I am what I am - How nascent entrepreneurs’ social identity affects their entrepreneurial self-efficacy

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Conflicts of interest: none.

Keywords
Entrepreneurial self-efficacy; Social identity theory; Social entrepreneurship, Entrepreneurial education

\textsuperscript{1} This is a preprint version. For the final version refer to „I am what I am – How nascent entrepreneurs’ social identity affects their entrepreneurial self-efficacy“. 2018. L. Brändle, E. S. C. Berger, S. Golla & A. Kuckertz. \textit{Journal of Business Venturing Insights}. 9 (June): 17-23.
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Abstract

Their perceived entrepreneurial self-efficacy has various implications for nascent entrepreneurs. Those effects range from causing overconfident entrepreneurs to set unattainable goals, to overchallenged entrepreneurs being deterred by complex opportunities. We propose that entrepreneurs’ social identity, which is related to the type of opportunity they pursue, might explain different levels of entrepreneurial self-efficacy. Our analysis of a sample of 753 nascent entrepreneurs shows that self-interested Darwinian entrepreneurs are more likely to feel competent, while missionary entrepreneurs trying to further a cause applicable to society at large do not demonstrate high levels of entrepreneurial self-efficacy.

1 Introduction

“[…] entrepreneurship, understood broadly, is heterogeneous, blooming, messy, and a sometimes glorious social tool that is widely available. […] it can produce heroes of many kinds: of their own lives, families, communities, and myriad other contexts.” (Welter et al., 2017, p. 317).

Entrepreneurs are embedded in and shape their social environment in many ways. They affect a society’s economic growth (Audretsch et al., 2006), enter politics (Obschonka and Fisch, 2017), transform established organizations (Dess and Lumpkin, 2005) and develop solutions that can bring progress to communities (McKeever et al., 2015) or society at large (Zahra et al., 2009). The diversity in entrepreneurial behavior reflects the heterogeneity of the roles and identities entrepreneurs apply (Gruber and Macmillan, 2017).
To be “heroes of many kinds” (Welter et al., 2017, p. 317), entrepreneurs need to attain basic skills in entrepreneurship. Those skills generally encompass competences applicable throughout the founding stages of searching, planning, marshaling, and implementing (Chen et al., 1998; Forbes, 2005; Liñán, 2008; Zhao et al., 2005). It is especially important for nascent entrepreneurs to experience entrepreneurial self-efficacy (ESE), since it helps them to perform better in uncertain environments by compensating their actual deficiencies in expertise with perceived entrepreneurial abilities (Engel et al., 2014). Nascent entrepreneurs need to be confident that the entrepreneurial opportunity is feasible, and that they are able to exploit it (Dimov, 2010). Some argue that nascent entrepreneurs who give up lack ESE (Drnovšek et al., 2010), the reasons possibly being determined by their risk preference and cognitive style (Barbosa et al., 2007), and the cultural environment they are embedded in (Hopp and Stephan, 2012). On the other hand, entrepreneurs can also experience an excess of ESE, which can contribute to venture failure and negative firm performance (Hayward et al., 2006). In their early stages, startups are strongly driven and shaped by the characteristics and vision of their founders, which should prompt us to investigate the social identity of those founders. It is thus important to determine whether nascent entrepreneurs are mainly driven by economic self-interest or are on a social mission to change the world. Doing so involves asking who they are and who they want to be.

This article studies the relationship between the social identity of nascent entrepreneurs (which is related to whether they pursue the social- or self-interest-oriented type of opportunity) and their perceived ESE (which is related to their subjectively perceived capacity to act upon a particular opportunity). The paper thus sets out to answer the following research question: Do different social identities of nascent entrepreneurs lead to differences in their entrepreneurial self-efficacy?
This article aims to shed light on the issues that hinder nascent entrepreneurs from developing ESE or enable them to do so. We propose that one such determinant is the entrepreneur’s social identity. Hierarchical regression analysis with data from 753 nascent entrepreneurs shows that entrepreneurs with Darwinian and communitarian social identities perceive they have higher levels of ESE, whereas nascent entrepreneurs identifying with a mission to change the world do not. This study aims to contribute to the existing literature in three ways: First, it establishes the need to consider an entrepreneur’s social identity when measuring ESE. Second, it shows that differences in perceived ESE with regard to entrepreneurs’ social identities tend to be rather subjective. Third, it speaks for the implementation of specific self-efficacy scales for the various social identities.

