

A Tale of Trinity in Founder's Identity: The Case of New Venture Creation

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Most research in founder's identity focused on the single impact of identity but few explored the mechanisms through which founder's identity occurred. This study tries to investigate how founder's identity, through social capital embedded in community and family, influences new venture creation. The results suggest that social capital residing in community ties could strengthen the link between founder's identity and new venture creation but only apply to Darwin and Communitarian identities. Structural embeddedness in family positively moderates the relationship between founder's identity and new venture creation in an inverse U shape effect.

We know what we are, but not what we may be.

— William Shakespeare

INTRODUCTION

Theories of entrepreneurship have witnessed the growing interest in new venture creation study. The earlier review of entrepreneurship literature framed four major areas for new venture creation study, such as characteristics of individuals, the organization created, the environment surrounding new ventures and the process of new venture creation (Gartner W., 1985). Scholars also borrowed from various theory domains to explain this phenomenon.

One stream of research extensively investigated how identity influences the launch, process and opportunity identification of new ventures. They focused on the factors leading to entrepreneurial actions and process, such as exploitation and discovery of opportunities (McMullen & Shepherd, 2006; Farmer, Yao, & Kung-Mcintyre, 2011; Alvarez, Barney, & Anderson, 2013; Schumpeter, 1934; Kirzner, 1979), the process of venture creation (Cardon, Wincent, Singh, & Drnovsek, 2009; Fauchart & Gruber, 2011; Hoang H. a., 2010; Phillips, Tracey, & Karra, 2013; Alvarez, Barney, & Anderson, 2013). One of the theoretical foundations of this stream came from identity theory or social identity theory. Both theories emphasize on the concept *Self* (Hogg, Terry, & White, 1995; Stets & Burke, 2000), thus entrepreneurship scholars assume entrepreneurs as individuals who are engaged in something related to salient and meaningful self-identity for themselves.

However, few studies addressed the roles of other variables in the relationship between identity and new venture such as social capital in community and family dimensions though several attempts highlight the potential values for such a consideration, the theoretical implication is that social capital embedded in community whose culture emphasizes on individualism influences the relationship between founder's identity and new venture creation. For example, community acts as small institution, the strong community culture (Kwon, Heflin, & Ruef, 2013; DiMaggio & Powell, 1983; Friedland & Alford, 1991) forms a closed networks and strengthens a coherent culture cognition. As a result, the consistent culture cognition, as one

of three pillars of institutional elements (Scott, 2001), forms contextual prototypes which formulate in-group identity (Turner et al., 1987). Such an in-group identity could assist entrepreneurs to shape their own networks which are favorable to new venture creation (Phillips et al., 2013) and directly facilitate the new venture creation process (Fauchart & Gruber, 2011). In addition, community culture emphasizing individualistic culture embodies rich social capital because of high trust embedded in it (Berigan & Irwin, 2011; Narayan & Cassidy, 2001; Mitchell et al., 2000; Chen et al., 1998), and social capital positively promotes new venture creation (De Carolis, D. M., & Saporito, 2006; De Carolis et al., 2009).

Moreover, social capital embedded in family also exerts positive or negative influences on the relationship between founder's identities and new venture creation. Recent studies further incorporated identity and structural embeddedness to predict behaviors. For instance, Rao et al (2000) argued that in-group ties could reduce the effect of identity-discrepant cues while out-group ties may strengthen such cues, they further pointed out that structural equivalence and cohesion provide actors with evaluative frameworks to construct social identity. Shepherd and Haynie (2009) also argued that identity negotiation ability and the degree to which current identity conflict is similar to the past moderate the relationship between family business identity conflicts and expedited entrepreneurial process. In their study, Shepherd and Haynie (2009) implicitly assumed that the embedded ties of family business staffs in family affect identity conflicts because the occurrence of conflicts requires frequent interactions. Furthermore, Le Breton-Miller and Miller (2009) also argued that embeddedness in family would produce the greatest family cognitive influences and conflicts are difficult to be reconciled. Prior research have documented the parabolic role of embeddedness itself on organizational performance (Uzzi & Spiro, 2005; Uzzi, 1996;1997;1999; Granovetter, 1985). Taken together, social capital embedded in ties within family shapes the impacts of founder's identity on new venture creation either positively or negatively.

Incorporating community culture and embeddedness into the consideration of the relationship between founder's identity and new venture creation is worthy, because traditional sociological studies inevitably adopted an instrumental view to study behaviors in networks and social capital was regarded as a composite construct. However, community culture and structural embeddedness embody different forms of social capital (Sanders & Nee, 1996; Deepa & Cassidy, 2001) and networks do not automatically act as agents. Thus the investigation of both psychology and networks attributes could enhance our understanding regarding the interaction mechanisms for network and psychology constructs in entrepreneurial activities. Nascent entrepreneurship database also allows us to better understand how identity influences nascent entrepreneurs' behaviors and thereof design relevant identity management mechanisms for emerging organizations. In this study, I try to explore the joint influences of identity and social capital on new venture creation. My core claim in this study is that the nature of founder's identity influences new venture creation and the efficacy of founder's identity is contingent on social capital embedded in community culture and family.

This paper is structured as follows. I first develop our theory and corresponding hypotheses, and then introduce methods and test hypotheses. Subsequently, I discuss the findings, our contributions to theory and practice and avenues for future research. At last, I conclude this research.

THEORY AND HYPOTHESES DEVELOPMENT

Founder's Identity and New Venture Creation

Questions such as "Who am I" have a long tradition of discussions in philosophy (Fauchart and Gruber, 2011). Despite interest in the role of concept Self in behavior, research has been limited by the need to better understand the mechanism by which Self influences role behaviors (Burke and Reitzes, 1981). Among entrepreneurship scholars, both social identity theory and identity theory were appreciated and borrowed to explain entrepreneurial actions. For instance, Cardon et al. (2009) argued that entrepreneurial passion originates from engaged activities with identity meaning and salience and different identity types lead to corresponding entrepreneurial activities which reflect identity meanings and ranking in salience. Fauchart and Gruber (2011) adopted social identity theory to develop the taxonomy of founder's identity and articulated the relationship between founder's identity and new

venture creation. This study will take social identity perspective to define founder's identity because social identity theory emphasizes category boundary and acknowledges with-in group differences (Tajfel and Turner, 1979; Stets and Burke, 2005). Such assumptions in theory allow for more flexible discussions regarding the uniqueness of nascent entrepreneurs and general entrepreneurial actions.

Then what type of identity influences new venture creation? As mentioned earlier, this study adopts social identity theory to explain the role of founder's identity, thus I borrow from the taxonomy of the earlier research (Fauchart and Gruber, 2011) to define founder's identity in this study. Fauchart and Gruber (2011) formulated three types of founder's identities from their field research. The reason why I used this taxonomy is because the research itself is based on social identity theory. The authors built the strong positive relationship between founder's identities and new venture creation through deep case studies. All three founder's identities influence new venture creation and the characteristics of new ventures (Fauchart and Gruber, 2011). In addition, the research embedded entrepreneurs under certain community contexts, which is suitable for our research question since we will talk about the role of social capital in community and family. Due to the strong connection between founder's identities and new venture creation in the earlier research (Fauchart and Gruber, 2011), I shall expect the strong effects of different types of founder's identities in this study though variations in the full model.

