



To Analyze the Significance of Metacognitive Model regarding Entrepreneurship

Kavita

Research Scholar

Chaudhary Devi Lal University, Sirsa

Abstract

This study analyzes that ability of opportunity identification of an entrepreneur is affected by the metacognitive thinking process. Thinking is again powered underneath by the metacognitive ability of an entrepreneur. This study is focused to understand and analyze the basis of entrepreneurial cognitive behavior performed in a certain situation, sensing capability, a decision taken under specific situations. This study is focused on understanding the metacognitive process that helps an entrepreneur to think differently, encouraging a flexible cognition in the continuously changing and risky decision in a new situation. The research makes the combination of different streams from available literature of cognitive psychology as well as sociology regarding the study that specifies the metacognition that is present in the entrepreneurial environment. It is hypothesized for the study that the basis of the entrepreneurial mind is characterized as metacognitive and further what and how consequences, entrepreneurs frame, and notify next high order strategies in the recreation of entrepreneurial activities.

Keywords: entrepreneurship, metacognition, behavior, environment.

Introduction

Entrepreneurship demands action. Whether conceptualized as the making of a new product or services, a new combination process Schumpeter (1934). Entrepreneurship includes a mesolevel phenomenon in which an individual influences system-wise activity and outcomes (Kilby, 1971; Stevenson & Jarillo, 1990). Entrepreneurship is creating a new enterprise (Gartner, 1985) and entering in a new market (Lumpkin & Dess, 1996). An entrepreneur acts on the possibility that one has recognized as an opportunity worth pursuing. With making the combination of new developments in the cognitive psychology regarding memory, attention, and interface with some other emerging from the study of motivation, attitudes, affect, (Fisk and Taylor, 1991) provides us the “State of Art” to appreciate the aspect of individual’s nature that centered on how individuals think about themselves and regarding others. Some significant

demographic factors were analyzed from the metacognitive awareness inventory. Metacognitive also compensate for the low ability and lack of experience (Swanson, 1990). In a study, two aspects described i.e. the metacognition regulation of cognition and knowledge of cognition (Schraw & Dennison, 1994) and four instructional strategies were explained to promote the construction and acquisition of metacognition awareness. These include promoting general awareness, enhancing self-knowledge and regulatory skills and improving learning environments that are conducive to the construction and implication of metacognition. In the context of an environment related to business where knowledge and technology are becoming outdated at a rate of unprecedented in history (Wankat and Orevicz, 1998). The nature of the forces in the new competitive environment demands continuous thinking related to strategic actions, organizational structure, corporate culture, investment strategies, asset employment, and communication system or any aspect of a business's operation and working (Hitt et. al., 1998). This study tries to provide a new way of understanding the things centered on the process on which entrepreneurs create cognitive thinking, reflective on their working, motivation and surroundings in the hunt of desired results. This study is focused on the situated cognition to draw to explain about an entrepreneur as a highly motivated tactician, engaged thinker with multiple cognitive strategies, select the best directed towards the goals and motives. A cognitive mind of an entrepreneur is a combination of strategic management of the available resources, culture and entrepreneurial leadership quality and implementing the creativity while implementing the innovations are significant magnitude of entrepreneurship (Ireland et al., 2003). There is a significant correlation between metacognition and academic monitoring, a negative correlation between self-reported metacognition and accuracy ratings, and a positive correlation between metacognition and strategy use and metacognition and motivation (Sperling, 2004). It is included in this conceptualization is that the origin of such a mind is cognitive. Entrepreneurial thinkers are busy in a cognitive study to recognize how people identify opportunities regarding entrepreneurship and act upon them (McMullen and Shepherd, 2006). This study integrates the perspective i.e. metacognition and working style. The higher cognitive thinking is directed towards the selection and development of cognitive strategies to create a model focused on correlating the metacognitive process and entrepreneurial environment. The situated metacognitive model regarding the mind of the entrepreneur provides some significant insights regarding entrepreneurial behavior and thinking. Significantly, metacognition might be improved by proper training (Mevarech, 1999; Nietfeld and Schraw, 2002; Schmidt and Ford, 2003).