2 Social Identity and Self-efficacy in Nascent Entrepreneurship

Entrepreneurs either need to or want to distinguish themselves from other members of society (Shepherd and Haynie, 2009); however, they still experience the basic psychological need to belong to a group (Tajfel and Turner, 1986). According to social identity theory, people define themselves as being members of an in-group that has significantly different attributes from an out-group (Tajfel and Turner, 1979, 1986). In identifying with an in-group, people want to incorporate the positive attributes like success and status of the in-group and compare them to the perceived negative attributes of the out-group, which increases their self-esteem and can enhance self-efficacy (Abrams and Hogg, 1988; Stryker and Burke, 2000). Members of social groups evaluate activities by whether they are in line with an identity prototype, and are more likely to conduct activities that fit (Tajfel and Turner, 1979). The individual’s social identity is expected to develop over a long period starting in early childhood and will be constantly
questioned and refined over the course of a person’s life (Fauchart and Gruber, 2011).

Entrepreneurs’ social identity has an impact on the type of opportunity they exploit (Wry and York, 2017; York et al. 2016), the strategic decisions they consider appropriate, and the type of value they create (Fauchart and Gruber, 2011). Accordingly, examining nascent entrepreneurs’ social identity can illuminate hitherto unexplained variance in the firm creation process (Fauchart and Gruber, 2011; Powell and Baker, 2014, in press). Entrepreneurs’ basic social motivation, basis of self-evaluation, and frame of reference all shape their social identity and produce three different social identity types: Darwinians, communitarians, and missionaries (Fauchart and Gruber, 2011). Darwinian entrepreneurs are driven by economic self-interest, define success as being a competent professional and see their frame of reference in competing firms. Communitarians intend to contribute to a group they strongly identify with, evaluate themselves based on whether they are true to similar others and act in the frame of reference of their community. Missionaries want to advance a cause by venture creation, define success as making the world a better place, and define their frame of reference as society at large (Fauchart and Gruber, 2011; Sieger et al., 2016).

ESE is a critical concept in nascent entrepreneurship that addresses the question of whether entrepreneurs feel that they have the capacity to adequately respond to a particular entrepreneurial challenge. Social cognitive theory holds that the greater the entrepreneur’s experience of accomplishment (enactive mastery), of vicarious learning (role modeling), of receiving positive feedback (social persuasion), and the stronger their perception that they are in a stable physical and emotional state, the stronger will be their ESE (Bandura, 1982, 1986; Boyd and Vozikis, 1994; Lent et al., 1994). While self-efficacy can be determined by asking if individuals perceive themselves to be able to perform a specific behavior, perceived
Controllability revolves around whether someone feels generally in control of the performance (or nonperformance) of a behavior (Ajzen, 2002). Controllability can be measured as a locus of control, and states the degree to which individuals feel their behavior is independent of external factors (Levenson, 1973; Sieger and Monsen, 2015). According to Ajzen (2002) self-efficacy and controllability are interrelated and together form the widely used construct perceived behavioral control (Ajzen, 1991). Entrepreneurs’ perceptions of their ability to perform a specific behavior (or their ESE) will be adversely affected when they believe external forces deprive them of complete control of their behavior; in other words there is a lack of perceived controllability (Urbig and Monsen, 2012). It follows that nascent entrepreneurs who perceive they have an elevated level of controllability might experience stronger ESE, and the reverse should also apply.