Darwin identity refers to individuals who focus their attentions mainly on establishing strong and profitable firms. Higher income pursuit is a very important element for this type of identity. Regardless of their personal interests or other motivations, earning money and keep firm going will be the main focus of this type of identity. Entrepreneurs use every opportunity to attract customers and knit their social networks favorable to the new venture creation. And such kind of entrepreneurs value a "business school" approach to run the business, kinship and friendship based operation will thereof be replaced and eroded by professional operation and governance. And the competing firms in the same industry will be their main external points of reference. Thus such kind of founder is easier to find better opportunities and funding for their new venture creation. Therefore, we have the following hypothesis,

Hypothesis 1a: Darwin identity positively relates to new venture creation.

The second identity is Communitarian identity, this type of founders are initially enthused by their own interest and finally realize that their interest could also serve the community. In addition, they are also fascinated by their ability to contribute to the community and recognize that there is strong demand for their potential ventures. As a result, the probability of establishing a new venture will be high. For example, one of informants who I interviewed shared with me,

I was strongly confident that my business was what my community needs, I used to be work at a chemistry company as a CEO assistant. I gradually realized my invention in salon gained supports from my boss and my friends, thus I took advantage of those networks to promote my products initially and finally established my firm.

Thus I arrive at the following hypothesis,

Hypothesis 1b: Communitarian identity positively relates to new venture creation.

The last type of founder identity is Missionary. This type of founders believes that new venture could act as agents for institutional change, thus the purpose that they launch businesses is mainly to fulfill their own particular visions or missions and to advance causes with social or environmental nature. Their strong motivations could overcome the difficulties in funding and other constraints to start new firms. Such kind of founders could maximally attract and allocate social resources since their actions contribute to the well-being of others and will receive broad supports. The cases could be found in political campaigns or enterprises started during social movements. Taken together, I draw the following hypothesis.

Hypothesis 1c: Missionary identity positively relates to new venture creation.

Social Capital in Community and Family

Social capital has been well accepted as a fruitful theoretical perspective to explain norms and social relations (Narayan and Cassidy, 2001). Different perspectives to construct social structure also reflect the variation in the definition of social capital. For example, De Carolis et al. (2009) classified social capital in collective and individual levels and examined how relational capital and personal networks influence new venture creation. To measure social capital, Narayan and Cassidy (2001) further decomposed social capital into seven dimensions, their investigation of social capital measurement offers a systematic way for defining social capital. High level of trust and cooperation in community are nurtured due to social capital born out of community culture, which could grant members convenient accesses to necessary resources and influence the impacts of founder's identity on new venture creation.

Furthermore, family also embodies social capital for entrepreneurial activities. For instance, in their discussion of immigrant entrepreneurship, Sanders and Nee (1996) argued that social capital embedded in family relations facilitates immigrant self-employed activities. Family, as a unit of individual ties, acts not only as a social basis for entrepreneurship but also as a buffer for identity conflicts though limiting itself to a threshold. Next, I will move on to examine how those two forms of social capital moderate the relationship between founder's identity and new venture creation.

Community Culture, Founder's Identity and New Venture Creation

The impacts of culture on behaviors have long been discussed among sociologists and management scholars. For example, institutional scholars regard culture as one of three pillars of institution theory (Scott, 2001), which influences how people construct social relations

(DiMaggio & Powell, 1983; Friedland and Alford, 1991). Triandis (1972) distinguished two types of cultures: collectivist and individualist. Collective culture indicates that group interest is over self interest and the group is responsible for the individual. While individualist culture refers to one where members typically focus on self interest over group interest and each individual is responsible for himself or herself. The earlier research suggests that culture emphasizing on individualism fosters trust and cooperation and influences the formation of founder's identity. For example, Mitchell et al. (2000) also argued that individualist society indirectly encourages new venture creation because of the opportunities that could be taken advantage of. Chen et al. (1998) proposed that accountability could enhance individual's self-image of internal focus of control and strengthen the instrumental motivation for self-interest. In their analysis, Berigan and Irwin (2011) proposed that individualist culture facilitates weaker and more densely ties than collective culture, the cliquish nature of social ties makes it easier to monitor each other's behaviors, thus actor's behaviors are disciplined due to the expectation of potential punishment and the willingness to keep group harmony. As a result, individualist culture is conducive to the formation of trust and frequent cooperation. At the same time, high trust and cooperative relations in community also embody rich social capital (Narayan and Cassidy, 2001) because trust could reduce unnecessary transaction cost (Granovetter, 1985), thus strong community culture emphasizing on individualism will spawn rich social capital residing in its community networks, which in turn facilitates the formation of new ventures (De Carolis, D. M., & Saporito, 2006; De Carolis et al., 2009). To sum up, we derive the following hypothesis,

Hypothesis 2: Community culture emphasizing on individualism positively moderates the relationship between founder's identity and new venture creation.

Structural Embeddedness in Family, Founder's Identity and New Venture Creation

Embeddedness argument was first brought out since Granovetter's work to explain the phenomenon that economic actions are embedded in social relations (Granovetter, 1985). Embeddedness refers to the process by which social relations shape economic actions and the degree to which commercial transactions occur through social relations (Uzzi, 1996; 1999). Uzzi (1996) further investigated the core embeddedness argument by using structural embeddedness methods. His continuous research on the effects of embeddedness on economic actions all supported the core embeddedness argument that

embedded ties in cohesive networks sometimes facilitate economic transactions and sometimes derail exchanges (Uzzi, 1996;1997;1999).

This inverse U shape effects subsequently incurred extensive attentions from different scholars. For example, Newbert and Tornikoski (2013) examined the role of embeddedness in resource acquisition for emerging organizations, they found that positive effects of strong ties on resource acquisition and specificity are robust and thus defended the role of strong ties compared with traditional advocates of sparse networks or weak ties (Granovetter, 1985; Burt, 1992). At the same time, Newbert et al. (2013) found that networks evolve from cohesive networks to diversified ties as firms emerge, which also supports embeddedness argument. In addition, in their commentaries, Hite and Hesterly (2001) proposed that firms respond to resource acquisition challenges by developing networks from identity based networks to calculative networks in their early growth. However, embeddedness literature sidesteps the issue of how actors formulate social identity from membership in social groups (Rao et al., 2000) and the questions such as through which social mechanisms social identity influences entrepreneurial actions.

Recent studies in embeddedness perspectives of economic action within family business provide some insights for those challenges. Borrowing from both agency theory and stewardship theory, Le Breton-Miller and Miller (2009) proposed that the susceptibility of key actors to family influence will be shaped by the degree to which those actors are embedded in the ties with family, and such strong family influence is reflected in key actors' cognitive behaviors. On the other hand, Shepherd and Haynie (2009) proposed that whether expedited entrepreneurial process operates in family business are decided by the degree to which identity conflicts are similar to the past and whether identity negotiation ability is strong enough. While identity conflicts are triggered due to available opportunities and opportunities are identified because the firm is embedded in some social structure, thus the resolution to identity conflicts is actually the optimal arrangement of social relations which gives birth to social capital (Coleman, 1988). Taken together, I argue that social capital shapes the formation of family meta identity and conflicting identities are more likely to be activated when the degree of structural embeddedness of founders in family is strong.