A metacognitive lens takes into consideration the dynamic thought of cognitive working concentrated on how choice heuristics and strategies create, adjust, and are utilized throughout the enterprising procedure. The model empowers the investigation of the elements of sense-making that starts preceding the recognition of entrepreneurial opportunity and goes through the numerous stages and steps related to the enterprising activity. A metacognitive procedure is significant in powerful, unsure conditions like those that entrepreneurs normally face. At the point when some changes come in the environment, people adjust their cognitive reactions and create some specific strategies for reacting to the environment (Earley et al., 1989; Shepherd et al., 2007). Thinkers have identified that metacognitive knowledge is regarding acceptable decisions (Schraw and Dennison, 1994). People who are metacognitively aware are bound to plan and assess numerous options to make and evaluate many options to complete the assigned task and are very much sensitized to get the feedback from the surroundings that can be incorporated into subsequent decision structures (Melot,

1998). Given the dynamism and vulnerability encompassing entrepreneurial activity (Knight, 1921; McMullen and Shepherd, 2006), metacognition encourages concentrating on how entrepreneurs adjust to their developing and unfurling context and why some adjust while others don't. At last, metacognition isn't a dispositional attribute, but it is a learned procedure (Nelson, 1996), which can be upgraded through proper training (Schmidt and Ford, 2003; Nietfeld and Schraw, 2002; Mevarech, 1999). A situated metacognitive model of an entrepreneurial mindset is discussed; the consideration of metacognitive training in entrepreneurship instructional method will advance 'versatile' thinking an attribute of fundamental to entrepreneurs.

The objective of the study

The objective of the study is to analyze the significance of the metacognitive model for entrepreneurs to recognize the opportunities for growth.

Methodology

The present study is focused on secondary data analysis. Secondary data have been collected from different books, journals, websites, other published or non published reports and paper.

Process of Metacognitive

Metacognition portrays the way toward defining the process of accessible intellectual strategies, given what the individual comprehends about their assumptions, strengths, weakness, and motivations (Flavell, 1987). Utilizing a metacognitive procedure is emphatically correlated with a person's capacity to pick the most fitting strategy considering their inspirations, motivations and changing the environmental setting (Staw and Boettger, 1990; Staw et al., 1981). Significantly, metacognition is not only discussed in the literature or this research article as a dispositional personality trait, however rather as a dynamic, learned reaction that can be improved through experience and training (Schmidt and Ford, 2003; Flavell, 1987). Fundamentally, metacognition shows the control that an individual has over their cognition and perceptions as an element of a capacity to consider the cognitive systems considering a changing environment. On the other hand, researches have defined that people compelled in their metacognitive capacities are more averse to draw in alternative strategies, and are subsequently less versatile when the decision situation changes, or when it is novel and uncertain (Batha and Carroll, 2007).

Assumptions regarding Model

The main assumption of the metacognitive model for entrepreneurship is that the situation is highly uncertain, new, and continuous changing. Such as entrepreneurship refers to recognition, evaluation and exploitation of the opportunities to make their existence in the form of goods or services (Shane and Venkatraman, 2000). Entrepreneurial action consists of acting upon the opportunity that one has recognized as worth pursuing (McMullen and Shepherd, 2006). A metacognitive model situated in the context is likely to have more explanatory capability and practical significance than a model created in the context where adaptability is less central and the task involved less uncertainty and novelty. Although this model is not for some specific industries, it applies to those sectors that demand and reward the capability to adapt one's approach to analyze, solve the problem and pattern of activities.