The central tenet of the current research is, however, that those individuals who are driven primarily by economic self-interest are most likely to perceive the highest levels of ESE. Nascent entrepreneurs with a Darwinian type social identity are quite likely to experience enactive mastery, which flows from their view that being a competent professional constitutes success (Fauchart and Gruber, 2011). Such entrepreneurs would probably feel that status flows from applying solid management practices and thoughtfully conducting financial planning (Sieger et al., 2016). Furthermore, nascent entrepreneurs’ role models are less likely to be distant icons than they are to be people from the entrepreneurs’ immediate environment (Bosma et al., 2012). As the competitive Darwinian approach is well established in free market economies, the chances of an entrepreneur having a Darwinian role model in the family or the professional environment would seem to be quite high. Darwinian entrepreneurs are also likely to receive positive feedback from within their immediate environment, and to experience social
encouragement through, for example, teachers and mentors (Zhao et al., 2005) because many business schools teach students how to win in a competitive environment. Accordingly, Darwinians may experience the social encouragement they need to nurture their ESE. Finally, Darwinians are less likely to experience negative emotions like anxiety because they only feel responsible for themselves (Sieger et al., 2016). The ability to bypass anxiety makes issues like the fear of potential negative effects on stakeholders irrelevant, and the challenges ahead manageable. The basic skills expected of entrepreneurs are traditionally economic ones, which align well with the concept of a Darwinian social identity and its definition of success (Gruber and MacMillan, 2017). Accordingly, the more nascent entrepreneurs identify themselves as Darwinian entrepreneurs, the more likely it is that their perceived ESE will be high.

Communitarian nascent entrepreneurs are able to experience enactive mastery even before they get into the founding process, because they employ their prior knowledge to create a product or service (Fauchart and Gruber, 2011). Nascent entrepreneurs with a communitarian type of social identity may also be inspired by tangible role models from their immediate environment, because other members of the group they identify with are also likely to be advancing the interests of the group (Sieger et al., 2016; Tajfel and Turner, 1986). Communitarian nascent entrepreneurs are not only influenced by the community they identify with but also feel responsible for it (Fauchart and Gruber, 2011). This might lead to emotional states of anxiety and lower levels of self-efficacy stemming from communitarians not wanting to disappoint the group of people they identify with and possibly lead to an ambiguous relationship between communitarian entrepreneurs’ identity and their perceived ESE.

Missionary type nascent entrepreneurs would consider themselves successful if they are able to advance social justice, preserve the environment, or generally make the world a better
place: they shoot for the moon by formulating the aspiration to play a role in changing how the world operates (Sieger et al., 2016). Given these lofty expectations, missionary entrepreneurs are less likely to experience enactive mastery in the early founding process of their enterprises and thus may doubt the level of their ESE. As role models who successfully changed the world for the better are hard to find in the missionary entrepreneurs’ close environment, they can only look up to distant icons who may not fulfill the function a role model from the immediate environment could (Bosma et al., 2012). Furthermore, even if ESE could be fostered among missionary entrepreneurs by providing effective social entrepreneurship education (Smith and Woodworth, 2012), it may also prompt skepticism among teachers and mentors in classically-minded business schools and lead to a lack of positive feedback and less social encouragement. As missionary entrepreneurs are driven by the maxim of being highly responsible citizens of the world (Sieger et al., 2016), it is very likely that their self-imposed responsibility leads to anxiety if they anticipate failing to meet that aspiration (Grant, 2008). The self-imposed burden to contribute to the progress of society can lead missionaries to feel small in the face of the challenges ahead. Additionally, the basic skills for entrepreneurial action are possibly not perceived as fitting the missionary entrepreneurs’ identity, as they could be associated with the Darwinian out-group of entrepreneurs. Consequently, the more nascent entrepreneurs identify themselves with a missionary identity, the less likely they are to perceive they have elevated levels of ESE.

3 Material and Methods

3.1 Data Collection
The data for this study were retrieved from the “Global University Entrepreneurial Spirit Students’ Survey” (GUESSS) which was conducted in summer 2016. This study focuses on the German sample, comprising data from 39 higher-education institutions. After removing participants with missing values, the final sample consists of 753 nascent entrepreneurs in German higher-education institutions. Scale variables were constructed using the average score of 7-point Likert items.

3.2 Measures

Five items for our dependent variable entrepreneurial self-efficacy (ESE) were drawn from prior studies (Chen et al., 1998; Forbes, 2005; Liñán, 2008; Zhao et al., 2005). Those items measure individuals’ perceived competences in different entrepreneurial planning stages such as searching, planning, marshaling, and implementing, and also in different entrepreneurial domains such as those relating to innovation, marketing, management, finance, and risk-taking (Forbes, 2005). The Cronbach’s alpha for ESE is 0.86.