While Hoang and Gimeno (2010) argued that identity complexity could moderate the negative relationship between role conflict and successful role transition to founders, this finding indirectly indicates that the repeated combinations of embedded and arm's length ties might be the optimal arrangement, which is consistent with recent sociology theory (Vedres and Stark, 2013). However, it is also possible that this combination of embedded and arm's length ties serves as the worst arrangement, because too much social capital may be detrimental due to different purposes pursued (Granovetter, 1985). Taken together, I argue that there exists an optimal or worst point for the effects of embeddedness on the relationship between founder's identity and new venture creation. (See Figure 1 in APPENDIX for my conceptual model).

Hypothesis 3a: Embeddedness in family positively moderates the relationship between founder's identity and new venture creation. However, such facilitating effect limits itself to a certain threshold. That is, the moderation effect of embeddedness shows an inverse U shape influence.

Hypothesis 3b: Embeddedness in family negatively moderates the relationship between founder's identity and new venture creation. However, such hampering effect limits itself to a certain threshold. That is, the moderation effect of embeddedness shows a U shape influence.

METHODS

Sample

The dataset used in this paper is Panel Study of Entrepreneurial Dynamics II (PSED II), PSED II offered a nationally representative and longitudinal database for the United States, the purpose of this database was to offer systematic, reliable, and generalizable data on the business formation process (Reynolds and Curtin,2007). Like PSED I, PSED II also contained information on the proportion and characteristics of the adult population attempting to start new businesses, the kinds of activities which

nascent entrepreneurs undertake during the venture creation process and the proportion and characteristics of the start-up efforts that become infant firms. In addition, PSED II covered more comprehensive topics compared to PSED I. For example, community and agency support information were collected. PSED II followed a cohort of nascent entrepreneurs for three years with five waves of surveys beginning in 2005 and was conducted in three stages. First, to identify the sample, digit-dialing sample of 31,845 U.S. households were randomly selected and screened with landline phones to identify nascent entrepreneurs active in start-up phase and their demographic data. Second, 1,214 nascent entrepreneurs were identified and requested to complete sixty-minute phone interviews on the details of their start-up initiative. Third, the start-up effort outcomes were collected in follow-up interviews completed twelve and twenty-four months after the initial interview¹.

Despite the multiple waves of data were conducted in PSED II, this study only used wave A for two reasons. First of all, all independent variables were collected in wave A but the majority of them are not available for the subsequent waves. For example, respondents were requested to provide information up to three supporters, which represent 100% of supporters' information for all five waves. And this is the foundation for my calculation of embeddedness. Second, given those variables which are available for subsequent waves, wave A represents the biggest proportion of database. Take variable high-tech for example, respondents were asked to indicate whether their new venture is high tech company or not, wave A represents 53% of the total five waves, wave B, C,D,E,F takes 5.5%, 6.1%, 5.7%, 16.3% and 13.8%. Thus it best represents the population of the responses. Taken together, relying on the circumscribed data in key information in wave B, C,D,E,F would severely limit the explanation and generalization ability of my analysis and combining all waves would lose substantial observations for certain variables while focusing on wave A could provide us more information without substantial omission of observations. The similar logics could also be found in the earlier research (Newbert & Tornikoski, 2009).

Although all data in PSED II were collected from the same survey instrument, I believe the common method bias will not distort the results of my analysis. First, at the beginning of the survey, the respondents were guaranteed by the survey designers for their anonymity in this research, which the earlier research (Podsakoff et al., 2003) suggested reduces the probability of social desirable responses. Second, I investigated common method biases by conducting a Harman's single factor test, which was also routinely used in the earlier literature (Christmann, 2004; Kirkman & Shapiro, 2001; Steensma et al., 2005; Newbert & Tornikoski, 2013). The unrotated factor produced twenty one factors, the first eight factors account for 60.86% of cumulative variance, the proportions of each nine factors are 13.34%, 10.01%, 8.37%, 6.69%, 6.15%, 5.67%, 5.36% and 5.27% respectively. Because no single factor emerged to explain more than 13.34% and accounted for a substantial majority of the total variance, thus no artificial response bias is assumed to exist in the data (Podsakoff & Organ, 1985; Newbert & Tornikoski, 2013). Third, though Podsakoff et al. (2003) argued that potential limitations in Harman's single factor test rendered this method not perfectly reliable, Meade et al. (2007) found that even when common method variances is present, it does not necessarily cause common method bias that might invalid the results of any subsequent statistical bias out of common method variance in organization research tends to be trivially small. In this study, three theoretical questions were investigated, for the questions exploring the moderating effects of community culture and the effects of founder's identity alone, I excluded missing value and made a usable sample with 1,211 observations. As for the question studying embeddedness as a moderator, I excluded those observations with missing values and got a final usable sample of 338 observations.

Dependent Variable

The earliest work on new venture creation could probably be dated back to the work of Coase (1937). In his article, Coase (1937) defined three key elements for a firm as covenants, resources and entrepreneurs and argued that the role of entrepreneurs is to organize covenants and resources to make a firm function. Following this tradition, Weick (1979) further suggested,

"To organize is to assemble ongoing interdependent actions into sensible sequences that generate sensible outcomes" (Weick, 1979, p.3).

In Weicken sense, new venture creation refers to the organizing of new organizations. In addition, Gartner (1985) also argued that individual characteristics, environment, process and organization should be necessary considerations in new venture creation definition. Therefore, new venture creation is a multidimensional phenomenon (Gartner, 1985) and it should be difficult to measure in a single dimension. However, Edelman and Yli-Renko (2010) argued that the intensity of entrepreneurial efforts is positively related to new venture creation. Thus we used the question “*You are, alone or with others, currently trying to start a new business, including any self-employment or selling any goods or services to others. Does this apply to you?*” to measure the efforts of new venture creation, if the answer is yes, then coded 1 and no with 0.

Independent Variables

Founder's Identity

Founder's identity was measured based on the typology of Fauchart and Gruber's work (2011). In their study, Fauchart and Gruber (2011) classified founder's identity from the perspective of social identity theory and compared each identity types in the dimensions of market segments served, customer needs addressed and capabilities and resources deployed. There are three types in their classification. Darwin identity refers to individuals who focus their attention mainly on establishing strong and profitable firms. Higher income pursuit is a very important consideration for this type of identity. I measured Darwin identity as the question “*Launch a business to earn a larger personal income. (To what extent was that important, from no extent to a very great)*”. The second identity is Communitarian identity, this type of founders, by definition, are initially enthused by their own interest and then they gradually realize that their interest could also serve the community, thus a new venture is created. I used the question “*Launch a business to develop an idea for a product. (To what extent was that important, from no extent to a very great)*” to measure this type of identity. The last type of founder identity is Missionary identity. This type of founders believe that new venture could act as agents for institutional change, thus start-ups serve to fulfill their own particular visions or missions and advances causes with social or environmental nature. I measured this type of identity using the question “*Launch a business to fulfill a personal vision. (To what extent was that important, from no extent to a very great)*”. I then asked two independent reviewers who graduated from different universities with MBA degrees (one of them is an entrepreneur in the United States) to evaluate my selection according to the definition of Fauchart and Gruber (2010), and see whether I make biased judgment towards the selection of questions to approximate three founder's identity types. Their evaluations were highly consistent with my selection².