The metacognitive model of entrepreneurial mentality is introduced in Fig. 1 and is clarified stepwise depending on some significant components. The components of the metacognitive model and related procedures that together portray

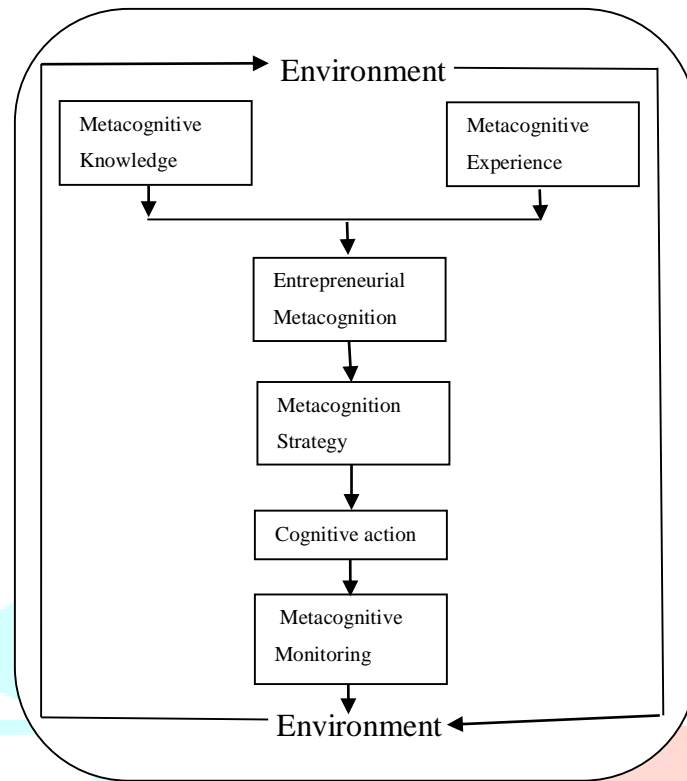
metacognitive working are described. The model is portrayed as follows: (1) impact of the environment and metacognitive awareness; (2) the basic metacognitive resources metacognitive knowledge and metacognitive experience, (3) metacognitive strategic technique definition, and (4) entrepreneurial metacognitive (5) cognitive checking and metacognitive monitoring. Although these five stages present the causal chain of an entrepreneurial attitude, adaption may not start with 1st Stage as this model is a description of an iterative procedure (Weick, 1979).

Metacognitive Model

This present metacognitive model combines some characteristics of approaches described earlier. The metacognitive model includes attitude object that can be correlated with experience to both positive and negative evaluations that may change in the degree to which they are allowed. Attitude approach and theory interconnected with experience whether positive or negative (Cacioppo, Gardner, & Bernston, 1997). The metacognitive model holds that attitude may sometime be interconnected with experience to evaluate the correlation of opposite valence (deLiver, Ven der Pligt, & Wigboldus, 2007). The number of past positive and negative experiences and the context in which those experiences took place would matter. Such as if the positive correlation were formed at the house and negative experience with the situation were formed at the workplace, then correlation measures provided in this context should reveal various responses.

In the Following model main focus is on metacognitive rather than cognitive analysis. In the case of entrepreneurship, cognition is expressed as a structure of knowledge that individuals apply to make judgments, assessment, or decisions consisting of opportunities evaluation, enterprise formation and growth (Mitchell et al., 2002a, b). Metacognitive explains the individual's knowledge and cognition regarding cognitive aspects (Flavell, 1979). When entrepreneurs faced a new decision task the metacognitively aware entrepreneur might engage in self-questioning

Fig 1(Model for Metacognition and Entrepreneurship)



strategies framed to correlate the present task to experience, incrementally alternate solutions and reflect on various results, or draw upon the knowledge, experience and mental level to frame various strategies. The development and implication of metacognitive procedures can't be anticipated with a moderate level of precision from area of knowledge (Glenberg and Epstein, 1987) and is independent from other cognitive limitations on learning, for example, knowledge (Shrawand and Dennison, 1994). At long last, steady with exact results from the education and cognitive literature it is conceptualized that metacognitive awareness as a capacity that can be created, and not as a dispositional personality characteristic (Mevarech, 1999). Various examinations across settings show that metacognitive preparing controls relate positively to upgrades in decision execution new and complex decision tasks (Batha and Carroll, 2007).

