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Identifying as an Entrepreneur: A Social Identity Perspective of the Entrepreneurial Mindset

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ABSTRACT

An entrepreneurial mindset helps innovators find, interpret, evaluate, and pursue opportunities for their innovations. It is a concept having multiple definitions and contradictions variously focused on individual traits, behaviors, attitudes, or beliefs. Robinson claimed that across the various definitions of an entrepreneurial mindset there was little theoretical grounding to be found. To address this shortcoming, this essay describes Social Identity Theory, and its close cousin, Self-Categorization Theory, which have gained significant traction in psychology and sociology, as theoretical foundations for understanding and developing an entrepreneurial mindset. Social identity is a psychological construct describing individuals' perceptions and values of belonging to a particular social group—in this case, affiliating with those identifying themselves as entrepreneurs. The argument put forth here is that a crucial aspect of developing an entrepreneurial mindset in engineering students involves helping them identify as entrepreneurs.

Key words: Engineering Profession, Identity, Entrepreneurship

INTRODUCTION

"When engineering is charged with identifying unmet needs in the marketplace and leveraging disruptive or high-technology-based designs to fill those unmet needs, then engineering becomes the crux of new market creation, and developing benefit-providing, customer-driven products and processes moves into the fore of the new tools students need to add to their toolboxes" (Kriewall and Mekemson 2010).

One of the new tools needed by engineering students for meeting the new engineering charge described above is an entrepreneurial mindset. An entrepreneurial engineer is expected to have

deep expertise in technology, combined with the ability to decipher market needs for creativity, innovation, and problem-solving—and build a business (Bilen, Kisenwether, Rzasa and Wise 2005; Kriewall and Mekemson 2010; National Academy of Engineering 2004; Taks, Tynjala, Toding, Kukemelk, and Venesaar 2014).

An *entrepreneurial mindset* is a concept having multiple definitions and contradictions variously focused on individual traits, behaviors, attitudes, or beliefs. Robinson (2010) claimed that across the various definitions of an entrepreneurial mindset there was little theoretical grounding to be found. To address this shortcoming, this essay describes Social Identity Theory, and its close cousin, Self-Categorization Theory, which have gained significant traction in psychology and sociology. Together these complementary theories provide an insightful look at the concept of an entrepreneurial mindset for two reasons: First, a key factor in developing entrepreneurs is the level to which individuals come to identify and categorize themselves as entrepreneurs. Second, successfully becoming an entrepreneur is not just an individual effort, but also dependent on the interactions between individuals and their social contexts.

This essay begins with a brief review of the literature on the concepts of mindset and social identity. The next two sections continue to review the literature focused on an entrepreneurial mindset and its relation to entrepreneurship. This also includes a few examples of statements made by participants in an entrepreneurial workshop as they grapple with the idea of adopting an entrepreneurial mindset. Finally, there is a section providing an overall strategy for addressing the inherent resistance to adopting new identities based on social identity theory.

People generally act in accordance with the social norms of the groups with which they identify (Hogg, Abrams, Otten and Hinkle 2004). Therefore, the goal of increasing entrepreneurial behaviors in engineering requires that engineers, at least partially, identify themselves as entrepreneurs. This essay focuses on the nature of an entrepreneurial mindset as a social identity in the context of engineering education and the broader contexts of engineering practice and entrepreneurship.

PERCEIVING A MINDSET AS A SOCIAL IDENTITY

Even though the mind appears to be the property of an individual, it is formed and brought about by society (Bucholtz and Hall 2005; Turner and Oakes 1999). While the common idea of a mind focuses on the individual, there is a large body of research, theory, and philosophy expanding this singular view of human identity to a broader view of the individual embedded in and constituted by the social realm (Doise 1997; Gergen 2008; Smith and Mackie 1997). People develop various

facets of their identity out of their interactions with others in an ongoing process of development and change (Glaeser 2005).

As a subset of social cognition, social identity theory and self-categorization explain how an individual makes sense of oneself and other people (Hogg et al. 2004; Korte 2007). One's mind (or mindset) is a cognitive or knowledge construct that makes sense (i.e., meaning) of one's self and one's interactions with the social world (Burke and Stets 2009). Thus, an *entrepreneurial mindset* and *identity* are similar constructs, comprised of the knowledge, beliefs, values, and attitudes that refer to an entrepreneur.