Community Culture

Individualist culture refers one where members typically focus on self-interest over group interest and each individual is responsible for himself or herself (Triandis,1973). Community culture which emphasizes on individualism encourages strong self-management and discipline. Though self-interest is put over group interest, increased ties also frighten away free riding behaviors and function as mutual monitoring and sanctioning mechanisms (Berigan and Irwin, 2011). As a result, an expectation for benign behaviors facilitates high degree of trust and reciprocity of exhibiting the same behaviors. In terms of cooperation, high trust encourages more frequent cooperation. In a word, high trust and frequent cooperation are built up due to the locus of self-management. Therefore, *Community Culture emphasizing on individualism* was measured by the degree to which self-responsibility and self-management are strengthened. In PSED II, respondents were asked regarding the extent to which the culture and norm of their community emphasize the responsibility that the individual has in managing his or her own life (from strongly agree to strongly disagree).

Structural Embeddedness in Family

Uzzi (1996;1999) adopted structural embeddedness approach to study the impact of embeddedness on entrepreneurial economic performance and financial seeking results. He constructed embeddedness as the percentage of transactions between focal actors and their exchange partners in the total transactions

portfolio of focal actors. Following this tradition, Newbert and Tornikoski (2013) used social attachments as structural embedded ties to investigate the effects of embeddedness on the cost of resource and resource specificity. Similar to PSED I, PSED II characterizes the relationship between founders and their helpers as spouse, relatives in the same/different household, partners sharing the same/different household, friends/acquaintance and strangers, respondents were asked to provide the relationship data up to three helpers, thus this is still an egocentric network like PSED I (Newbert et al., 2013; Newbert & Tornikoski, 2013). Because my interest is to investigate the impacts of family embedded ties on the new venture creation, though the earlier research treated the percentage of spouse, friends and partners as structural embeddedness indicator (Newbert & Tornikoski, 2013), I, however, only regarded spouse and relatives as my family unit. Following the previous exchange relationship logics (Uzzi 1996, 1999; Newbert & Tornikoski, 2013), I calculated the percentage of spouses and relatives as the structural embeddedness³ to represent nascent entrepreneurs' structural embedded ties within family. To detect the curvilinear effects, I also calculated the quadratic term of structural embeddedness in family (Uzzi, 1996;1999).

Control Variables

I first controlled demographics characteristics of nascent entrepreneurs such as gender, education, marital status, ethnicity and age (Hannan and Freeman, 1984; Newbert et al. 2013;Newbert & Tornikoski, 2013). Because the ties and support from government, community and financial institutions could provide necessary informational and physical resources for start- ups (Khavul, 2009), thus I also controlled those three variables. PSED II characterizes those information by asking respondents

“Government/Community/Bankers/Other investors provide resources for the new business creation, would you say strongly agree/ agree/neither agree nor disagree/ disagree/strongly disagree?”

Moreover, geographic distribution of entrepreneurs might also influence the probability of new venture creation. For instance, Sorenson and Stuart (2001) suggested that low status venture capitalists were restricted by their geographic distribution and difficult to overcome this limitation to form syndication ties. I suspect that nascent entrepreneurs would also be restricted due to the limited venture capital investment and policy differences. In their analysis of founding rates for biotech firms, Stuart and Sorenson (2003) argued that spatial proximity offers networks, financial capital and informational benefits to entrepreneurs and increased founding rates. In fact, my empirical analysis shows that region distribution is indeed negatively related to new venture creation though this connection is insignificant. Thus I controlled region as the location where entrepreneurs started their business (PSED II asked respondents to provide information on their business locations as east, west, north and south). Following the earlier research (Edelman and Yli-Renko, 2010; Newbert et al. 2013; Newbert & Tornikoski, 2013), I also controlled perceived market uncertainty, household income and prior industry experience. At last, I controlled business type of new venture creation. Podolny (1993) proposed that market hierarchy were based on status ordering process. At the same time, the high-tech image represents certain symbolic meanings for investors, thus high-tech label could grant start-ups with easier access to key financial, social and human capital (Stuart and Sorenson, 2003). For example, according to the National Venture Capital Association Year Book 2013, 3,298 deals, which represented 88.58% of US venture capital deals, were invested into high-tech start-ups as of year 2012. In PSED II survey, respondents were asked to indicate whether they consider their business to be high-tech (yes=1).

ANALYSIS

To test multicollinearity, I calculated VIF score for each variables, the largest VIF is 1.43 which is far less than 10, thus I are confident that multicollinearity will not affect my results, the descriptive statistics and correlations are presented in Table 1. The means and standard deviation, including Pearson correlations are outlined with their significance. In my sample, 12.77% of respondents in my sample ranging from 40-44 years old and 13.92% are 45-49 and 50-54 years old. Of the whole sample 62.77%

are males and 37.23% are female with a mean household income \$89,900,000. In addition, 21.99% of respondents possessed high school diploma and 24.14% completed college degree. Of the sample 75.37% are White and 11.53% are Black. (See Table 1 in APPENDIX)

Since my interest is to investigate the factors influencing new venture creation and our dependent variable is binary data, in order to test our hypotheses, I use logit model to analyze the data. In addition, because least squares estimation is not capable of producing minimum variance unbiased estimators for the actual parameters in logistic regression, thus I adopt maximum likelihood logit model to solve for the parameters that best fit the data and all parameters will also be standardized (Wooldridge, 2010).

RESULTS

Table 2 reports the major results of my hypotheses tests (See Table 2 in APPENDIX). Model 1-5 investigate hypothesis 1a-1c, all parameters of three types of identities are positive at 0.111 ($p < 0.10$), 0.142 ($p < 0.05$) and 0.111 ($p < 0.10$) respectively, which supports hypothesis 1a-1c. Interestingly, when considering all factors together (see model 5), only Communitarian identity is significant (0.115, $p < 0.10$).

With regarding to the moderation role of community culture (Hypothesis 2, model 6-9), I find that both interaction terms of community culture with Communitarian and Darwin are significant at -0.134 ($p < 0.05$) and -0.118 ($p < 0.10$), but the same significant effect could not be found in the interaction between community culture and Missionary identity. Specifically, when a nascent entrepreneur has a high Darwin or Communitarian identity, the relationship between founder's identity and new venture creation is strengthened by a high community culture emphasizing individualism (see model 9, both interaction terms Communitarian and Darwin identities are significant at -0.174, $p < 0.01$ and -0.122, $p < 0.10$ respectively). Taken together, hypothesis 2 is partially supported (See Figure 2 and Figure 3 in APPENDIX).