Our independent variables Darwinian, communitarian, and missionary social identity are based on the entrepreneurs’ social identity scale developed by Sieger et al. (2016). Five items measure the entrepreneurs’ basic social motivation, their basis for self-evaluation and their frame of reference. The Cronbach’s alpha for the Darwinian social identity is 0.80, for the communitarian social identity 0.84, and for the missionary social identity 0.89. In contrast to ESE, which explains the individually-perceived competence at performing a specific entrepreneurial task, the independent variable perceived controllability states whether the individual generally perceives he or she is in control of his or her actions. Three items are derived from Levenson (1973) and return a Cronbach’s alpha of 0.88.
Age and gender, in line with other GUESSS studies (Laspita et al., 2012; Sieger and Monsen, 2015; Zellweger et al., 2011), are used as control variables. Males were coded as 0 and females as 1. Prior research suggests gender might influence ESE (Wilson et al., 2007). Entrepreneurial learning is used as a control variable because it is reported to be a major determinant of ESE (Zhao et al., 2005). It is measured with five items from Johannisson (1991) and Souitaris et al. (2007), and records a Cronbach’s alpha of 0.89. According to social cognitive theory (Bandura, 1986), past accomplishments in an area of interest lead to a greater degree of perceived self-efficacy. We therefore included entrepreneurial activities undertaken and being a serial entrepreneur as control variables on the grounds they might raise perceived ESE (Hockerts, 2017). Entrepreneurial activity was measured based on a list of startup activities drawn from the Global Entrepreneurship Monitor and the Panel Study of Entrepreneurial Dynamics as applied by Shirokova and colleagues (2016). Serial entrepreneurs are coded as 1 and first-time entrepreneurs as 0. Table 1 summarizes the descriptive statistics and correlations of all considered variables.
Table 1: Descriptive statistics and correlations

| Variable                                      | Mean  | SD   | 1.  | 2.  | 3.  | 4.  | 5.  | 6.  | 7.  | 8.  |
|-----------------------------------------------|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. Entrepreneurial self-efficacy             | 5.291 | .978 |    | 2.  |     |     |     |     |     |     |
| 2. Age                                        | 25.790| 4.017| .055|     |     |     |     |     |     |     |
| 3. Gender (0=male / 1=female)                 | .327  | .469 | -.098**| .031|     |     |     |     |     |     |
| 4. Entrepreneurial Learning                  | 3.806 | 1.518| .298**| .017| -.020|     |     |     |     |     |
| 5. Entrepreneurial Activity                  | .232  | .183 | .198**| .068| -.059| .140**|     |     |     |     |
| 6. Serial Entrepreneur (0=no / 1=yes)        | .06   | .244 | 0.068| .169**| -.089*| .000| .100**|     |     |     |
| 7. Darwinian                                 | 5.103 | 1.137| .457**| .029| -.106**| .263**| .108**| .083*|     |     |
| 8. Communitarian                             | 4.920 | 1.342| .340**| .061| .060| .218**| .114**| .050| .308**|     |
| 9. Missionary                                | 5.006 | 1.468| .259**| .016| .033| .183**| .015| .029| .215**| .561**|
| 10. Perceived controllability                | 5.593 | .960 | .448**| -.034| -.056| .215**| .132**| -.052| .254**| .161**|

*Significant at the .05 level; **Significant at the .01 level.
4 Results

To assess the effect of nascent entrepreneurs’ social identity on ESE, the research team adopted a hierarchical OLS regression approach. Starting from a baseline model, researchers successively enriched the model with different bundles of influencing factors that might explain the dependent variable ESE. The results with regard to the control variables are listed in Table 2 and suggest that entrepreneurial learning has a small but significant positive effect on ESE (b=.07, p<.001), and that the past startup activities of nascent entrepreneurs have a significant positive effect on their ESE (b=.480, p<.01). In line with our theoretical reasoning, the results show that (1) nascent entrepreneurs’ perceived controllability is significantly related to their ESE (b=.30, p<.001), (2) there is a significant positive relationship between having a Darwinian social identity and nascent entrepreneurs’ ESE (b=.23, p<.001), (3) there is a significant positive relationship between having a communitarian social identity and nascent entrepreneurs’ ESE (b=.110, p<.001), and (4) there is no significant relationship between having a missionary social identity and nascent entrepreneurs’ ESE (b=.028, p>.1). Additionally, moderation analysis (Figure 1) shows that the positive relation between the communitarian social identity and ESE is negatively moderated by the nascent entrepreneurs’ perceived controllability (b= -.097 p<.05). This moderation is not significant for the Darwinian and missionary social identities. The final model including all variables and interaction effects explains 39.9 percent of the variance in the dependent variable.
**Table 2:** Hierarchical regression and moderation effects on entrepreneurial self-efficacy (ESE)

