computing, electronics, and telecom industries in the mid-1990s.	Organization.	Identity mechanisms (adopting templates, signaling leadership, and disseminating stories).	Power in a nascent market (through becoming a cognitive referent).	Identity mechanisms (adopting templates, signaling leadership, and disseminating stories) are related to becoming the cognitive referent in a new market which provides an entrepreneurial firm with power in that market space.
Navies & Glynn (2010)	Empirical (industry study, deductive).	Emergence of the satellite radio industry 1990-2005 (two firms XM & Sirius).	Organization & market.	New market category achieves legitimacy.	Shift in identity claims; linguistic framing; audience attention.	A new market category goes through a process of collective category legitimization before the firms in the category begin to individually distinguish themselves from other firms in the category. This is represented in the identity claims, framing and alliance announcements of the firms in the new category and is reinforced by the attention of the audience to that category.

Kennedy (2008) studied the emergence of the desktop-computer market in the 1980s. In his study, he examined the relationship between media coverage that makes reference to rivals and the likelihood that a firm will get more media attention and ultimately survive. His main argument is that making reference to rivals in media stories connects a firm to an emerging market category. Consequently, this legitimizes the firm, leading to more media coverage that enhances firm survival. His analysis suggests that early entrants to a new market benefit from inviting media coverage that makes a few—but not too many—links to other entrants, thus helping audiences perceive and recognize the emerging category. He suggests that media coverage makes new entrants countable as a new population by embedding them in an emerging category. Audiences then see market entrants as a distinct new population. Therefore, embedding an organization's identity within the context of the emerging market category helps a firm gain legitimacy while at the same time helps legitimate the category.

Santos and Eisenhardt (2009) examined five new firms that emerged at the confluence of the computing, electronics, and telecom industries in the mid 1990s. They sought to explain how entrepreneurs addressing nascent markets shape organizational boundaries over time. Their findings suggest that amongst other things, one significant way the entrepreneurs create power for a firm in a nascent market category is to become the cognitive referent in the category. A cognitive referent is an organization that becomes so synonymous with a new market space such that relevant others (e.g., customers, partners, analysts, and employees) automatically recognize it as epitomizing the nascent market. For example, Google is widely seen as the cognitive referent for Internet search (Santos & Eisenhardt, 2009, p. 649).

Santos and Eisenhardt (2009) identified three identity mechanisms firms use to become cognitive referents in an emerging market category: (1) *adopting templates*, which entails the use

of cognitive models from other areas to allow for “sensegiving by analogy to help internal and external actors understand venture and market” (p. 653); (2) *signaling leadership*, which involves taking “concrete actions that convey superior expertise and/or power” (p. 653); and (3) *disseminating stories* which is “spreading symbolic narratives about the company and/or market (fictitious or real)” (p. 653). Their findings suggest that new firms in a nascent market space use identity mechanisms to become the cognitive referent in the market space, and in so doing, they become respected as powerful actors in an emerging market category.

Navis and Glynn (2010) studied how identity claims at both the market and firm level facilitated the establishment of a new market category in satellite radio. They demonstrated how Sirius and XM (the two early entrants in the satellite radio market) initially sought to legitimate the category of satellite radio through collective identity claims. The relevant audiences for this emerging category appeared to pay attention to the actions of the category as a whole (rather than the individual firms in the category). Only after the new category crossed a “legitimacy threshold,” did Sirius and XM shift their identity claims to emphasize distinctive firm-level identities; at this time the audience began paying attention to the distinctions between the two firms. Navis and Glynn’s (2010) study suggests that identity dynamics operate at two levels in new markets: first at the level of the market (collective identity), and then later at the level of the firms in the market (organizational identity). Their study also draws attention to the idea that identity claims serve an internal and external role in new organizations in that they provide meaning to people within the organization, but are also interpreted by audiences external to the organization.

The studies reviewed here suggest that cognition and social construction play important roles in the process of market emergence. New market categories need to be identifiable to a

broader audience, and the actors within a new market category can play a part in constructing an identity for a new market category and identifying themselves as the leaders in that category. Identity construction, therefore, appears to play an important role in the social construction of new markets and in enabling firms to become powerful actors within those emerging markets.

1.2.3 Individual identity in entrepreneurship

Navis and Glynn (2011) incorporate three levels of analysis into their definition of entrepreneurial identity: the individual, organization, and market. Therefore, it is important to review prior research on the topic of individual identity at the level of the entrepreneurs. Five studies on individual entrepreneurial identity were identified. One is an ethnographic study from the sociology literature; two are conceptual papers that draw on theories from psychology to propose how identity dynamics affect entrepreneurs; and two papers report on grounded theory development studies in which the individual identity dynamics of the people transitioning into entrepreneurial careers are examined.

Table 1.3 Individual identity in entrepreneurship

Reference	Type of Study	Context	Primary Level(s) of Analysis	Explanatory Variables	Dependent Variables	Major Contribution
Down (2006)	Ethnography	Two entrepreneurs who co-founded a small ship fender firm	Individual	N/A	N/A	Individual entrepreneurs create a new entrepreneurial identity for themselves by building various justificatory and motivating stories for themselves and for people interacting with them. Entrepreneurs emphasize certain life events and reflections that allow them to build a coherent story about who they are, what they do, and why they perform their roles.
Shepherd & Haynie (2009)	Conceptual	N/A	Individual	Entrepreneurial identity (individual level); non-work identities (of individual).	Entrepreneurs' psychological well-being (being need to be distinctive and need to belong).	Entrepreneurs' experience identity dynamics as they establish a new venture. Entrepreneurs need to manage a tension between an individual's need for distinctiveness and a need for belonging. Founding teams provide entrepreneurs with a sense of belonging. Entrepreneurs can create multiple micro identities to confer belonging while maintaining distinctiveness. They can create synergies between multiple identities to increase their psychological well-being.
Cardon, Wincent, Singh & Drnovsek (2009)	Conceptual	N/A	Individual	Entrepreneurial passion.	Entrepreneurial effectiveness (related to entrepreneurial identity).	Entrepreneurs have the option to embrace three different role identities: inventor, founder, and developer. The role identity of an entrepreneur is related to the areas in which they are effective in exercising their entrepreneurial passion.
Haynie & Shepherd (2011)	Empirical (multiple case study; inductive)	Disabled war veterans transitioning into entrepreneurship	Individual	Traumatic life event prompting necessary career transition; reestablishment of assumptions of the world and self	Effective management of discontinuous career transition	Managing forced career transitions into entrepreneurship involves the enactment of behaviors focused on rebuilding career-identity foundations. Individuals who are able to reestablish assumptions of the world and self are better positioned to pursue their passion through their careers and structurally link their past (career competences and coping competences) with their future (competences required for a new career). In contrast, individuals who have yet to establish these foundational assumptions continue to feel vulnerable to an unknown world.
Fauchart & Gruber (2011)	Empirical (multiple case study; inductive)	Firm founders in the sports-related equipment industry	Individual	Identity of firm founders (1) social motivation; (2) self-evaluation; (3) frame of reference	Strategic decision in the creation of new firms	Founder identities can be categorized as (1) Darwinian (focused on competitiveness; (2) Communitarian (focused on community engagement; and (3) Missionary (focused on social cause). These individual level identities are related to the heterogeneous meanings that founders associate with new firm creation and result in fundamental differences in firm creation processes and outcomes.

Down (2006) reports on ethnographic research of two entrepreneurs who co-founded a small U.K.-based firm building fenders for ships. His work focuses on how the two co-founders made sense of their entrepreneurial endeavors and motivated themselves to engage in entrepreneurial activity. According to Down, the two individuals created a new and seemingly functional entrepreneurial identity for themselves—an identity that is dynamic and transient—by building various justificatory and motivating stories, or narratives, for themselves and for people interacting with them. Therefore, he suggests that entrepreneurs emphasize certain life events and reflections that allow them to build a coherent story about who they are, what they do, and why they perform their roles. This study provides insight into the identity dynamics of individual entrepreneurs—as people engage in entrepreneurial activity, they create narratives to explain and justify what they are doing, and these narratives, in turn, affect how others perceive and interact with them.

Shepherd and Haynie (2009) also postulate that individuals experience identity dynamics as they establish a new venture. Drawing on the psychological literature, they describe how individuals have a paradoxical need for both distinctiveness and belonging (Brewer, 1991). They suggest that while creating and growing a business, entrepreneurs establish a personal identity that satisfies their psychological need to be distinctive because entrepreneurs are somehow seen to be distinct as individuals. But such an identity may come at the expense of their need to belong. A lack of belonging can result in feelings of isolation (Brewer, 1991), which can negatively impact their physical and psychological health. They represent this “unsatisfied need for belonging—and its negative consequences—as a potential ‘dark-side’ of entrepreneurship” (Shepherd & Haynie, 2009, p. 318). They describe three means to overcome the negative consequences of an unsatisfied need for belonging. First, founding a venture as part of a team

can provide entrepreneurs with a sense of belonging. Second, entrepreneurs can create multiple role identities to confer belonging while maintaining distinctiveness. Third, entrepreneurs can strategically manage their multiple identities to increase their psychological well-being.

Cardon, Wincent, Singh, and Drnovsek (2009) also suggest that an entrepreneur can adopt a number of different individual identities as they create a new venture. They suggest that the individual identity of an entrepreneur will interact with entrepreneurial passion in the venture creation process (i.e., entrepreneurs will live out their entrepreneurial passion in accordance with their entrepreneurial-role identity). The three entrepreneurial role identities that they propose are: (1) *inventor identity*, which is associated with opportunity recognition; this helps drive innovation in a new enterprise; (2) *founder identity*, which is associated with venture creation and helps with accessing and establishing financial, human and social capital in a new enterprise; and (3) *developer identity*, which is associated with venture growth through pushing sales and establishing new markets (Cardon et al., 2009).

Haynie and Shepherd (2011) examine how an individual's identity and the narratives that they construct about their situation facilitate a career transition into entrepreneurship in response to a traumatic life event. They conduct an in-depth study of soldiers and Marines disabled by wartime combat who attempt to transition into entrepreneurship as a means to create a livelihood. They find that effective management of this type of career transitioning into entrepreneurship stems from efforts by the individual to formulate a coherent narrative of their prior traumatic experience. In so doing, the individual is able to reconstruct his or her foundational assumptions about the world, humanity, and self. The reconstructed assumptions form the basis for enacting future-orientated career strategies. Haynie and Shepherd find that progress toward establishing a new, entrepreneurial career path "is greatest for those who can orientate themselves away from

the past (trauma), away from the present (obstacles to a new career), and toward an envisioned future career positioned to confer meaning and purpose through work” (p. 501).

Fauchart and Gruber (2011) examine the identities, behaviors, and actions of forty-nine firm founders in the sports-related equipment industry in the Alpine region of Europe. They inductively develop a typology of three pure types of individual identities for firm founders based on the social motivation, self-evaluation, and the frame of reference adopted by different firm founders. The founder identities that they describe include a Darwinian identity focused on the competitiveness and profitability of the venture, a Communitarian identity focused on community engagement, and a Missionary identity focused on addressing a social cause. Their analysis highlights how these identities systematically shape key strategic decisions of founders in the creation of new firms, “thereby ‘imprinting’ the start-ups with the founders’ distinct self-concepts” (p. 935). The individual level identities of firm founders are related to the heterogeneous meanings that entrepreneurs associate with new firm creation and result in fundamental differences in firm creation processes and outcomes.

Although research on the individual identity of entrepreneurs is relatively nascent, the early work in this area offers some interesting insights, particularly with respect to the link between founder identities, entrepreneurial behaviors, and venture processes and outcomes (Fauchart & Gruber, 2011; Haynie & Shepherd, 2011). The typology developed by Fauchart and Gruber (2011) appears to be the first attempt at creating some sort of categorization scheme of entrepreneurial identities. Although their work focuses on classifying individual founder identities, it provides a potentially useful starting point for developing a categorizing scheme for the organizational identities of different entrepreneurial ventures (Navis & Glynn, 2011).

Next, I will briefly reflect on research examining resource mobilization in new ventures.

1.3 RESEARCH ON ENTREPRENEURIAL RESOURCE MOBILIZATION

Mobilizing resources for a new venture is commonly acknowledged to be a vital entrepreneurial task (Shane, 2003; Starr & MacMillan, 1990)—obtaining outside support and funding not only enables an entrepreneurial firm to pursue identified opportunities, but also facilitates its ability to survive, grow, and generate profits (Brush, Greene, & Hart, 2001; Shane, 2003). Resource mobilization is also widely recognized as a complex and challenging undertaking (Brush et al., 2001). The challenge stems from information asymmetry and from uncertainty about the value of entrepreneurial opportunities and a firm’s ability to exploit them (Amit, Brander, & Zott, 1998). Resource providers tend to possess less information than entrepreneurs about certain opportunities and their proposed means of exploiting these opportunities; moreover, the value of those opportunities is largely unknown prior to their exploitation (Shane, 2003; Stuart, Hoang, & Hybels, 1999). Resource holders are therefore reluctant to commit their precious resources (time, money, social capital, etc.) to new ventures (Bhide, 2000; Schoonhoven & Romanelli, 2001).

Because of the challenge entrepreneurs face in accessing resources for new ventures, some scholars have developed conceptual arguments highlighting factors that enable entrepreneurs to mobilize resources. Others scholars have empirically investigated the enabling conditions and entrepreneurial actions that can help entrepreneurs overcome the challenge of resource mobilization. Table 1.4 outlines the major conceptual contributions to this stream of research, and Table 1.5 summarizes the significant empirical papers that examine resource acquisition in new ventures.

Table 1.4 Conceptual papers on entrepreneurial resource acquisition

Reference	Theory Base	Key Propositions
Starr & MacMillan (1990)	Socio-economic theory emphasizing how individual choice is characterized by tension between rational choice factors and moral commitments.	Social contracting by entrepreneurs is critical to the process of resource acquisition for their ventures. Social contracting behavior is useful in two key areas: coopting legitimacy and coopting underutilized resources. Targets of such social contracting behavior are prepared to tolerate their resources being coopted when entrepreneurs employ social assets such as friendship, liking, trust, obligation, and gratitude to secure resources. Entrepreneurs get resources at prices far lower than the market price, to the significant benefit of their ventures.
Aldrich & Fiol (1994)	Institutional theory emphasizing how people in organizations act to produce and reproduce their environments	Entrepreneurs depend on cognitive and socio-political legitimacy to attract resources. Entrepreneurs who utilize encompassing symbolic language and behaviors gain cognitive legitimacy more quickly than others. Founders who communicate internally consistent stories regarding their new activity will gain sociopolitical approval more quickly than others
Lounsbury & Glynn (2001)	Combination of strategic and institutional perspectives incorporating insights from contemporary theories about culture and organizational identity	Entrepreneurial storytelling has a significant impact in resource acquisition in the emergent stages of new venture formation. Entrepreneurial stories must have narrative fidelity and resonate with the expectations, interests, and agendas of potential stakeholders. Entrepreneurial story content must consist of claims that emphasize a core, distinctive, and enduring set of attributes, capabilities, and resources that lend strategic distinctiveness and competitive advantage. Entrepreneurial story content must make claims that emphasize the enterprise's relationship to industry categories that are aligned with cultural understandings, norms, and beliefs about what is appropriate and normative. Tangible and intangible resource capital provides key content for entrepreneurial stories that identify, legitimate, and enable resource flows to new entrepreneurial ventures.
Zimmerman & Zeitz (2002)	Institutional theory which views legitimacy as a social judgment of acceptance, appropriateness, and/or desirability	Legitimacy is a resource important for acquiring other resources, such as top managers, quality employees, financial resources, technology, and government support. Resources are crucial for new venture growth. Legitimacy can be enhanced by strategic actions taken by the new venture. Such strategic actions are particularly important for new ventures, since this is precisely what they usually lack
Packalen (2007)	Institutional theory focused on legitimacy and imprinting theory through which the conditions at firms founding stay with it for a long period of time	As the status and relevant demographic features of team members of venture increase so the firm's initial cognitive legitimacy will increase and thus its initial likelihood of obtaining outside resources will increase. Industry status will moderate the relationship between demographic features and the firm's initial cognitive legitimacy. As the number of organizations affiliated with members of founding team increases, the firm's initial cognitive legitimacy and thus its initial likelihood of obtaining outside resources will increase. Industry status will moderate the relationship between social capital and the firm's initial cognitive legitimacy
Navis & Glynn (2011)	Institutional theory and organizational identity theory	Entrepreneurial identity--the constellation of claims around the founder, new venture, and market opportunity as to who we are "and what we do."--are judged favorably when they are legitimately distinctive. Such judgments are influenced by market context, and mediated by identity narratives that provide institutional primes and equivocal cues in investor sensemaking.

Table 1.5 Empirical research on entrepreneurial resource acquisition

Reference	Unit of Analysis	Key Finding
Hall & Hofer (1993)	Venture capitalists' decisions: verbal protocols in which the participants were required to "think aloud" as they reviewed and evaluated business proposals	Venture capitalists screen and assess business proposals very rapidly. Key criteria in the decision include (1) fit with the venture firm's investment guidelines; (2) the long-term growth prospects of the industry in which the proposed business will operate; and (3) source of the business proposal with proposals previously reviewed by persons known and trusted by the venture capitalist receiving a high level of interest.
Steier & Greenwood (1995)	Single case analysis of an entrepreneurial firm seeking venture capital funding (1982-1993)	Penetrating the venture capital network is a significant first step in securing financial resources. Relationships supersede business plans in securing resources.
Deeds, Decarolis & Coombs (1997)	92 biotechnology IPOs (1982-1992)	The disclosed scientific capabilities of a firm are a significant predictor of the total amount of capital raised by a firm's IPO.
Stuart, Hoang, and Hybels (1999)	301 privately held, venture capital backed biotechnology firms specializing in the development of human diagnostics and therapeutics (1978-1991)	Privately held biotech firms with prominent strategic alliance partners and organizational equity investors go to IPO faster and earn greater valuations at IPO than firms that lack such connections.
Steier & Greenwood (2000)	Single case analysis of an entrepreneurial firm developing a network of angel investors from 1987-1997	In developing a network of resource providers, entrepreneurs need to balance the advantages of efficiency with the risks of dependence. Therefore, some redundancy in network relationships is preferable.
Shane & Cable (2002)	An analysis of 202 seed-stage investment decisions made by venture capitalists and angel investors in 50 high-technology ventures	Social ties influence the selection of ventures to fund through a process of information transfer.
Gulati & Higgins (2003)	Public and private biotechnology firms that were founded between 1961 and 1994 and that went public between 1979 and 1996	Firms with upper echelons with affiliations with prominent downstream organizations (i.e., pharmaceutical and/or healthcare companies) and with prominent horizontal organizations (i.e., biotechnology companies) are more likely to attract the endorsement of a prestigious investment bank. The greater the range of upper echelon affiliations across the categories of upstream, horizontal, and downstream affiliations, the more prestigious the firm's lead underwriter.
Shane & Stuart (2003)	Life histories of all 34 firms founded to exploit MIT-assigned inventions during the 1980-1996 period	New ventures with founders having direct and indirect relationships with venture investors are most likely to receive venture funding and are less likely to fail. Receiving venture funding is the single most important determinant of the likelihood of IPO.
Delmar & Shane (2004)	Life histories of 23 Swedish new ventures started between January and September 1998	Undertaking activities to generate legitimacy—establishing a legal entity, developing a business plan, asking for funding and obtaining inputs—reduces the hazard of venture disbanding and facilitates the transition to other organizing activities.

Continued on next page...

Reference	Unit of Analysis	Key Finding
Franke, Gruber, Harhoff, & Henkel (2006)	Conjoint experiment with 51 venture capitalists respondents	Venture capitalists tend to favor venture teams that are similar to themselves in type of training and professional experience.
Zott & Huy (2007)	Inductive field study of 7 British ventures founded in 1999 or 2000. Fieldwork conducted in 2002-2004.	Four symbolic action categories facilitate resource acquisition: (1) conveying the entrepreneur's personal credibility; (2) professional organizing; (3) organizational achievement; (4) and the quality of stakeholder relationships
Martens, Jennings, & Jennings (2008)	The prospectus documents of the 169 firms in three high tech industries filing for an IPO between 1996-2000	Identity construction, story elaboration, and contextual embedding are invoked within narratives in an IPO prospectus and aspects of these narratives impact resource acquisition at IPO in et of previously emphasized factors
Matusik, George, & Heely (2008)	46 venture capitalists each evaluating three possible investment scenarios	Decision makers' process values influence the perceived worth of founders' human capital.
Kirsch, Goldfarb, & Gera (2009)	722 funding requests submitted to an American VC firm	The presence of planning documents and some information contained therein are weakly associated with VC funding decisions. This information is learned independently of its inclusion in the business planning documents
Chen, Yao, & Kotha (2009)	126 executive MBA and MBA students making venture investment decisions	Preparedness, not passion, positively impacted venture capitalist decisions to fund ventures
Petty & Gruber (2011)	Qualitative analysis of 1 year of archival data from a single European-based venture capital firm. The VC managed two funds, reviewed a total of 3631 deals, and made 35 investments	The findings reveal how decision-making criteria vary over different stages of the evaluation process. They also show how VC portfolio composition and VC management time serve as important, yet to-date largely neglected decision-making criteria.
Murnieks, Haynie, Wiltbank, & Harting (2011)	Conjoint experiment with 60 venture capitalists respondents	Venture capitalists evaluate more favorably opportunities represented by entrepreneurs who appear to think in ways similar to their own

The conceptual papers on resource acquisition (Table 1.4) address entrepreneurial efforts to overcome the “liability of newness” (Stinchcombe, 1965). These papers draw largely on institutional theory to describe how entrepreneurs strive to align their ventures with the institutional context in which they operate to be seen as legitimate in order to access resources (Aldrich & Fiol, 1994; Lounsbury & Glynn, 2001; Packalen, 2007; Zimmerman & Zeitz, 2002). Along with institutional perspectives, the concepts of social

relationships and social contracting have been used to describe how entrepreneurs mobilize others to support their efforts (Starr & MacMillan, 1990).

The empirical research examining resource acquisition in an entrepreneurial context (Table 1.5) has uncovered a number of factors that predict and facilitate resource acquisition in entrepreneurial ventures. These include engaging in legitimizing activities such as developing a business plan and registering a company (Delmar & Shane, 2003); the social ties and reputation of the founders and management team (Higgins and Gulati, 2003; Shane & Cable, 2002); the reputation of affiliated firms and institutions (Higgins & Gulati, 2003; Stuart et al., 1999); the scientific capabilities of within the venture (Deeds, Decarolis, & Coombs, 1997); the application of symbolic management practices (Zott & Huy, 2007); narratives disclosed in company documents (Martens et al., 2007); the educational background (Franke, Gruber, Harhoff, & Henkel, 2006); perceived thinking style (Murnieks, Haynie, Wiltbank, & Harting, 2011); the life cycle stage of a VC fund and the portfolio of other investments in a VC fund (Petty & Gruber, 2011); and the preparedness of an entrepreneur in presenting their business plan (Chen et al., 2009).

1.4 GAPS IN THE RESEARCH ON ENTREPRENEURIAL IDENTITY AND RESOURCE MOBILIZATION

The review on the entrepreneurial identity literature provides insight into the identity mechanisms that have been used to help explain resource acquisition, market creation, and individual behavior in an entrepreneurial context. Although it has been useful to incorporate the concept of identity into the study of entrepreneurship, this stream of research is still emerging, leaving many unanswered questions as well as gaps for further research. A gap in this stream of research pertains to how identity elements of an individual resource provider interact with the organizational identity of a new venture

in garnering support for a new entrepreneurial venture. Although identity has been a useful lens for developing and testing theory focused on how entrepreneurs attract resources for a new venture, the research on the role of identity in the entrepreneurial process has focused almost exclusively on the identity of the venture, which includes the identity of the founders, the organization, and the market space in which the venture will operate (Navis & Glynn, 2011). Little to no prior research examines how identity elements of a resource provider may interact with the identity of the emerging organization in a decision to provide resources to a new venture. Although resource acquisition for new ventures is a dyadic process involving a resource provider and an entrepreneurial venture (Franke et al., 2006; Matusik et al., 2008; Murnieks et al., 2011), most prior research has only considered how the identity of the entrepreneurial venture may impact this process. It is timely to consider how the identity of the resource provider may factor into the process.

Research, in other domains, suggests that an individual's identity impacts many of their choices and decisions. People invoke their identities in making decisions about food consumption preferences (Wooten, 1995), media usage (Saegert, Hoover, & Hilger, 1985), brand preferences (Deshpandé, Hoyer, & Donthu, 1986), smoking (Waldron, 1991), and on-the-job effort (Akerlof & Kranton, 2010). Thus, there is reason to believe that the identity elements of a resource provider may have a significant impact on whether they chose to provide resources to a new venture or not. In this research, I will examine how the individual identity elements of an individual resource provider interact with the entrepreneurial identity of a new venture in the resource acquisitions process for new ventures.

The review of the prior literature on resource acquisition in new ventures highlights that the acquisition of resources in entrepreneurship is a complex process. There are many factors that appear to contribute to a new venture's ability to acquire resources. There is, however, limited research examining the dyadic interaction between resource providers and new ventures. While some researchers have examined how certain VCs have preferences for specific entrepreneurs based on similarity in educational background (Franke et al., 2006), values (Matusik et al., 2008), and thinking style (Murnieks et al., 2011), there is no reported research examining how different resource providers have preferences for ventures with different organizational identities. This research will examine whether such a matching process between the identity of resources providers and new ventures accounts for resource provider support for new ventures.