To test hypotheses 3a and 3b, I run model 10-13. The results show that the inverse U shape moderating effect of embeddedness exists in the relationship between founder's identity and new venture creation but only in Darwin identity (12.86, $p < 0.05$), all other moderating effects are not significant (See Figure 4 in APPENDIX).

In Figure 4, I could further observe this inverse U shape moderating effect by embeddedness on the relationship between founder's identity and new venture creation. Thus I conclude a partial support for hypothesis 3a. All major test results are summarized in Table 3 (See Table 3 in APPENDIX).

DISCUSSIONS

Theoretical Implications

Research on embeddedness has been an exciting area in sociology and economics since it advances our understanding regarding how social structures affect economic actions (Uzzi, 1997). This research examines this argument in the context of new venture creation in line of social identity theory and social capital perspective, suggesting that the degree of embeddedness in family which embodies social capital influences the conflicts between founder's identity and family identity and moderates identity conflicts and entrepreneurial activities in an inverse U shape effect. Furthermore, social capital embedded in community strengthens the relationship between founder's identity and new venture creation. Therefore, social capital in both forms influences new venture creation differently instead of the same linear effects.

This study contributes to theory in the following directions. First, I examine the roles of different founder's identities and find that not all founder's identities operate equally for new venture creation. Consistent with the earlier research (Fauchart and Gruber, 2011; Hoang and Gimeno, 2010; Phillips et al., 2013), I confirm the positive impacts of founder's identity on new venture creation. For example, in my regression analysis, all three founder's identities are positively and significantly related to new venture creation. Interestingly, when considering all three founder's identities at the same time, only Communitarian identity is significant. Sociology theory predicts that when commonly underlying reference framework between role and performance is the same, the link between identity and

performance will be enhanced (Burke & Reitzes, 1981). Hoang and Gimeno (2010) also argued that identity centrality and complexity positively moderate the link between identity and entrepreneurial role transitions. Moreover, when the meaning of founder's identity accords with what environment requires and the perceived certainty and entrepreneurial passions are strongest (McMullen & Shepherd, 2006; Cardon et al., 2009), market opportunities will be thereof more easily identified and entrepreneurial actions are more likely to be activated (Edelman, L., & Yli-Renko, 2010). Taken together, because Fauchart and Gruber (2011) defined Communitarian identity as something leading to new venture creation due to the recognition of community, thus if this type of founder's identity is more significant, the metaphor of environment selection in founder's identities is obviously addressed, which accords with population ecology theory (Hannan & Freeman, 1984).

Second, the earlier research examined the impacts of social capital on new venture creation and decomposed social capital into relational and individual levels (De Carolis, D. M. & Saporito, 2006; De Carolis et al., 2009). This study, however, anatomies social capital into community and family dimensions. Unlike the earlier research (Sanders and Nee, 1996; De Carolis et al., 2009), I find that two forms of social capital operate differently on entrepreneurial activities and family ties may not always be beneficial and limit its effects to certain point. This perspective for optimal mixed ties reveals that embeddedness acts as not only an agent of information benefits (Burt, 1992) but that of identity conflicts, suggesting that entrepreneurship requires the repeated recombination of resources (Vedres and Stark, 2010) and social structures are sources of social identity (Rao et al., 2000). At the same time, the inquiry into social capital embedded in community reveals that cohesive networks facilitate the operation of founder's identity. Specifically, in a community emphasizing individualist culture, because the trust and cooperation spawned by social capital could lower the cost for resources acquisition (Coleman, 1988; Uzzi, 1999; Newbert & Tornikoski, 2013) and provide information, Darwin identity and Communitarian identity founders are more likely get resources and information they need due to their nature, which partially explains how geographic proximity increases founding rate of entrepreneurs (Stuart & Sorenson, 2003).

Third, my research connects embeddedness argument with social identity theory and social capital perspective, suggesting that the mechanism regarding how embeddedness influences the way founder's identity exerts on new venture creation. As mentioned earlier, Darwin identity has strong profit seeking orientation, thus it actually acts as a business identity agent (Shepherd and Haynie, 2009). When highly embedded in family, strong Darwin identity generates conflicting expectations with family identity, but selfish family preferences outweigh business exigencies and thus such conflicts increase the possibilities in the pursuit of family utility at the expense of sustainable business value, which in turn reduces the likelihood of new venture creation. As a result, entrepreneurs have to conform to family values (Le Breton-Miller and Miller, 2009) and suppress their own identity. However, social capital is gradually accumulated as founder's networks become more diversified, thus the exposure to diversified information makes family become more tolerant for business orientation. As a result, the firm experiences a transition process from identity-based networks to more calculative networks (Hite and Hesterly, 2001) and founder's identity becomes stronger. At this point, an appropriate meta identity operates to coordinate identity conflicts and further business growth (Shepherd and Haynie, 2009). When passing a certain threshold, business identity becomes strong enough to break the previous balance and new identity conflicts appear. Because conflicting owners could not produce or communicate clear stewardship rationale any more (Le Breton-Miller and Miller, 2009), thus such identity conflicts would always persist as long as family and business dimensions coexist (Le Breton-Miller and Miller, 2009). Therefore, internal frictions reduce the likelihood of new venture creation and an inverse U shape moderation effect of structural embeddedness in family appears. As Uzzi (1996; 1997; 1999) argued, the combination of embedded and arm's length ties satisfies the optimal business needs.

Fourth, this research echoes the argument that social structures are sources of identity (Rao et al., 2000), my results suggest that the variation of social relations influences the effects of founder's identity on new venture creation. While certain social structure change will alter the group boundaries, which influence the in-group identity. This research further highlights such a micro foundation process, thus providing a new avenue for the interdisciplinary research combing social identity and social capital theory.

Fifth, traditional social networks research strengthened the importance of instrumental function of personal networks. This study argued that individual characteristics of founders should also be considered, which calls into question the traditional instrumental role of social networks on entrepreneurship. Unlike social networks research, I argued that agents also have influences on their behaviors instead of solely counting on positions in networks.

Managerial Implications

In practice, my findings contribute to the current entrepreneurship education and policy making. First, both community and family contain rich social capital favorable to nascent entrepreneurs' activities. Thus policy makers should be aware of the positive role of founder's identity and construct appropriate community culture to promote entrepreneurial activities. Second, social capital embedded in family in line of founder's identity exerts a parabolic instead of linear positive influence. Thus overemphasizing on social capital residing in family ties could be problematic and a balanced view is thereof necessary in entrepreneurship education. Third, traditional entrepreneurship education focus on macro level factors, this research call for the importance of micro foundation entrepreneurial process again. Founder's characteristics and their immediate surroundings such as family and community would be the focus of policy making.

Limitations and Avenues for Future Research

This research bears limitations despite its contributions. First of all, my sample was drawn from cross-sectional data, this design potentially limited my explanation power in causality relationship. Future longitudinal analysis would be necessary for such a shortcoming. Second, current identity taxonomy was based on self-judgment of authors and counted on single item from a survey. While I believe that my consultation with other independent evaluations could reduce this selection bias. Third, I switched among similar terminologies between identity theory and social identity theory though both theories share many overlaps (Stets & Burke, 2000). Detailed analysis for this issue is beyond the scope of this research, but I believe the research for the bridges of both theories and how this connection could be applied in other contexts would shed lights on further development in entrepreneurship research. I also hope future scholars could develop and validate corresponding founder's identity measurements and I believe that such research may generate high values for further advancement in theory.