The steps of the entrepreneurial metacognitive model

Stage 1: the collaboration of entrepreneurial motivation with the environment

The description centers the investigation of perception toward how and why an individual interact with individuals and circumstances (Suchman, 1987). The environment may characterize a person's cognitive processes (Wyer and Srull, 1989). The majority of conspicuous psychologists have accepted an arranged cognitive viewpoint, grasping the thought that personal motivation and environmental impact the growth and selection of cognitive strategies (Kahneman, 1973; Earley et al., 1989; Tetlock, 1990; Staw and Boettger, 1990; Schwarz, 1998a). It is difficult to isolate the actor from the circumstance because the actors develop cognitive models that encourage thinking dependent on objectives, inspirations, and contributions from that environment (Tetlock, 1990). Motive impacts how the environment is considered and deciphered (Griffin and Ross, 1991; Schacter, 1996). It was noticed that in the cognitive process the creation and rise are shown inside a socio-cultural milieu that contextual powers to serve a socializing capacity while

molding the growth and deployment of cognitive procedures in a way that encourages or obliges task execution (Allen and Armor-Thomas, 1993). The highest point of the model portrays the interaction between an entrepreneur's cognition and environment. Entrepreneurial results can be shown to as a fast decision (Eisenhardt, 1989; Alvarez and Busenitz, 2001), opportunity identification (Shane, 2000; Shane and Venkataraman, 2000), or significantly growing and developing the firm (Wiklund and Shepherd, 2003; Hmieleski and Corbett, 2008). A threatening environment regularly motivates entrepreneurs to keep away from misfortunes, while a munificent environment persuades them to look for gains (Davies and Walters, 2004). Business enterprise researchers adapting a situated cognition viewpoint have proposed that specific persuasive states actuate explicit cognitive translations, for example, the development of a conviction that particular changes in the environment show an opportunity worth following up on (Shepherd et al., 2007). That is, an entrepreneur's motivation serves to guide their focus toward relevant contextual cues that significant changes in that environment in an enterprising setting may represent opportunities.

Proposition 1. Entrepreneurial motivation and environmental conditions jointly affect the metacognitive process.

Stage 2: Awareness about metacognitive

The understanding of an entrepreneur affects the perception and interpretation regarding the association of the environment and their motivation coordinates the basic point of metacognitive handling, the degree of that relies on the entrepreneur's degree of metacognitive awareness. Metacognitive awareness speaks to a general degree of awareness one has concerning their perceptions concentrated on a particular enterprising errand. Entrepreneurial tasks have been described in terms of high uncertainty (Knight, 1921; McMullen and Shepherd, 2006). Metacognitive awareness is uplifted or diminished in light of how the considered level of oddity, vulnerability, and dynamism related to the task. In such a manner, metacognitive awareness can be viewed as practically equivalent to the volume of a stereo system recipient whereas the apparent curiosity, vulnerability, and dynamism of the entrepreneurial undertaking increase, so does metacognitive awareness (Kahneman, 1973). Increase in metacognitive awareness, thus, make it more probable that the entrepreneurs will draw in metacognitive resources toward figuring and assessing numerous, alternative techniques for preparing the enterprising errand, and deciding the activities well on the way to create their ideal result. It is significant to acknowledge that heterogeneity in the oddity, vulnerability, and dynamism of entrepreneurial assignments; that is, while vulnerability and originality are expected to generalize to the entrepreneurial procedure, variability exists over the undertakings that make up the entrepreneurial procedure. An entrepreneur must deal with a quickly evolving condition (Eisenhardt, 1989; Eisenhardt and Martin, 2000) and the novelty and originality as far as new items, new markets, and additionally new combination (Lumpkin and Dess, 1996), and This infers entrepreneurs are probably going to have increased metacognitive awareness comparative with directors of entrenched firms, in stable situations, offering gradual enhancements to existing items in existing markets.

