10.5465/AMBPP.2016.163

DIFFERENTIATING NOVICE, NON-EXPERT AND EXPERT ENTREPRENEURS: A SELF-REGULATED LEARNING PERSPECTIVE

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INTRODUCTION

To date, entrepreneurial learning mechanisms have been explained by experiential learning research, which posits that entrepreneurs learn by transforming experiences into knowledge (Corbett, 2005; Gemmell, Boland, & Kolb, 2012; Politis, 2005). However, experience alone may not necessarily guarantee entrepreneurial success (Eesley & Roberts, 2012), since some experienced entrepreneurs are better cognitively equipped to successfully adapt their behavior to changing personal, social and environmental contingencies than others. Baron and Henry (2010) suggest that these differences are due to enhanced cognitive resources analogous to those of experts. Recent advances in expert performance research across multiple domains (Ericsson, 2006; Feltovich, Prietula, & Ericsson, 2006) have shown that such expertise can be developed through self-regulated learning (SRL) mechanisms (Zimmerman, 2006), which do not only facilitate learning and performance, but also enhance an entrepreneur's ability to learn (Baron & Henry, 2010).

The concept of self-regulation within entrepreneurship research is not new. To date, a variety of theories and models of self-regulation have been introduced in order to gain a better understanding of entrepreneurs' metacognition and self-reflection (Haynie, Shepherd, Mosakowski, & Earley, 2010; Mitchell et al., 2007), adaptive cognition (Haynie & Shepherd, 2009; Nambisan & Baron, 2013), and associated decision heuristics (Baron & Ensley, 2006; Bryant, 2007; Haynie et al., 2010; Mitchell, Smith, Seawright, & Morse, 2000).

While most of this research acknowledges the importance of self-regulatory capabilities of entrepreneurs, little is known about how successful entrepreneurs actually develop and enhance these capabilities. Or, as framed as a question, what are the underlying self-regulatory learning mechanisms that make some entrepreneurs increasingly better at dealing with uncertainty in novel situations while others fail to develop such capabilities? In order to fill this gap, this paper draws from expert performance (Ericsson, 2006; Zimmerman, 2006) and SRL literature (Schunk, 2001; Zimmerman, 2000, 2005) to introduce and adapt a well-established and empirically tested social cognitive model of self-regulated learning to the context of entrepreneurship. Thus, we advance entrepreneurship research not only by introducing such a model but also by explaining the development of expert entrepreneurs more thoroughly.

Building on the foundations of Zimmerman's (2000, 2001, 2006) model, we define self-regulated entrepreneurial learning (SREL) as self-generated thoughts, feelings and actions that

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are planned and cyclically adapted to the attainment of personal entrepreneurial goals. The model, which is rooted in social cognitive theory (Bandura, 1986, 1989, 2001), emphasizes that humans have agency over their cognition, behavior and environment. Each element within this triadic reciprocal relationship fluctuates during learning, and thus has to be monitored and evaluated through separate self-directed feedback loops (Zimmerman, 2006). Within an entrepreneurial learning context, entrepreneurs who are facing conditions of uncertainty are therefore required to self-regulate their behavior, their environment, and self (cognition).

THE ROLE OF EXPERIENCE IN ENTREPRENEURIAL LEARNING

There has been an ongoing debate about the differences between novice and experienced entrepreneurs with respect to entrepreneurial behavior and its effect on entrepreneurial outcomes in general and entrepreneurial learning processes in particular. Habitual, serial and portfolio entrepreneurs have a higher experience in starting and managing companies compared to their novice counterparts. Thus, experience can be linked to both entrepreneurial actions and learning capabilities (Politis, 2005; 2008). While differences between novice and experienced entrepreneurs are of high scholarly interests, research results are diverse in nature and inconclusive. For instance, experienced entrepreneurs are more successful in familiar contexts than their novice counterparts (Eesley & Roberts, 2012; Westhead, Ucbasaran, Wright, & Binks, 2005b); they exhibit a high firm survival (e.g., Brüderl, Preisendörfer, & Ziegler, 1992; Dencker, Gruber, & Shah, 2009), high sales of entrepreneurial teams (Delmar & Shane, 2006); and recognize business ideas with higher innovativeness and greater wealth creation potential (Ucbasaran, Westhead, & Wright, 2009).