The review of the resource acquisition literature also highlights that almost all of the research on resource acquisition in new ventures is focused on the acquisition of financial resources from VCs or from the public markets at the time of going public (IPO). Yet, only a very small number of entrepreneurs ever seek VC financing, and even fewer take their ventures public. Most entrepreneurs, therefore, rely on a broad audience of supporters for various different kinds of resources as they build their ventures. Resources may come in the form of advice, services, products, referrals, or financial capital, and such resources come from a wide audience including lawyers, accountants, consultants, managers, angel investors, bankers, ventures capitalists, etc. Therefore, there is a gap in the literature with respect to understanding how entrepreneurs garner support from a wide range of potential resource providers in the process of building their ventures.

2 A MODEL OF VENTURE IDENTIFICATION

2.1 INTRODUCTION

Entrepreneurship researchers have described resource acquisition as one of “the greatest challenges faced by entrepreneurs” (Brush et al., 2001, p. 71). The challenge stems from the uncertainty (Knight, 1921) and equivocal nature of entrepreneurial opportunities (Katz, Gartner, Aronsson, & Low, 2010). Resource providers generally possess less information than entrepreneurs about new opportunities and the proposed means of exploitation (Amit et al., 1998). Moreover, the value of entrepreneurial opportunities is largely unknown prior to exploitation (Shane, 2003; Stuart et al., 1999). Therefore, resource providers are generally reluctant to commit resources to new ventures (Bhide, 2000; Schoonhoven & Romanelli, 2001).

Prior research has focused heavily on what entrepreneurs can do to portray a venture as a “good risk” (Navis & Glynn, 2011, p. 479), in essence making the venture seem plausible and attractive to potential resource providers. Because entrepreneurs control the flow of information about a venture to potential resource providers, researchers have argued that they need to carefully decide what they will disclose about the opportunity they are pursuing, the venture they are creating, and about themselves so as to enhance the venture’s plausibility (Kirsch, Goldfarb, & Gera, 2009; Lounsbury & Glynn; 2001; Navis & Glynn; 2011).

Entrepreneurs utilize cultural tools (Swidler, 1986) such as identity claims (Navis & Glynn, 2011; Santos & Eisenhardt, 2009), stories (Lounsbury & Glynn, 2001), and symbolic activities (Zott & Huy, 2007) to make a venture appear viable and attractive so as to garner resources from external parties. Although prior research focuses on how such cultural tools can be employed to enhance the attractiveness and power of a new venture,

it says very little about how and why resource providers vary in their response to such cultural tools. Why do some resource providers interpret identity claims, stories, and symbolic activities from a new venture in a positive light, while others perceive the same venture as unviable and unattractive?

The variation in resource providers' perception of a new venture is most likely related to their individual identity. Individual identity is an interpretive structure that mediates how people think, feel, and act (Gecas, 1982; Markus & Wurf, 1987; Schlenker, 1985). It refers to "the totality of self-descriptions and self-evaluations subjectively available to an individual" (Hogg & Abrams, 1988, p. 24). A person's identity may be composed of a variety of elements, each of which evolves from membership in different social groups, such as a social group based on race, gender, or tenure (Stryker & Serpe, 1982). Individual identity is also influenced through attachments to organizations, clubs, or institutions (e.g., a college, a church, a fraternity, or a firm) (Ashforth & Mael, 1989). As individuals come to identify with the social groups and organizations with which they are affiliated, this identification creates a "psychological attachment" that influences choice and behavior (Dutton et al., 1994).

Research across a broad range of fields including social psychology (Stryker, 1980, 1989; Stryker & Burke, 2000; Stryker & Serpe, 1982), consumer behavior (Bolton & Reed, 2004; Reed, 2004), and economics (Akerlof & Kranton, 2000, 2005, 2010) suggests that an individual's identity can significantly affect the choices they make. One's identity invokes a set of rules for decision-making, and when those rules are applied, decision-making becomes more predictable (March, 1994). Therefore, individual identities are argued to translate into action through the decision rules attached to one's

self-concept (Burke & Stets, 2009). Because individual identity is a powerful predictor of choice, I argue that it will affect individual resource providers' decisions to provide resources to early-stage entrepreneurial ventures. A more complete model of entrepreneurial resource mobilization, for early-stage ventures seeking resources from external parties, should account for the salient identity of the resource provider in addition to accounting for the cultural tools (indemnity claims, stories, and symbols) employed within the venture.

In order to theorize as to how an individual resource provider's identity will relate to the cultural tools employed within a new venture, I will propose an interactional model (Chatman, 1989) predicting when resource providers are more likely to assess new ventures as plausible and attractive, based on the alignment between the entrepreneurial identity of a new venture and the individual identity of a resource provider.

In the next section, I briefly review the literature on entrepreneurial identity and resource acquisition as a foundation for developing a model of venture identification. Thereafter, I draw on prior research pertaining to identity and decision-making, and integrate it with concepts of equivocality (from social psychology) and homophily (from sociology) to unpack how the individual identity of a resource provider is likely to affect their perceptions of new venture plausibility. Linking the literature on entrepreneurial identity and identity-based decision-making, I propose a model outlining how the entrepreneurial identity of a new venture interacts with the individual identity of a resource provider to predict if and when a resource provider is likely to perceive a new venture as plausible and attractive.

2.2 BACKGROUND RESEARCH

2.2.1 The new venture creation context

The context for creating a new venture is inherently uncertain. This uncertainty exists because entrepreneurial

“action takes place over time, and because the future is unknowable, [therefore entrepreneurial] action is inherently uncertain (Mises, 1949). This uncertainty is further enhanced by the novelty intrinsic to entrepreneurial actions (Amabile, 1997; Smith & DiGregorio, 2002), such as the creation of new products, new services, new ventures, and so forth (Gartner, 1990; Schumpeter, 1934)” (McMullen & Shepherd, 2006, pp. 132-133).

Entrepreneurs creating a new venture in a new market context are also confronted with high levels of ambiguity: “Nascent markets are characterized by undefined or fleeting industry structure (Eisenhardt, 1989; Rindova & Fombrun, 2001); unclear or missing product definitions (Hargadon & Douglas, 2001); and lack of a dominant logic to guide actions (Kaplan & Tripsas, 2008; Porac, Ventresca, & Mishina, 2002)” (Santos and Eisenhardt, 2009, p. 644). The uncertainty and ambiguity associated with entrepreneurship produces *equivocal situations*—situations with “numerous or disputed interpretations” (Powell & Colyvas, 2008, p. 283), where “what is real and what it not is yet to be determined” (Katz et al., 2010). Weick (1979) argues that equivocal environments are not necessarily “disordered, indeterminant, and chaotic. Instead [the environment is] rich with possible connections that could be imposed” and such situations are subject to various degrees of interpretation (p. 174). All the actors that are exposed to an entrepreneurial context are confronted with some level of equivocality (Katz, et al., 2010) because of the uncertainty and ambiguity embedded in entrepreneurial activity. Entrepreneurs seek to reduce such equivocality as they establish boundaries, seek resources, communicate goals, and enter into exchange relationships on behalf of an

emerging organization (Katz & Gartner, 1988). The process of organizing (i.e., establishing an organization) serves as a means to reduce equivocality (Weick, 1979).

People who are exposed to highly equivocal situations make an effort “to construct a plausible sense of what is happening, and this sense of plausibility normalizes the breach, restores the expectation, and enables projects to continue” (Weick, Sutcliffe, & Obstfeld, 2005, pp. 414-415). Therefore, as potential resource providers are exposed to the equivocality that is characteristic of the new venture creation process, so they will seek to make sense of the situation. If their sensemaking efforts are successful, then equivocality will be reduced, and this serves as a “springboard for action” (Weick et al., 2005, p. 409). As resource providers and other stakeholders begin to reach agreement with entrepreneurs about what is “real” and what is not (Weick, 1979, p. 3), so will they be more likely to come to a common understanding of what is plausible and viable. In so doing, it is more likely that the entrepreneurs will garner resources from these outside parties.

Scholars have argued that in equivocal situations, organizational identity claims take on heightened importance (Glynn, 2000; Navis & Glynn, 2011) because they serve as a device for sensemaking (Weber & Glynn, 2006; Weick, 1995). Claiming an identity helps to reduce equivocality by communicating the essence of an organization to internal and external audiences (Navis & Glynn, 2011). A resource provider’s individual identity is likely to play an important role in how they interpret the identity claims of a new venture. Where the resource provider’s identity is made up of elements that are closely aligned with the identity of the venture, then their ability to interpret and understand the

identity claims of the venture will be increased, thereby reducing equivocality and increasing venture plausibility.

2.2.2 Entrepreneurial identity

Navis and Glynn (2011) define entrepreneurial identity as “the constellation of claims around the *founders, organization* and *market opportunity* for an entrepreneurial entity that gives meaning to questions of ‘who we are’ and ‘what we do’” (p. 479). The concept of an entrepreneurial identity emerges out of the research on organizational identity. Organizational identity is a set of self-referential claims made by an organization with respect to its “central character, distinctiveness, and temporal continuity” (Albert & Whetten, 1985, p. 265). It is the set of constructs organizational members believe to be the *central, enduring, and distinctive* character of their organization (Ashforth & Mael, 1996; Corely et al., 2006; Dutton & Dukerich, 1991; Livengood & Reger, 2010; Reger et al., 1994; Whetten, 2006).

Scholars suggest that under conditions of uncertainty or ambiguity, the identity of an organization takes on heightened importance (Navis & Glynn, 2011), functioning as a critical organizational resource (Glynn, 2000) and a device for sensemaking (Weber & Glynn, 2006; Weick, 1995). Under conditions of uncertainty and ambiguity, where there is a lack of clarity about the objective elements of an entity and a situation, the socially constructed elements of the entity and/or situation become more salient. Identity is a socially constructed concept and “under conditions of change...perceptions of identity and image, especially desired future image, are key to the sensemaking process” (Gioia & Thomas, 1996, p. 41).

Because entrepreneurs operate in ambiguous and uncertain environments, identity is argued to be of critical importance to entrepreneurs as they communicate their ideas to potential resource providers (Lounsbury & Glynn; 2001; Navis & Glynn, 2011). Where objective data about the performance of a new enterprise is not yet available, identity claims from within the venture about “who we are” and “what we do” provide a basis on which stakeholders can evaluate the enterprise.

Navis and Glynn (2011) conceptualize entrepreneurial identity as a multiple level construct incorporating identity claims about the founder (individual level), the proposed new venture (organizational level), and the focal institutional sector (market level). Identity claims at all the three levels of analysis are argued to operate as a mechanism for resource provider sensemaking (Weick, 1995) thereby impacting on the perceived plausibility and viability of the venture (Navis & Glynn, 2011).

The entrepreneurial identity of a venture is communicated to potential resource providers through multiple mechanisms. Lounsbury and Glynn (2001) argue that entrepreneurial identity is embedded in *stories* about the venture, with the “individual entrepreneur or the new venture” as the narrative subject and “a successful new enterprise, profitability, VC funding, or a positive reputation with potential stakeholders” as “the ultimate object or goal of the narrative” (p. 549). They suggest that stories serve to “*identify* and legitimate new ventures, thus mediating between extant stocks of entrepreneurial resources and subsequent capital acquisition and wealth creation” (p. 546).

Martens, Jennings, and Jennings (2007) suggest that entrepreneurial identity is communicated through the written text within prospectus documents for firms going IPO, and provide evidence that the claims within an IPO prospectus help firms construct an

unambiguous identity and elaborate how the proposed means of exploitation will attenuate risk. This, in turn, allows a firm to access greater resources at the point of IPO.

Zott and Huy (2007) suggested that entrepreneurs use symbolic actions to create an identity for a new venture, which enables them to access resources for the venture. They outline a conceptual model highlighting how four categories of symbolic action are related to the acquisition of resources in a new venture: (1) demonstrating personal credibility (i.e., displaying a business school degree from a prestigious university); (2) portraying professional organizing (i.e., emphasizing the company's website, its offices, or its dress code); (3) emphasizing organizational achievement (i.e., using prototypes, product demonstrations, trial sites, and awards to represent partially working organizational artifacts); and (4) highlighting stakeholder relationships (i.e., dropping high-profile names, mentioning relationships with famous people or companies, or involving prestigious outsiders as company representatives in meetings).

Santos and Eisenhardt (2009) describe how entrepreneurs in a nascent market space use identity mechanisms to claim a market. They suggest that entrepreneurs who use the identity mechanisms of adopting familiar templates, signaling leadership, and disseminating stories about their venture, are more likely to become a cognitive referent in a new space, thereby increasing their power to shape organizational boundaries and construct markets.

On the whole, this research suggests that entrepreneurs are engaged in an ongoing effort to construct and enhance the identity of a new venture. The identity construction efforts of entrepreneurs have an impact on how the venture is perceived by potential resource providers, thereby affecting the likelihood that the new venture will be able to

garner resources. However, research that examines how identity impacts decisions suggests that it is not only the identity of the entity about which a decision is being made that affects the outcome of the decision. The identity of the decision-maker also has a significant impact on the decision outcome. A decision maker's identity invokes a set of rules for making a decision in a certain situation; therefore, one needs to assess the self-concept of the decision maker and the rules associated with their salient identity to be able to predict the outcome of their decisions (March, 1994). In an entrepreneurial context, this means not only will the identity of a new venture predict the likelihood that it will garner resources, but the identity of the resource provider will also have a significant impact on the outcome of the resource acquisition process. Therefore, to fully understand the effect of employing cultural tools (e.g., identity) in communicating the essence of a venture to attract resources for that venture, we also need to consider the identity of the resource provider.

2.2.3 Individual identity and choice

Identity theory (Mead, 1934; Stryker, 1980, 1989) posits a concept of “self” composed of multiple identities, each achieving primacy, or saliency, at different times and decision points in one's life. From this perspective, individuals make choices and behave in ways that conform to internalized and valued sets of meanings that comprise their definition of “who I am” (Cast, 2004; Stryker, 1989). Individuals are motivated to act in concert with the precepts of their highly valued and salient identities because this verifies their sense of self and leads to positive affect and serves as a valuable source of self-esteem (Burke, 2004; Seo, Barrett, & Bartunek, 2004; Stets, 2004).

There is strong evidence in support of the notion that social factors define self, giving rise to a social psychological model of self called “identity” (Hogg et al., 1995). Identity serves as an anchor point for individual decision-making (Akerlof & Kranton, 2010; March, 1994; Reed, 2004). People make decisions to align with their self-conceptions so as to avoid dissonance between their self-concept and their behavior (Burke, 1980, 1991). Therefore, identities serve as critical predictors of decision and behavioral outcomes (Hogg et al., 1995), especially in ambiguous or uncertain contexts where the appropriate choice is not obvious. This is the foundational premise for the conceptual model that is proposed in this chapter.

2.2.4 Identification

The link between the identity of an individual and the identity of an organization is termed “identification.” Identification is “the perception of oneness or belongingness to some human aggregate” (Ashforth & Mael, 1989, p. 21), which happens “when a person’s self-concept contains the same attributes as those in the perceived organizational identity” (Dutton et al., 1994, p. 239). Therefore, organizational identification is the degree to which a member defines him or herself by the same attributes that he or she believes define the organization.

Almost all the research on individuals’ identification with an organization has focused on how *employees* identify with the organization for which they work. Elsbach (1998) observed there is a paucity of study on “individuals’ identification with organizations of which they are not members” (p. 232). Only Scott and Lane (2000) partially address this in articulating how managers engage in an effort to construct an organizational identity for a broader group of stakeholders (e.g., investors, customers,

suppliers, etc.), yet they don't address how people who are not yet part of a stakeholder group may identify with an organization, thereby causing them to take action to become an important stakeholder.

I use the concept of identification to describe how those external to a venture (e.g., potential resource providers) can identify with the venture in making choices to support a new venture. I term this connection *venture identification*.

2.3 A MODEL VENTURE IDENTIFICATION

In this section, I bring together research on entrepreneurial identity (e.g., Navis and Glynn, 2011), individual identity (e.g., Akerlof and Kranton, 2010; Reed, 2004; Stryker, 1980), and identification (Ashforth et al., 2008; Dutton et al., 1994) in an interactional matching model linking a venture's identity with the individual identity of a potential resource provider. The model provides a micro-view of how individual level variables interact with organizational level variables in resource providers' assessments of venture plausibility and attractiveness.

2.3.1 Venture identification

Building on prior research in the area of identification (e.g., Ashforth et al., 2008; Dutton et al., 1994), I define *venture identification* as the “sense of oneness” that a resource provider feels in relation to a new venture. That sense of oneness is perceived to come from an alignment between the entrepreneurial identity elements of a new venture and the individual identity of a potential resource provider. Where there are high levels of alignment between the entrepreneurial identity elements of a new venture and the individual identity elements of a resource provider, then there is strong venture

identification, and strong venture identification will be related to resource provider support for a new venture.

2.3.2 Venture identification and resource provider support

As a baseline proposition, I propose that the greater the overlap between the prominent identity elements of a new venture and the prominent identity elements of an individual resource provider, the stronger the level investor-venture identification, and the more likely the resource provider will perceive the venture to be plausible and attractive so as to support it. There are three related reasons why overlap between the identity elements of a new venture and the identity elements of an individual resource provider will be related to a perceptions of venture plausibility and attractiveness. The first relates to understandability, the second emphasizes self-expression, and the third incorporates research findings pertaining to similarity biases.

First, people find a venture more attractive when it matches their own sense of who they are (i.e., their identity) simply because this type of information is easy to process and understand (Dutton et al., 1994). Identity alignment between a venture and an individual resource provider serves as a mechanism for reducing the equivocality characteristic of an entrepreneurial situation. As described earlier, equivocal situations are those that are open to multiple interpretations, and under such conditions, individuals strive to reduce the level of equivocality so as to be able to make decisions and take action (Weick, 1979). Social psychologists argue that people attend to and process “self-relevant” information differently than “self-irrelevant” information (Markus & Wurf, 1987). The general finding is that people more easily focus on, process, recognize, and retrieve self-relevant than self-irrelevant information. The ease of recognizing, processing,

and retrieving self-relevant information makes it more likely that resource providers will understand ventures with which they share identity elements, and, therefore, they are more likely to find such ventures appealing. The more similar the identity of a resource provider and the identity of a new venture, the lower the level of equivocality as they interact, the easier it will be for the resource provider to make sense of what a venture is doing (Weick et al., 2005), and the higher the likelihood that the resource provider will take action in supporting the venture through the provision of resources (Weick et al., 2005).

Second, when a resource provider's self-concept and the entrepreneurial identity of a new venture are similar, a resource provider is drawn to it because it provides opportunities for self-expression (Shamir, 1991). People are drawn to organizations that allow them to exhibit more of themselves and to enact a fuller range of characteristics and values in their own identity (Dutton et al., 1994).

Third, people are attracted to those things that they perceive to be similar to themselves; this similarity effect is termed "homophily" in the sociology literature, which means "a love of the same" (Lazarsfeld & Merton, 1954). People tend to favor and bond with those that are similar to them. This principle has been reported in a vast array of network studies (see McPherson, Smith-Lovin, and Cook, 2001, for an extensive review of over one hundred studies that have observed homophily in some form or another). In social psychology, scholars have found significant evidence in support of a "similar-to-me" hypothesis in which individuals rate other people more positively the more similar they are to themselves. Using learning theory logic, similarity is perceived as being rewarding, and dissimilarity works as negative reinforcement (Byrne, 1971). Perceived

similarity causes a positive affective reaction which, in turn, impacts the evaluative response (see Lefkowitz, 2000, for an overview of empirical research supporting this notion). In addition to the learning theory perspective, the self-categorization and social identity theory perspectives suggest that because people strive to have a positive self-identity (Jackson et al., 1991), they have a preference for those people or things that are associated with a similar social category. Social categorization allows for in-group/out-group comparisons (Tajfel, 1982), and when people make such comparisons, they tend to be biased towards their own group (Bass & Duntemann, 1963; Brewer, 1979; Dustin & Davis, 1970). Therefore, relatively superficial levels of similarity (e.g., same occupation) influence attraction and subsequent judgmental evaluations, particularly at early-stages in the acquaintance process (Duck, 1977; Franke et al., 2006).

Therefore, for reasons of understandability, self-expression, and similarity biases, one can expect that as a resource provider recognizes identity elements in a new venture's entrepreneurial identity that align with his or her individual identity, so they are going to feel a greater sense of oneness with the venture which, in turn, prompts them to perceive the venture as plausible and attractive. A practical example of how identity overlap between an investor and a venture can influence perceptions of venture attractiveness comes from the book *e-Boys* where the author describes the process through which the venture capitalist, Bob Kagel, at Benchmark Capital, became interested in pursuing an investment in eBay after being disinterested in the company for a number of weeks:

It was the fishing lure that hooked Kagle. He (Kagle) was a collector of hand-carved fish decoys, and when he went to eBay's site, he was surprised to discover many for sale, including one rare item that had been made by a famed carver from Flint, Kagle's hometown. Kagle bid—and lost—but the experience pulled him into eBay's world. Over the next two weeks, he met with Omidyar (eBay's founder) outside of Benchmark's offices and discovered he was an anomalous kind of engineer, one who was consumed by the idea of *community*—every other sentence he spoke about the eBay *community*, building the *community*, learning from the *community*, protecting the *community*. It was a passion similar to what, in Bob-speak, Kagle had for deals that brought out

the *humanity*; that's what Kagle liked most of all, the *humanity*. The more Omidyar talked about his community vision, the more Kagle as he put it, was "lovin' him—this guy is good people." And Omidyar felt the same way about Kagle. (Stross, 2000, pp. 27-28).

Kagle was the first investor in eBay via an investment from the Benchmark Venture Capital Fund. The identity connection between Kagle and eBay (at multiple levels) is illustrative of the idea that a venture will be more likely to attract resources from an investor with an identity that is aligned to the entrepreneurial identity of the venture. He connected with the value proposition of the venture, and he discovered that he and Omidyar cared about the same things, so they connected on an individual level. Therefore, the baseline proposition is as follows:

Proposition 1 (P1): As the entrepreneurial identity of a venture aligns with identity of a resource provider, so venture identification becomes stronger.

2.3.3 Venture identification at different levels of analysis

Entrepreneurial identity can be assessed at various levels of analysis (individual, organizational, and market) (Navis & Glynn, 2011), and the alignment of identity elements from each of those levels will influence whether a resource provider is likely to engage with a venture. In further developing proposition 1, I describe how different levels of analysis within entrepreneurial identity contribute to stronger venture identification.

Founder-level identity alignment. The founders of a venture make identity claims about "who they are" in portraying their venture to a broader audience—such identity claims focus on the individual level identities of the people founding the venture (Navis & Glynn, 2011). Resource providers will prefer to provide resources to a venture where the people developing the venture are similar to themselves (Franke et al., 2006; Matusik et al., 2008; Murnieks et al., 2011). The concept of being attracted to and showing

preference for those who are similar to one-self is well established (Bryne, 1971). For example, people tend to marry those who are similar to themselves (see a review in Kalmijn, 1998), managers tend to support those who are similar to themselves (Ibarra, 1992, 1995), and entrepreneurs tend to partner with other entrepreneurs who are similar to themselves (Ruef, Aldrich, & Carter, 2003; Vissa, 2011). There is strong reason to propose that resource providers will choose to provide support to ventures that are founded by people who are similar to themselves. This sentiment was echoed in an interview the author conducted with a venture capitalist in which he said:

I don't think that I could have ever backed Larry Ellison (the founder of Oracle) or Rob Glazer (the founder of Real Networks). From a financial perspective it would have been a mistake [not to back them], but as entrepreneurs they are just too different to me, I could not see us working together. It does not mean they are bad people; we would just not have been a good fit in terms of building a company (Author interview, January 21, 2011).

Following this logic, I propose that the alignment between the identity of the founders of a venture and the identity of a resource provider will help explain which ventures an investor perceives to be attractive.

Proposition 1a (P1a): As the individual-level identity elements of the founders of a venture (the “who we are” claims) align with the identity of the resource provider, so the venture identification increases.

Organization-level identification. The organizational identity of an entrepreneurial venture captures elements of strategy, technology, organizational symbols, firm practices, and the focal market segments of a venture. The organizational identity claims of a venture provide an answer to the question of “what we do” (Navis & Glynn, 2011). Findings in upper echelon research (Carpenter, Geletkanycz, & Sanders, 2004; Hambrick, 2007; Hambrick & Mason, 1984), provide evidence that individuals (e.g., top managers) have preferences for certain kinds of organizational strategies, symbols, technologies, practices, and market domains (Hambrick, 2007). We can expect individual

resource providers will be drawn toward ventures that make organizational identity claims about strategy, organizational symbols, technology, firm practices, or market domains that align with their self-concept. For example, if a venture description highlights technical innovation as being central to what they do, and a resource provider is an individual with an identity as an engineer interested in solving technical problems, then it is probable that the identity alignment between the investor and the venture will increase the likelihood that the investor will provide resources to the venture. Alexis Maybank, co-founder of Gilt Groupe, Inc., a fashion retailing website for high-end clothing brands, describes how the disconnect in the identity of potential resource providers and the organizational-level identity of the venture she founded, created challenges in the resource acquisition process. Because the identity of the firm she created focused on high-end fashion, and the VCs to whom she pitched the idea did not identify with high-end fashion and with the brands and items that she was retailing, she initially struggled to convey the venture concept to her VC audience. She reflects on her experience as follows:

At investor meetings where we pitched the idea, not a single firm had a female partner. So when explaining fashion to a bunch of men in khaki pants and blue button-down shirts, their response was always 'Oh, let me see if my wife thinks if this is a good idea.' (Debaise, 2010)

The organization-level identity claims of a venture serve as a touchstone for resource provider understanding, and help spark interest in a venture. If resource providers are unable to identify with the activities of a venture, then they probably don't fully understand its value proposition and strategy, and will be less motivated to provide support. If they do readily identify with the activities, symbols, and markets of the venture, then they will be more likely to perceive the venture as plausible and attractive. This leads to the following proposition:

Proposition 1b (P1b): As the organization-level identity claims (the “what we do” claims) about the venture align with the identity of a resource provider, so the venture identification increases.