Proposition 2. The more novelty, vulnerability, and dynamism related to the enterprising task, the higher the metacognitive awareness.

Stage 3: Entrepreneurial Metacognitive

Entrepreneurial metacognition refers to the required knowledge regarding cognitive process, knowledge and experience that may be used to control the cognitive process (Brown, 1987; Flavell, 1987; Jacobs and Paris, 1987). New product

characteristics or new enterprise creation happens from opportunities identification amidst changing environmental conditions. Entrepreneurs need to be more alert regarding opportunities identification (West & Meyer, 1997). The entrepreneurial cognitive framework serves as a template, helping specific individuals to identify the correlation between apparently independently events, trends and to detect a meaningful specific pattern in these situations (Ashford, 2008).

Proposition 3. The higher entrepreneurial metacognitive thinking, the greater assistance to the entrepreneur while taking goal-oriented decision making, more desirable results.

Stage 4: metacognitive technique

While utilizing a metacognitive system it is probably going to enable a person to abstain from utilizing an inappropriate methodology to address an issue given their inspirations, motivations and the apparent outside environmental condition (Staw and Boettger, 1990; Staw et al., 1981). When an entrepreneur is confronted with tasks with regards to a profoundly vague circumstance one where the information is hazy or inaccessible a metacognitively aware individual will attract upon metacognitive resources to define metacognitive resources to make options in contrast to the original cognitive strategy. Metacognitive techniques characterize the determination of what is seen to be the most proper subjective decision from a lot of accessible cognitive decision (Fiske and Taylor, 1991).

Proposition 4. The more an entrepreneur utilize metacognitive procedures, the more attractive the result for the enterprising undertaking.

Stage 5: monitoring and criticism

Metacognitive monitoring shows the way toward looking for and utilizing criticism to rethink and adapt motive metacognitive resources and formulate of metacognitive procedures suitable to manage in changing environment. Monitoring of an entrepreneur's cognition can be at both the stages such as during the attention to a specific entrepreneurial task and in response to a specific outcome that came from metacognitive decision making. Depending upon the correlation between performance and an entrepreneur's motivation, the mechanism for performance monitoring will cue the entrepreneur to reevaluate his or her motivation (Lock et, al., 1984; Nelson, 1996). Metacognitive observing permits the entrepreneur to think about how, why, and when to utilize certain procedures, given a changing situation and their motivations. After glancing at all the difficult opportunities, an entrepreneur might observe that on the option for a new enterprise relates to a business idea that he or she has implemented successfully. This may result in the entrepreneur changing the particular evaluation strategy and delving into particulars of his idea more consciously because an entrepreneur is more aware of the monitoring. A cognitive strategy is a way for a person to get some cognitive objectives to feel the confidence that the objective has been attained (Flavell, 1987).

Proposition: 5. the more an entrepreneur monitor through metacognitive, and then there are more chances to get the required results for the entrepreneurial tasks.

Significance of cognitive perspective for an entrepreneur

The metacognitive models of entrepreneurial attitude serve to coordinate and elaborate past research trying cognition to entrepreneurial results. It is not guaranteed that these works to be representative of the whole expansiveness of the cognitive viewpoint on entrepreneurship however refer to them here because each has significantly affected the field. The main purpose is to illustrate the potential contribution of joining a metacognitive point of view into the progressing discussion concentrated on enterprising cognition.