| Variables                        | Model 1 | Model 2 | Model 3 |
|----------------------------------|---------|---------|---------|
| Constant                         | 2.157***| 1.039***| 1.210***|
| **Control variables**            |         |         |         |
| Age                              | 0.012   | 0.009   | 0.009   |
| Gender                           | -0.130* | -0.110  | -0.117  |
| Entrepreneurial Learning         | 0.127***| 0.066***| 0.071***|
| Entrepreneurial Activity         | 0.559***| 0.462** | 0.480** |
| Serial Entrepreneur              | 0.254*  | 0.131   | 0.138   |
| Perceived Controllability        | 0.400***| 0.319***| 0.295***|
| **Main effects**                 |         |         |         |
| Darwinian Social Identity        |         | 0.238***| 0.230***|
| Communitarian Social Identity    |         | 0.101***| 0.110***|
| Missionary Social Identity       |         | 0.038   | 0.028   |
| **Moderation effects**           |         |         |         |
| Darwinian*Perceived Controllability|       | -0.041  |         |
| Communitarian*Perceived Controllability| | -0.097* |         |
| Missionary*Perceived Controllability   |       | 0.039   |         |

**Model Fit**

|                  | Model 1 | Model 2 | Model 3 |
|------------------|---------|---------|---------|
| \( R^2 \)        | 0.268   | 0.386   | 0.399   |
| \( R^2 \) change | 0.118   | 0.013   |         |

Dependent Variable: Entrepreneurial Self-Efficacy

***p<0.001, **p<0.01, *p<0.05. Significance levels are two-tailed.

N=753
5 Discussion

This study’s results extend the ESE literature by examining how the affiliation of nascent entrepreneurs to Darwinian, communitarian, or missionary social identities affects their ESE. In so doing, the study shows that identifying with the concept of being an entrepreneur does not automatically lead to stronger perceptions of ESE. The findings indicate that when measuring ESE, one should consider the entrepreneurs’ social identity to better understand the different levels of ESE, especially among nascent entrepreneurs. The study also enhances social cognitive theory by proposing a link between entrepreneurs’ social identities (Fauchart and Gruber, 2011).
and the specific determinants of self-efficacy: enactive mastery, role modeling, social persuasion, physical, and emotional state (Bandura, 1986).

The fact that among nascent entrepreneurs the Darwinian and communitarian social identities positively affect ESE, whereas a missionary social identity does not, suggests that nascent entrepreneurs who identify with a Darwinian or communitarian understanding of entrepreneurship are more likely to feel competent in terms of their entrepreneurial skills. Nascent entrepreneurs who are on a mission to tackle a societal problem or to make the world a better place, for instance, do not experience higher levels of ESE. We suggest that the reasons for differences in the level of perceived ESE among nascent entrepreneurs with different social identities lie either with the ease or difficulty they have in experiencing accomplishments, managing vicarious learning, receiving positive feedback, and maintaining a stable physical and emotional state. That reasoning is in line with key aspects of social cognitive theory (Bandura, 1986). We suggest further research empirically assesses this relationship. The results of the current study, however, suggest that the reason for these differences does not lie in actual deficits of expertise, because they do not stem from differences in entrepreneurial learning and entrepreneurial experience. Even if entrepreneurs identifying with a Darwinian social identity self-select themselves into economic fields of study, achieve a higher level of entrepreneurial learning, and are more likely to have entrepreneurial experience, the differences in their ESE compared to those identifying with a communitarian or missionary identity are not explained by these factors. We therefore conclude that differences in ESE among entrepreneurs identifying with a Darwinian, communitarian, or a missionary social identity tend to be first and foremost perceived differences and do not necessarily reflect real differences in entrepreneurial skills. Entrepreneurs perceiving levels of competency that they do not have is something already
discussed in literature and is most-often linked with venture failure (Hayward et al., 2006). Being overconfident increases the likelihood of entrepreneurs setting unattainable goals and then presiding over negative firm performance (Baron et al., 2016). Our findings suggest that those with a Darwinian social identity are especially likely to be overconfident, because regardless of their entrepreneurial learning and experience such people perceive themselves as possessing strong self-efficacy.