For the purpose of distinguishing between identification at different levels of analysis, I label identification between resource providers and founders as *founder-level identification*, and identification between resource providers and the organizational aspects of a venture as *organization-level identification*. Table 2.1 provides examples of the identity elements that could be matched across different levels of analysis.

Table 2.1 Identity matching across different levels of analysis

Entrepreneurial Identity Elements*		Investor Identity Elements*
<i>Level of Analysis</i> [#]	<i>Identity Elements</i> [#]	
Founders (Individual level)	Ethnicity of the founders Gender of the founders Education of the founders Profession of the founders (e.g., teacher, lawyer, doctor) University that the founders attended Work experience of the founders Hometown of the founders	Ethnicity of the investor Gender of the investor Education of the investor Profession of the investor (e.g., teacher, lawyer, doctor) University that the investor attended Work experience of the investor Hometown of the investor
Organization (Organizational level)	Nature of the product or service offering (e.g., online retailer, SaaS provider)	Interest or expertise in product or service offering (e.g., online retailer, SaaS provider)
<i>“Who we are”</i>	Mission of the venture (e.g., social, technological advancement, creativity)	Personal mission or purpose (e.g., social, technological advancement, creativity)
	Processes employed in the venture (e.g., JIT, TQM, Lean)	Expertise or interest in a particular process (e.g., JIT, TQM, Lean)
	Entering a particular market sector (e.g., education, sport equipment, fashion)	Personal interest or experience in a market sector (e.g., education, sport equipment, fashion)

* Examples are illustrative and not exhaustive

[#] Adapted from Navis & Glynn (2011)

2.3.4 Variation in the strength of venture identification

Identity salience. Within the individual-identity literature, identity salience—the concept that some identity elements have more self-relevance than others—has been useful for understanding and predicating how people deal with multiple elements of identity (Hogg et al., 1995). More salient identity elements are more self-defining and, therefore, more likely to invoke action (McCall & Simmons, 1978; Stryker, 1968; Wiley, 1991). For example, Mael (1988) found that individuals who identified their alma mater as an important (i.e., salient) element of their individual identity were more likely to donate to the institution, recruit their offspring, and recruit others to attend the institution. If a person’s alma mater was less important (i.e., less salient) in their identity, then they were more likely to prioritize other things over university activities and opportunities. In the new venture context, if the elements of a new venture’s entrepreneurial identity align with the more salient identity elements of a resource provider’s individual identity, the likelihood that the resource provider will identify with the venture increases.

Proposition 2a (P2a): As the entrepreneurial identity of the venture aligns with more salient elements of the resource provider’s individual identity, so the venture identification increases.

Identity centrality. In the organizational identity literature, the concept of identity centrality captures the extent to which an element of an organization’s identity is fundamental to the organization, and is shared across the organization as well as embedded in the structure of the organization (Corley et al., 2006). Whetten and Mackey (2002) describe “central” attributes as those that “organizational members generally consider essential to the organization (‘without these we would be a different kind of organization’) (p. 16).” For example, Webvan and Peapod, two emergent online

grocery-retailing organizations, entered the market in the late 1990s claiming entrepreneurial identities in “technology driven e-commerce” and “grocery retail.” Yet, for Webvan, e-commerce and technology were more central than grocery retail as reflected in the description of their business as “setting the standards for internet retailing’ and “an innovative business system with proprietary business design” (Webvan S1 Document). Peapod was more focused on grocery retail as the central element of the organization’s identity, as reflected in the description of the business as a “smart shopping for busy people” and an “interactive grocery shopping experience” (Peapod S1 Document). Although both ventures appeared to claim similar identities in technology and grocery retail, a deeper analysis of the entrepreneurial identity of each reveals that the central aspects of their organizational identities differed (Navis, Fisher, Raffaelli, & Glynn, 2011), and this difference appeared to influence the types of investors they attracted. Peapod attracted investors from the retail sector, while Webvan attracted Silicon Valley venture capital investors.

As the centrality of an element of an organizations identity increases, so it will be closely tied to sense-making activities in and around that organization (Weick, 1995; Navis & Glynn, 2011). The more central elements of an organization’s identity will feature more prominently in the claims the organization makes about who it is, what it does, and where it operates. Therefore, more central elements of a venture’s identity will feature more prominently in a resource provider’s decision to support a venture. This results in the following proposition:

Proposition 2b (P2b): As more central elements of the entrepreneurial identity of a venture align with elements of the resource provider’s identity, so venture identification increases.

2.3.5 Cognitive and affective basis for identification

In their review of the identification literature, Ashforth, Harrison, and Corley (2008) highlight two key components of individual identification: a cognitive component and an affective component. In this section, I will describe how cognitive and affective processes contribute to resource providers' interpenetration of entrepreneurial identity claims. In so doing, I will build on prior research that has suggested that cognition and affect will jointly play a role in investor perceptions of new venture attractiveness (e.g., Chen et al., 2009).

Cognitive basis for identification. As has been pointed out, the context for new venture creation is uncertain and ambiguous. The equivocal nature of such a context means that there are multiple ways to interpret what is going on (Weick, 1979). When an investor shares identity attributes with a new venture, then the investor is more likely to understand and appreciate the identity claims pertaining to the entrepreneurial venture. They can more easily *validate assumptions* and *make sense of the context* within which the venture is being established. The increased level of understanding about what the new venture is trying to do will cause the equivocality to be reduced, and provide a means for the resource provider to cognitively connect with the venture, thereby increasing the likelihood that the resource provider will find the venture attractive. As Dutton et al. (1994) point out:

People find a perceived organizational identity more attractive when it matches their own sense of who they are (i.e., their self-concept) simply because this type of information is easy to process and understand. Social psychologists argue that people attend to and process "self-relevant" information differently than "self-irrelevant" information (Markus and Wurf, 1987). The general finding is that people more easily focus on, process, recognize, and retrieve self-relevant than self-irrelevant information. The ease of recognizing, processing, and retrieving self-relevant information makes organizational identities that match the self more attractive than organizational identities that do not match the self (p. 244).

Affective basis for attraction. A number of scholars in the identity literature have suggested that there is an emotional basis for identification. Tajfel (1978) pointed out that identity has “emotional significance” (p. 63). Ashforth et al. (2008) suggested that if identity is to maintain its “visceral connection to form, the individual must value the identity in question, which suggests that the identity arouses affect as well” (p. 329). Harquail (1998) argued identification “engages more than our cognitive self-categorization and our brains, it engages our hearts” (p. 225). The identity overlap between a potential resource provider and a venture may prompt an investor to invest in a venture because people feel more *emotionally* connected with those things that they perceive as an extension of their identity. When a person’s self-concept and the perceived organizational identity are similar, a member is drawn to the organization because it provides easy opportunities for self-expression (Shamir, 1991). “People are drawn to organizations that allow them to exhibit more of themselves and to enact a fuller range of characteristics and values in their self-concept” (Dutton, et al. 1994, p. 244). People are predisposed to like and be attracted to things, or people, that are perceived to be similar to themselves (e.g., Bryne, 1971; McPherson et al., 2001; Vissa, 2011). Perceived similarity causes an affective reaction which, in turn, impacts evaluative responses (see Lefkowitz, 2000, for an overview of empirical research supporting this notion). Therefore, when potential resource providers evaluate a venture and recognize common identity elements in the entrepreneurial identity of the venture, then they are likely to be affectively aroused, which will contribute to the perceived attractiveness of the venture.

Based on the prior conceptualizations of identification, it is likely that there are distinctive dimensions of venture identification, one driven by cognition and the other driven by positive affect.

Proposition 3 (P3): Venture identification is characterized by two dimensions: cognition-based identification and affect-based identification.

2.3.6 Cognition and affect-based identification and perceptions of venture

plausibility

Cognition and affect as reciprocal mechanisms of identification. Based on their extensive review of the literature, Ashforth et al. (2008) conclude: “one can think or feel one’s way into identification (Ashforth, 2001), cognition and affect reciprocally reinforce identification (e.g., Kessler and Hollbach, 2005)” (p. 329). Chen et al. (2009) draw on the persuasion literature to argue that both cognitive and affective processes underlie the evaluation of new ventures. Their theorization suggests that the perceived preparedness of an entrepreneur (which provides a cognitive basis for evaluation of a new venture), and the perceived passion of the entrepreneur (which provides an affective basis for evaluation), work in concert with one another as part of a unimodel that explains the VC decision-making process. Drawing on the identification literature (e.g., Ashforth et al., 2008) and the VC decision-making literature (e.g., Chen et al., 2009), one can conclude that the cognitive and affective bases of investor identification with a new venture are likely to interact with one another to increase the perceived plausibility and attractiveness of the venture in the mind of the investor, thereby increasing the likelihood that the investor will provide resources to the venture.

Proposition 4a (P4a): When a resource provider has a high-cognitive basis and a high-affective basis for identification with a new venture, then they are most likely to provide resources to the venture.

A person with a high-cognitive and high-affective basis for identification with a new venture may be called an “*active resource provider*” (see block 1 in Figure 2.1). An active resource provider has a relatively high level of understanding about what the venture is striving to do, and they have positive feelings toward the team, the organization, and the market in which the venture hopes to operate. The high-cognitive and high-affective basis for identification should cause the resource provider to actively support the venture, and will prompt them to continue to perceive that venture in a positive light over the long-term.

High affective, low cognitive basis for identification. There could also be instances where identity alignment between a venture and a resource provider prompts positive affective reactions on the part of the resource provider, but the identity alignment does not provide a basis for cognitive assessment of the venture. For example, if an investor shares some identity attributes with the founder of a venture, but that founder is creating a venture to enter a market space about which an investor knows very little but about which there has been a great deal of media hype, then the investor identification with the individual entrepreneur and media hype around the market domain may prompt the investor to perceive the venture as attractive and plausible because of the positive feelings he has toward the founder and the market space. Yet, the resource provider will have a low cognitive basis to connect with the venture. In such an instance, the investor is likely to perceive the venture as plausible and attractive in the short-term because of the power of emotions in short term decisions (Loewenstein, Weber, Hsee, & Welch, 2001), but as time passes, and if the venture confronts barriers and challenges, then the investor perception of attractiveness and plausibility will decline. An extreme practical example of

this was the investment frenzy around new dot.com firms in the mid to late 1990s where many investors provided resources to firms because of the positive emotion surrounding such firms, yet those investors stopped supporting such ventures when the sentiment around dot.com firms declined.

Proposition 4b (4b): When an resource provider has a low-cognitive basis and a high-affective basis for identification with a new venture, then they are likely to perceive the venture as attractive in the short term but less attractive and plausible as time passes.

Where a resource provider has a high positive affective basis for identification with a venture but they have limited cognitive basis for identification, they may make quick, rash decisions driven by positive emotion, therefore such an individual may be called a “*rash resource provider*” (see block 2 in figure 2.1) because of the quick, rash decision they are at risk of making. Given time to think more carefully about the venture, they may become less likely to support a venture.

High cognitive, low affective basis for identification. There could be instances where resource providers have a strong cognitive basis for identification, but they have little positive emotion toward the venture. For example, if an resource provider had been involved in a failed venture in the recent past, they may have all the identity attributes to cognitively identify with a new venture trying to do something similar in the same market space, but, because of their prior negative experiences, they are likely to have negative feelings toward the concept, meaning that they may be able to provide useful feedback and insight to an entrepreneur seeking funding, but they are unlikely to perceive the venture as plausible and attractive for ongoing support.

Proposition 4c (P4c): When a resource provider has a high-cognitive basis and a low-affective basis for identification with a new venture, then they are likely to provide critical feedback, but are unlikely to provide resources to the venture.

A person with a high cognitive basis but low affective basis for identification with a new venture may be called a “*devil’s advocate*” (see block 3 in Figure 2.1). Such a resource provider will be in a position to, and inclined to, provide useful, critical feedback to the founders of the venture, but they are unlikely to perceive the venture as attractive and plausible as a prospect for ongoing support, yet, if they continue to engage with the venture, they may perceive it as more plausible and attractive over time if the founders are receptive to their feedback.

Low affective, low cognitive basis for identification. Where a resource provider has no cognitive or affective basis for connecting with a venture, then they are likely to ignore the venture. Such a venture will fail to make an impression on a potential resource provider and, hence, be overlooked as the resource provider pays attention to ventures with which he or she has higher levels of cognitive and affective identification. This type of potential resource provider can be classified as a “*non provider*” (see block 4 in Figure 2.1).

Proposition 4d (P4d): When a resource provider has a low-cognitive basis and low-affective basis for identification with a new venture, then they are likely to ignore (overlook) the venture.

Figure 2.1 Interaction of cognitive and affective processes in venture assessment

<i>High</i> levels of cognition-based venture identification	<p>3. The Devil's Advocate (A party that provides useful, critical feedback, but holds back on providing any substantial resources)</p>	<p>1. The Active Resource Provider (Resource provider most likely to perceive the venture as plausible and attractive)</p>
<i>Low</i> level of cognition-based venture identification	<p>4. The Non Provider (A potential resource provider that shows little to no interest in engaging with the venture)</p>	<p>2. The Rash Resource Provider (Resource provider at risk of quickly deciding to provide resources, although if given time to reflect, they will likely become less interested)</p>
	<i>Low</i> positive affective basis for venture identification	<i>High</i> positive affective basis for venture identification

2.3.7 Moderators affecting venture identification

While venture identification with a new venture is an important factor in accounting for resource acquisition for new ventures, it is likely to vary in importance depending on the characteristics of the venture. Because identification is an important driver of decision-making under conditions of uncertainty, and because the level of uncertainty associated with a new venture can vary, I propose that resource providers will vary in their inclination to depend on identification with a venture depending on the level of uncertainty associated with the venture.

Uncertainty of a venture. Although the entrepreneurial process is inherently uncertain, the level of uncertainty associated with a new venture will vary depending on the maturity of the industry that the venture is entering and on the technology associated with the venture being created (McGrath & McMillan, 2000; McKelvie, Haynie, & Gustavsson, 2011). New, emerging industries are associated with much higher levels of

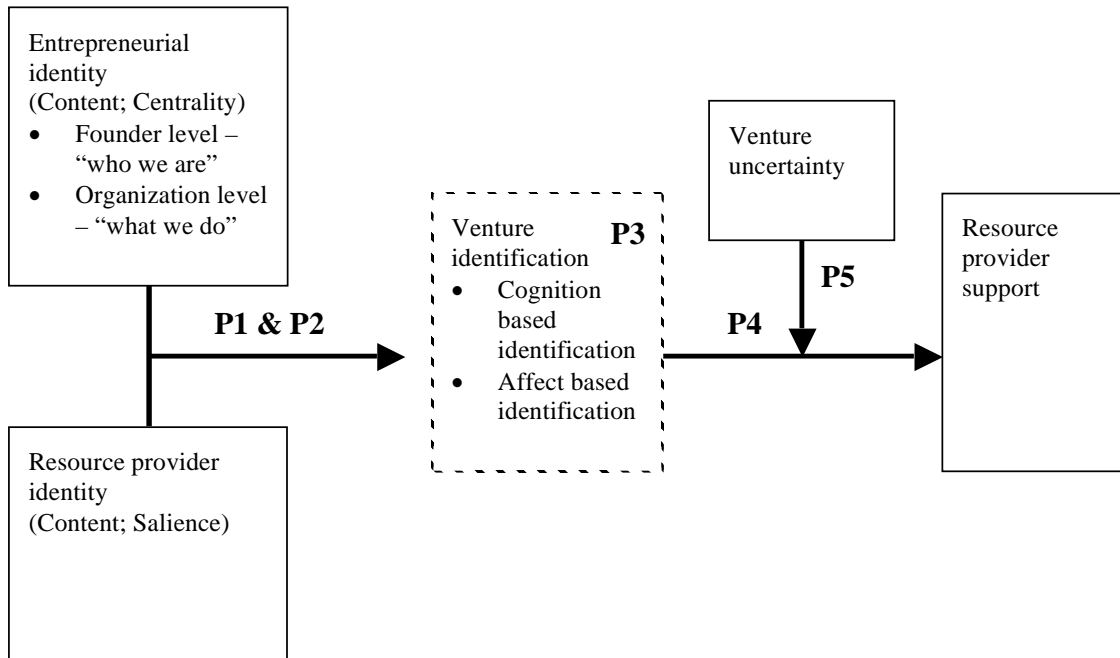
uncertainty compared to more mature industries where norms and standards are established (Navis & Glynn, 2011). If the business seeks to develop and exploit a new technology, then the entrepreneur probably faces higher levels of uncertainty with regards to timing, cost, and technological standards compared to an entrepreneur utilizing an established technology (McGrath & McMillan, 2000). Therefore, the level of uncertainty associated with a venture increases in new markets and where new technologies are being developed and exploited.

As the level of uncertainty associated with a venture increases, it becomes more difficult to assess the objective elements of a venture because information is unattainable and signals become less reliable and more ambiguous. When the core technology associated with a venture is underdeveloped, it is difficult to assess how long it will take and what it will cost to develop the technology. When the target market for a new venture is not yet established, then it is difficult to assess whether the market will ever emerge and who will constitute that market. Therefore, as the uncertainty associated with a venture increases, it is likely that investors will depend less on objective data and more on their level of identification with a venture in making investment decisions. I propose that under high levels of uncertainty, venture identification will be more strongly related to resource provider support of a new venture.

Proposition 5 (P5): Under high levels of uncertainty, the relationship between venture identification and resource provider support for a new venture becomes stronger.

Figure 2.2 summarizes the model of how the identity of a new venture interacts with a resource provider's identity to prompt venture identification, which is associated with the provision of resources to a new venture.

Figure 2.2 Model of venture identification



Note: Constructs and relationships represented by solid lines are examined in the research reported in chapter 4. The other constructs and relationships represented in the model are not directly examined in this research.

2.4 DISCUSSION

I began this chapter by reflecting on the literature that highlights how identity is related to resource acquisition in the context of entrepreneurship (Lounsbury & Glynn, 2001; Martens et al., 2007; Navis & Glynn, 2011; Zott & Huy, 2007;). Although this literature offers valuable insights into some of the mechanisms that enable entrepreneurs to access resources from new ventures, it does not discuss how differences at the level of venture-resource provider dyads may account for why and how some ventures attract resources while others don't. To begin to fill this gap in the literature, I consider how the individual identity of a resource provider will interact with the entrepreneurial identity of a venture in accounting for resource provider willingness to invest in a new venture.

Prior literature in organizational research (e.g., Dutton et al., 1994; March, 1994) suggests that the identity of a person is an important factor in accounting for the choices they make, and that people are drawn toward organizations that have an identity similar to themselves. To account for the interaction of the entrepreneurial identity of a venture and the individual identity of the resource provider, I incorporate the concept of identification from the organizational identity literature (Dutton et al., 1994), and propose that the alignment between the entrepreneurial identity of a venture and the individual identity attributes of the resource provider will result in venture identification that will, in turn, be related to perceptions of venture plausibility and the provision of resources to a new venture. Venture identification is defined as a sense of oneness that an investor will feel with a new venture as a result of alignment between the identity elements of a new venture and the individual identity attributes of a resource provider.

Alignment between the individual identity of an investor and the entrepreneurial identity of a venture provide both a cognitive and affective basis for a resource provider to connect with a new venture. The cognitive basis for connection arises because identity alignment provides a basis for a potential resource provider to interpret identity claims so that the venture becomes more understandable, reducing the equivocality associated with the entrepreneurial context and increasing the plausibility of the venture in the eyes of the resource provider. The affective basis for connection arises because a venture with familiar identity elements provides a potential resource provider with an opportunity for self-expression, and the perceived similarity causes an affective reaction which, in turn, impacts evaluative responses (Lefkowitz, 2000). Therefore, when resource providers evaluate a venture and recognize common identity elements in the entrepreneurial identity of the venture, then they are likely to be affectively aroused, which will contribute to the perceived attractiveness of the venture. The more the entrepreneurial identity of the venture is similar to the individual identity of the resource provider, the stronger the venture identification and the more likely that a resource provider will perceive the venture as plausible and attractive.

The goal of this chapter was to examine how the identity of an individual resource provider will interact with the entrepreneurial identity of a new venture in the acquisition of resources for a new venture. Using identity as a mechanism that links resource providers to entrepreneurial ventures, this chapter provides propositions about how and why some ventures will attract resources from some early-stage resource providers and not from others. The chapters that follow will consider how to measure the constructs and test the relationships proposed here.

3 MEASURING ENTREPRENEURIAL IDENTITY

3.1 INTRODUCTION

Prior researcher suggests that *entrepreneurial identity*—defined as the “constellation of claims about a founder, a venture, and a market opportunity around questions of ‘who we are’ and ‘what we do’”—serves as a touchstone for resource provider judgments about new venture plausibility (Navis & Glynn, 2011, p. 479). Potential resource providers use entrepreneurial identity claims as a sensemaking device in the process of evaluating a new venture (Lounsbury & Glynn, 2001), and, in so doing, evaluate the legitimacy and distinctiveness of a new venture so as to assess the plausibility of an entrepreneurial endeavor (Navis & Glynn, 2011). In this research, I argue that the interpretation of the identity claims around a founder, a venture, and a market opportunity will vary depending on the individual identity attributes of a potential resource provider (Chapter 2). As a resource provider’s individual identity attributes align with the entrepreneurial identity of a new venture, so the resource provider will be more likely to perceive the venture as plausible and attractive. The identity alignment between a resource provider and a venture serves as a basis for *venture identification*—the sense of oneness that a resource provider feels in relation to a new venture (Chapter 2).

To advance research with respect to the role of entrepreneurial identity and venture identification in the entrepreneurial resource acquisition process, one needs to be able to measure entrepreneurial identity. The purpose of this chapter is to develop that measure.

To develop a measure of entrepreneurial identity, I build on recent research examining individual founder identities (Fauchart & Gruber, 2011) as a basis for establishing and refining a typology of different entrepreneurial identities that may be used to categorize new ventures. I then outline the steps taken to develop an instrument that can be used effectively to capture the entrepreneurial identities of new ventures based on the information disclosed in a business plan.

3.2 BACKGROUND

Recently scholars have begun to explore how the social identities of individual entrepreneurs relate to the choices they make, behaviors they exhibit, and actions they take in launching a new venture (Fauchart & Gruber, 2011). Based on analysis of forty-nine firm founders in the sports-related equipment industry, Fauchart and Gruber (2011) highlight and describe three pure types of founder identities that are distinct from one another with respect to the social motivation, self-evaluation, and frame of reference used by a founder in establishing a venture. The three founder identities that they highlights are: a Darwinian identity focused on competitiveness, a Communitarian identity orientated around community contribution and involvement, and a Missionary identity focused on furthering a social cause. The identity dimensions that they describe are reflected in Table 3.1.

Table 3.1 Individual founder identity dimensions

<i>Identity Dimension</i>	Darwinian Identity	Communitarian Identity	Missionary Identity
<i>Social motivation</i>	Self interest	Support and be supported by the community	Advancing a cause
<i>Self evaluation</i>	Professionalism (business competence)	Authenticity	Responsible behavior
<i>Frame of reference</i>	Competitors	Community benefiting from the product	Society as the beneficiary of the venture

Source: Fauchart & Gruber (2011)

Fauchart and Gruber (2011) describe how these different individual founder identity types translate into core strategic decisions with respect to target markets, needs addressed, resources deployed, and core capabilities. Specifically they suggest that *Darwinian founders* focus on producing for a broad base of consumers, and seek to add additional market segments over time. They analyze markets to assess needs according to known dimension (e.g., ease-of-use), and develop the business around cost-effective (often mass production) methods so as to achieve high levels of profitability and growth. *Communitarian founders* focus on customers that are similar to themselves and lock into a single segment. The needs that they address arise from their own needs, and they tend to use individualized artisanal production methods that depend on their personal capabilities. *Missionary founders* focus on markets with the greatest social impact, orientated toward society as their audience. They address social needs with new practices that depict the preferences of the founder, and focus primarily on socially responsible production methods so as to be a role model to other businesses (Fauchart & Gruber, 2011).

Although Fauchart and Gruber (2011) do a commendable job of identifying and defining the individual identities of firm founders and relating those to strategic choices and actions in the venture creation process, they make no attempt to link their identity types with the concept of *entrepreneurial identity*—“the constellation of claims about a founder, a venture, and a market opportunity around questions of ‘who we are’ and ‘what we do’”—as described by Navis and Glynn (2011, p. 479). The work of Navis and Glynn builds primarily off the literature on *organizational identity* (e.g., Albert and Whetten, 1985; Corley et al., 2006), while the work of Fauchart and Gruber builds off the work on *social identity* at the individual level (e.g., Mead, 1934; Tajfel, 1972). There is, therefore, an opportunity to link these two different research streams to construct a typology to evaluate and categorize the entrepreneurial identity of an entrepreneurial venture.