Distinction 1

A dynamic, direct, and autonomous environmental condition may impact the significance of causal or efficacious cognitive systems. The selection of causal versus useful thinking may depend, to some degree, on the degree to which an entrepreneur utilizes metacognitive procedures. An entrepreneur starts in three ways: they know what their identity is, the aspects or things that they know, and whom they know (Sarasvathy, 2001). So, metacognitive awareness and the nature of one's metacognitive resources clarify (a) why a few entrepreneurs utilize solid thinking and others utilize causal thinking and (b) why a few entrepreneurs change their reactions to oblige a changed domain or inspiration and others don't change. Even though Sarasvathy's objective isn't clarifying why effectuation is utilized rather than a cognitive methodology, the arranged metacognitive model addresses this with an equal methodology. An entrepreneur's cognition of his/her environmental condition, alongside motivational factors, e.g. the need to get more cash or to create a valuable legacy like an enduring organization, or, progressively normal, to seek after a fascinating idea that appears to merit seeking after (Sarasvathy, 2001). The metacognitive model of the entrepreneurial attitude recommends that these means are composed and followed up on metacognitive knowledge and metacognitive experience.

Distinction 2

The metacognitive model is reliable with this methodology recommending that the metacognitive resources of entrepreneurs are heterogeneous, and so is their decision of cognitive instruments utilized in the quest for enterprising results. Metacognitive awareness may vary across entrepreneurs to such an extent that some may for the most part be more metacognitively aware than others. The Resource-Based View presents a competitive advantage in the capacity to secure and use uncommon, important, and supreme resources (Barney, 1991, 1996). The entrepreneurial cognition as-heuristics approach contends that heuristic-based rationale is a heterogeneous resource that discusses, to a limited extent, why a few people make entrepreneurial revelations and others are more averse to do as such (Alvarez and Busenitz, 2001). It has been recommended that decision with regards to how to use these resources is an element of the decision-maker concerning the utility of the resources (Makadok, 2003). Moreover, environmental conditions and motivation may impact an entrepreneur's metacognitive awareness anytime and might be transient and in this manner, not resources whereupon an entrepreneur can generally draw.

Distinction 3

The heuristics and enterprising cognition process center around various contrasts among people. Contrasts between entrepreneurs have been considered as far as the recurrence wherein heuristics are utilized (Alvarez and Busenitz, 2001), the substance of those heuristics (Chiasson and Saunders, 2005), how heuristics are utilized given the sort of

entrepreneurial task or phase of the enterprising procedure (Bryant, 2007). The dynamic idea of our metacognitive methodology expands this exploration since it likewise takes into consideration: (a) an emphasis on how heuristics are informed and develop dependent on properties of the entrepreneurial conditions, (b) attention on the metacognitive procedure liable for the choice of a given heuristic, and (c) attention on clarifying contrasts inside people across circumstances as an element of how changing thought processes may impact why the entrepreneur relinquishes or adjusts a formerly learned heuristic. Put simply, for what reason may an entrepreneur's utilization of heuristics vary after some time? This metacognitive viewpoint focuses to four potential clarifications: (a) given a consistent motivational state, an adjustment in the task could show to a change in relevant elements setting off a person's metacognitive procedure and along these lines, the potential for an alternate intellectual technique to be utilized, (b) given a steady environmental condition, an adjustment in at least one of a person's motivational elements could trigger the metacognitive procedure and produce an alternate cognitive reaction, (c) the result of a past cognitive reaction could give execution criticism that animates a change in motivational and additionally environmental elements, which at that point triggers changes gritty in the past two focuses and (d) the result of a past cognitive reaction gives input data to metacognitive checking and change metacognitive information or potentially metacognitive experience, which prompts the choice of an alternate cognitive methodology.