Future research could measure whether entrepreneurs with different social identities are more likely to perceive ESE when they are asked to describe their competence in skills specifically related to their identity. We suppose that for example identifying with a missionary social identity would imply a person has a higher level of social ESE (Hockerts, 2015, 2017). Nevertheless, even if this were true, we suggest that in practice missionary entrepreneurs should acquire the basic entrepreneurial skills in searching, planning, marshaling, and implementing if they want to succeed. Acting on the triple bottom line, missionary entrepreneurs tend to maximize economic and social and ecological value (Cohen and Winn, 2007; Schaltegger and Wagner, 2011). This means that they should not only perceive but also truly be prepared to master challenges of many kinds to face the grand challenges of our time.

6 Conclusion

This paper was motivated by the question of whether entrepreneurs with a Darwinian social identity are more likely to perceive they possess higher levels of ESE. By using a social identity perspective, this study shows that nascent entrepreneurs who identify with a self-interested understanding of entrepreneurship, feel more capable of applying entrepreneurial skills than their counterparts; whereas entrepreneurs who identify with the mission to change the world and target society at large are not likely to experience higher levels of ESE. Our results show that
these differences in ESE do not result from different levels of experience or learning but are instead deeply rooted in entrepreneurs’ social identity.
Acknowledgments: We thank Marc Gruber, EPFL, for valuable comments on an earlier version of this paper as well as the editor and the anonymous reviewers for their constructive and helpful suggestions.

References

Abrams, D., Hogg, M.A., 1988. Comments on the motivational status of self-esteem in social identity and intergroup discrimination. Eur. J. Soc. Psychol. 18, 317–334. doi:10.1002/ejsp.2420180403

Ajzen, I., 2002. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. J. Appl. Soc. Psychol. 32, 665–683. doi: 10.1111/j.1559-1816.2002.tb00236.x

Ajzen, I., 1991. The theory of planned behavior. Organizational Behav. Hum. Decis. Process. 50, 179–211. doi:10.1016/0749-5978(91)90020-T

Audretsch, D. B., Keilbach, M. C., & Lehmann, E.E., 2006. Entrepreneurship and economic growth. Oxford University Press. doi:10.1093/acprof:oso/9780195183511.001.0001

Bandura, A., 1986. Social foundations of thought and action: A social cognitive theory., 1st ed. Prentice-Hall, Inc.

Bandura, A., 1982. Self-efficacy mechanism in human agency. Am. Psychol. 37, 122–147. doi: 10.1037/0003-066X.37.2.122

Barbosa, S.D., Gerhardt, M.W., Kickul, J.R., 2007. The role of cognitive style and risk preference on entrepreneurial self-efficacy and entrepreneurial intentions. J. Leadersh. Organ. Stud. 13, 86–104. doi:10.1177/10717919070130041001

Baron, R.A., Mueller, B.A., Wolfe, M.T., 2016. Self-efficacy and entrepreneurs’ adoption of unattainable goals: The restraining effects of self-control. J. Bus. Ventur. 31, 55–71.
Bosma, N., Hessels, J., Schutjens, V., Praag, M. Van, Verheul, I., 2012. Entrepreneurship and role models. J. Econ. Psychol. 33, 410–424. doi:10.1016/j.joep.2011.03.004

Boyd, N.G., Vozikis, G.S., 1994. The influence of self-efficacy on the development of entrepreneurial intentions and actions. Entrep. Theory Pract. 18, 63–77. doi:10.1080/02640410152475847

Chen, C.C., Greene, P.P.G., Crick, A., 1998. Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? J. Bus. Ventur. 13, 295–316. doi:10.1016/S0883-9026(97)00029-3

Cohen, B., Winn, M.I., 2007. Market imperfections, opportunity and sustainable entrepreneurship 22, 29–49. doi:10.1016/j.jbusvent.2004.12.001