In the next section, I describe the process that was employed to construct and refine a typology to capture the entrepreneurial identity of a venture.

3.3 TYPOLOGY DEVELOPMENT

3.3.1 Development of an entrepreneurial identity typology

The starting point for developing an entrepreneurial identity typology was the categories of individual founder identities described by Fauchart and Gruber (2011). Using their framework as a base, I constructed an expanded description of each identity type as it applies to the *venture level* (i.e., the identity of a new venture). In so doing, I focused on the issues of “who we are” and “what we do” as reflected on Navis and Glynn’s (2011) definition of entrepreneurial identity. I also devised a detail description of

each identity². The entrepreneurial identities developed from the Fauchart and Gruber typology are reflected in the first three columns in Table 3.2.

Using these three identity descriptions as a categorization scheme, two research assistants and I each worked through thirty-one business-plan summaries submitted to the University of Washington Business Plan Competition in 2007. These business plans covered a broad range of industries, and were developed by entrepreneurs with a diverse set of experiences and educational backgrounds. We attempted to categorize each venture into one of the three identities: Darwinian, Communitarian, or Missionary. Based on this, we independently discovered that some of the ventures did not fit easily into one of the pre-assigned categories—some ventures were only a weak fit at best. We set these aside and reviewed them for commonalities. Most of the ventures we struggled to classify were focused on technology. After carefully reviewing these business plan summaries, I created another entrepreneurial identity category orientated around technology called the Edisonian identity. Column four of Table 3.2 reflects the core elements of the Edisonian identity.

² The detailed description of each identity is provided in Appendix A.

Table 3.2 Entrepreneurial identity descriptions

	1	2	3	4
	Darwinian Identity*	Communitarian Identity*	Missionary Identity*	Edisonian Identity#
<i>“Who we are”</i>	Business professionals	Community members	Social entrepreneurs; activists	Technologists; inventors
<i>“What we do”</i>	Compete to be the best in a given market space; expand to dominate a market space; distinguish the offering from others in the market space	Solve a personal problem that others in the community also confront; deliver something valuable to the community	Advance a cause; solve a social problem	Create technological breakthroughs
<i>Social motivation</i>	Self interest	Support and be supported by the community	Advancing a cause	Advancing technology
<i>Self evaluation</i>	Professionalism	Authenticity	Responsible behavior; making a difference	Innovation; technological advancement
<i>Frame of reference</i>	Competitors	Community benefiting from the product	Society; the well being of members of society	The technological frontier
<i>Key words</i>	Compete; professional; aggressive; dominate; win; grow	Community; authentic; local; personal; user orientated	Social good; society; making a difference; cause; environment, humane	Invention; innovation; technology: break through

* These three identities are taken from Fauchart & Gruber (2011)

This identity has been added after evaluation of a corpus of new venture business plans.

3.4 INSTRUMENT DEVELOPMENT

Having developed an initial entrepreneurial identity typology with four categories reflecting the different entrepreneurial identity types, next I focused on developing measures to assess the extent to which each of the four identities is reflected in business plan documents (or other mediums communicating the essence of a new venture, e.g., a venture pitch). To do this, I developed an instrument that utilizes computer-aided content analysis (CATA) to analyze business plan document. I created dictionaries capturing words reflecting each of the four identities of interest (e.g., Short, Broberg, Coglisser, and Brigham, 2010), and utilized them in DICTION, a recognized software package for conducting computer-aided content analysis (Short & Palmer, 2008) to assess the prevalence of identity-laden words in business plan documents.

3.4.1 Computer-aided content analysis instrument

Short et al. (2010) describe and illustrate how documents can be analyzed through CATA to provide a measure of the strength of the dimensions of a predefined construct. This is valuable from a measurement perspective because CATA has higher reliability than human coding with lower cost and greater speed (Neuendorf, 2002; Short et al., 2010).

At the core of CATA approaches to measurement are word lists that reflect the construct(s) of interest. These word lists are utilized within a software tool (e.g., Diction, LIWC, NVivo) to analyze the extent to which a construct is reflected within the narrative in a document. There are two approaches to developing such word lists: a deductive approach and an inductive approach (Short et al., 2010). To increase the content validity of a word list, it is possible to use both the deductive and inductive approaches (Short et

al., 2010). Below I describe how I adopted both approaches to develop word lists reflecting the different entrepreneurial identities.

3.4.1.1 Deductive word list development

To assemble wordlists, I created a working definition of the construct of interest (Short et al., 2010). I used the working definition of entrepreneurial identity from Section 3.1, and the respective identity categories in the typology developed in Section 3.2. Next, I developed an initial list of key words to capture the construct dimensions of interest (Short et al., 2010) using the identity descriptions reflected in Table 3.2. I generated lists of key words associated with each of the four identities: Darwinian, Communitarian, Missionary, and Edisonian. I then expanded these lists of words by drawing from previously developed word lists for constructs that are closely related to the entrepreneurial dimensions of interest. For example, I reviewed the word list developed by Short et al. (2010) for *Competitive aggressiveness* (a dimension of the Entrepreneurial Orientation construct), and incorporated appropriate words from that list into the word list for the Darwinian identity. Similarly, I included words from the *Innovativeness* word list developed by Short et al. in the word list for an Edisonian identity. I included appropriate words from the *normative identity* word list constructed by Moss, Short, Payne, and Lumpkin (2011) into the missionary word list. To further enhance the completeness of the word lists, I used Rodale's (1978) *The Synonym Finder*, as recommended by Short et al., to search for synonyms and variants of the initial words identified that had not yet been recorded.

Next, I validated the word lists using content experts (Short et al., 2010). I asked six scholars (two assistant professors and four doctoral students in management and

entrepreneurship) to review the proposed entrepreneurial identity typology, to assess the initial word lists for each category of entrepreneurial identity, and to suggest words that should be added, dropped, or changed. I compared their responses, and included only words that all six respondents thought should be retained. Based on the recommendations of the six scholars, a total of 24 words were added to the original lists (Darwinian: 7; Missionary: 5; Communitarian: 4; Edisonian: 8), and 38 words were removed (Darwinian: 11; Missionary: 10; Communitarian: 6; Edisonian: 11). This deductive approach to word list development resulted in word lists for each category of entrepreneurial development as follows: Darwinian: 78 words; Missionary: 39 words; Communitarian: 75 words; Edisonian: 85 words.

3.4.1.2 Inductive word list development

To increase the content validity of the final word lists for the four dimensions of entrepreneurial identity, I used an inductive approach to complement the deductive approach described above (Short et al., 2010). I extracted the 1,000 most frequently used words from the text in the 171 business plan summaries submitted to the University of Washington business plan competition over the years 2007 to 2011. All words in the list were mentioned ten or more times across the 171 business plans in the data set.

I asked four professional writers (sourced from elance.com) to independently work through the list of the 1,000 most frequently used words, and to allocate words to one of the four identity categories. I retained words where three of the four respondents were in agreement. This resulted in 58 words being added to the Darwinian word list, 11 words added to the Missionary word list, 14 words added to the communitarian word list, and 34 words added to the Edisonian word list.

3.4.1.3 Consolidation of deductively-developed and inductively-developed word lists

I consolidated the dictionaries developed inductively (from the business plans) and deductively (from the theory and from prior research) to create a final dictionary of words reflective of each identity type. The final word lists are in Table 3.3.

Table 3.3 Word lists for entrepreneurial identity categories

Identity Category	Words
Communitarian	area, authentic, authenticated, authenticity, belief, believable, bona fide, care, child, children, clique, club, co-op, coalition, collective, communal, commune, community, comradeship, confined, connecting, conviction, cooperative, credible, dependable, district, domestic, earnest, empathy, familiar, families, farm, fellowship, fraternity, genuine, genuineness, group, harmony, heartfelt, home, homemade, homespun, honest, honest-to-goodness, in-group, indigenous, intimate, kinship, like-minded, likeness, limited, link, local, membership, mutual, native, near, near by, neighborhood, neighboring, next door, personal, proximate, public, real, realistic, realness, region, regional, relationship, reliable, reliance, restrained, sincere, students, students, town, township, tribe, trust, trustworthy, truthful, union, united, vicinity, women (<i>92 words</i>)
Darwinian	accelerate, accomplishments, achieve, achievement, acquisition, advancement, advantage, aggression, aggressive, aggressor, ambitious, amplify, antagonistic, assault, assertive, attack, battle, beat, belligerent, capable, capitalize, capture, cash, challenge, challenger, clients, combat, combative, command, commercial, company, compete, competing, competition, competitive, competitively, competitor, competitors, conquer, contend, contender, contest, contestant, contracts, control, corporate, costs, credit, crush, cutthroat, defend, delivery, demand, distinguish, dollars, dominant, dominate, domination, earnings, effectively, efficient, efficiently, encroach, enemy, entrepreneur, entrepreneurship, exclusive, expand, expansion, experienced, exploit, fight, fighter, financial, financing, forceful, intimidate, investments, investors, leader, leadership, leading, leverage, loans, mba, offers, office, opponent, opportunity, oppose, opposing, opposition, optimizing, outshine, over power, over shadow, override, overrule, overrun, overwhelm, paying, prevail, private, professional, profit, proprietary, pushing, quickly, reign, results, revenue, rise above, rival, rivalry, rule over, sales, selling, startup, strive, striving, succeed, successful, superior, supreme, tournament, transgress, triumph, tussle, wield power, win, wrestle (<i>136 words</i>)
Edisonian	advance, algorithms, analytics, brain, breakthrough, bright-idea, build, clever, complex, conceive, concept, concoct, concoction, concoctive, conjure-up, construct, create, creation, creative, creativity, creator, data, device, devise, diagnostic, discover, discoverer, discovery, dream-up, engineering, envisage, envision, exact, exemplary, expert, expertise, fabricate, findings, formulation, genesis, genius, gifted, hi-tech, high-tech, hit-upon, imagination, imaginative, imaging, ingenious, ingenuity, initiative, initiator, innovate, innovation, innovative, innovativeness, interface, internet, intricate, invent, invented, invention, inventive, inventiveness, inventor, knowing, knowledgeable, laboratories, labs, leap forwards, machine, mastermind, mastery, mechanical, metamorphose, method, modernize, mutation, new technology, novel, novelty, original, originality, originate, origination, originative, originator, patent, phd, precise, proficiency, prototype, radical, research, revolutionary, revolutionize, robotic, science, scientific, skilled, skillfulness, software, sophisticated, specialized, tech, technique, technical, technological, technology, think-up, trials, virtual, visionary, visualize, web, website, wireless (<i>119 words</i>)
Missionary	agencies, big-hearted, cause, charitable, charity, commitment, committed, compassionate, conservation, dependent, donations, eco, eco-friendly, educational, environment, environmental, foundation, green, guiding light, help, helpful, human race, humane, humanity, humankind, mankind, merciful, nature, obligation, obliging, pledge, praiseworthy, principle, programs, promise, public, purpose, respect, responsibility, social, socially-responsible, society, standing, support, sustainable, sympathetic, trust worthy (<i>47 words</i>)

3.4.1.4 Measuring entrepreneurial identity

The word lists in Table 3.3 were developed to be used in computer aided text analysis (CATA) to measure the entrepreneurial identity of a new venture. I used business plan summary documents to assess the entrepreneurial identity of new ventures, because business plan summary documents are designed to reflect the essence of a new venture for an external audience (Navis & Glynn, 2011). Through observation of venture teams engaged in the business plan document development process, I confirmed that founding teams invest a significant amount of time and attention to writing a business plan executive summary. Interviews with angel investors and VCs confirmed that they often ask to review a one-page business plan summary prior to meeting with an entrepreneur seeking resources. Hence, a business plan summary is an important reflection of a venture's identity.

A number of software programs are available for computer aided text analysis, e.g., VBPro, CATPAC, Concordance, DICTION, General Inquirer, LIWC, NVivo, and MECA (Krippendorff, 2004; Short & Palmer, 2008; Short et al., 2010; Skalski, 2002). I used DICTON (Hart, 2000) because it has been used in previous research examining management constructs (Bligh, Kohles, & Meindi, 2004a, 2004b; Short et al., 2010), it provides the functionality necessary for this research, and researchers have advocated DICTON as content analysis software with the potential to measure a number of theoretically based constructs of interest to strategic management and entrepreneurship research (Short & Palmer, 2008).

DICTON allows for the creation of custom dictionaries, which can then be applied to assess the narrative in a large corpus of text spanning multiple documents

(Short & Palmer, 2008; Short et al., 2010). To utilize DICTION to assess the entrepreneurial identity reflected in business plan summary documents, I loaded the word lists pertaining to the four entrepreneurial indemnity categories (from Table 3.3) into DICTION as custom dictionaries. I then loaded 31 business plan summaries submitted to the University of Washington Business Plan Competition in 2007 to be analyzed with the software. These were the same business plan summaries that were placed into different entrepreneurial identity categories in the development of the initial typology (as reported in Section 3.3.1). By analyzing the text in the business plan summary documents using the custom dictionaries containing words reflecting the relevant entrepreneurial identities, I was able to generate a score reflecting the frequency of words pertaining to each entrepreneurial identity in each document. To control for variance in text length across the sample of business plan summary documents, I standardized the detected number of words falling into each entrepreneurial identity category by dividing them by the total number of words found in the business plan text. This control method is similar to others used in content analytic studies, and is appropriate when texts vary in length (i.e., Doucet and Jehn, 1997; Emrich, Brower, Feldman, and Garland, 2001; Short et al., 2010). By comparing the scores generated by the CATA exercise with the human categorization of the same business plans, I tested the validity of the measurement approach. Of the 31 business plans analyzed, 29 (94%) were categorized in the same way using both approaches: the CATA approach and the human categorization approach. The two business plans that were not placed in the same category using both approaches had hybrid identities using the CATA approach (i.e., high scores in two categories). In both cases, the categorization by the human evaluators mapped onto the second highest

scoring category. The high level of convergence between the categorization of business plans under the two different approaches provided evidence of the criterion validity of the new measure. Criterion validity refers to the extent to which the operationalization is related to another measure or procedure that is purported to measure a similar construct, or the extent to which the outcomes of a measure are consistent with theoretically derived a priori expectations (Cronbach & Meehl, 1955).

The identity typology and related CATA instrument developed in this chapter provide a basis for assessing and measuring the entrepreneurial identity of a venture based on a narrative description of the venture. This typology and instrument will be utilized in the empirical tests reported in Chapter 4.

4 VENTURE IDENTIFICATION AND RESOURCE MOBILIZATION

4.1 INTRODUCTION

In building new ventures, entrepreneurs depend on the support of a broad population of resource providers. Some resource providers may provide financial resources in the form of an equity investment in the venture; other resource providers may provide insight and advice to the team building a venture; others may provide links to valuable contacts, and in so doing, support the venture with social capital. Prior research on resource mobilization in new ventures has focused largely on the acquisition of financial resources from a very narrow group of resource providers such as venture capitalists (e.g., Chen et al., 2009; Franke et al., 2006; Shane and Cable, 2002; Zott and Huy, 2007). Prior research has also focused either on general criteria of venture attractiveness as perceived by financial resource providers or on the behavioral biases of resource providers, thereby focusing on one side of a two-sided process. On the venture side, Hsu (2008) points out that the ex ante levels of human and social capital and ex ante technological quality are the criteria most predictive of resource assembly in a new venture. Shane and Cable (2002) demonstrate how the reputation of the people behind a venture impact the acquisition of financial resources. Zott and Huy (2007) articulate how the symbolic management practices of entrepreneurs influence financial resource providers' perceptions of a venture. Chen et al. (2009) find that the perceived preparedness of a venture had an impact on venture capitalists' evaluations of a venture's attractiveness. Navis and Glynn (2011) suggest that a venture with a legitimate and distinct entrepreneurial identity will be most likely to be perceived as plausible for venture investment.

On the resource provider side of the equation, Zacharakis and Shepherd (2001) examine how overconfidence of venture capitalists influences the choices they make, and Shepherd et al. (2003) consider how experience influences a venture capitalist's pattern of decision-making.

While this body of research helps build a baseline understanding of financial resource acquisition in new ventures, it does not take into the interactive effect of the two-sided process of resource mobilization in new ventures. Every time a resource provider makes a decision about whether or not to provide support to a new venture, features of the venture and features of the resource provider likely factor into that decision. A more complete model of new venture resource acquisition will take into consideration the matching process between features of the venture and features of the resource provider in the resource mobilization process. Some researchers have begun to consider how similarity between a venture capitalist and an individual entrepreneur may account for variation in the VC's perception of an investment opportunity (e.g., Franke et al., 2006; Matusik et al., 2008; Murnieks, 2011). To date, there appears to be no research that examines the matching process between ventures and resource providers; hence, this research fills that gap. To examine the link between individual resource providers and the new ventures, I exploit an insight from the organizational identity literature that individuals identify more strongly with an organization when their "self-concept contains the same attributes as those in the perceived organizational identity" (Dutton et al., 1994, p. 239).

As a new venture emerges, so it is assumed to adopt and portray an identity (Lounsbury & Glynn, 2001). The entrepreneurial identity of a new venture is defined as

“the constellation of claims around the *founders, organization and market opportunity* for an entrepreneurial entity that gives meaning to questions of ‘who we are’ and ‘what we do’” (Navis & Glynn, 2011, p. 479). Although scholars have argued that the entrepreneurial identity of a venture plays a role in the resource acquisition process (Lounsbury & Glynn, 2001; Navis & Glynn, 2011), none of this research considers how different entrepreneurial identities appeal to different resource providers.

In bringing research on entrepreneurial identity and on new venture resource mobilization together, I empirically examine how different entrepreneurial identities appeal to different resource providers. In so doing, I test relationships outlined in the venture identification model outlined in Chapter 2.

This chapter proceeds as follows: first, I outline a series of hypotheses that consider how identity connections between resource providers and entrepreneurial ventures may account for resource provider support of a new venture; then I describe the data used and methods employed to test these hypothesis; thereafter, I report on the results of the analysis followed by a discussion of the results.

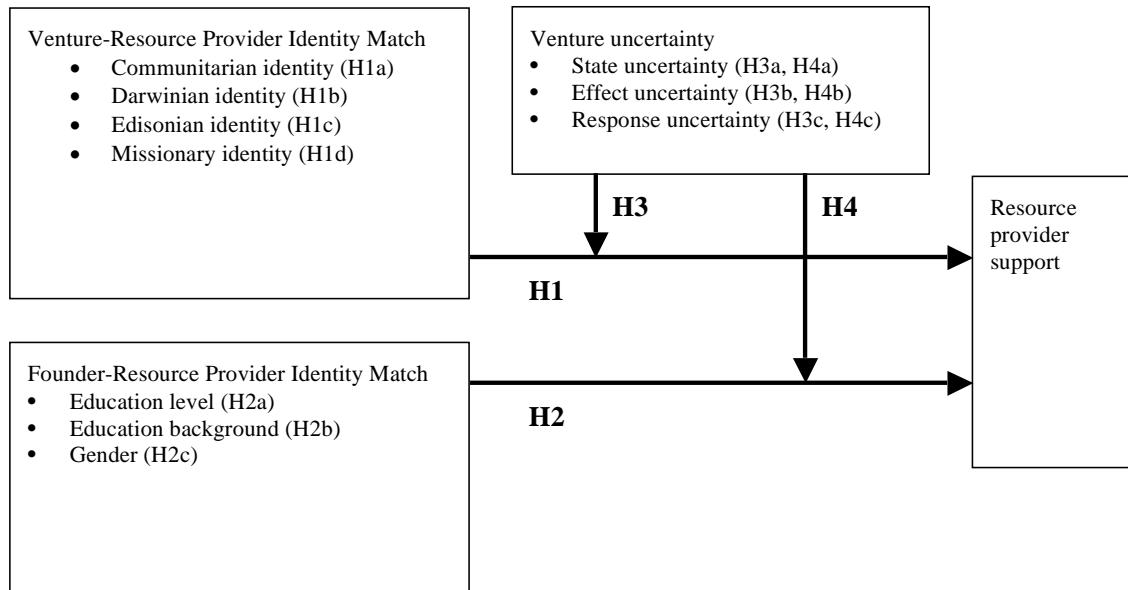
4.2 HYPOTHESES

Resource provider identification with a venture

Building off the arguments outlined in Chapter 2, I propose that the greater the overlap between the identity elements of a new venture and the identity elements of an individual resource provider, the stronger the level venture identification and the more likely the resource provider will support the new venture. In this section, I set up an empirical study by describing specific hypotheses that relate back to the conceptual model described in Chapter 2. These hypotheses are articulated in such a way that they

can be tested using data from the University of Washington’s business plan competition. The hypotheses are depicted in Figure 4.1, and then further elaborated on below.

Figure 4.1 Proposed hypotheses within the model of venture identification



In building a new venture, entrepreneurs seek the support and input of external resource providers. Support for a new venture from external resource providers may come in the form of advice, financial resources, referrals, or other services from the resource provider. Resource providers cannot support all ventures seeking assistance; therefore, they need to make careful choices about where they will devote their time, attention, and money. The underlying premise of this research is that resource providers will choose to support the ventures where they perceive a similarity between themselves and various aspects of the venture. Prior research has highlighted that perceived similarity between an entrepreneur’s and a ventures capitalist’s demographic profile, values, and cognitive style, may account for investor preference for a venture (Franke et al., 2006; Matusik et al., 2008; Murnieks et al., 2011). In this research, I argue that

resource providers will not only connect with the individual entrepreneurs behind a venture, but they will also connect with the claimed identity of the venture in making critical resource allocation decisions. I, therefore, suggest that (1) *venture-resource provider identity matching* and (2) *founder-resource provider attribute matching* will independently account for the provision of support to new ventures. *Venture-resource provider identity matching* is the similarity between the entrepreneurial identity of a venture and the individual identity of a resource provider. *Founder-resource provider attribute matching* is the similarity between individual attributes of the members of a founding team of a venture and the individual attributes of a resource provider.

Venture-resource provider identity matching. The entrepreneurial identity of a venture is defined as “the constellation of claims about a founder, a venture, and a market opportunity around questions of ‘who we are’ and ‘what we do’” (Navis & Glynn, 2011, p. 479). In Chapter 3, building on the research of Fauchart and Gruber (2011), I developed a typology for assessing the entrepreneurial identity of a venture. Within this typology, a venture can be assessed as having a Communitarian, Darwinian, Edisonian, or Missionary identity. A venture with a Communitarian identity claims to be an authentic member of a specific community, and is orientated toward serving that community in a productive and meaningful way. A venture with a Darwinian identity is oriented toward competitiveness, growth, and economic returns. A venture with an Edisonian identity focuses primarily on advancing technology. A venture with a Missionary identity is orientated toward advancing a social cause.

The different entrepreneurial identities are likely to appeal to different resource providers. Past research suggests that personal choice is often driven by the individual

identity of a decision maker. Research in social psychology (Stryker, 1980, 1989; Stryker & Serpe, 1982; Stryker & Burke, 2000), consumer behavior (Bolton & Reed, 2004; Reed, 2004), and economics (Akerlof & Kranton, 2000, 2005, 2010) suggests that an individual's identity can significantly affect the choices they make. According to March (1994), one's identity invokes a set of rules for decision-making, and when those rules are applied, decision-making becomes more predictable. Therefore, the resource allocation choices of individual resource providers are likely to be influenced by their individual identities.

In the same way that a venture can have an identity that falls into the Communitarian, Darwinian, Edisonian, or Missionary category, so an individual can have an identity that aligns with one or more of those categories. For example, an individual who values their involvement in a specific community, and seeks to be an active and central member of that community, will have a Communitarian identity (Fauchart & Gruber, 2011). An ambitious individual who seeks opportunities for personal success and recognition, and who values competitiveness, will be associated with a Darwinian identity (Fauchart & Gruber, 2011). An individual with a strong intellectual interest in technology, and a drive to make a technological contribution, will fall into the Edisonian identity category. And an individual with a desire to change the world for the better by advancing a social cause will be associated with a Missionary identity (Fauchart & Gruber, 2011). The identity of an individual is likely to be reflected in the narrative descriptions that people provide about themselves (e.g., within a biography, or in an online profile on a social networking site).

In Chapter 2, I argued that because resource providers have to make resource allocation decision under high levels of uncertainty, ambiguity, and equivocality, individual resource providers will show a preference for ventures with an entrepreneurial identity that aligns with their individual identity. Where a venture has an identity that aligns with the individual identity of a resource provider, then the venture will seem more familiar, more understandable, and invoke more positive emotions in a resource provider, prompting him or her to be more positively disposed to the venture. If resource providers are unable to identify with a venture because their personal identity is distant from the entrepreneurial identity claimed by the venture, then they are less likely to be positively disposed to the venture, and they won't understand the value proposition of the venture, prompting them to overlook it when allocating resources. This leads to the following hypotheses:

Hypothesis 1 (H1): As the venture-level identity claims of a venture align with the individual identity claims of a resource provider, so a venture will be more likely to attract the support of the resource provider.

Hypothesis 1a (H1a): As a Communitarian identity of a venture aligns with a Communitarian identity of a resource provider, so a venture will be more likely to attract the support of the resource provider.

Hypothesis 1b (H1b): As a Darwinian identity of a venture aligns with a Darwinian identity of a resource provider, so a venture will be more likely to attract the support of the resource provider.