CONCLUSION

I anchor my theory on one of the most fruitful areas of social sciences, the role social capital (Narayan & Cassidy, 2001) and social identity theory, suggesting that social capital residing in community and family may influence the impacts of founder's identity on new venture creation in different ways. I highlight embeddedness argument in light of social identity theory and social capital perspective, showing that social structure moderates and formulates founder's identity. I believe that social identity theory and social capital perspective offer important mechanisms for identity management and entrepreneurship literatures, and I hope that future researchers could join me to navigate and advance the understanding in this line of inquiry.

ENDNOTES

1. The detailed description of PSED II could be referred to Reynolds and Curtin (2007).
2. Reviewers were asked to evaluate how closely our questions reflected the definition of three identities, they gave scores from 1 to 5 (strongly disagree to strongly agree). The average scores for three identities were 3.5(Darwin),5 (Communitarian) and 4.5(Missionary).
3. In the regression model, I used variable embeddedness to represent structural embeddedness in family and variable embsqrt to denote the quadratic term of structural embeddedness in family.

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TABLE 1
DESCRIPTIVE STATISTICS AND CORRELATIONS

	Mean	Std. dev.	1	2	3	4	5	6	7
1	0.82	0.39	1						
2	0.38	0.43	-0.0517	1					
3	3.58	1.24	0.0726**	0.0906*	1				
4	3.57	1.21	0.0714**	-0.0595	0.1565***	1			
5	2.30	1.42	0.0688*	0.0686	0.3281***	0.1182***	1		
6	2.04	0.89	0.000	-0.0051	0.013	-0.0023	-0.0057	1	
7	2.65	1.21	-0.0176	-0.0669	-0.0181	0.027	-0.0578**	0.021	1
8	6.18	2.70	-0.1096***	0.051	-0.0974***	-0.207***	0.0373	-0.0285	-0.0601**
9	0.63	0.48	-0.0661**	-0.1107**	-0.0138	0.0373	0.0597**	0.0158	0.0154
10	2.81	2.13	0.0227	-0.0663	0.0443	0.0870***	0.0833***	0.03	-0.0095
11	4.59	1.60	-0.0121	-0.1440***	-0.0417	-0.1830***	0.0011	-0.0644**	-0.0718**
12	1.57	1.48	0.0216	0.0118	0.0761***	0.0225	0.1403***	-0.0161	0.0129
13	2.86	1.10	-0.0532*	-0.042	-0.0225	0.0241	-0.0631**	0.1853***	0.0003
14	2.65	0.98	0.0328	-0.0417	-0.0272	0.03	-0.0378	0.2773***	-0.0003
15	2.99	1.17	0.0591**	-0.0366	0.0658**	0.0955***	-0.0542*	0.1826***	0.0443
16	0.24	0.43	0.0036	-0.0087	0.0946***	0.0835***	0.2039***	-0.0253	-0.0278
17	3.84	2.06	0.0291	0.0872	0.1230***	-0.0459	0.2041***	0.0436	-0.0324
18	89900000.00	286000000.00	0.0374	-0.0763	-0.0319	-0.0176	0.0309	0.0668**	0.0396
19	1.61	0.82	0.0081	-0.0327	-0.1257***	-0.0339	-0.1256***	0.0794***	0.0154

Note: * p<0.10, **p<0.05, ***p<0.01

Table 1 Continued

	8	9	10	11	12	13	14	15	16	17	18	19
1 NVC												
2 embeddedness												
3 Missionary												
4 Darwin												
5 Communitarin												
6 Community Culture												
7 Region												
8 Age	1											
9 Gender	-0.0229	1										
10 Martial Status	-0.2195***	0.0750***	1									
11 Education	0.2059***	-0.0625**	-0.0930***	1								
12 Race	-0.1175***	-0.0041	0.0671**	-0.0542*	1							
13 GSupport	-0.013	0.0052	-0.0208	0.0095	0.0729**	1						
14 communitySupport	-0.0408	0.0837***	0.0357	0.0276	-0.0029	0.4335***	1					
15 BankerSupport	-0.1486***	0.0452	0.0543*	-0.0437	0.0597**	0.3666***	0.3475***	1				
16 hightech	0.0011	0.0836***	-0.0063	-0.013	0.0522*	-0.0063	-0.0464	-0.0234	1			
17 MarketCompetition	0.0581**	-0.003	-0.0234	0.0108	0.0236	0.0104	-0.014	-0.0985***	0.0979***	1		
18 HouseIncome	-0.035	-0.0322	0.0388	0.0335	-0.0051	0.0273	0.0432	0.0166	-0.0051	0.0496*	1	
19 PriorExp	-0.1017***	-0.0418	0.0595**	-0.0907***	0.007	0.0196	0.0706**	-0.0121	-0.0217	-0.0302	0.0192	1