Dess, G.G., Lumpkin, G.T., 2005. The Role of Entrepreneurial Orientation in Stimulating Effective Corporate Entrepreneurship. Acad. Manag. Exec. 19, 147–156. doi:10.5465/AME.2005.15841975

Dimov, D., 2010. Nascent entrepreneurs and venture emergence: Opportunity confidence, human capital, and early planning. J. Manag. Stud. 47, 1123–1153. doi:10.1111/j.1467-6486.2009.00874.x

Drnovšek, M., Wincent, J., Cardon, M.S., 2010. Entrepreneurial self-efficacy and business start-up: developing a multi-dimensional definition. Int. J. Entrep. Behav. Res. 16, 329–348. doi:10.1108/13552551011054516

Engel, Y., Dimitrova, N.G., Khapova, S.N., Elfring, T., 2014. Uncertain but able: Entrepreneurial self-efficacy and novices’ use of expert decision-logic under uncertainty. J. Bus. Ventur. Insights 1, 12–17. doi:10.1016/j.jbvi.2014.09.002
Fauchart, E., Gruber, M., 2011. Darwinians, Communitarians, and Missionaries: the Role of Founder Identity in Entrepreneurship. Acad. Manag. J. 54, 935–957. doi:10.5465/amj.2009.0211

Forbes, D.P., 2005. The effects of strategic decision making on entrepreneurial self-efficacy. Entrep. Theory Pract. 29, 599–626. doi:10.1111/j.1540-6520.2005.00100.x

Grant, A.M., 2008. Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. J. Appl. Psychol. 93, 48–58. doi:10.1037/0021-9010.93.1.48

Gruber, M., Macmillan, I.C., 2017. Entrepreneurial Behavior: A Reconceptualization and Extension Based on Identity Theory. Strat Entrep J. 271–286. doi:10.1002/sej.1262

Hayward, M.L.A., Shepherd, D.A., Griffin, D., 2006. A Hubris Theory of Entrepreneurship. Manage. Sci. 52, 160–172. doi: 10.1287/mnsc.1050.0483

Hockerts, K., 2017. Determinants of social entrepreneurial intentions. Entrep. Theory Pract. 41, 105–130. doi:10.1111/etap.12171

Hockerts, K., 2015. The Social Entrepreneurial Antecedents Scale (SEAS): A Validation Study. Soc. Enterp. J. 11, 260–280. doi:10.1108/SEJ-05-2014-0026

Hopp, C., Stephan, U., 2012. The influence of socio-cultural environments on the performance of nascent entrepreneurs: Community culture, motivation, self-efficacy and start-up success. Entrep. Reg. Dev. 24, 917–945. doi:10.1080/08985626.2012.742326

Johannisson, B., 1991. University training for entrepreneurship: Swedish approaches. Entrep. Reg. Dev. 3, 67–82. doi:10.1080/08985629100000005

Laspita, S., Breugst, N., Heblich, S., Patzelt, H., 2012. Intergenerational transmission of entrepreneurial intentions. J. Bus. Ventur. 27, 414–435. doi:10.1016/j.jbusvent.2011.11.006
Lent, R.W., Brown, S.D., Hacket, G., 1994. Toward a unifying social cognitive theory of career and academic interest, choice, and performance. J. Vocat. Behav. 1, 79–122. doi:10.1006/jvbe.1994.1027

Levenson, H., 1973. Multidimensional locus of control in psychiatric patients. J. Consult. Clin. Psychol. 41, 397–404. doi:10.1037/h0035357

Liñán, F., 2008. Skill and value perceptions: How do they affect entrepreneurial intentions? Int. Entrep. Manag. J. 4, 257–272. doi:10.1007/s11365-008-0093-0

Mckeever, E., Jack, S., Anderson, A., 2015. Journal of Business Venturing Embedded entrepreneurship in the creative re-construction of place. J. Bus. Ventur. 30, 50–65. doi:10.1016/j.jbusvent.2014.07.002

Obschonka, M., Fisch, C., 2017. Entrepreneurial personalities in political leadership. Small Bus. Econ. doi:10.1007/s11187-017-9901-7

Powell, E.E., Baker, T., 2014. It’s what you make of it: founder identity and enacting strategic responses to adversity. Acad. Manag. J. 57, 1406–1433. doi:10.5465/amj.2012.0454