Hypothesis 1c (H1c): As an Edisonian identity of a venture aligns with an Edisonian identity of a resource provider, so a venture will be more likely to attract the support of the resource provider.

Hypothesis 1d (H1d): As a Missionary identity of a venture aligns with a Missionary identity of a resource provider, so a venture will be more likely to attract the support of the resource provider.

Founder-resource provider attribute matching. Prior research suggests that resource providers prefer to invest in a venture where the people developing the venture are similar to themselves (Franke et al., 2006; Matusik et al., 2008; Murnieks et al., 2011). The concept of being attracted to and showing preference for those who are similar to one-self is well established (Bryne, 1971). People get married to others who are similar to themselves (Kalmijn, 1998); managers positively evaluate and support subordinates that are similar to themselves (Ibarra, 1992, 1995); entrepreneurs establish new ventures with other entrepreneurs that are similar to themselves (Ruef et al., 2003) and establish exchange relationships with people with similar characteristics to themselves (Vissa, 2011). Prior research has found that VCs tend to show a preference for ventures with founding teams with similar training and professional experience to themselves (Franke et al., 2006) and for entrepreneurs who demonstrate decision processes similar to their decision processes (Murnieks et al., 2011). Therefore, there is strong reason to propose that resource providers will choose to support ventures that are founded by people who are similar themselves.

Following this logic, I propose that alignment between the individual attributes of the founding team members of a venture and the individual attributes of a resource provider will help explain which ventures a resource provider chooses to support. Focusing on the individual attributes of education and gender, I propose that where a resource provider is of the same gender, has a similar level of education, or has an educational background in a similar field to the founding team members of a venture, then they will be prone to similarity biases (i.e., homophily) and be more likely to provide the venture with support.

Hypothesis 2 (H2): The greater the alignment between the individual attributes of the founders of a venture and the individual attributes of a resource provider evaluating a venture, the higher the likelihood that the resource provider will support the venture.

Hypothesis 2a (H2a): The greater the alignment between the education level of the founders of a venture and the education level of a resource provider evaluating a venture, the higher the likelihood that the resource provider will support the venture.

Hypothesis 2b (H2b): The greater the alignment between the education background of the founders of a venture and the education background of a resource provider evaluating a venture, the higher the likelihood that the resource provider will support the venture.

Hypothesis 2c (H2c): The greater the alignment between the gender of the founders of a venture and the gender a resource provider evaluating a venture, the higher the likelihood that the resource provider will support the venture

Venture uncertainty

The notion that entrepreneurs operate in the face of inherently uncertain, even unknowable, futures is one of the most closely held assumptions in entrepreneurship (e.g., Knight, 1921; Sarasvathy, Dew, Velamuri, & Venkataraman, 2003; Shane and Eckhardt, 2003). Although the entrepreneurial process is inherently uncertain, the level of uncertainty associated with a new venture can vary (McKelvie et al., 2010). The predictability of the industry that the venture is entering, and the development stage of the technology associated with the venture being created, have a significant impact on the perceived uncertainty associated with a new venture (McGrath & McMillan, 2000; McKelvie et al., 2011). New, emerging industries and rapidly changing industries are associated with much higher levels of uncertainty compared to more mature, stable industries where norms, standards, and market categories are established (Navis & Glynn, 2011). A venture seeking to develop and exploit a new technology faces higher levels of

uncertainty with regards to timing, cost, and technological standards compared to an entrepreneur utilizing an established technology where many costs, standards, and technology trajectories can be predicted with greater certainty (McGrath & McMillan, 2000).

Milliken's (1987) seminal article described a three-dimensional conceptualization of uncertainty. She differentiates between state, effect, and response uncertainty. State uncertainty refers to uncertainty about the external environment caused by an inability to predict how environmental components are changing (i.e., demographic shifts, socio-cultural trends, technological changes, etc). Effect uncertainty relates to an inability to predict how changes in the environment will impact a venture (i.e., knowing that a hurricane is headed in the direction of one's neighborhood does not mean that you know how the hurricane will impact the neighborhood). Finally, response uncertainty refers to uncertainty caused by a lack of insight into response options given a changing environment and/or an inability to predict the likely consequences of a response choice (i.e., if a ventures enters a new market, one cannot necessarily predict how a given competitor will respond) (Milliken, 1987). Milliken suggests that each of these uncertainty types considered together define the nature and character of uncertainty that surrounds a given entrepreneurial decision. Although Milliken's conceptualization of uncertainty has been used when examining the decisions of individual entrepreneurs (e.g., McKelvie et al., 2011; McMullen and Shepherd, 2006), the concepts of state, effect, and response uncertainty have not previously been applied in the examination of new venture resource provider decisions. The sections that follow describe how state, effect, and response uncertainty are likely to impact resource provider decisions.

4.2.1.1 State uncertainty

State uncertainty refers to the perception “that a particular component of the environment is unpredictable; more specifically, that one does not understand how the components of the environment are changing” (Milliken, 1987, p. 137). As state uncertainty increases, it becomes increasingly difficult to understand and predict the future state of the external environment. Milliken (1987) cites several factors that drive state uncertainty, including demographic shifts, socio-cultural trends, and changes in suppliers, customers, and competitors. The dynamism inherent in entrepreneurial contexts suggests that state uncertainty is enduring and occurs at high levels. Yet within a high-level range state, uncertainty can fluctuate depending on the technological shifts and customer demand uncertainties associated with a ventures offering (McKelvie et al., 2011).

As the technological and customer demand uncertainty associated with the environment surrounding a venture increases, so the accessibility, reliability, and validity of objective data about the opportunity the venture is pursuing is reduced (Milliken, 1987)—high levels of state uncertainty are associate with low levels of valid and reliable information. Hence, as the state uncertainty associated with a venture increases, so it becomes more difficult (even impossible) for a resource provider to make rational, calculated decisions. Under such conditions, resource providers will depend more on identity attributes and homophily in making decisions, and less on objective and rational probability and risk calculations. As one Angel investor pointed out, “when doing early stage investing, you can’t always get all the information you need, you just to trust your gut and go with what you feel...if you wait to get all the information you desire you

won't get in on the deal" (Author interview, February 11, 2011). Therefore, I propose that under higher levels of state uncertainty, the relationship between venture-resource provider identity matching and resource provider support for a venture will increase.

Hypothesis 3a (H3a): When state uncertainty is high, the relationship between venture-level identity alignment and resource provider support for a venture will strengthen.

Similarly, under high levels of state uncertainty, the relationship between founder-resource provider attribute matching and resource provider support for a venture will increase.

Hypothesis 4a (H4a): When state uncertainty is high, the relationship between founder-level attribute alignment and resource provider support for a venture will strengthen.

4.2.1.2 Effect uncertainty

Effect uncertainty relates to an ability to predict how environmental events or changes will impact a firm (Milliken, 1987). While it may be possible in some circumstances to predict customer demand shifts or technological changes with some level of accuracy (e.g., Abernathy and Clark, 1985), it may be challenging to predict how such changes will impact a venture (Tushman & Nelson, 1990). For example, one can reasonably predict the technological trajectory for electric motor vehicles (Oltra & Saint-Jean, 2009), and based on historical purchasing patterns, it is possible to map out what demand for such vehicles may look like (Becker, Sidhu, & Tenderich, 2009). Yet, it is very challenging to assess how these forces will come together to impact a venture producing electric cars such as Tesla Motors. When a resource provider is unable to reliably assess how customer demand and/or technological changes will impact a venture, then they are unable to use objective and rational data in making investment decisions.

Under such circumstances, resource providers will depend more on how they feel about the venture and the extent to which they identify with the venture, and with the people managing the venture, in making resource allocation decisions. Hence, venture-level identity alignment and founder level attribute alignment are stronger predictors of resource allocation when a venture is confronted with high levels of effect uncertainty.

Hypothesis 3b (H3b): When effect uncertainty is high, the relationship between venture-level identity alignment and resource provider support for a venture will strengthen.

Hypothesis 4b (H4b): When effect uncertainty is high, the relationship between founder-level attribute alignment and resource provider support for a venture will strengthen.

4.2.1.3 Response uncertainty

Response uncertainty is defined as a lack of knowledge of response options and/or an inability to predict the likely consequences of a response choice (Milliken, 1987).

Where there is a need to act, response uncertainty is of utmost importance (Duncan, 1972). In the context of new ventures, response uncertainty largely orientates around a venture's ability to establish an advantage over other firms with whom they are competing, and respond to competitive threats when they arise. "Successful action in the case of dynamic markets, while bearing in mind demand and technological uncertainty, furthers competitive advantage...earning repeated advantage represents the basis for successful competition. For this to occur, understanding the breadth of response options and the consequences of a response choice are paramount" (McKelvie et al., p. 278).

Hence response uncertainty is conceptualized as an assessment of the likelihood that a firm can competitively respond to threats and changes. Resource providers can evaluate a venture's lead-time over competitors and competitive positioning in the market relative to

assess response uncertainty associated with the venture. While the nature of response uncertainty is different to the other kinds of uncertainty, the effect of response uncertainty on the relationship between venture identification and resource provider support is likely to be the same as the other kinds of uncertainty. Where response uncertainty is high, it is difficult for resource providers to evaluate how competitive a venture will be in the future; hence it is almost impossible to make resource allocation decision for economic reasons. Under such circumstances, resource provider must depend more on venture-level identification and founder-level homophily in making resource allocation choices.

Hypothesis 3c (H3c): When response uncertainty is high, the relationship between venture-level identity alignment and resource provider support for a venture will strengthen.

Hypothesis 4c (H4c): When response uncertainty is high, the relationship between founder-level attribute alignment and resource provider support for a venture will strengthen.

4.3 DATA AND METHODS

I used data from the annual business plan competition hosted at the University of Washington in the years 2007 to 2011. The investment round of the UW Business Plan Competition provides a unique and relevant setting to examine the choices of a broad base to resource providers in deciding whether or not to support a new venture because it captures a large number of resources provider decisions in a controlled, but real, setting. Each year 30 to 35 ventures are selected from approximately 100 entries to participate in the investment round of the competition. Each venture submits a one-page summary of their business plan. The summary is distributed to approximately 200 people who are invited to be judges in the investment round. The judges are diverse in terms of profession, gender, and age. While some of the judges are professional investors (e.g.,

VCS), many of the judges operate in other roles that are supportive of entrepreneurs (e.g., lawyers, consultants, accountants, etc.), while others are local entrepreneurs or managers. The profile of the judges across the five years of the competition (2007-2011) is disclosed in Table 4.1

Table 4.1 Distribution of judges in the business plan competition (2007-2011)

Professional Category	#	%
Accountant	7	1%
Advisor	13	2%
Consultant	90	12%
Engineer	69	9%
Entrepreneur	152	20%
Investor	37	5%
Lawyer	61	8%
Manager	284	38%
Realtor	13	2%
Professor	9	1%
Other	20	3%
Total	755	100%

After having the opportunity to carefully read the business plan summary for each venture, the judges also have the opportunity to interact with the team behind each venture in a trade show format. Each judge is provided with \$1,000 in fictitious capital that they can allocate to as many or as few ventures as they wish, in increments of their choosing. Each year the 16 ventures that attract the most resources from this broad base of judges, advance to the next round of the competition in which they present their business plan to a small panel of judges. Therefore, the resources that the judges allocate have a direct impact on the recognition and opportunity afforded to a venture. Such resources are a strong signal of the judges' preference for supporting a venture.

Copies of the business plan summaries for each venture that participated in the investment round of the competition in each year between 2007 and 2011 were obtained from the Center for Innovation and Entrepreneurship (CIE) at the University of Washington. They also provided details of the dollar amount of resources allocated to each venture by each judge who participated in the investment round of the competition each year during that period. Between 2007 and 2011, 171 ventures were selected to participate in the investment round of the business plan competition. A total of 755 judges were enlisted to evaluate the ventures participating in the investment round over those years. Across the five years, the range of resources allocated to single venture was \$580 to \$15,100, with a mean of \$4,746 and a standard deviation of \$3,032. Using the data provided by the Business Plan Competition organizing office, I was able to construct a matrix of 25,821 decision points for all the judge-venture pairs across the five years of the competition.

4.3.1 Resource provider support of a new venture

The dependent variable in this research is resource provider support for a new venture as measured by the dollar amount a resource provider allocates to a new venture during the investment round of the UW business plan competition. The unit of analysis is resource provider-venture pair. On average, each judge provided resources to 4.6 ventures (average of \$217 per venture), meaning that many of the resource provider-venture pairs have a zero as an outcome variable.

4.3.2 Venture-resource provider identity match

Venture-resource provider identity match is conceptualized as an overlap between a venture's entrepreneurial identity and the individual identity of a resource provider. To

assess a venture's entrepreneurial identity, I utilized the entrepreneurial identity categories of Communitarian, Darwinian, Edisonian, and Missionary identities that were developed in Chapter 3. These were overlaid with the identity profiles of the respective resource providers (as described below) to assess the extent to which a venture and a resource provider made similar claims about "who we are" and "what we do."

4.3.2.1 Entrepreneurial identity.

To assess the entrepreneurial identity reflected in each business plan summary, I measured the strength of each dimension of entrepreneurial identity (Communitarian, Darwinian, Edisonian, Missionary) using the CATA instrument developed in Chapter 3. All 171 business plan summaries were analyzed utilizing the four custom dictionaries from Table 3.3. The text in each business plan was assessed to analyze the frequency of words from each word list representing an entrepreneurial identity. To control for variations in the length of business plan documents, the frequency of words from each word list was divided-by the total number of words in each business plan document. This provided a percentage score for each of the entrepreneurial identity dimensions as reflected in each business plan summary. The percentages were then adjusted for the difference in the number of words in the dictionary for each identity type. For example, when the business plan summary for the venture Alterneg (from 2007) was analyzed, the CATA software (DICTION) reported that the document had a total of 803 words: 11 words from the Communitarian identity dictionary; 39 words from the Darwinian identity dictionary; 9 words from the Edisonian identity dictionary; and 2 words from the Missionary identity dictionary. The identity scores for this venture were calculated as outlined below.

	Communitarian	Darwinian	Edisonian	Missionary
Words from each identity dictionary in business plan	11	39	9	2
Total words in the business plan	803	803	803	803
Percentage of words pertaining to each identity	1.37%	4.86%	1.12%	0.25%
Adjustment for the difference in the number of words in each dictionary*	x 100 / 92	x 100 / 136	x 100 / 119	x 100 / 47
Final entrepreneurial identity score	1.49%	3.57%	0.94%	0.53%

* See Table 3.3 for the list of words + total number of words in each dictionary

4.3.2.2 Resource provider identity.

I used the LinkedIn profiles of the people who participated as judges in the business plan competition as a data source for assessing their individual identity. LinkedIn is described as world's largest professional network, with more than 150 million members worldwide. Working professionals create and maintain a profile on the LinkedIn platform, and use that profile as a basis to connect with others with whom they share professional interests. A typical LinkedIn profile contains detailed information about a person's work experience and education, including a detailed narrative description of the person's career history and objectives. Because the information on a person's LinkedIn profile is largely created and controlled by them, it is likely a powerful reflector of the person's individual professional identity.

I downloaded the LinkedIn profile for each judge who participated in the investment round of the competition between 2007 and 2011. Where I was uncertain as to whether I was downloading the correct profile, I conferred with the Business Plan Competition organizing office to ensure that I had the right person by crosschecking a reference to an employer, venture, email address, or some other piece of identifying information. I was able to find LinkedIn profiles for 684 of the 755 people who participated as judges in the business plan competition between 2007 and 2011 (91%). Of these, 145 of the LinkedIn profiles were incomplete (missing important information or containing less than 150 words). The incomplete profiles were dropped from the database,

therefore the final database contained 539 judges (71% of all the judges who participated in the competition). These were spread across the five years of the competition as follows: 77 in 2007; 99 in 2008; 121 in 2009; 124 in 2010; and 118 in 2011.

To measure the identity reflected in each LinkedIn Profile, I downloaded the contents of each profile into Diction, and using the CATA instrument developed in Chapter 3, I analyze the frequency of words associated with each of the four entrepreneurial identities (Communitarian, Darwinian, Edisonian, and Missionary). To control for variations in the length of the LinkedIn profiles, the frequency of words associated with each identity was divided by the total number of words in each LinkedIn profile. This calculation provided a percentage score for each profile for each of the entrepreneurial identity dimensions.

4.3.2.3 Venture-resource provider identity match

To measure the identity overlap between a venture and a resource provider, I calculated an interaction term between the identity score for each identity category. To calculate the interaction term at an identity category level, I multiplied the score for each identity category for each venture (expressed as a percent) by the score for each identity category for each resource provider (also expressed as a percent). The interaction represents an identity overlap score for each identity category for each venture-resource provider pair. For example, if Venture-A had a Darwinian identity score of 0.12 (12%), and Resource Provider-Z had a Darwinian identity score of 0.08 (8%), then their identity overlap score in the Darwinian identity category would be $0.12 \times 0.08 = 0.0096$. Each of these interaction terms serve as an independent variable in analyzing H1a – b. Thus, identity alignment is calculated as the joint probability of the resource provider and the

venture using language reflecting the same identity in self-descriptions. This method of assessing the similarity between a dyad is the same as the method adopted by Vissa (2011) in his assessment of the social similarity between entrepreneurs and potential network connections.

To arrive at an overall identity match score for each venture-resource provider dyad, I added the identity overlap interaction score scores for each identity category together to arrive at an aggregate identity overlap score. The additive approach of arriving at an overall matching between two parties assumes that similarity on each dimension contributes to a match, thus if a resource provider has high scores in two identity categories and a venture has high scores in the same two categories, then the matching score is higher³. The calculation of the category identity match score and the total identity match score for each venture-resource provider dyad is shown below.

Venture A	A_{Comm_ID}	A_{Darwin_ID}	A_{Edison_ID}	A_{Miss_ID}
	x	x	x	x
Resource provider Z	Z_{Comm_ID}	Z_{Darwin_ID}	Z_{Edison_ID}	Z_{Miss_ID}
	=	=	=	=
Dyad AZ	$AZ_{Comm_ID_M} + AZ_{Darwin_ID_M} + AZ_{Edison_ID_M} + AZ_{Miss_ID_M} = AZ_{Tot_ID_M}$			

4.3.3 Founder-resource provider attribute match

Founder-resource provider attribute match is an assessment of similarity between the individual attributes of the founders of a venture and the individual attributes of the resource providers. Three individual attributes are evaluated to assess the level of

³ I also measured venture-resource provider identity using the just interaction term for the identity category with the *largest interaction term* for each venture-resource provider dyad. This version of identity match focused only on the identity category with the most significant overlap. I ran all the models with this alternate conceptualization of identity match as an independent variable, and the results were essentially the same as for the additive measure of identity match—all the same relationships remained significant.

alignment between the attributes of the individuals in a venture team and the attributes of resource providers: education level, educational background, and gender.

4.3.3.1 Education of venture team members

The education level and education background of each founding team member listed on the business plan was captured from the information disclosed in the business plan. The education level of each member of the founding team was categorized as bachelor's, master's, or doctorate. The percentage of team members in each of the categories was then captured and recorded in a database. Each individual's education background was broadly classified as science, business, or other, based on the focus of his or her highest degree. A classification of "science" as an educational background included degrees in physics, chemistry, engineering, medicine, computer science, biology, etc. The business category included degrees from a business school, law school, or communications school. Any degree not falling into one of these two categories was classified as "other." The percentage of team members in each of the categories—science, business, or other—was then captured and recorded in a database as a measure of educational background.

4.3.3.2 Education of resource providers

The education level and education background of the resource providers was captured from their LinkedIn profile using the same classification schemes as was used to record the education level and education background of the individual members of the venture team. Each judge was assigned to one education level category—bachelor's, master's, or doctorate—based on their highest level of education. Education background

was also classified science, business, or other, based on the focus area of the persons highest degree.

4.3.3.3 Gender of venture team members

The gender of each team member listed on the business plan was captured based on the name of the person listed. Where it was unclear as to whether a member of the management team was male or female, then the venture team member was contacted directly via email to confirm their gender. The percentage male and percentage female scores for each venture were recorded, with the two scores adding up to 100% for each venture.

4.3.3.4 Gender of resource providers

The gender of the resource providers was captured using their name and LinkedIn profile as a basis for classification. Each resource provider was classified as either male or female using a dummy variable to reflect his or her respective gender.

4.3.3.5 Founder-resource provider attribute match

Founder-resource provider attribute match was then calculated for each attribute of interest. For education level, the percentage of the team in each education level category (bachelor's, master's, or doctorate) was multiplied by the education level score for each judge, and then totaled to arrive at an educational level matching score. For education background, the percentage of the team in each education background category (science, business, or other) was multiplied by the education background score for each judge, and then totaled to arrive at an education background matching score. For gender, the percentage of the team in each gender category (male or female) was multiplied by the gender category score for each judge, and then totaled to arrive at a gender matching

score. To arrive at an overall founder-resource provider attribute matching score, the educational level matching score, education background matching score, and the gender matching score were aggregated.

4.3.4 Venture Uncertainty

Uncertainty is conceptualized to moderate the relationship between venture-resource provider attribute match and resource provider support for a new venture, and between founder-resource provider attribute match and resource provider support. When the uncertainty associated with a venture is high, so a resource provider will shift from a rational mode of decision-making based on data and analysis, to a more emotive mode of decision-making based on identification and emotion. Under such conditions, identity alignment between a venture and a resource provider, and homophily between the founding team and a resource provider, are likely to be more powerful influencers on a resource provider's decision to support a venture.

Uncertainty is, therefore, assessed from an "outside-in" perspective: an external evaluation of the uncertainty associated with a venture as would be assessed by a resource provider. To measure the perceived uncertainty associated with a venture, I adapted a measure developed by McKelvie et al. (2011). McKelvie and colleagues utilized Miliken's (1987) conceptualization of uncertainty to develop a measure that would capture an *entrepreneur's* assessment of the uncertainty associated with a venture based on (1) the rate of change in the environment in which the venture is operating (state uncertainty), (2) the ability to predict that change in the environment (effect uncertainty), and (3) the response options for a venture (response uncertainty) (Miliken, 1987). I adapted the wording of their instrument to allow *an external party* to assess the

dimensions of uncertainty confronting a venture. A copy of the adapted instrument can be found in Table 4.2.

Table 4.2 Assessing new venture uncertainty

	Low*				High
State uncertainty (rate of demand change)	The demand for the venture's product or service is likely to fluctuate, but the rate of change is moderate and steady.	1	2	3	The rate of demand change for the venture's product or service cannot be determined.
State uncertainty (rate of technological change)	Future technological innovations affecting the viability of the product or service are likely to occur, but they are likely to be incremental (not discontinuous).	1	2	3	Future technological innovations affecting the viability of the product or service are likely to be frequent and major, including changes to the underlying technologies related to product usage.
Effect uncertainty (predictability of demand change)	The venture team appears to have a strong idea of their customers' preferences and demands with regard to their product or service, and these are predictable over time.	1	2	3	It is not possible to predict in advance demand changes affecting the viability of the product or service.
Effect uncertainty (predictability of technological change)	The venture team is in a strong position to predict the nature and source of innovations that affect the viability of their product or service.	1	2	3	It is not possible to predict with any certainty the kinds or timing of future technological innovations that will affect the viability of the product or service.
Response uncertainty (ability to sustain innovative leadership)	The venture team has tangible reasons to believe that they have the ability to sustain viability in this product market through further radical and/or incremental innovations.	1	2	3	It is not possible to foresee the ability of the venture team to sustain viability in this product market through further radical and/ or incremental innovations.
Response uncertainty (potential lead-time over competitors)	While the venture team are not able to fully predict the speed or nature of action of their competitors, they have reason to believe that will enjoy advantages long enough to realize entrepreneurial returns.	1	2	3	The venture team have no way to know how their competitors will react in response to their product/service introduction, and, therefore, they cannot predict how long their product will enjoy advantages before a competitive response erodes profits.

Adapted from McKelvie, Haynie, & Gustavsson, 2011, p. 281

*Acknowledging that—in an entrepreneurial context—it is unlikely that uncertainty is ever objectively “low,” the operationalizations are relative; that is, low levels reflect the “norm” with regard to uncertainty, while high levels reflect extreme conditions.

Two research assistants each completed the uncertainty assessment for all 171 business plans in the sample—they achieved 81% inter rater reliability in their assessments (831 of a total of 1,026 responses were the same for both raters). The two raters and I discussed all differences to arrive at an agreed upon response for each item for each venture in the sample.

To examine the dimensions of the uncertainty measure, I factor-analyzed the original responses for each item. Table 4.3 reports on the factor loadings from this analysis.

Table 4.3 Factor loadings of the uncertainty scale

Items	Factor 1: State-Effect Uncertainty	Factor 2: Response Uncertainty
Predictability of technological change	0.85	-0.23
Rate of technological change	0.83	-0.22
Predictability of demand change	0.76	0.24
Rate of demand change	0.74	0.30
Ability to sustain innovative leadership	0.15	0.83
Potential lead-time over competitors	-0.13	0.77
Eigenvalue	2.60	1.53
Variance explained	43%	26%

From this analysis, one can identify two distinct factors that jointly account for 69% of the variance in the responses. The first factor reflects the market and technological unpredictability of the environment (state and effect uncertainty), and the second reflects a venture’s likely ability to compete in the environment in which they operate (response uncertainty). Because the uncertainty scale reflected two factors instead of three factors, I refined the moderation hypotheses to account for the combined effect of state-effect uncertainty instead of splitting them out as separate dimensions. Conceptually, this is reasonable because both state and effect uncertainty reflect the impact of environmental

uncertainty on a new venture. Empirically it is justified because the items pertaining to state and effect uncertainty all loaded in a single factor. The revised hypotheses are as follows:

Hypothesis 3a (H3a) [revised]: When state-effect uncertainty is high, the relationship between venture-level identity alignment and resource provider support for a venture will strengthen.