Entrepreneurship is inherently a social endeavor, dependent on the interactions and beliefs of a diverse ecosystem of innovators, financial backers, customers, suppliers, policy makers, and so on (Bucholtz and Hall 2005; Davidsson and Honig 2003; Zachary and Mishra 2010). Therefore, the formation of an entrepreneurial mindset is similar to the construction of a social identity and the categorization of oneself within a group of similar others as entrepreneurs.

"An identity is the set of meanings that define who one is when one is an occupant of a particular role in society, a member of a particular group, or claims particular characteristics that identify him or her as a unique person" (Burke and Stets 2009, 3). Identity is conceptualized as a cognitive construct of the self that answers the question, *Who am I?* Burke and Stets (2009) described three domains of identity as personality, role, and social group. In their view of identity, there is a core identity that sustains a relatively stable set of personality traits. Surrounding the core identity is a role identity, which includes a set of social expectations and behaviors of how one is to think and behave in a particular social position, and a social identity, which includes what it means to be part of a group (e.g., organization, occupation, profession, family, community, and so on). Essentially, one's social identity answers the question of, *Who are we?*, which can change depending on the salience of the group—engineer, manager, entrepreneur, spouse, parent, sibling (Turner and Onorato 1999).

At any particular time, one's identity (personal, role, and social) is the outcome of the dynamic interactions between one's personality and the social context. Jenkins (2008) described identity as a process more than as an entity, emphasizing the ongoing flux of one's interactions over time. This view of identity fits well with the multi-faceted nature of entrepreneurship, whereby an entrepreneur is a creator, innovator, market researcher, business modeler, or financial negotiator interacting with various players in the entrepreneurial process. If one does not identify oneself as a capable or legitimate player in any of these interactions, it is likely one will find it more difficult to achieve the expectations of the role.

The attributes that describe the ideal member of a group make up the profile or prototype of the group. This is the key referent for those in the group, as well as those aspiring to become members

of the group (Hogg, et al. 2004). One cannot join any group at any time; there are limitations based on one's fit and readiness, as well as how accessible the group is at the time (Turner and Onorato 1999). In the act of categorizing oneself, one evaluates the fit of the group to one's personal identity, and conversely, the group evaluates the individual's fit and readiness to join. Becoming a member of a group requires the individual to take on the norms, beliefs and values of the group, which might conflict with one's personal norms, beliefs, and values (Ashforth and Mael 1989). Working out these tensions is part of developing a new identity and is an important process in developing entrepreneurial engineers.

THE ENTREPRENEURIAL MINDSET

How one uses and responds to information is determined by one's mindset (Dweck 2008; Noble 2015; Robinson 2010). Fostering an entrepreneurial mindset in engineering means motivating engineers to develop the attributes of entrepreneurial thinking and behaviors in their work. A typical definition of entrepreneurship at the individual level is the ability to identify and exploit business opportunities (Frese and Gielnik 2014; Shane and Venkataraman 2000). Other attributes of an entrepreneurial mindset include: self-efficacy, proactivity, achievement motivation, autonomy, innovativeness, risk-taking, competitiveness (Frese and Gielnik 2014); boundary-spanning (Burt 1997); risk-tolerance, taking initiative, perseverance, creativity, leadership, communication skills, planning and organizing, collaboration, and reflection (Schelfhout, Bruggerman and DeMayaer 2016); and an opportunistic orientation (Sarasvathy 2001).

This expansive range of attributes makes it difficult to articulate and operationalize precisely what an entrepreneur is, how to educate students in entrepreneurship, and assess their learning and behavior. Furthermore, seemingly positive attributes of entrepreneurship can turn into liabilities at excessive levels; for example, over-confidence (inordinately high self-efficacy) and inflated beliefs in one's power to control tend to curtail information gathering, blind one to the risks involved, and lead one to create rosy forecasts that often favor action over analysis, (Shane and Venkataraman 2000).

Another view of entrepreneurship focuses on the entrepreneurial process. Shane and Venkataraman (2000) proposed a conceptualization of entrepreneurship that was a fluid, three-stage model requiring the pre-existence of entrepreneurial opportunities in the environment, the discovery of an entrepreneurial opportunity, and the decision to exploit a discovered entrepreneurial opportunity. Thus, having an entrepreneurial mindset is necessary, but not sufficient—there needs to be existing opportunities in the environment and the decision that these opportunities are accessible and feasible to an entrepreneur.