Note: * p<0.10, **p<0.05, ***p<0.01

TABLE 2
MAXIMUM LIKELIHOOD LOGIT MODEL RESULTS: NEW VENTURE CREATION

Control Variables	Founder's Identity					Moderating Role of Community Culture				Moderating Role of Embeddedness			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Gender	-0.418* (-2.55)	-0.421* (-2.57)	-0.436** (-2.65)	-0.408* (-2.49)	-0.0958** (-3.13)	-0.447** (-2.71)	-0.422* (-2.57)	-0.407* (-2.48)	-0.434** (-2.62)	-0.631+ (-1.72)	-0.526 (-1.43)	-0.567 (-1.56)	-0.579 (-1.56)
Race	0.0243 (-0.45)	0.0253 (-0.47)	0.00592 (-0.11)	0.0189 (-0.35)	-0.429** (-2.61)	0.00295 (-0.05)	0.0252 (-0.46)	0.0189 (-0.35)	0.0089 (-0.16)	0.0879 (-0.63)	0.11 (-0.79)	0.108 (-0.8)	0.0751 (-0.54)
Education	0.0105 (-0.22)	0.0228 (-0.46)	0.0106 (-0.22)	0.0134 (-0.27)	0.00691 (-0.13)	0.0108 (-0.22)	0.0209 (-0.42)	0.0106 (-0.22)	0.0183 (-0.37)	0.196+ (-1.79)	0.215+ (-1.92)	0.220* (-1.99)	0.201+ (-1.81)
Region	-0.0549 (-0.87)	-0.0552 (-0.88)	-0.0502 (-0.80)	-0.0539 (-0.86)	0.0216 (-0.44)	-0.0487 (-0.77)	-0.0546 (-0.87)	-0.0543 (-0.86)	-0.0515 (-0.81)	-0.163 (-1.13)	-0.167 (-1.17)	-0.145 (-1.01)	-0.126 (-0.86)
BankerSupport	0.166* (-2.33)	0.160* (-2.25)	0.170* (-2.38)	0.156* (-2.19)	-0.0507 (-0.80)	0.172* (-2.42)	0.156* (-2.17)	0.159* (-2.22)	0.152* (-2.12)	0.374* (-2.34)	0.383* (-2.34)	0.359* (-2.24)	0.361* (-2.25)
GSsupport	-0.259** (-3.26)	-0.261** (-3.28)	-0.251** (-3.15)	-0.233** (-3.18)	0.159* (-2.22)	-0.245** (-3.06)	-0.261** (-3.27)	-0.251** (-3.14)	-0.246** (-3.06)	-0.247 (-1.39)	-0.278 (-1.56)	-0.267 (-1.52)	-0.246 (-1.38)
CommunitySupport	0.153+ (-1.7)	0.151+ (-1.68)	0.153+ (-1.7)	0.156+ (-1.73)	-0.251** (-3.15)	0.177+ (-1.92)	0.163+ (-1.77)	0.165+ (-1.78)	0.185* (-1.99)	0.13 (-0.63)	0.119 (-0.58)	0.128 (-0.62)	0.145 (-0.7)
MarketCompetition	0.0551 (-1.5)	0.057 (-1.55)	0.0383 (-1.02)	0.0468 (-1.26)	0.156+ (-1.73)	0.0418 (-1.11)	0.058 (-1.57)	0.0481 (-1.29)	0.0436 (-1.15)	-0.0598 (-0.69)	-0.0324 (-0.39)	-0.0413 (-0.49)	-0.0588 (-0.68)
HouseIncome	3.37E-10 (-1.14)	3.42E-10 (-1.16)	3.19E-10 (-1.08)	3.61E-10 (-1.22)	3.81E-02 (-1.01)	3.21E-10 (-1.08)	3.46E-10 (-1.17)	3.54E-10 (-1.19)	3.08E-10 (-1.03)	1.34E-09 (-1.27)	1.46E-09 (-1.37)	1.43E-09 (-1.35)	1.34E-09 (-1.27)
Hightech	0.0496 (-0.28)	0.0239 (-0.13)	-0.0345 (-0.19)	0.0241 (-0.13)	3.39E-10 (-1.14)	-0.0304 (-0.17)	0.0208 (-0.11)	0.0201 (-0.11)	-0.0545 (-0.29)	0.658 (-1.54)	0.72+ (-1.72)	0.736+ (-1.75)	0.687 (-1.6)
PriorExp	-0.0633 (-0.09)	0.00288 (-0.03)	0.0189 (-0.19)	0.0146 (-0.15)	-0.0554 (-0.30)	0.0188 (-0.19)	0.00748 (-0.08)	0.0164 (-0.17)	0.0321 (-0.33)	0.213 (-0.91)	0.146 (-0.62)	0.197 (-0.83)	0.238 (-1)
Age	-0.103*** (-3.44)	-0.0933** (-3.08)	-0.107*** (-3.57)	-0.0985** (-3.28)	0.0362 (-0.37)	-0.104*** (-3.46)	-0.0929** (-3.06)	-0.0990** (-3.29)	-0.0940** (-3.05)	-0.159* (-2.36)	-0.146* (-2.13)	-0.143* (-2.11)	-0.157* (-2.21)
Marital status	-0.00275 (-0.07)	-0.00542 (-0.15)	-0.0103 (-0.28)	-0.00418 (-0.11)	-0.012 (-0.32)	-0.00901 (-0.24)	-0.00808 (-0.22)	-0.00407 (-0.11)	-0.0117 (-0.31)	-0.0392 (-0.48)	-0.0228 (-0.28)	-0.044 (-0.53)	-0.0452 (-0.54)
Log-likelihood	-559.11148	-557.59241	-556.15517	-557.45835	-554.49409	-553.50071	-556.08974	-557.22161	-549.30696	-124.52283	-122.75425	-123.34596	-123.71471
Degrees of freedom	12	13	13	13	15	15	15	15	19	19	19	19	21
N	1211	1211	1211	1211	1211	1211	1211	1211	1211	338	338	338	338

Note: t statistics are in parentheses. + P<0.10, * p<0.05, **p<0.01, *** p<0.001

Table 2 Continued

Independent Variables	Founder's Identity					Moderating Role of Community Culture				Moderating Role of Embeddedness			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Darwin		0.111+ (-1.75)			0.0895 (-1.39)	0.348* (-2.25)			0.328* (-2.08)		0.127 (-0.7)		0.0499 (-0.28)
Communitarian			0.142* (-2.4)		0.115+ (-1.87)	0.418** (-3.04)			0.463** (-3.11)	0.201 (-1.12)			0.161 (-0.9)
Missionary				0.111+ (-1.83)	0.0681 (-1.06)		0.044 (-0.29)		-0.156 (-0.94)			0.198 (-1.08)	0.18 (-1.03)
Community Culture						0.264 (-1.57)	0.38 (-1.42)	-0.163 (-0.63)	0.364 (-1.04)				
embeddedness										1.583 (-0.4)	1.21 (-0.16)	-0.392 (-0.07)	2.749 (-1.17)
embsqrt										-1.797 (-0.45)	-0.519 (-0.07)	-0.101 (-0.02)	-2.722 (-0.86)
Communitarian×Community Culture						-0.134* (-2.25)			-0.174** (-2.62)				
Darwin×Community Culture							-0.118+ (-1.67)		-0.122+ (-1.68)				
Missionary×Community Culture								0.0333 (-0.49)	0.119 (-1.55)				
Communitarian×Embeddedness×Emsqrt										9.121 (-1.05)			-0.0187 (-0.07)
Darwin×Embeddedness×Emsqrt											12.86* (-2.14)		-0.21 (-0.76)
Missionary×Embeddedness×Emsqrt												8.926 (-1.48)	0.103 (-0.33)
_cons	2.124** (-4.03)	1.629** (-2.72)	1.891*** (-3.52)	1.693** (-2.93)	1.273* (-2.01)	1.238* (-1.97)	0.857 (-1.11)	1.997* (-2.53)	0.462 (-0.48)	1.207 (-0.99)	0.938 (-0.67)	0.676 (-0.49)	0.323 (-0.21)
Log-likelihood	-559.11148	-557.59241	-556.15517	-557.45835	-554.49409	-553.50071	-556.08974	-557.22161	-549.30696	-124.52283	-122.75425	-123.34596	-123.71471
Degrees of freedom	12	13	13	13	15	15	15	15	19	19	19	19	21
N	1211	1211	1211	1211	1211	1211	1211	1211	1211	338	338	338	338

Note: t statistics are in parentheses. + P<0.10, * p<0.05, **p<0.01, *** p<0.001

TABLE 3
HYPOTHESIS TEST RESULTS

Major Hypotheses	Results
H1 a,b,c: Positive impact of founder's identity on NVC	Supported
H2: Positive moderation of community culture	Partially Supported
H3a: Inverse U shape moderation of embeddedness	Partially Supported
H3b: U shape moderation of embeddedness	Not Supported