Hypothesis 4a (H4a) [revised]: When state-effect uncertainty is high, the relationship between founder-level attribute alignment and resource provider support for a venture will strengthen.

Hypothesis 3b (H3b) [revised]: When response uncertainty is high, the relationship between venture-level identity alignment and resource provider support for a venture will strengthen.

Hypothesis 4b (H4b) [revised]: When response uncertainty is high, the relationship between founder-level attribute alignment and resource provider support for a venture will strengthen.

4.3.5 Controls

Because technology and team characteristics have in the past been shown to affect resource providers' perceptions of a venture (Hsu, 2008), human capital quality and technology quality measures were included as controls. The quality of human capital was measured using three things: (a) reported education of founding team; (b) the reported start-up experience in founding team; and (c) the reported industry experience of founding team. The (a) *reported education of the founding team* was assessed by assigning scores to each of the founding team members based on their reported level of education as follows: Doctorate = 3 points; Master's = 2 points; Bachelor's = 1 point. The (b) *reported start-up experience* of the founding team was assessed by assigning a dummy variable to each venture where a member of the founding team was described in the business plan as having prior start-up experience. The (c) *reported industry*

experience of the founding team was assessed by assigning a dummy variable to each venture where a member of the founding team was described as having prior industry experience in the industry in which the business was being launched.

To assess technological quality, I assigned a score based on the quality of the intellectual quality disclosed in the business plan for each venture. I assigned a score of 3 for a patent, 2 for license, 1 for a copyright, and zero if there was no IP disclosed in the business plan.

The advisory board of a venture is argued to have an impact on the perceived legitimacy of a new venture (Bygrave & Zacharakis, 2009; Deeds, Mang, & Frandsen, 2004), thereby impacting the perceived attractiveness of a new venture. I controlled for the size of the advisory board by including a count of the number of advisory board members mentioned in the business plan for each venture. Not all the ventures in the business plan competition had advisory boards, thus the advisory board control variable was zero for 52 ventures of the 171 ventures in the dataset (30.4%).

Because the visual appeal of a business plan may also influence a resource providers perception of a business, I created a composite score for visual appeal, made up of a dummy for inclusion of (a) a logo, (b) a picture of the product, (c) a graphic, (d) color in the business plan document, and (e) a website advertised on the business plan document. I also included a dummy variable to control for the year in which the venture participated in the business plan competition.

4.3.6 Analysis

Two characteristics of the data had a significant influence on my choice of approach for analyzing the data. First, the dependent variable of resource provider

support was highly left-censored because of the significant number of zeros. For each venture-resource provider dyad where a resource provider decided not to provide any resources to the venture, the dependent variable is captured as a zero. Each resource provider had to make a decision about whether to provide resources to approximately 30 ventures, and each resource provider only provided resources to approximately 5 ventures. Therefore, approximately 25 ventures received zero resources from a single judge.

Second, a single resource provider makes approximately 30 investment decisions, so I need to account for multiple decisions by the same person.

To account for the left-censored model, I decided to use a Tobit model. Tobit models are designed to estimate linear relationships between variables when there is left- or right-censoring in the dependent variable. In the management literature, Tobit models have been adopted to predicting rare events such as stock repurchase announcements (e.g., Benner & Ranganathan, 2012; Sanders & Carpenter, 2003).

To account for the same person making multiple decisions, I looked to adopt a fixed effects model. A fixed effects model allows one to control for unobserved heterogeneity among decision makers (e.g., Vissa, 2011).

One challenge that I faced was to combine Tobit and Fixed Effects: “There is no command for a parametric conditional fixed-effects model, as there does not exist a sufficient statistic allowing the fixed effects to be conditioned out of the likelihood” (Stata Corporation, 2001 p. 474). Therefore, I chose to run two models with related but different dependent variables: (1) a Tobit model with the dollar amount of investment by each resource provider as the dependent variable; and (2) a Fixed Effects Logit model with a binary dependent variable accounting for whether the investor invested or not (1,0).

For each of the proposed moderating variables, I created an interaction term by multiplying the moderating variable (e.g., state-effect uncertainty, response uncertainty) with venture-resource provider identity match score and with the founder-resource provider attribute matching score. I then assessed the significance of the interaction terms to draw conclusions about the moderation effect (Baron & Kenny, 1986).

4.4 RESULTS

The descriptive statistics of the all the items included in the analysis can be found in Table 4.4. There were 18,576 venture-resource provider pairs after dropping data because of incomplete information about a resource provider—either the LinkedIn profile could not be found, did not exist, or contained so little data that it was not worth including in the analysis (all profiles with less than 150 words were dropped).

Table 4.4 Descriptive statistics for the variables included in the analysis

Variable		Observations	Mean	Standard Deviation	Minimum	Maximum
Technology Quality IP	Control	18576	1.05	1.27	0.00	3.00
Team Education	Control	18576	3.37	3.89	0.00	15.00
Team Entrepreneurial Experience	Control	18576	0.21	0.41	0.00	1.00
Team Industry Experience	Control	18576	0.45	0.50	0.00	1.00
Advisory Board Size	Control	18576	1.81	2.41	0.00	14.00
Business Plan Visual Score	Control	18576	2.52	1.35	0.00	5.00
Communitarian Identity Match	IV	18576	0.06	0.07	0.00	0.89
Darwinian Identity Match	IV	18576	0.10	0.07	0.00	0.63
Edisonian Identity Match	IV	18576	0.05	0.06	0.00	0.72
Missionary Identity Match	IV	18576	0.02	0.03	0.00	0.59
Venture Identity Match	IV	18576	0.24	0.11	0.00	1.19
Venture Identity Match (Centered)	IV	18576	0.00	0.11	-0.24	0.95
Education Level Match	IV	18576	0.15	0.19	0.00	1.11
Education Background Match	IV	18576	0.30	0.37	0.00	1.00
Gender Match	IV	18576	0.64	0.40	0.00	1.00
Founder Identity Match	IV	18576	0.36	0.22	0.00	1.00
Founder Identity Match (Centered)	IV	18576	0.00	0.22	-0.36	0.64
Venture State-Effect Uncertainty	Moderator	18576	8.51	2.35	4.00	12.00
Venture State-Effect Uncertainty (Centered)	Moderator	18576	0.00	2.35	-4.51	3.49
Venture Response Uncertainty	Moderator	18576	4.76	0.94	2.00	6.00
Venture Response Uncertainty (Centered)	Moderator	18576	0.00	0.94	-2.76	1.24
Resources Allocated	DV	18576	29.05	70.04	0.00	750.00
Support Dummy	DV	18576	0.21	0.41	0.00	1.00

The independent variables in the interaction model (venture identity match, founder attribute match, state-effect uncertainty, and response uncertainty) were mean centered to allow for easier interpretation of the interaction effect. The correlations for the all the variables included in this analysis can be found in Table 4.5.

The results of the Tobit regression and Fixed Effects Logit analysis can be found in Table 4.6 and Table 4.7 respectively. Model 1 in both tables captures only the control variables. Models 2 to 7, examining the hypotheses of this study, are discussed after the presentation of the tables.

Table 4.5 Correlations for the variables included in the analysis

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1 Resources Allocated	1.00																		
2 Support Dummy	0.80	1.00																	
3 Technology Quality IP	0.13	0.12	1.00																
4 Team Education	0.11	0.09	0.15	1.00															
5 Team Entrepreneurial Experience	0.05	0.05	-0.07	0.22	1.00														
6 Team Industry Experience	0.05	0.04	-0.04	0.17	0.48	1.00													
7 Advisory Board Size	0.05	0.05	0.11	0.10	-0.11	-0.14	1.00												
8 Business Plan Visual Score	0.02	0.03	0.12	0.08	0.03	-0.12	0.11	1.00											
9 Communitarian Identity Match	0.04	0.04	-0.18	-0.09	0.02	0.06	0.04	-0.08	1.00										
10 Darwinian Identity Match	0.06	0.07	0.03	-0.04	0.05	0.06	-0.05	-0.01	-0.01	1.00									
11 Edisonian Identity Match	0.13	0.12	0.23	0.25	0.06	0.01	0.04	0.03	-0.16	-0.13	1.00								
12 Missionary Identity Match	0.04	0.06	-0.12	0.01	0.07	0.01	0.13	0.02	0.12	0.01	-0.06	1.00							
13 Venture Identity Match	0.14	0.15	-0.02	0.05	0.10	0.09	0.05	-0.03	0.62	0.53	0.33	0.33	1.00						
14 Education Level Match	0.08	0.07	0.09	0.64	0.10	0.08	0.14	0.08	-0.12	-0.05	0.25	0.01	0.03	1.00					
15 Education Background Match	0.00	0.01	-0.08	0.24	0.13	0.20	0.11	0.05	0.05	0.04	0.00	0.02	0.06	0.31	1.00				
16 Gender Match	-0.02	-0.02	-0.03	0.15	0.14	0.13	0.07	0.12	-0.09	-0.06	0.14	-0.07	-0.04	0.16	0.15	1.00			
17 Founder Identity Match	0.01	0.01	-0.04	0.41	0.19	0.21	0.14	0.12	-0.06	-0.02	0.15	-0.02	0.02	0.56	0.73	0.73	1.00		
18 Venture State-Effect Uncertainty	0.06	0.06	0.11	0.16	0.11	0.00	-0.09	0.02	-0.14	-0.01	0.22	0.03	0.03	0.16	-0.06	0.03	0.03	1.00	
19 Venture Response Uncertainty	-0.13	-0.11	-0.46	-0.25	-0.13	-0.10	-0.13	-0.15	0.02	0.01	-0.13	0.06	-0.03	-0.08	-0.06	-0.02	-0.07	0.03	1.00

Table 4.6 Tobit regression predicting amount of resources allocated to a venture

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
<i>Controls</i>								
Year 2007	32.07 *** (7.84)	27.27 ** (7.80)	22.75 ** (7.76)	25.53 ** (7.78)	25.12 ** (7.77)	34.07 *** (7.83)	35.75 *** (7.82)	34.97 *** (7.84)
Year 2008	14.58 * (7.00)	3.98 (6.96)	7.09 (6.92)	8.24 (6.95)	9.22 (6.93)	14.14 ^ (6.93)	13.84 * (6.93)	13.84 * (6.93)
Year 2009	2.31 (6.75)	-3.20 (6.70)	-3.25 (6.69)	-5.04 (6.72)	-3.34 (6.69)	8.82 (6.91)	9.05 (6.91)	9.26 (6.92)
Year 2010	-17.63 *** (6.74)	-10.48 ^ (6.67)	-13.35 * (6.64)	-12.55 ^ (6.65)	-11.45 ^ (6.65)	-8.15 (6.65)	-9.72 * (6.67)	-8.51 (6.69)
Technology Quality	29.13 *** (1.82)	27.96 *** (1.87)	29.45 *** (1.80)	28.40 *** (1.81)	28.46 *** (1.81)	19.73 *** (2.05)	20.82 *** (2.05)	20.21 *** (2.07)
Team Education	4.65 *** (0.58)	3.84 *** (0.58)	4.48 *** (0.57)	3.97 *** (0.73)	5.52 *** (0.61)	4.16 *** (0.63)	3.96 *** (0.63)	3.97 *** (0.63)
Team Entrepreneurial Experience	21.30 ** (6.21)	12.87 * (6.14)	15.14 * (6.13)	17.99 ** (6.15)	16.58 ** (6.14)	6.35 (6.22)	6.39 (6.22)	5.21 (6.24)
Team Industry Experience	16.01 ** (5.23)	13.73 ** (5.19)	11.52 * (5.18)	15.33 ** (5.24)	14.22 ** (5.21)	15.52 ** (5.24)	15.43 ** (5.24)	15.84 ** (5.24)
Advisory Board Size	5.42 *** (0.92)	3.74 *** (0.92)	3.99 *** (0.91)	4.43 *** (0.92)	4.64 *** (0.92)	4.93 *** (0.93)	5.02 *** (0.93)	5.06 *** (0.93)
Business Plan Visual Score	2.62 (1.72)	3.98 * (1.70)	3.82 * (1.70)	5.12 ** (1.71)	4.79 ** (1.71)	3.96 * (1.72)	3.78 * (1.72)	3.77 * (1.72)
<i>Venture Identity Match</i>								
Communitarian Identity Match (H1a)		281.86 *** (28.20)						
Darwinian Identity Match (H1b)		346.31 *** (32.07)						
Edisonian Identity Match (H1c)		483.19 *** (36.17)						
Missionary Identity Match (H1d)		533.48 *** (67.02)						
Venture Identity Match (Centered) (H1)			360.97 *** (19.11)	357.79 *** (19.13)	359.89 *** (19.09)	353.11 *** (19.10)	348.34 *** (19.06)	350.59 *** (19.12)
<i>Founder Attribute Match</i>								
Education Level Match (H2a)				37.88 *** (14.85)				
Education Background Match (H2b)				-19.59 ** (6.48)				
Gender Match (H2c)				-26.48 *** (5.66)				
Founder Identity Match (Centered) (H2)						-49.98 *** (11.20)	-46.80 *** (11.19)	-47.01 *** (11.18)
							-46.93 *** (11.20)	
<i>Uncertainty</i>								
State-Effect Uncertainty (Centered)						6.32 *** (1.01)	6.51 *** (0.99)	6.36 *** (1.02)
Response Uncertainty (Centered)						-20.95 *** (2.86)	-22.24 *** (2.86)	-21.79 *** (2.87)
<i>Uncertainty Moderation (all variables centered)</i>								
Venture Identity Match x State-Effect Uncertainty (H3a)						15.49 * (7.46)		14.94 * (7.47)
Venture Identity Match x Response Uncertainty (H3b)						34.70 (21.27)		31.29 (21.31)
Founder Attribute Match x State-Effect Uncertainty (H4a)							12.99 ** (4.53)	12.39 ** (4.54)
Founder Attribute Match x Response Uncertainty (H4b)							1.01 (10.63)	-0.30 (10.64)
Constant	-256 *** (8.44)	-336 *** (9.90)	-334 *** (9.83)	-240 *** (8.69)	-256 *** (8.57)	-245 *** (8.34)	-245 *** (8.61)	-245 *** (8.62)
Log Likelihood Function	-32307	-32111	-32125	-32285	-32115	-32076	-32067	-32064
Log likelihood Ratio Chi-square	548 ***	938 ***	911 ***	947 ***	931 ***	1026 ***	1028 ***	1028 ***
N	18576	18576	18576	18576	18576	18576	18576	18576
Censored Observations	14651	14651	14651	14651	14651	14651	14651	14651
Uncensored Observations	3925	3925	3925	3925	3925	3925	3925	3925

^p<0.1; *p<0.05; **p<0.01; ***p<0.001
Standard errors are in parenthesis

Table 4.7 Fixed effects logit regression predicting resource provider support

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Controls								
Technology Quality	0.22 *** (0.01)	0.23 *** (0.02)	0.24 *** (0.02)	0.23 *** (0.02)	0.23 *** (0.02)	0.16 *** (0.02)	0.17 *** (0.02)	0.17 *** (0.02)
Team Education	0.03 *** (0.00)	0.03 *** (0.01)	0.03 *** (0.00)	0.03 *** (0.01)	0.04 *** (0.01)	0.03 *** (0.01)	0.03 *** (0.01)	0.03 *** (0.01)
Team Entrepreneurial Experience	0.18 ** (0.05)	0.06 (0.05)	0.06 (0.05)	0.09 ^ (0.05)	0.08 (0.05)	0.00 (0.05)	0.01 (0.05)	0.00 (0.05)
Team Industry Experience	0.12 ** (0.04)	0.04 (0.05)	0.05 (0.05)	0.08 ^ (0.05)	0.07 (0.05)	0.08 ^ (0.05)	0.08 ^ (0.05)	0.08 ^ (0.05)
Advisory Board Size	0.04 *** (0.01)	0.02 ** (0.01)	0.02 ** (0.01)	0.03 ** (0.01)	0.03 *** (0.01)	0.03 *** (0.01)	0.03 *** (0.01)	0.03 *** (0.01)
Business Plan Visual Score	0.02 ^ (0.01)	0.05 ** (0.01)	0.05 ** (0.01)	0.06 *** (0.01)	0.06 ** (0.01)	0.05 ** (0.02)	0.05 ** (0.02)	0.05 ** (0.02)
Venture Identity Match								
Communitarian Identity Match (H1a)		5.84 *** (0.37)						
Darwinian Identity Match (H1b)		6.70 *** (0.44)						
Edisonian Identity Match (H1c)		6.46 *** (0.43)						
Missionary Identity Match (H1d)		5.89 *** (0.68)						
Venture Identity Match (Centered) (H1)			6.22 *** (0.24)	6.17 *** (0.24)	6.21 *** (0.24)	6.13 *** (0.24)	6.08 *** (0.24)	6.11 *** (0.24)
Founder Attribute Match								
Education Level Match (H2a)				0.25 ^ (0.14)				
Education Background Match (H2b)				-0.15 * (0.06)				
Gender Match (H2c)				-0.27 *** (0.06)				
Founder Identity Match (Centered) (H2)					-0.48 *** (0.11)	-0.45 *** (0.12)	-0.45 *** (0.12)	-0.45 *** (0.12)
Uncertainty								
State-Effect Uncertainty (Centered)						0.04 *** (0.01)	0.04 *** (0.01)	0.04 *** (0.01)
Response Uncertainty (Centered)						-0.15 *** (0.02)	-0.16 *** (0.03)	-0.16 *** (0.03)
Uncertainty Moderation (all variables centered)								
Venture Identity Match x State-Effect Uncertainty (H3a)						0.13 ^ (0.06)		0.12 ^ (0.07)
Venture Identity Match x Response Uncertainty (H3b)						0.34 ^ (0.19)		0.32 (0.19)
Founder Attribute Match x State-Effect Uncertainty (H4a)							0.08 * (0.04)	0.08 ^ (0.04)
Founder Attribute Match x Response Uncertainty (H4b)							0.08 0.09	0.07 (0.09)
Resource Provider Fixed Effects								
	Incl	Incl	Incl	Incl	Incl	Incl	Incl	Incl
Log likelihood	-8033	-7674	-7675	-7661	-7667	-7634	-7634	-7631
Chi-square	450 ***	1169 ***	1166 ***	1194 ***	1183 ***	1249 ***	1247 ***	1253 ***
N	18576	18576	18576	18576	18576	18576	18576	18576
Number of Groups (i.e. judges)	539	539	539	539	539	539	539	539

^p<0.1; *p<0.05; **p<0.01; ***p<0.001
Standard errors are in parenthesis

4.4.1 Venture identity match

Model 2 in Table 4.6 and Table 4.7 captures identity matching between a venture and a resource provider at the identity category level. A match between the entrepreneurial identity of a venture and the identity of a resource provider, at the level of each of the four entrepreneurial identity categories is significantly related to the amount of the resources allocated to a venture by an individual resource provider (Table 4.6) and the likelihood that a resource provider will support a venture (Table 4.7). This provides support for H1a, H1b, H1c and H1d. In assessing the effect size of these relationships, Tobit regression coefficients represent the amount of increase (or decrease) in the outcome variable for each one-unit increase in the respective independent variable. Because an increase of 1 unit is out of the range of the measure of the independent variable (i.e., the identity matching scores fall between 0 and 1), I calculated the effect size on the uncensored latent variable for increase in of 10% in the identity matching score. Based on the results in Table 4.6 one can estimate that a 10% increase in the Communitarian identity matching score would prompt an increase of \$28 in resources allocated to the venture by the resource provider—regression coefficient for Communitarian identity match of $281.86 \times 10\% = \$28$ increase in resources allocated for each 10% increase in Communitarian identity match. Similarly, the regression coefficients for Darwinian identity match (346.21), Edisonian identity match (483.19) and Missionary identity match (533.28) suggest that a 10% in increase in the matching scores for each of these categories will account for an additional \$37, \$48 and \$53 in resources allocated respectively. Model 3 highlights that the aggregate identity matching

score is significantly related to resource provider support for a new venture, providing support for H1.

4.4.2 Founder attribute match

Model 4 reports the results of examining the relationship between similarity of individual level attributes of resource providers and founding team members and the provision of support to new venture. The results of this analysis reflect that education level match between a resource provider and a founding team is significantly positively related to resource provider support of a new venture (supporting H2a). However, the education background match and gender match are negatively related to resource provider support for new ventures. In other words, resource providers appear to be more inclined to support ventures with a founding team who has an education background different to their own education background (H2b), and resource providers appear to be more inclined to support ventures with a founding team who is dominated by individuals of the opposite gender (H2c). The direction of these relationships is opposite to what was predicted based on the homophily principle, and opposite to the finding from prior research in which VCs demonstrated a preference for investing in ventures founded by entrepreneurs who are similar to themselves with respect to training and education (Franke et al., 2006). As a result of the negative effect of education background and gender similarity on resource provider support, the overall founder attribute matching score is also negatively related to venture support as reflected in Model 5.

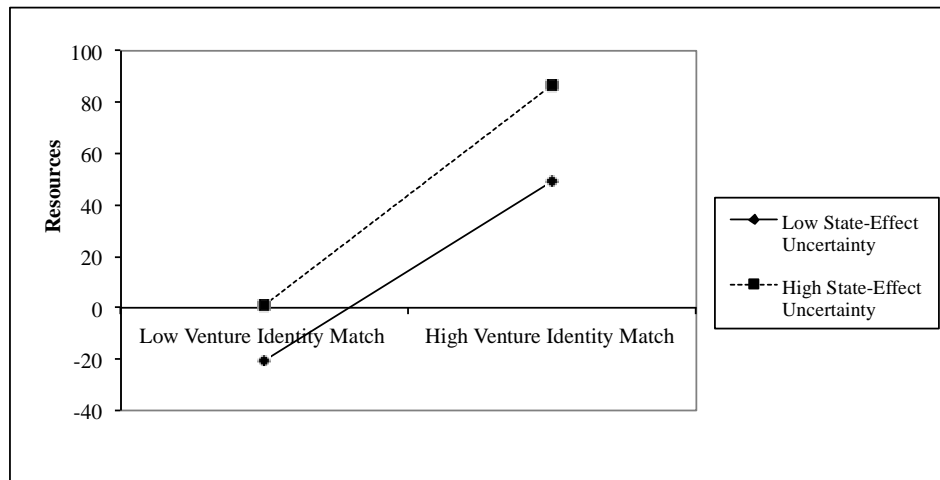
4.4.3 Uncertainty moderation

The moderating effects of different types of uncertainty are reported in Model 6, Model 7, and Model 8.

4.4.3.1 State-effect uncertainty.

State-effect uncertainty (i.e., the unpredictability of the environment in which the venture operates) appears to positively moderate the relationship between venture-resource provider identity match and resource provider support for a venture (Model 6)—under conditions of high state-effect uncertainty, resource providers appear to draw more on identity similarity in deciding to support a new venture (providing support for H3a). The moderating effect of state-effect uncertainty on the venture-resource provider identity match relationship is reflected on the graph below.

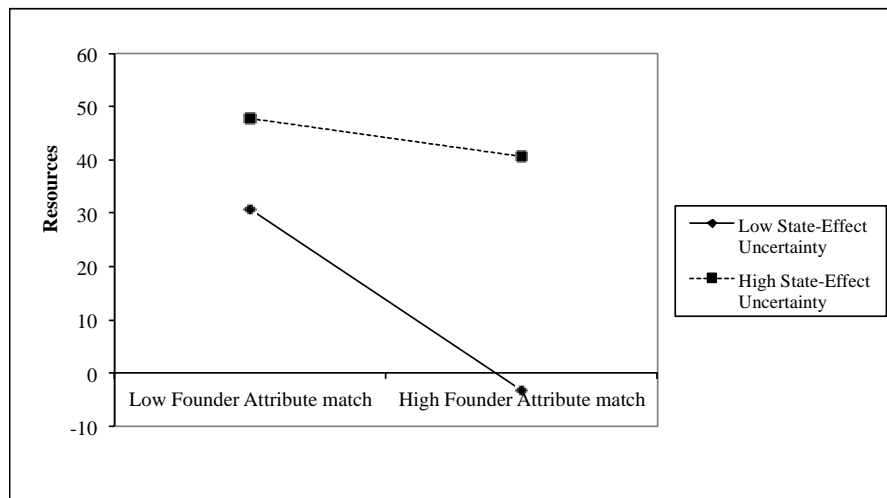
Figure 4.2 Interaction of state-effect uncertainty and venture identity match



State-effect uncertainty also appears to impact the relationship between founder-resource provider attribute match and resource provider support for a venture (Model 7). The main effect of founder-resource provider attribute match and resource provider support for a venture is negative. As the state-effect uncertainty in the environment in which the venture operates increases, so the negative relationship between founder

resource-provider attribute match and resource provider support for a new venture is weakened (as reflected in Figure 4.3). Under higher levels of state-effect uncertainty, resource providers are less inclined to show a preference for supporting founding teams with members who are different to themselves in terms of gender and education. This provides some support for H4a, even though the main effect of founder attribute match impacting resource allocation behavior was not supported.