Powell, E.E., Baker, T., in press. In the beginning: Identity processes and organizing in multi-founder nascent ventures. Acad. Manag. J. doi:10.5465/amj.2015.0175

Schaltegger, S., Wagner, M., 2011. Sustainable Entrepreneurship and Sustainability Innovation: Categories and Interactions. Bus. Strateg. Environ. 237, 222–237. doi: 10.1002/bse.682

Shepherd, D., Haynie, J.M., 2009. Birds of a feather don’t always flock together: Identity management in entrepreneurship. J. Bus. Ventur. 24, 316–337. doi:10.1016/j.jbusvent.2007.10.005

Shirokova, G., Osievskyy, O., Bogatyreva, K., 2016. Exploring the intention-behavior link in student entrepreneurship : Moderating effects of individual and environmental
characteristics. Eur. Manag. J. 34, 386–399. doi:10.1016/j.emj.2015.12.007

Sieger, P., Gruber, M., Fauchart, E., Zellweger, T., 2016. Measuring the social identity of entrepreneurs: Scale development and international validation. J. Bus. Ventur. 31, 542–572. doi:10.1016/j.jbusvent.2016.07.001

Sieger, P., Monsen, E., 2015. Founder, academic, or employee? A nuanced study of career choice intentions. J. Small Bus. Manag. 53, 30–57. doi:10.1111/jsbm.12181

Smith, I.H., Woodworth, W.P., 2012. Developing social entrepreneurs and social innovators: A social identity and self-efficacy approach. Acad. Manag. Learn. Educ. 11, 390–407. doi:10.5465/amle.2011.0016

Souitaris, V., Zerbinati, S., Al-Laham, A., 2007. Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. J. Bus. Ventur. 22, 566–591. doi:10.1016/j.jbusvent.2006.05.002

Stryker, S., Burke, P.J., 2000. The past, present, and future of an identity theory. Soc. Psychol. Q. 284–297. doi:10.2307/2695840

Tajfel, H., Turner, J., 1979. An integrative theory of intergroup conflict, in: The Social Psychology of Intergroup Relations. Brooks/Cole Pub. Co, pp. 33–47.

Tajfel, H., Turner, J.C., 1986. The social identity theory of inter group behavior, in: Worchel, S., Austin, W. (Eds.), Psychology of Intergroup Relations. Nelson-Hall, pp. 7–24.

Urbig, D., Monsen, E., 2012. The structure of optimism: ‘Controllability affects the extent to which efficacy beliefs shape outcome expectancies’. J. Econ. Psychol. 33, 854–867. doi:10.1016/j.joep.2012.03.004

Welter, F., Baker, T., Audretsch, D.B., Gartner, W.B., 2017. Everyday Entrepreneurship — A Call for Entrepreneurship Research to Embrace Entrepreneurial Diversity. Entrep. Theory
Wilson, F., Kickul, J., Marlino, D., 2007. Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: implications for entrepreneurship education. Entrep. Theory Pract. 31, 387–406. doi:10.1111/etap.12051

Wry, T., York, J.G., 2017. An identity-based approach to social enterprise. Acad. Manag. Rev. 42, 437–460. doi:10.5465/amr.2013.0506

York, J.G., O’Neil, I., Sarasvathy, S.D., 2016. Exploring environmental entrepreneurship: identity coupling, venture goals, and stakeholder incentives. J. Manag. Stud. 53, 695–737. doi:10.1111/joms.12198

Zahra, S.A., Gedajlovic, E., Neubaum, D.O., Shulman, J.M., 2009. A typology of social entrepreneurs: A typology of social entrepreneurs: Motives, search processes and ethical challenges. J. Bus. Ventur. 24, 519–532. doi:10.1016/j.jbusvent.2008.04.007

Zellweger, T., Sieger, P., Halter, F., 2011. Should I stay or should I go? Career choice intentions of students with family business background. J. Bus. Ventur. 26, 521–536. doi:10.1016/j.jbusvent.2010.04.001

Zhao, H., Seibert, S., Hills, G., 2005. The Mediating Role of Self-Efficacy in the Development of Entrepreneurial Intentions. J Appl Psychol 90, 1265–1272. doi:10.1037/0021-9010.90.6.1265