To date, experiential learning theory has been the dominant framework to explain such phenomena (Corbett, 2005; Kolb, 1984). Experiential learning theory posits that entrepreneurs learn by experiencing a variety of challenging (and often critical) situations, reflecting on them, and subsequently developing general concepts (Corbett, 2005; Kolb, 1984). It has been suggested that entrepreneurs learn more from failure than from success, since failure prompts entrepreneurs to challenge their current mental models, and to reject or differentiate their assumptions about reality (Cope, 2011; Sitkin & Pablo, 1992). According to experiential learning theory, entrepreneurs who have been involved in many venture processes and who have encountered many challenging situations should have more elaborate mental models than novice entrepreneurs with little experience.

However, experience can also be detrimental with respect to learning from failure due to cognitive biases, channeled information processing and an unwillingness to adapt to changing environments. Research has shown that not all entrepreneurs actually learn from their experience. One reason might be that some entrepreneurs are biased in terms of which information and experience they reflect upon in order to avoid frustration and demotivation (Ucbasaran, Westhead, & Wright, 2011; Ucbasaran, Westhead, Wright, & Flores, 2010). As a result, potentially relevant knowledge sources and experiences may be ignored. Furthermore, experienced entrepreneurs may face cognitive biases such as overconfidence (Ucbasaran et al., 2009) and thus might be tempted to channel the framing of problems and narrow the search for solutions due to successful experiences in the past (Rerup, 2005). This path dependency can cause entrepreneurs to use successful strategies and heuristics from the past. Thus they ignore deploying new and potentially more beneficial strategies to adapt to new and changing situations (Ucbasaran et al., 2009; Ucbasaran et al., 2010).

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These potentially detrimental effects of experience contradict an exclusive and direct relationship between entrepreneurial experience and expertise. Experienced entrepreneurs are not a homogeneous group of individuals; instead they are diverse in nature with regards to their learning expertise (e.g., Westhead et al., 2005b). Some experienced entrepreneurs may become experts over time when developing certain entrepreneurial mindsets (Krueger, 2007), as well as certain cognitive scripts and frameworks to tackle entrepreneurial challenges (Dew, Read, Sarasvathy, & Wiltbank, 2009). This development requires specific skills and learning capabilities, which differentiate expert entrepreneurs from just being experienced non-expert entrepreneurs.

DISTINGUISHING EXPERIENCE AND EXPERTISE: NOVICE, NON-EXPERT, AND EXPERT ENTREPRENEURS

Under certain circumstances, experience may be detrimental to learning and entrepreneurial success. Therefore, we want to reconsider the relationship between experience and the development from novice or non-expert to expert entrepreneur. In accordance with Zimmerman (2006) we distinguish between novice, non-expert and expert entrepreneurs.

Novices are usually first-time entrepreneurs, thus having little experience and at best some theoretical knowledge about how to deal with the challenges typical for founding and developing a venture. This puts them at a disadvantage to entrepreneurs who have experience in the specific domain of action (Eesley & Roberts, 2012; Westhead, Ucbasaran, & Wright, 2005a). Novice entrepreneurs differentiate themselves from non-expert and expert entrepreneurs due to their limited entrepreneurial experience.

Conversely, non-experts may have entrepreneurial experience, however, they may not always be able to link previous experience to novel or uncertain conditions. For instance, they may be serial entrepreneurs who have already dealt with founding and developing ventures. However, they are not able to effectively exploit this experience due to a variety of reasons. First, they may fail to learn from experience by ignoring failure (Cope, 2011) or by developing cognitive biases such as overconfidence (Politis & Gabrielsson, 2009; Ucbasaran et al., 2011). Second, relying on experience may lead to cognitive fixations when procedures or decision-making routines are reapplied in novel contexts that may require different decision heuristics (Eesley & Roberts, 2012). Third, non-experts may become discouraged, demotivated and even "traumatized" by negative experiences related to venture failure (Ucbasaran et al., 2011; Välikangas, Hoegl, & Gibbert, 2009), as well as associated attitudes (Politis & Gabrielsson, 2009). Therefore, non-expert entrepreneurs demonstrate higher variability in their success rates of adapting to changing contexts.