Figure 4.3 Interaction of state-effect uncertainty and founder attribute match



4.4.3.2 Response Uncertainty

The interaction between response uncertainty and venture identity match is not significant. The interaction between response uncertainty and founder attribute match is also not significant. Therefore, it would appear that within this context response uncertainty does not have a significant effect on the likelihood that resource providers will depend more heavily on identity matching and homophily when making resource allocation decisions. Hence, there is no support for H3b and H4b.

4.4.4 Robustness checks

In order to assess the robustness of the reported results, I examined all the proposed relationships with two other specifications: zero inflated negative binomial model, and a clustered robust standard errors model. To run the zero inflated negative binomial analysis, I transformed the dependent variable into count data by dividing the dollar amount of resources allocated to a venture by 100 and rounding to the nearest whole number. To run the clustered robust standard errors model, I used the interval regression command in Stata, with the clustering option selected to cluster for the same judge making repeated decisions. The results from the zero inflated negative binomial analysis and the clustered robust standard errors model were essentially the same as those reported in Table 4.6 and 4.7 (same sign and similar significance) for all the relationships of interest. This provided assurance of the robustness of the results reported here.

I also used an alternative measure of venture-resource provider identity match. Instead of adding up the interaction terms for each identity category, I only used the identity category with the *largest interaction term* for each venture-resource provider dyad in calculating the overall identity match score for each dyad. Thus, this version of identity match focused only on the identity category with the most significant overlap, thereby assuming that resource providers focus on the most salient overlap category with entrepreneurial identity. I ran all the models with this alternate conceptualization of identity match as an independent variable, and the results for all the hypotheses were essentially the same as for the additive measure of identity match—all the same relationships remained significant.

4.4.5 Summary of results

Table 4.8 provides a summary of the results of the analysis reported in this document. This summary suggests that the alignment between the entrepreneurial identity of a venture and the individual identity of a resource provider is a fairly important predictor of resource allocation to new a venture by a resource provider (H1, H1a, H1b, H1c, H1d). This relationship appears to be stronger as the uncertainty associated with the environment increases (i.e., as the state and effect uncertainty increase) (H3a). There is no support for the idea that alignment between the individual attributes of the founding teams and the individual attributes of the resource provider will predict resource allocation to new ventures. The data would suggest that, within this context, resource providers show a preference for ventures with a founding team dominated by people with a different educational background and of an opposite gender to themselves (this is addressed in the discussion). Because this relationship is negative, it is more challenging to interpret the moderating effect of uncertainty, yet it would appear that under conditions of high uncertainty, attribute alignment between founders and resource providers weakens the negative relationship thereby providing some support for H4a. The response uncertainty associated with a venture is not a significant moderator of the venture identity matching relationship or the founder attribute matching relationship (H3b, H4b).

Table 4.8 Summary of the results

Hypothesis	Tobit	FE Logit	Conclusion
<i>Hypothesis 1 (H1): As the venture-level identity claims of a venture align with the individual identity claims of a resource provider, so a venture will be more likely to attract the support of the resource provider.</i>	p<.001	p<.001	Supported
<i>Hypothesis 1a (H1a): As a Communitarian identity of a venture aligns with a Communitarian identity of a resource provider, so a venture will be more likely to attract the support of the resource provider</i>	p<.001	p<.001	Supported
<i>Hypothesis 1b (H1b): As a Darwinian identity of a venture aligns with a Darwinian identity of a resource provider, so a venture will be more likely to attract the support of the resource provider</i>	p<.001	p<.001	Supported
<i>Hypothesis 1c (H1c): As an Edisonian identity of a venture aligns with an Edisonian identity of a resource provider, so a venture will be more likely to attract the support of the resource provider.</i>	p<.001	p<.001	Supported
<i>Hypothesis 1d (H1d): As a Missionary identity of a venture aligns with a Missionary identity of a resource provider, so a venture will be more likely to attract the support of the resource provider.</i>	p<.001	p<.001	Supported
<i>Hypothesis 2 (H2): The greater the alignment between the individual attributes of the founders of a venture and the individual attributes of a resource provider evaluating a venture the higher the likelihood that the resource provider will support the venture.</i>	p<.001 (opposite direction to predicted)	p<.001 (opposite direction to predicted)	Not supported
<i>Hypothesis 2a (H2a): The greater the alignment between the education level of the founders of a venture and the education level of a resource provider evaluating a venture the higher the likelihood that the resource provider will support the venture.</i>	p<.001	p<.1	Supported
<i>Hypothesis 2b (H2b): The greater the alignment between the education background of the founders of a venture and the education background of a resource provider evaluating a venture the higher the likelihood that the resource provider will support the venture</i>	p<.01 (opposite direction to predicted)	p<.05 (opposite direction to predicted)	Not supported
<i>Hypothesis 2c (H2c): The greater the alignment between the gender of the founders of a venture and the gender a resource provider evaluating a venture the higher the likelihood that the resource provider will support the venture.</i>	p<.001 (opposite direction to predicted)	p<.001 (opposite direction to predicted)	Not supported
<i>Hypothesis 3a (H3a): As the level of state-effect uncertainty associated with a venture increases, so the relationship between venture-level identity alignment and resource provider support for a venture will increase.</i>	p<.05	p<.1	Supported
<i>Hypothesis 3b (H3b): As the level of response uncertainty associated with a venture increases, so the relationship between venture-level identity alignment and resource provider support for a venture will increase.</i>	---	---	Not supported
<i>Hypothesis 4a (H4a): As the level of state-effect uncertainty associated with a venture increases, so the relationship between founder-level attribute alignment and resource provider support for a venture will increase</i>	p<.01	p<.1	Supported
<i>Hypothesis 4b (H4b): As the level of response uncertainty associated with a venture increases, so the relationship between founder-level attribute alignment and resource provider support for a venture will increase</i>	---	---	Not supported

5 DISCUSSION AND CONCLUSIONS

Prior research on entrepreneurial resource mobilization has tended to examine only one side of a two-sided equation. Scholars have either focused on whether features of a venture (e.g., technology, human capital, entrepreneurial identity), or whether features of a resource provider (e.g., behavioral biases), influence the outcome of the process. However, every time a resource provider makes a decision about whether or not to provide support to a new venture, features of the venture and features of the resource provider likely factor into that decision. This study moves beyond the one-sided perspective of entrepreneurial resource mobilization by exploiting an insight from the organizational identity literature that individuals will identify more strongly with an organization when their “self-concept contains the same attributes as those in the perceived organizational identity” (Dutton et al., 1994, p. 239).

Building off this insight, entrepreneurial resource mobilization is conceived as a two-sided identity matching process. Specifically, this study examines how the matching of identity attributes at different levels of analysis—the team level (i.e., founding team attributes and resource provider attributes) and the venture level (i.e., entrepreneurial identity of the venture and resource provider identity)—account for the provision of resources to a new venture. Theoretically, this perspective does not override or invalidate prior research on venture features or resource provider features that influence resource mobilization, it merely provides a more complete and nuanced view of how the features of both ventures and resource providers interact in the provision of resources to new ventures. Practically, the insights from this perspective can inform how entrepreneurs go about finding resources to create and grow their ventures; by recognizing how features of their venture will appeal to some resource providers and not to others, they can be more

strategic in whom they target for resources, thereby increasing their efficiency and effectiveness in the venture creation process.

5.1.1 Entrepreneurial identity and resource mobilization

I found that alignment between the entrepreneurial identity of a venture and a resource provider's individual identity is an important predictor of resource allocation to a new venture. This relationship was moderated by environmental uncertainty. In other words, as the level of environmental uncertainty surrounding a new venture increases, so a resource provider is more inclined to support a new venture that portrays an entrepreneurial identity similar to their individual identity. The moderating effect of uncertainty reinforces the theoretical premise that one of the reasons that identity-matching matters in convincing resources providers to provide resources to new ventures is because of the generalized uncertainty surrounding the entrepreneurial process (Mises, 1949). If uncertainty was reduced and it was possible to make rational calculated judgments, then identity matching would be less important because resource providers would be able to do calculate risk and probability to maximize their return. But the entrepreneurial process is inherently uncertain, so resource providers can depend less on objective, rational inputs, and need to depend on subjective factors in making choices. One such factor is the extent to which they identify with the venture.

In conducting this research, I was able to make some contributions to the literature on entrepreneurial identity. Although the emerging literature on entrepreneurial identity has suggested that the entrepreneurial identity claimed by a new venture has a significant effect on investor judgments of venture plausibility (Lounsbury & Glynn, 2001; Navis & Glynn, 2011), this literature has not considered how different people may

interpret identity claims in different ways. The findings reported here add to this emerging literature by highlighting that when interpreting entrepreneurial identity claims, judgments of venture plausibility are significantly influenced by “who” is making the judgment. Entrepreneurial identity claims are not universally interpreted in the same way; resource providers’ judgments are significantly influenced by variations in their individual identity.

Within the emerging literature on entrepreneurial identity, scholars have conceived of the construct as a generalized theoretical concept (e.g., Lounsbury and Glynn, 2001; Navis and Glynn, 2011). To date there has been no attempt to categorize and measure the identities of entrepreneurial ventures. Hence, research in this domain has been restricted because of specification and measurement limitations. However, recent research on individual entrepreneurs has provided a basis for examining and classifying founder identities (Fauchart & Gruber, 2011). In this study, I linked the work on founder identities with the prior research on entrepreneurial identity to develop a typology for classifying and describing the entrepreneurial identity of a venture. In so doing, I expanded the categories of founder identities developed by Fauchart & Gruber (2011), and conceptualized how such identities manifest at a venture level. Furthermore, as a methodological advance, I utilized computer assisted text analysis (CATA) to create a novel and powerful way to measure the extent to which each of the entrepreneurial identity categories in the typology are reflected in a document or presentation describing a new venture (e.g., in a business plan or pitch presentation). This not only provides a useful way to measure entrepreneurial identity for this study, but it also provides a valuable way for future researchers to measure many different types of identity that get

conceptualized in organizational research (e.g., founder identity or organizational identity).

5.1.2 Founder attribute matching and resource mobilization

The homophily principle would suggest that resource providers should be inclined to support ventures where the founding team is made up of people similar to themselves. Prior research has found that VCs tend to show a preference for ventures with founding teams with similar training and professional experience to themselves (Franke et al., 2006), and for entrepreneurs who demonstrate similar thinking styles to themselves (Murnieks et al., 2011). Contrary to this, I found that resource providers demonstrated a preference for supporting ventures with founding teams with a different education background to themselves and made up of people of the opposite gender to themselves. These findings are interesting in that they were in the opposite direction to what was predicted based on theory and prior research. At the founding team level, only similarity in education level between the founders and the resource provider was related to resource provider support.

There are two significant differences between this research and prior research on resource provider similarity biases, which may account for the opposing outcomes. First, the prior research on resource provider similarity biases (e.g., Franke et al., 2006; Murnieks et al., 2011) used conjoint analysis to assess resource provider preferences. The decisions that resource providers make when evaluating real ventures with real people in the founding team may be different from those made in an experimental setting. It is possible that other interpersonal issues come into play in a setting where the resource providers have opportunity to interact with founding team. For example, sexual attraction

may account for the finding that resource providers show a preference for teams of opposing gender (H2c). Sexual attraction would unlikely be a factor in a conjoint analysis experiment where the people being evaluated are not real, but it may be a factor in a situation where a resource provider engages with the founding team before making a decision, as in the case of the business plan competition where I gathered data. Second, the prior research on resource provider similarity biases (e.g., Franke et al., 2006; Murnieks et al., 2011) has focused only on resource allocation decisions of venture capitalists (VCs). VCs are a small professional group and they represent a very limited portion of the resources allocated to new ventures in the USA—every year, there are approximately 2 million businesses created in the USA, and only 600–800 receive venture capital funding (Thakor, 2011). VCs have evolved a specific identifiable set of norms and practices, and new VCs are socialized to adopt the norms and practices of the industry (Shah & Shah, 2012; Stross, 2000). Hence, it may be that the decision patterns of VCs are different from those of other resource providers. The resource providers making decisions in this study are much more diverse and represent a much broader base of potential resource providers compared to the VCs that were recruited for the prior experimental studies on resource provider similarity biases. While one cannot conclude that this is the reason for conflicting results between this and prior studies, it is one possible explanation.

Another possible explanation for the finding that resource providers show a preference for ventures with founding teams with a different educational background to their own (H2b) could be commodity theory (also known as the “scarcity effect” in the marketing literature). Commodity theory (Brock, 1968) deals with the psychological

effects of scarcity. According to the theory, scarcity enhances the value (or desirability) of anything that can be possessed and is useful to its possessor, and can be transferred. Commodity theory has been adapted to into the marketing literature as the “scarcity effect”—when consumers feel like there is a limited amount of an item, the item must be more valuable (Lynn, 1991). In the entrepreneurial domain, resource providers may perceive that founding teams with skills different to their own as having scarce skills, and scarce skills would be perceived to be more valuable. For example, a resource provider with a business education may perceive business skills to be less valuable because to him business skills are readily accessible—he has business skills and it is likely that many of his friends and acquaintances have business skills. Therefore, to such a resource provider, technical skills are much more scarce and, therefore, more valuable. Similarly, a resource provider with an education in computer science probably associates with people with a similar education background. When they evaluate a venture, they may perceive technical skills to be readily available, but business skills may be perceived as a scarce commodity, therefore they place a higher premium on a team with business skills. While it is not appropriate to rationalize post-hoc that this is definitely the case, the finding that resource providers show a preference to venture teams different educational backgrounds to their own is an interesting area for future research.

5.1.3 Matching processes and tie formation in entrepreneurship research

This research also contributes to the broader stream of research on matching processes in entrepreneurial tie formation (c.f. Ruef et al., 2003; Vissa, 2011). Ruef et al. (2003) examined tie formation in founding teams for new ventures. They found that homophily and network constraints tend to account for team formation—individuals

found ventures with other individuals of the same gender and ethnicity as themselves and with others with whom they have a prior relationship. Vissa (2011) examined tie formation intentions and outcomes of entrepreneurs seeking exchange relationships. He found that social similarity (language similarity and caste similarity) and task complementarity independently and jointly predicted tie formation intentions of entrepreneurs. The findings from my research examine another important entrepreneurial tie—the formation of ties between ventures and resource providers. The formation of such ties is a critical and challenging part of the entrepreneurial process (Zott & Huy, 2007). The findings from my research indicates that matching processes in tie formation take place at different levels of analysis. Of particular relevance is the finding that resource providers appear to engage more actively in matching processes with features of the venture as compared to specific individual attributes of members of the founding teams. In other research on tie formation, the decision focus is another individual, whereas in this research, resource providers are processing data at multiple levels of analysis—individual, organizational, and market.

5.1.4 Practical implications

The findings from this study may help entrepreneurs increase the likelihood and speed of obtaining resources for their new ventures. Entrepreneurs will be more effective if they seek out resource providers with individual identities that are similar to the entrepreneurial identities of the ventures that they are creating. Entrepreneurs may even classify their venture as a Communitarian, Darwinian, Missionary, or Edisonian venture, and then search through profiles of resource providers to find those with individual identities that fit with the identity of their venture. Based on the findings of this research,

if they did this they would increase their chance of accessing resources, and save themselves time and energy by only focusing on those resource providers who are more likely to be interested in providing them resources.

Another implication of this research is that it highlights an alternative purpose of business plans. While the value of a business plan for entrepreneurs has been called into question (e.g., Bhide, 2000; Kirsch et al., 2009), business plans may serve an important purpose above and beyond communicating the economic, technical, and market viability of a venture. The wording (and the other symbolic material in a business plan) appears to serve as important identity elaboration devices, communicating the entrepreneurial identity of the venture to potential external stakeholders. Therefore, entrepreneurs should pay close attention to the identity messages that they are sending out through the language and symbols that are utilized in the business plan, and this may have an important bearing on who is interested in providing resources to the venture

5.1.5 Limitations and future research opportunities

These results must be treated as exploratory because of the fictitious nature of the research setting—resource providers were not investing real resources, and they were forced to make resource allocation choices, hence the outcomes may vary from what they would be if they were making actual choices. Furthermore, the entrepreneurial identity of each venture was assessed with only the information in the business plan. A venture's identity is reflected in organizational artifacts beyond just the business plan (Navis & Glynn, 2011; Zott & Huy, 2007), yet I was not able to account for the identity as reflected in dress, décor, interpersonal demeanor, or any other identity-laden venture element. Also,

this study only examined resource mobilization for independent entrepreneurial ventures—while the identity categories appeared to be well suited to this setting, they may need to be adapted or changed if studying entrepreneurial identity in a different setting. For example, if looking at corporate or social ventures, categories may need to be added, eliminated, or adapted. Nonetheless, this study does make important theoretical and methodological contributions. Theoretically, this research provides a framework for classifying entrepreneurial identity into categories. The findings suggest that the alignment between the identity claims of venture and the identity of an individual resource provider is an important factor in accounting for resource allocation decisions into new ventures. Methodologically the research provides a novel and scalable method for measuring identity and identity matching in organizational research.

These findings and advancements are a useful starting point for future research along several paths. The model lays the foundation for empirical tests analyzing actual investment data and decisions within angel investment networks and venture capital firms to see if the propositions find empirical support beyond a business plan competition. Furthermore, there is an opportunity to test the hypotheses in an experimental setting to validate whether early-stage investors pay attention to different things under varying levels of uncertainty.

It would also be useful to consider if and how the concept of identity matching between ventures and resources providers has implications for venture outcomes beyond just the acquisition of resources. For example, it would be interesting to consider if identity matching between venture and resource providers has implications for the relationship between founding teams and investors, on decision-making practices within

the board of directors of entrepreneurial firms, on the strategies and practices adopted by new ventures, and ultimately on the performance and survival of new ventures. One could conjecture that some of these outcomes will be influenced by the strength of identification between resource providers and the venture, and the salient identity match category in a venture-resource provider relationship (Communitarian, Darwinian, Edisonian, or Missionary.)

The model developed and tested in this research specifically examines how the individual identity of a resource provider interacts with the entrepreneurial identity of a new venture. Although many people make resource allocation decision in their individual capacity—for example, in 2010 there were 265,400 active individual angel investors in the USA who invested in 61,900 ventures (Sohl, 2011)—some early-stage investment decisions are made within an organizational context (e.g., venture capital partnerships or corporate venture capital funds). Where an organization is deciding whether or not to invest in a new venture, the identity of the investing organization (Albert & Whetten, 1985) may be more appropriate in assessing the strength of the identity match. I have not elaborated on how the model may change when an organization is making a resource provision decision, but I would expect that the essence of the model would remain intact. although there may be some increased complexity in understanding and accounting for the interaction of individual and organizational identities in such decisions.

In conclusion, extant research on entrepreneurial resource acquisition has generally only focused on one side of a two-sided equation. In resource allocation decisions, variation on the part of the resource provider and variation on the part of the venture jointly account for the outcome. To develop a clearer understanding of resource

mobilization in new ventures, we need to jointly account for features of the venture and features of resource provider. This study takes us a step forward by incorporating identity as a linking construct between resource providers and ventures. The evidence suggests that resource providers prefer to invest in ventures that reflect an entrepreneurial identity similar to their individual identity; thus, resource mobilization in new ventures is a dyadic matching process between ventures and resource providers.

REFERENCES

- Abernathy, W. J., & Clark, K. B., (1985). Innovation: Mapping the winds of creative destruction. *Research Policy*, 14, 3-22.
- Akerlof, G. A., & Kranton, R. E. (2000). Economics and identity. *Quarterly Journal of Economics*, 105(3), 715-53.
- Akerlof, G. A., & Kranton, R. E. (2005). Identity and the economics of organizations. *Journal of Economic Perspectives*, 19, 9-32.
- Akerlof, G. A., & Kranton, R. E. (2010). *Identity economics: How our identities shape our work, wages, and well-being*. Princeton, NJ: Princeton University Press.
- Albert, S., & Whetten, D. (1985). Organizational identity. *Research in Organizational Behavior*, 7, 263-295.
- Aldrich, H. E., & Fiol, C. M. (1994). Fools rush in? The institutional context of industry creation. *Academy of Management Review*, 19, 645-670.
- Amabile, T. M. (1997). Entrepreneurial creativity through motivational synergy. *Journal of Creative Behavior*, 31, 18-26.
- Amit R., Brander J., & Zott C. (1998). Why do venture capital firms exist? Theory and Canadian evidence. *Journal of Business Venturing*, 13(6), 441-466.
- Ashforth, B.E. (2001). *Role transitions in organizational life: An identity-based perspective*. Mahwah, NJ: Lawrence Erlbaum.
- Ashforth, B. E., Harrison, S. H., & Corley, K. G. (2008). Identification in organizations: An examination of four fundamental questions. *Journal of Management*, 34(3), 325-374.
- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, 14(1), 20.
- Ashforth, B. E., & Mael, F. A. (1996). Organizational identity and strategy as a context for the individual. In J. A. C. Baum & J. Dutton (Eds.), *Advances in strategic management* (Vol. 13, pp. 19-64). Greenwich, CT: JAI Press.
- Barnard, C. (1938). *The functions of the executive*. Cambridge: Harvard University Press.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Bass, B. M., & Duntemann, G., (1963). Biases in the evaluation of one's own group, its allies, and opponents. *Journal of Conflict Resolution*, 7, 16-20.

Baumeister, R. F. (1986). *Identity: Cultural change and the struggle for self*. New York: Oxford University Press.

Becker, T.A., Sidhu, I., & Tenderich, B. (2009). Electric vehicles in the United States A new model with forecasts to 2030. *Center for Entrepreneurship & Technology (CET), University of California, Berkeley Technical Brief*.

Benner, M. J., & Ranganathan, R. (2012). Offsetting illegitimacy? How pressures from securities analysts influence incumbents in the face of new technologies. *Academy of Management Journal*, 55(1), 213-233.

Berkery, D. (2007). *Raising venture capital for the serious entrepreneur*. McGraw Hill.

Bhide, A. V. (2000). *The origin and evolution of new business*. New York: Oxford University Press.

Bligh M. C., Kohles J. C., & Meindl J. R. (2004a). Charisma under crisis: Presidential leadership, rhetoric, and media responses before and after the September 11th terrorist attacks. *The Leadership Quarterly*, 15, 211-239.

Bligh M. C., Kohles J. C., & Meindl J. R. (2004b). Charting the language of leadership: A methodological investigation of President Bush and the crisis of 9/11. *Journal of Applied Psychology*, 89, 562-574.

Bolton, L. E., & Reed, A. (2004). Sticky priors: The perseverance of identity effects on judgment. *Journal of Marketing Research*, 41, 397-411.

Brewer, M.B., (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, 86, 307-324.

Brewer, M.B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17, 475-482.

Brock, T. (1968). Implications of commodity theory for value change. In A. Greenwald., T. C. Brock, & T. M. Ostrom (Eds.), *Psychological foundations of attitudes* (pp. 243-276). New York: Academic.

Brush, C. G., Greene, P. G., & Hart, M. M. (2001). From initial idea to unique advantage: The entrepreneurial challenge of constructing a resource base. *Academy of Management Executive*, 15(1), 64-80.

Burke, P. J. (1980). The self: Measurement implications from a symbolic interactionist perspective. *Social Psychology Quarterly*, 43, 18-29.

- Burke, P. J. (1991). Identity processes and social stress. *American Sociological Review*, 56(6), 836-849.
- Burke, P. J. (2004). Identities, events, and moods. In J. H. Turner (Ed.), *Theory and research on human emotions*. New York: Elsevier.
- Burke, P. J., & Stets, J. E. (2009). *Identity theory*. New York: Oxford University Press.
- Bygrave, W. D. & Zacharakis, A. (2009). *The Portable MBA in Entrepreneurship 4th Edition*. Hoboken, NJ: J Wiley & Sons.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- 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.
- Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements and consequences of top management team composition. *Journal of Management*, 30(6), 749-78.
- Cast, A. D. (2004). Identity verification and the well-being of parents. *Sociological Perspectives*, 47, 55-78.
- Chatman, J. (1989). Improving interactional organizational behavior: A model of person-organization fit. *Academy of Management Review*, 14, 333-349.
- 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.
- Corley, K. G., Harquail, C. V., Pratt, M. G., Glynn, M. A., Fiol, C. M., & Hatch, M. J. (2006). Guiding organizational identity through aged adolescence. *Journal of Management Inquiry*, 15, 85-99.
- Cronbach L. J., & Meehl P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52, 281-302.
- Czarniawska-Joerges B. (1994). Narratives of individual and organizational identities. In S. Deetz (Ed.), *Communication yearbook* (Vol. 17, pp. 193-221). Thousand Oaks, CA: Sage.
- Daft, R., & Weick, K. (1984). Toward a model of organizations as interpretation systems. *Academy of Management Review*, 9, 284-295.

Debaise, C. (2010). Launching Gilt Groupe, a fashionable enterprise. *Wall Street Journal*. Retrieved March 24, 2011, from <http://online.wsj.com/article/SB10001424052748703792704575366842447271892.html>

Deeds, D. L., Decarolis, D. M., & Coombs, J. E. (1997). The impact of firm-specific capabilities on the amount of capital raised in an initial public offering: Evidence from the biotechnology industry. *Journal of Business Venturing*, *12*, 31-46.

Deeds, D.L., Mang, P. & Frandsen, M. (2004). The Influence of Firms' and Industries' Legitimacy on the Flow of Capital into High-Technology Ventures. *Strategic Organization*, *2*(1), 4-25.