FIGURE 1
THE CONCEPTUAL MODEL OF FOUNDER'S IDENTITY AND NEW VENTURE CREATION

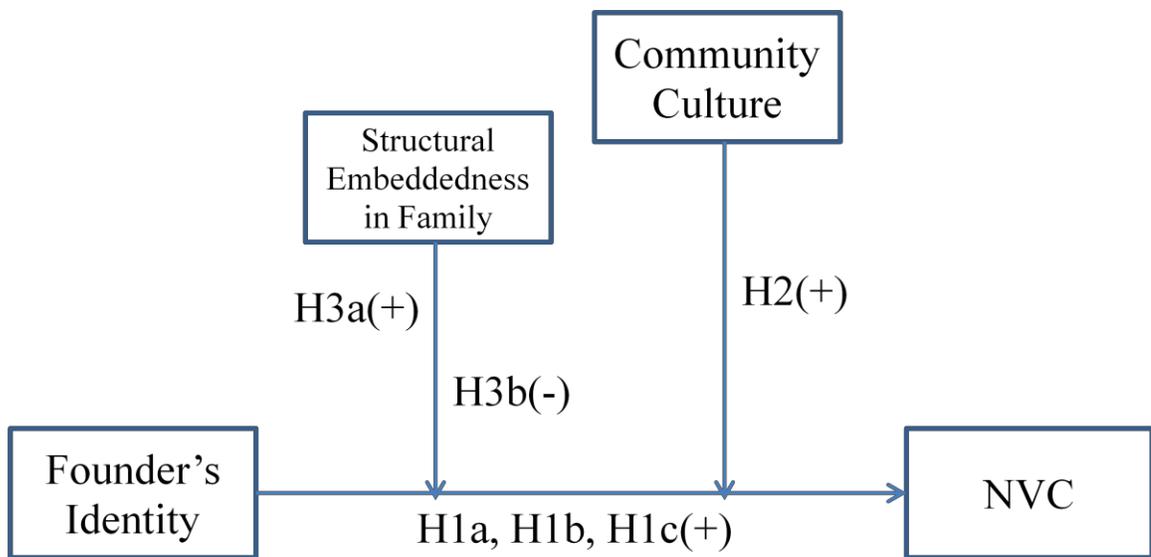


FIGURE 2
INTERACTIVE EFFECTS BETWEEN DARWIN
IDENTITY AND COMMUNITY CULTURE

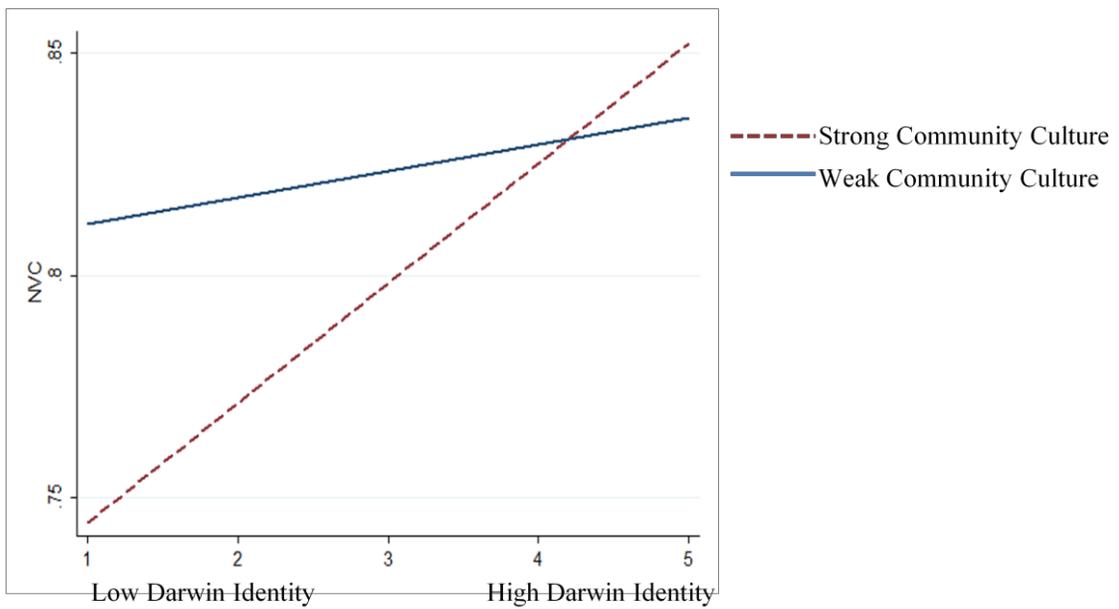


FIGURE 3
INTERACTIVE EFFECTS BETWEEN COMMUNITARIAN
IDENTITY AND COMMUNITY CULTURE

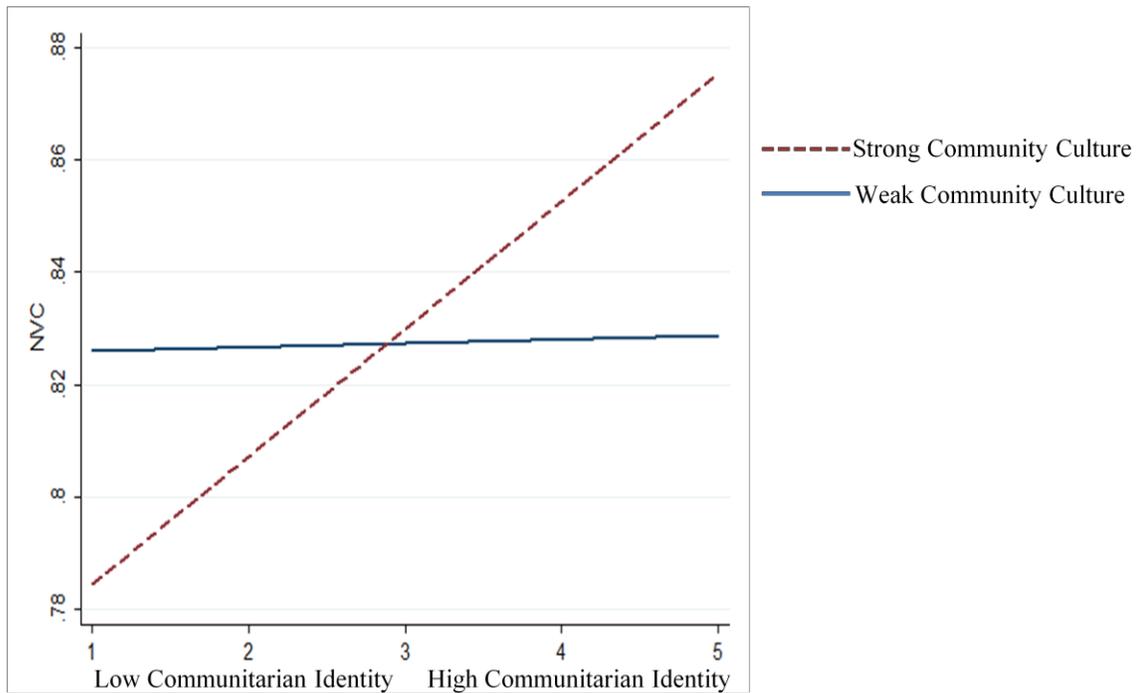


FIGURE 4
MODERATION EFFECTS OF EMBEDDEDNESS