In contrast, expert entrepreneurs are able to learn from negative as well as positive experience and adjust their cognitions and emotions accordingly (Ucbasaran et al., 2011). By carefully reflecting on their experience they are capable of realistically evaluating their performance. Also, they are able to control their emotions, avoiding demotivation and discouragement, as well as overconfidence and hubris (Hiller & Hambrick, 2005). Furthermore, experts avoid cognitive fixation by constantly questioning whether previously acquired heuristics and routines still fit novel contexts or adaptions are necessary, showing the ability to "reflect in action" (Schön, 1983).

Building on these important distinctions, our aim is to investigate what underlying learning mechanisms support the development of entrepreneurial expertise. Research on expert

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performance (Ericsson, 2006; Feltovich et al., 2006) across a variety of domains (e.g. sports, music, academia) has painted a broad picture about how expert capabilities can be acquired (e.g., through deliberate practice) and what underlying learning mechanisms (e.g. such as SRL) may support that development. Within this context, particularly SRL mechanisms (Zimmerman, 2006) have been found to not only facilitate learning and performance, but also enhance an entrepreneurs' ability to learn (Baron & Henry, 2010). The quality of learning processes such as taking proactive steps towards the desired goal (Zimmerman, 2000) has a major influence on the development of entrepreneurial expertise (Zimmerman, 2006). We apply a social-cognitive theory of self-regulation (Zimmerman, 2000) during learning processes to better understand how some entrepreneurs manage to exploit experience in a way that leads to expertise while others cannot use their experiences as effectively. By referring to SRL as a process model of learning, we also argue that expertise can be systematically developed and is not primarily determined by talent or personal dispositions.

A SOCIAL COGNITIVE VIEW OF SELF-REGULATED ENTREPRENEURIAL LEARNING

Successful entrepreneurs have mastered the "art" of entrepreneurship. They have become experts of their domain, continuously solving complex problems. Research has suggested that acquiring expertise involves a combination of task knowledge, performance skill and self-regulatory competence (Zimmerman, 2006). Self-regulatory competence plays an especially important role within this context, since it explains behavioral and cognitive elements through motivational and metacognitive processes within self-enhancing cyclical feedback loops.

From a social cognitive perspective (Bandura, 1986, 1991; Schunk, 2001; Zimmerman, 2000), self-regulation is not only a behavioral skill, it also gives learners the ability to apply their knowledge within new contexts and demonstrate personal agency over their actions. Since personal, behavioral and environmental contingencies are constantly changing during learning and development, learners are therefore required to regulate each process in open feedback loops (Zimmerman, 2000). Research has shown that highly self-regulated learners, such as experts, are: (1) better able to monitor their progress and task effectiveness during learning and performance; (2) able to adjust their behavior based on feedback from previous experiences; and (3) are able to systematically adapt both task strategies and skills as they encounter changes to their personal and environmental contingencies (Schunk, 2001). Moreover, self-regulated learning is not an individualistic process, since it also involves social learning mechanisms by proactively seeking help from others when needed (Newman, 1994; Zimmerman & Schunk, 2011). To master occurring challenges, entrepreneurs often need to draw from their social capital (Davidsson & Honig, 2003), and interact and network with other individuals asking for support and help (Borgatti & Cross, 2003).

Building on this notion we introduce one of the most widely applied and cited self-regulation theories to entrepreneurship, Zimmerman's (2000) social cognitive view of self-regulation. It defines self-regulated learning as proactively and "self-generated cognitions, feelings and actions that are planned and cyclically adapted to the attainment of personal goals" (p.14). These self-enhancing learning cycles link self-regulatory processes to self-motivational beliefs through three cyclical phases: *forethought*, *performance*, and *self-reflection* (Zimmerman (2000) for a detailed overview of the social cognitive model of self-regulation).