ON BECOMING AN ENTREPRENEUR: DEVELOPING AN ENTREPRENEURIAL MINDSET

Becoming an entrepreneur is learning a way of being that goes beyond knowing and doing what entrepreneurs know and do. It is becoming 'who we are' (Dall'Alba 2009). This process of becoming was found in feedback from individuals grappling with the development of an entrepreneurial mindset, which was gathered from an entrepreneurial workshop designed to develop an entrepreneurial mindset in engineering faculty and motivate them to commercialize their innovations (National Science Foundation n.d.). These were academic professionals who had been funded to develop educational innovations as traditional researchers and then encouraged to participate in an eight-week workshop to become more entrepreneurial in their approach. Among other things, these participants reported their experiences with 'trying on' an entrepreneurial mindset (Ibarra 1999). After eight weeks, some enthusiastically adopted the new mindset, some were tentative, and some were resistant. For example: one participant described how his perception of being an academic changed.

> As I mentioned, it transformed me significantly. Before coming to the [*entrepreneurial workshop*] program I used to think of myself as an academic whose job is to publish and train students. After coming back from [*entrepreneurial workshop*], oh my god, it has been changed. Right now, I look at everything like a business model, like it or not, I look at academia even as a business model. Sometimes I get into arguments with my colleagues because they think I am destroying academia because my view has been changed and I am in favor of running academia as a business unit rather than an academic unit.

This statement clearly reflects how one's identity and mindset govern how one perceives the world and processes information. This individual is identifying with and becoming a member of a different social group—a group labeled as *entrepreneurs*—and as is often the case when a member of one group adopts different norms and crosses boundaries, there is conflict.

Another example described a state of uncertainty about adopting an entrepreneurial identity: "Thus, in a sense, the primary value [*of this entrepreneurial workshop*] is forcing a given educator to choose whether they really want to do something entrepreneurial." These experiences can also lead to rejection, as in this example: "This [*entrepreneurial workshop*] has reinforced my desire to NEVER start my own company, but I am glad that I have a better understanding of the business worldview." This workshop allowed this participant to test a new identity—one that was eventually rejected.

PRACTICAL IMPLICATIONS

One of the difficulties in the process of fostering an entrepreneurial mindset in engineering students comes from existential differences between the traditional engineering mindset and an entrepreneurial mindset. In the case of fostering entrepreneurship in engineering education there is this natural tendency to resist those aspects of what is perceived as a business-oriented way of doing things when it conflicts with what is perceived to be the engineering way of doing things. Many academics in STEM who consider an entrepreneurial path struggle with simplistic stereotypes (i.e., identities) that favor the academic world of science over the commercial world of business.

There are several advantages to developing an entrepreneurial mindset in the 21st century, most of which address the need to develop agility, adaptiveness, creativity, and social impact (for more in-depth discussions, see Kriewall and Mekemson 2010; National Academy of Engineering 2004; National Science Foundation 2010; Neck, Greene and Brush 2014; Robinson 2010; Sarasvathy 2001). The body of research and theory on identity and entrepreneurship support two main recommendations for developing an entrepreneurial mindset in engineering education. First, fostering an entrepreneurial mindset is not simply a matter of helping faculty and students become more innovative, ambitious, or risk-tolerant. It is a more complex task of altering who they think they are—personally, socially, and professionally. Second, the complex ecosystem that is entrepreneurship has multiple facets that accommodate multiple definitions of entrepreneurial identities and mindsets. An obvious distinction is among versions of entrepreneurship currently labeled as: *entrepreneur*, *intrapreneur*, and *social entrepreneur* (see Hockerts 2017; Kuratko, Morris and Schindehutte 2015; Mair and Marti 2006; Parker 2011). Each has a distinct mindset that is important to those pursuing those efforts. It would be useful to identify and develop more categories of entrepreneurs that help more people identify with the aim of discovering new opportunities to create new solutions to solve difficult social problems, promote social justice, and provide opportunities for the disadvantaged and oppressed to access a good education or other basic needs.

The entrepreneurial spirit is an effective and necessary means of enhancing societal well-being. Identifying as a social entrepreneur or educational entrepreneur (*edupreneur*) are emerging categories that expand the realm of entrepreneurship and allow a more diverse range of people to identify as entrepreneurs. In the words of the late Jeff Timmons, from Babson College, entrepreneurship is "*not just about new company, capital and job formation, nor innovation, nor creativity, nor breakthroughs. It is also about fostering an ingenious human spirit and improving human kind*." (quoted in Neck, Greene and Brush 2014, 1).

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