Delmar, F., & Shane, S. (2003). Does business planning facilitate the development of new ventures? *Strategic Management Journal*, *24*, 1165-1185.

Deshpandé, R., Hoyer, W. D., & Donthu, N. (1986). The intensity of ethnic affiliation: A study of the sociology of Hispanic consumption. *Journal of Consumer Research*, *13*(2), 214-20.

Doucet L., & Jehn K. A. (1997). Analyzing harsh words in a sensitive setting: American expatriates in communist China. *Journal of Organizational Behavior*, *18*, 559-582.

Down, S. (2006). *Narratives of enterprise: Crafting entrepreneurial self-identity in a small firm*. Cheltenham: Edward Elgar.

Duck, S.W. (1977). *The study of acquaintance*. Farnborough: Sazon House.

Duncan, R. B. (1972). Characteristics of organizational environments and perceived uncertainty. *Administrative Science Quarterly*, *17*, 313-327.

Dustin, D. S., & Davis, H. P. (1970). Evaluative bias in group and individual competition. *Journal of Social Psychology*, *80*, 103-108.

Dutton, J. E., & Dukerich, J. M. (1991). Keeping an eye on the mirror: Image and identity in organizational adaptation. *Academy of Management Journal*, *34*(3), 517.

Dutton J., Dukerich, J., & Harquail, C. (1994). Organizational images and member identification. *Administrative Science Quarterly*, *39*, 239-263.

Dutton, J. E., & Jackson, S. (1987). Categorizing strategic issues: Links to organizational action. *Academy of Management Review*, *12*, 76-90.

Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, *32*, 542-576.

Elsbach, K. D. (1998). The process of social identification: With what do we identify? In D. A. Whetten & P. C. Godfrey (Eds.), *Identity in organizations: Building theory through conversations* (pp. 232-237). Thousand Oaks, CA: Sage.

Emrich C. G., Brower H. H., Feldman J. M., & Garland H. (2001). Images in words: Presidential rhetoric, charisma, and greatness. *Administrative Science Quarterly*, 46, 527-557.

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

Franke, N., Gruber, M., Harhoff, D., & Henkel, J. (2006). What you are is what you like – similarity biases in venture capitalists' evaluations of start-up teams. *Journal of Business Venturing*, 21, 802-26.

Gartner, W. B. (1990). What are we talking about when we talk about entrepreneurship? *Journal of Business Venturing*, 5, 15-29.

Gecas, V. (1982). The self-concept. *Annual Review of Sociology*, 8, 1-33.

Gioia, D., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal*, 12, 433-448.

Gioia, D. A., & Thomas, J. B. (1996). Institutional identity, image and issue interpretation: Sensemaking during strategic change in academia. *Administrative Science Quarterly*, 41, 370-403.

Glynn, M. A. (2000). When cymbals become symbols: Conflict over organizational identity within a symphony orchestra. *Organization Science*, 11(3), 285-298.

Hall, J., & Hofer, C. W. (1993). Venture capitalists' decision criteria in new venture evaluation. *Journal of Business Venturing*, 8, 25-42.

Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32, 334-343.

Hambrick, D., & Mason, P. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9, 193-206.

Hargadon, A. B., & Douglas, Y. (2001). When innovation meets institutions: Edison and the design of the electric light. *Administrative Science Quarterly*, 46, 476 -501.

Harquail, C. V. (1998). Organizational identification and the “whole person”: Integrating affect, behavior, and cognition. In D. A. Whetten & P. C. Godfrey (Eds.), *Identity in*

organizations: Building theory through conversations (pp. 223-231). Thousand Oaks, CA: Sage.

Hart R. P. (2000). *DICTION 5.0: The text-analysis program*. Thousand Oaks, CA: Sage.

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

Higgins, M. C., & Gulati, R., (2003). Getting off to a good start: The effects of upper echelon affiliations on underwriter prestige. *Organization Science, 14*, 244-263.

Hogg, M. A., & Abrams, D. (1988). *Social identifications: A social psychology of intergroup relations and group processes*. London: Routledge.

Hogg, M. A., Terry, D. J., & White, K. M. (1995). A tale of two theories: A critical comparison of identity theory with social identity theory. *Social Psychology Quarterly, 58*, 255-269.

Hsu, D. H. (2008). Technology-based entrepreneurship. In S. Shane (Ed.), *Handbook of technology and innovation management*. Chichester, UK: Wiley.

Ibarra, H. (1992). Homophily and differential returns: Sex differences in network structure and access in an advertising firm. *Administrative Science Quarterly, 37*, 422-447.

Ibarra, H. (1995). Race, opportunity, and diversity in social circles in managerial networks. *Academy of Management Journal, 38*, 673-703.

Jackson, S. F., Brett, J. F., Sessa, V. I., Cooper, D. M., Julin, J. A., & Peyronnin, K. (1991). Some differences make a difference: individual dissimilarity and group heterogeneity as correlates of recruitment, promotion, and turnover. *Journal of Applied Psychology, 76*, 675-689.

Kalmijn, M. (1998). Inter marriage and homogamy: Causes, patterns, trends. *Annual Review of Sociology, 39*, 395-421.

Kaplan, S., & Tripsas, M. (2008). Thinking about technology: Applying a cognitive lens to technical change. *Research Policy, 37*, 790-805.

Katz, J., & Gartner, W. B. (1988). Properties of emerging organizations. *Academy of Management Review, 13*(3), 429- 442.

Katz, J., Gartner, W., Aronsson, M., & Low, M. (2010). Trust as an organizing trope. *Working Paper*.

- Kennedy, M. T. (2008). Getting counted: Markets, media, and reality. *American Sociological Review*, 73(2), 270-295.
- Kessler, T., & Hollbach, S. (2005). Group-based emotions as determinants of ingroup identification. *Journal of Experimental Social Psychology*, 41(6), 677-685.
- Kirsch, D., Goldfarb, B., & Gera, A. (2009). Form or substance: The role of business plans in venture capital decision making. *Strategic Management Journal*, 30(5), 487-515.
- Knight, F. H. (1921). *Risk, uncertainty, and profit*. Hart, Schaffner, and Marx Prize Essays, no. 31. Boston and New York: Houghton Mifflin.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology (2nd ed.)*. Thousand Oaks, CA: Sage.
- Lazarsfeld, P., & Merton, R. K. (1954). Friendship as a social process: A substantive and methodological analysis. In M. Berger, T. Abel, & C. H. Page (Eds.), *Freedom and control in modern society* (pp. 18-66). New York: Van Nostrand.
- Lefkowitz, J. (2000). The role of interpersonal affective regard in supervisory performance ratings: A literature review and proposed causal model. *Journal of Occupational and Organizational Psychology*, 73, 67-85.
- Livengood, S., & Reger, R. K. (2010). That's our turf! Identity domains and competitive dynamics. *Academy of Management Review*, 35, 48-66.
- Loewenstein, G., Weber, E. U., Hsee, C. K., & Welch, N. (2001). Risk as feelings. *Psychological Bulletin*, 127(2), 267-286.
- Lounsbury, M., & Glynn, M. A. (2001). Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic Management Journal*, 22, 545-564.
- Lyles, M. A., & Schwenk, C. R. (1992). Top-management strategy and organizational knowledge structure. *Journal of Management Studies*, 29, 155-174.
- Lynn, M. (1991). Scarcity effects on value: A quantitative review of the commodity theory literature. *Psychology and Marketing*, 8, 43-57.
- Mael, F. (1988). *Organizational identification: Construct redefinition and a field application with organizational alumni*. Unpublished doctoral dissertation, Wayne State University, Detroit.
- March, J. (1994). *A primer on decision-making: How decisions happen*. New York: Free Press.

- Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology*, 38, 299-337.
- Martens, M. L., Jennings, J. E., & Jennings, P. D. (2007). Do the stories they tell get them the money they need? The role of entrepreneurial narratives in resource acquisition at IPO. *Academy of Management Journal*, 50(5), 1107-1132.
- Matusik, S. F., George, J. M., & Heeley, M. B. (2008). Values and judgment under uncertainty: Evidence from venture capitalist assessments of founders. *Strategic Entrepreneurship Journal*, 2, 95-115.
- McCall, G. J., & Simmons, J. L. (1978). *Identities and interactions*. New York: Free Press.
- McGrath, R. G., & MacMillan I. C. (2000). *The entrepreneurial mindset*. Boston, MA: Harvard Business School Press.
- McKelvie, A., Haynie, J. M., & Gustafsson, V. (2011). Unpacking the uncertainty construct: Implications for entrepreneurial action. *Journal of Business Venturing*, 26(3), 273-292.
- McMillan, J. (1987). In search of the organizational persona: A rationale for studying organizations rhetorically. In L. Thayer (Ed.), *Organization-communication: Emerging perspectives II*. New Jersey: Ablex.
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31(1), 132-152.
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27, 415-444.
- Mead, G. H. (1934). *Mind, self & society from the standpoint of a behaviorist*. Chicago, IL: University of Chicago Press.
- Milliken, F. J. (1987). Three types of perceived uncertainty about the environment: State, effect, and response uncertainty. *Academy of Management Review*, 12(1), 133-143.
- Mises, L. V. (1949). *Human action: A treatise on economics (4th revised ed.)*. San Francisco: Fox & Wilkes.
- Money, J. (1955). Hermaphroditism, gender and precocity in hyperadrenocorticism: Psychological findings. *Bulletin of Johns Hopkins Hospital*, 96, 253-264.

- Moss, T. W., Short, J. C., Payne, G. T., & Lumpkin, G. T. (2011). Dual identities in social ventures: An exploratory study. *Entrepreneurship Theory and Practice*, 35(4), 805-830.
- Murnieks, C. Y., Haynie, J. M., Wiltbank, R. E., & Harting, T. (2011). I like how you think: Similarity as an interaction bias in the investor-entrepreneur dyad. *Journal of Management Studies*, 48(7), 1533-1561.
- Nag, R., Corley, K. G., & Gioia, D. A. (2007). The intersection of organizational identity, knowledge, and practice: Attempting strategic change via knowledge grafting. *Academy of Management Journal*, 50(4), 821-847.
- Navis, C., Fisher, G., Raffaelli, R., & Glynn, M. A. (2011). *The market that wasn't: The non-emergence of the online grocery category*. Paper presented at the West Coast Research Symposium, Seattle, WA.
- Navis, C., & Glynn, M. A. (2010). How new market categories emerge: Temporal dynamics of legitimacy, identity, and entrepreneurship in satellite radio, 1990-2005. *Administrative Science Quarterly*, 55, 439-471.
- Navis, C., & Glynn, M. A. (2011). Legitimate distinctiveness and the entrepreneurial identity: Influence on investor judgments of new venture plausibility. *Academy of Management Review*, 36(3), 479-499.
- Neuendorf K. A. (2002). *The content analysis guidebook*. Thousand Oaks, CA: Sage.
- Oltra V., & Saint-Jean, M. (2009). Variety of technological trajectories in low emission vehicles (LEVs), a patent data analysis. *Journal of Cleaner Production*, 17(2), 201-213.
- Packalen, K. A. (2007). Complementing capital: The role of status, demographic features, and social capital in founding teams' abilities to obtain resources. *Entrepreneurship Theory and Practice*, 31(6), 873-891.
- Peapod S1 document. (1997). Retrieved March 28, 2011, from http://ipo.nasdaq.com/ViewFiling_frames.asp?filename=0000950131-97-002350.txt&filepath=\1997\04\01\00
- Pettigrew, A. (1979). On studying organizational cultures. *Administrative Science Quarterly*, 24, 570-581.
- Petty J. S., & Gruber, M. (2011). In pursuit of the real deal: A longitudinal study of VC decision making. *Journal of Business Venturing*, 26(2), 172-188.
- Pfeffer, J. (1981). Management as symbolic action: The creation and maintenance of organizational paradigms. In L.L. Cummings and B. Staw (Eds.), *Research in organizational behavior* (pp. 1-52). Greenwich, CT: Jai Press.

Porac, J. F., Ventresca, M. J., & Mishina, Y. (2002). Interorganizational cognition and interpretation. In J. C. Baum (Ed.), *Companion to organizations* (pp. 579-598). London: Blackwell.

Powell, W. W., & Colyvas, J. (2008). Microfoundations of institutional theory. *Handbook of Organizational Institutionalism*, 276-98.

Reed, A. (2004). Activating the self-importance of consumer selves: Exploring identity salience effects on judgments. *Journal of Consumer Research*, 31(2), 286-295.

Reger, R. K., Gustafson, L. T., DeMarie, S. M., & Mullane, J. V. (1994). Reframing the organization: Why implementing total quality is easier said than done. *Academy of Management Review*, 19, 565-584.

Rindova, V. P., & Fombrun, C. J. (2001). Entrepreneurial action in the creation of the specialty coffee niche. In C. B. Schoonhoven & E. Romanelli (Eds.), *The entrepreneurship dynamic* (pp. 236-261). Stanford, CA: Stanford University Press.

Rodale J. I. (1978). *The synonym finder*. Emmaus, PA: Rodale Press.

Rosenberg, M. (1981). The self-concept: Social product and social force. In M. Rosenberg & R. H. Turner (Eds.), *Social psychology: Sociological perspectives*. New York: Basic Books.

Ruef, M., Aldrich, H. E., & Carter, N. M. (2003). The structure of founding teams: Homophily, strong ties, and isolation among U.S. entrepreneurs. *American Sociological Review*, 68, 195-222.

Saegert, J., Hoover, R., & Hilger, M. T. (1985). Characteristics of Mexican-American consumers. *Journal of Consumer Research*, 12(1), 104-9.

Sanders, W. G., & Carpenter, M.A. (2003). Strategic satisficing? A behavioral agency perspective on stock repurchase program announcements. *Academy of Management Journal*, 46, 160-179.

Santos, F. M., & Eisenhardt, K. M. (2009). Constructing markets and shaping boundaries: Entrepreneurial power in nascent fields. *Academy of Management Journal*, 52(4), 643-671.

Sarasvathy, S., Dew, N., Velamuri, S. R., & Venkataraman, S. (2003). Three views of entrepreneurial opportunity. In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of entrepreneurship research: An interdisciplinary survey and introduction* (pp. 141-160). Boston: Kluwer Academic.

Schlenker, B. R. (1985). *Identity and self identification*. New York: McGraw-Hill.

Schoonhoven, C. B., & Romanelli, E. (2001). *The entrepreneurship dynamic: Origins of entrepreneurship and the evolution of industries*. Stanford, CA: Stanford University Press.

Schumpeter, J. A. (1934). *The theory of economic development*. New Brunswick, NJ: Transaction.

Schweiger, D. M., & DeNisi, A. S. (1991). Communication with employees following a merger: A longitudinal field experiment. *Academy of Management Journal*, *34*, 110-135.

Scott, S. G., & Lane, V. R. (2000). A stakeholder approach to organizational identity. *Academy of Management Review*, *25*, 43-62.

Selznick, P. (1957). *Leadership in administration*. New York: Harper & Row.

Seo, M., Barrett, L. F., & Bartunek, J. M. (2004). The role of affective experience in work motivation. *Academy of Management Review*, *29*, 423-439.

Shah, T., & Shah, S. (2012). *Venture capitalists at work: How VCs identify and build billion-dollar successes*. Apress.

Shamir, B. (1991). Meaning, self and motivation in organizations. *Organization Studies*, *12*(3), 405-424.

Shane, S. A. (2008). *The illusions of entrepreneurship: The costly myths that entrepreneurs, investors and policy makers live by*. Yale University Press.

Shane, S. (2003). *A general theory of entrepreneurship: The individual-opportunity nexus*. Cheltenham, US: Elgar.

Shane S., & Cable D. (2002). Network ties, reputation, and the financing of new ventures. *Management Science*, *48*, 364-381.

Shane, S., & Eckhardt, J. (2003). The individual-opportunity nexus. In Z.J. Acs & D. B. Audretsch (Eds.), *Handbook of entrepreneurship research: An interdisciplinary survey and introduction* (pp. 161-191). Boston: Kluwer Academic.

Shepherd, D. A., Zacharakis, A., & Baron, R. A., (2003). VCs' decision processes: Evidence suggesting more experience may not always be better. *Journal of Business Venturing*, *18*, 381-401.

Shepherd, D. A., & Haynie, J. M. (2009). Birds of a feather don't always flock together: Identity management in entrepreneurship. *Journal of Business Venturing*, *24*, 316-337.

- Short, J. C., Broberg, J. C., Cogliser, C. C., & Brigham, K. (2010). Construct validation using computer-aided text analysis (CATA): An illustration using entrepreneurial orientation, *Organizational Research Methods*, *13*, 320-347.
- Short J. C., & Palmer T. B. (2008). The application of DICTION to content analysis research in strategic management. *Organizational Research Methods*, *11*, 727-752.
- Skalski, P. D. (2002). Computer content analysis software. In K. A. Neuendorf (author), *The content analysis guidebook*. Thousand Oaks, CA: Sage.
- Smith, K., & DiGregorio, D. (2002). Bisociation, discovery and the role of entrepreneurial action. In M. Hitt, R. D. Ireland, S. M. Camp, D. Sexton, R. D. Nixon, & C. E. Lucier (Eds.), *Strategic entrepreneurship: Creating a new mindset* (pp. 129-150). Malden, MA: Blackwell.
- Sohl, J. (2011). *The angel investor market in 2010: A market on the rebound*. Retrieved May 15, 2011, from <http://www.unh.edu/news/docs/2010angelanalysis.pdf>
- Starr, J., & MacMillan, I. C. (1990). Resource cooptation via social contracting: Resource acquisition strategies for new ventures. *Strategic Management Journal*, *11*, 79-92.
- Stata Corporation. (2001). *Stata reference manual* (Vol. 4 Su-Z). Stata Press.
- Stets, J. E. (2004). Emotions in identity theory: The effect of status. In J. H. Turner (Ed.), *Theory and research on human emotions*. New York: Elsevier.
- Stinchcombe, A. L. (1965). Social structure and organizations. In J. G. March (Ed.), *Handbook of Organizations* (pp. 142-193). New York: Rand McNally.
- Stoller, R. (1968). Male childhood transsexualism. *Journal of the American Academy of Child and Adolescent Psychiatry*, *7*, 193-201.
- Stross, R. E. (2000). *eBoys: The first inside account of venture capitalists at work*. Crown Business.
- Stryker, S. (1968). Identity theory and role performance. *Journal of Marriage and the Family*, *30*, 558-64.
- Stryker, S. (1980). *Symbolic interactionism: A social structural version*. Menlo Park, CA: Benjamin Cummings.
- Stryker, S. (1989). Further developments in identity theory: Singularity versus multiplicity of self. In J. Berger, M. Zelditch, & B. Anderson (Eds.), *Sociological theories in progress*. London, UK: Sage.

- Stryker, S., & Burke, P. J. (2000). The past, present, and future of an identity theory. *Social Psychology Quarterly*, 63, 284-297.
- Stryker, S., & Serpe, R. T. (1982) Commitment, Identity Salience, and Role Behavior: A Theory and Research Example. In W. Ickes and E. S. Knowles (Ed.) *Personality, Roles, and Social Behavior* (pp. 199-218). New York: Springer-Verlag.
- Stuart, T. E., Hoang, H., & Hybels, R. C. (1999). Interorganizational endorsements and the performance of entrepreneurial ventures. *Administrative Science Quarterly*, 44, 315-349.
- Swidler, A. (1986). Culture in action: symbols and strategies. *American Sociological Review*, 51, 273-286.
- Tajfel, H. (1972). La catégorisation sociale [Social categorization]. In S. Moscovici (Ed.), *Introduction à la psychologie sociale* (pp. 272-302). Paris: Larousse.
- Tajfel, H. (1978). Social categorization, social identity and social comparison. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 61-76). London: Academic Press.
- Tajfel, H., (1982). *Social identity and intergroup relations*. New York: Cambridge University Press.
- Thakor, A. (2011). Sources of capital and economic growth. *US Chambers Center for Capital Markets Competitiveness*.
- Tushman, M. L., & Nelson, R. R., (1990). Technology, organizations, and innovation. *Administrative Science Quarterly*, 35, 1-8.
- Vissa, B. (2011). A matching theory of entrepreneurs tie formation intentions and initiation of economic exchange. *Academy of Management Journal*, 54(1), 137-158.
- Waldron, I. (1991). Patterns and causes of gender differences in smoking. *Social Science & Medicine*, 32, 989-1010.
- Weber, K., & Glynn, M. A. (2006). Making sense with institutions: Context, thought and action in Karl Weick's theory. *Organization Studies*, 27(11), 1639-1660.
- Webvan Group Inc. (1999). S1. SEC File 333-84703, Accession Number 891618-99-3537). Retrieved on March 3, 2010, from <http://www.secinfo.com/dr6nd.63Eu.htm>
- Weick, K. E. (1979). *The social psychology of organizing (2nd ed.)*. New York: Random House.

Weick, K. E. (1985). Sources of order in underorganized systems: Themes in recent organizational theory. In Y. S. Lincoln (Ed.), *Organizational theory and inquiry: The paradigm revolution*. London.

Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.

Weick, K., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, 16(4), 409-421.

Whetten, D. A. (2006). Albert and Whetten revisited: Strengthening the concept of organizational identity. *Journal of Management Inquiry*, 15(3), 219-234.

Whetten, D. A., & Mackey, A. (2002). A social actor conception of organizational identity and its implications for the study of organizational reputation. *Business & Society*, 41(4), 393-414.

Wiley, M. G. (1991). Gender, work, and stress: The potential impact of role-identity salience and commitment. *Sociological Quarterly*, 32, 495-510.

Wooten, D. B. (1995). One-of-a-kind in a full house: Some consequences of ethnic and gender distinctiveness. *Journal of Consumer Psychology*, 4(3), 205-224.

Zacharakis, A. L., & Shepherd, D. A., (2001). The nature of information and overconfidence on venture capitalists' decision making. *Journal of Business Venturing*, 16, 311-332.

Zimmerman, M. A., & Zeitz, G. J. (2002). Beyond survival: Achieving new venture growth by building legitimacy. *Academy of Management Review*, 27, 414-431.

Zott, C., & Huy, Q. N. (2007). How entrepreneurs use symbolic management to acquire resources. *Administrative Science Quarterly*, 52, 70-105.

APPENDIX

Appendix A: Detailed descriptions entrepreneurial identity categories

Identity Category	Description
Darwinian	Ventures that fall into this category claim that they will establish a strong and profitable market position. The team devotes most of their attention to activities aimed at ensuring the firm’s success in a business sense. The venture is started with the primary motive of making profits and accumulating wealth. The team adopts a professional, “business school” approach to creating and portraying their venture. They signal that they are implementing solid business principles. Darwinian ventures view competing firms as the primary external point of reference in their social space. They try to achieve competitive advantage by differentiating themselves from the competition. Competing firms are seen as rivals, yet Darwinian ventures tend to value competitive exchange as a process that allows the best firms to prevail.
Communitarian	Ventures with a communitarian identity are strongly engaged in the community in which they deliver their product or service. They claim close connections with the community and may use community symbols and language in their venture description and marketing material so as to signify their connection with the community. These venture teams are enthused by their ability to contribute to the community with their products or services, and value the support they receive from fellow community members in their entrepreneurial endeavors. They see their activities as entrepreneurs as an important catalyst for the development of the community. In line with their strong identification with the community, communitarian venture teams believe that authenticity is the core asset that they can bring to their venture. In particular, they argue that because of their involvement in the community, they have unique, firsthand insights into the needs of fellow community members and thus can design “authentic” products or services that not only meet real needs, but also allow for strong identification between the firm and community members. Fellow community members—“similar others”—serve as a communitarian ventures teams primary frame of reference in the social space. In this vein, they claim a strong sense of “we-ness” when it comes to their relationships with a community’s members, and make a clear distinction between people who are in the group and outsiders. The relationship that these ventures have with their community is highly emotional because it revolves around shared passion for an activity or a geographic area.
Missionary	Missionary venture teams believe that firms can be powerful agents of change in society, and engage in new firm creation to establish a platform from which they can pursue their political visions and advance particular causes, generally of a social or environmental nature. Missionary ventures operate under the principle that their firm activities can positively affect the well being of others, and venture members seek to act in a responsible, transparent, and empathetic manner to make the world “a better place.” They portray their firms as entities that engage in activities that make “sense,” and in this respect, self-evaluate their ventures behaviors and actions through their contribution to the social world and/or “planet earth.” To advance their cause, missionary ventures not only offer products and services, but also strive to be a role model for how business can be conducted for greater good. Missionary ventures advocate new social practices that they perceive as having universal scope. The venture teams claim that the purpose of their firm is to show that alternative practices are feasible, and strive to demonstrate to society how the status quo can be changed (e.g., the way society consumes its resources, the way society engages with the planet). In this sense, the “relevant other” for missionary ventures is not a particular group of individuals or firms, but society at large.
Edisonian	Edisonian ventures are established with the primary objective of advancing the technology frontier. The venture team focuses primarily on achieving technological breakthroughs, and then bringing the technological breakthroughs to market. They believe that an entrepreneurial team that is unencumbered by the bureaucracy a large institution or organization is best positioned to achieve technology advances in a particular domain. The entrepreneurial team perceives the venture as a hub for innovation, and makes claims about the scientific and engineering competence of the people affiliated with the venture. The primary frame of reference for the venture is the technology frontier; achievement is assessed in terms of the breakthroughs that advance technology in some domain. While making money from technological advancements is often mentioned as a venture goal, it is usually secondary to goals innovation and technological advancement.

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