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The *forethought* phase sets the stage for learning and involves sub-processes such as goal setting, strategic planning and self-motivational believes. During the *performance* phase, the learner takes action and utilizes self-control mechanisms by focusing attention to stay on task. In addition, self-regulated learners are engaged in metacognitive monitoring of specific aspects of their performance. During *self-reflection*, the learner self-evaluates her performance based on the personal goals set, makes causal attributions about whether goals were achieved or not, and self-reacts in order to set the stage for subsequent self-regulatory learning cycles. Zimmerman (2006) points out that particular individuals who develop expertise are proactively focusing on their learning processes during their forethought and performance control phases.

Analogous, expert entrepreneurs who are able to apply more elaborate mental frameworks and heuristics in novel situations are able to assimilate new information more easily compared to novice entrepreneurs (e.g. Ucbasaran et al., 2010). These mental frameworks of expert entrepreneurs are developed through the cyclical interplay of forethought, performance and self-reflection phases. Therefore, self-regulatory feedback mechanisms of experts are proactive in nature since they are tied to pre-existing goal systems and subsequently lead to adaptations in forethought and performance. In contrast, novices or non-experts may experience dysfunctional self-regulation based on post-hoc reactions to adverse events (such as failure to perform) that often lack a real plan to achieve a desired outcome (Zimmerman, 2000, 2006).

For instance, expert entrepreneurs learn within these self-enhancing self-regulatory learning cycles by deliberately and proactively adjusting their goal structure and strategic plans based on previous learning cycles and experiences, as well as changes to their self-motivational beliefs systems (forethought phase). They further analyze and adjust their cognitions and emotions according to a comparison of pervious learning activities and performance in order to enhance their metacognitive and self-control strategies. Expert entrepreneurs are thus better able to self-control their emotions and motivation, avoid discouragement from reflection about failure, as well as overconfidence (performance phase).

Finally, different aspects of venture performance (successes and/or failures) and their corresponding learning activities and strategies are reflected upon. A self-regulated learning cycle comes to a close by self-evaluating as to whether (and why) initially set goals were achieved (or not); and how the entrepreneur will have to self-react in order to achieve success in future situations (self-reflection phase). In sum, expert entrepreneurs have higher levels of self-regulatory skills that allow them to tackle situational challenges and to be adaptive to novel contexts. We therefore offer the following proposition:

> *Proposition 1: Expert entrepreneurs show higher levels of self-regulated entrepreneurial learning skills than non-expert and novice entrepreneurs.*

DISCUSSION

In entrepreneurial learning research, experiential learning is the dominant model for explaining how entrepreneurial expertise develops (Corbett, 2005; Kolb, 1984; Politis, 2005). Building on previous research, we have demonstrated that despite its widely acknowledged strengths, experiential learning also has certain limitations for explaining the development of entrepreneurial expertise and, consequently, entrepreneurial success. For instance, research has shown that experience can inhibit learning or even has detrimental effects such as overestimation of chances of success (Cassar & Craig, 2009), or cognitive fixation and emotional blockage

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(Eesley & Roberts, 2012; Välikangas et al., 2009) on subsequent entrepreneurial action. Furthermore, experiential learning cannot explain why some (experienced or novice) entrepreneurs perform better than others in new situations where experience is lacking or detrimental. Building on the social cognitive model of SRL, we propose a model of SREL that aims to explain why some entrepreneurs are more successful than others.

We suggest that experience can lead to expertise, if entrepreneurs are able to adequately self-regulate their learning, or more specifically, their behavior, cognition, motivation and affect. By using a social cognitive view of SRL we enhance entrepreneurship research not only by explaining how experience can lead to expertise but also by showing how entrepreneurs can systematically exploit their experience. At the same time they can proactively avoid potential detrimental effects to their business ventures for example due to cognitive biases or cognitive fixations. Furthermore, we contribute to entrepreneurial learning theory since SRL is applicable to contexts of high uncertainty and novel situations. Highly self-regulated learners are adaptive to changing personal and environmental conditions and are able to modify their task strategies and goals accordingly (Zimmerman, 2000). Thus, we perceive SRL as being especially relevant when unexpected events and discontinuous changes occur, where prior experience and knowledge may be obsolete or detrimental (Eesley & Roberts, 2012; Ucbasaran et al., 2009).

REFERENCES AVAILABLE FROM AUTHORS