Practical Implication

The present discussion on the metacognitive model regards the point of how it should be conceptualized and explored. The knowledge inside a given area, just as a metacognitive consciousness of that information, would recommend metacognitive awareness that may encourage opportunity acknowledgment inside a dubious and dynamic environment. Abilities and knowledge accessible in one circumstance are not generally accessible in different circumstances in any event, when they are fitting, restraining versatile, subjective working (Rozin, 1976). One of the most profitable implications of the socially-situated model of metacognition might be opportunity identification and acknowledgment. Aptitudes and knowledge become carefully welded to the compelled spaces (Brown, 1987) in which they were gained, and in this way are not promptly transferable across the environment. Metacognitive mechanisms serve to encourage the exchange of knowledge starting with one domain to the next (Flavell, 1987). While the point is significant, there has been no common agreement on this point yet. The information and knowledge impact the recognition of enterprising opportunities (Shane, 2000). The research concerning opportunity recognizing is in its earliest stages and is best described as a scattering of descriptive researches rather than a systematic study program of hypothesis testing and development (Gaglio and Katz, 2001). As noted beforehand, there is significant observational proof that upgraded metacognitive capacities are emphatically associated with improved execution on the choice undertaking in a novel and uncertain environmental conditions (Batha and Carroll, 2007). Proponents of other approaches, who conduct researches on awareness in a broad framework, do not consider the significance of contemplation practice for cognitive awareness development (Brown, Ryan, Loverich, Biegel, & West, 2011). Grossman (2011) explained that conceptualized, operationalized and explored awareness present in western psychology often decreases its natural meaning cultured in the Buddhist stress Reduction Program. As the substance of administrative and enterprising knowledge keeps on getting out of date at a consistently increasing rate because of developments in innovation,

communication, and an evolving commercial market place, joining metacognitive training into instructional method offers the possibility to improve the understudy's capacity to work viably in a dynamic environment.

Conclusion

In the study, this has recommended that entrepreneurial cognitions research is centered around theory development and testing has given the part of cognitive procedures in rehabilitating the entrepreneurs from acknowledging marginally better execution over a wide scope of entrepreneurial task and practices. The job of inclination, contents, counterfactual reasoning, and even memory and recall as systematized in literature frequently considered as a 'glass half-vacant' approach to identifying the correlation between entrepreneurial activity and cognition process. Why and how is it that entrepreneurs think contrastingly about a given enterprising assignment? The system introduced in this study shows significant development toward understanding the defined objective of majority entrepreneurship researchers; that is opening the backbox of entrepreneurial cognition to all the more completely comprehend the correlation between cognition and performance in an entrepreneurial environmental conditions. Consolidating metacognition into existing, cognitively orientated points of view in entrepreneurship offers the chance of contemplating measurements dimensions of entrepreneurial opportunities that so far have been under estimated.

Reference

- Ackerman, P.C. (1987). Individual differences in skill learning: An integration of the psychometric and information processing perspectives. *Psychological Bulletin*, 102(1), pp. 3–27.
- Alexander, J. M., Carr, M. & Schwanenflugel, P.J. (1995). Development of metacognition in gifted children: Directions for future research. *Developmental Review*, 15(1), pp. 1–37.
- Anderson, N. D., Lau, M. A., Segal, Z. V., & Bishop, S. R. (2007). Mindfulness-based stress reduction and attentional control. *Clinical Psychology*, 14(6), 449–463.
- Alevin, V., Koedinger, K., (2002). An effective metacognitive strategy: learning by doing and explaining with a computer-based cognitive tutor. *Cognitive Science*, 26 (2), pp. 147–179.
- Baker, L. (1989). Metacognition, comprehension monitoring, and the adult reader. *Educational Psychology Review*, 1(1), pp. 3–38.
- Baron, R., (1998). Cognitive mechanisms in entrepreneurship: why and when entrepreneurs think differently than other people. *Journal of Business Venturing*, 13 (4), pp. 275–295.
- Batha, K., Carroll, M., (2007). Metacognitive training aids decision making. *Australian Journal of Psychology*, 59 (2), pp. 64–69.
- Brockner, J., Higgins, E.T., Low, M.B., (2003). Regulatory focus theory and the entrepreneurial process. *Journal of Business Venturing*, 52, pp. 1–18.
- Bryant, P., (2007). Self-regulation and decision heuristics in entrepreneurial opportunity evaluation and exploitation. *Management Decision*, 45 (4), pp. 732–748.
- Cross, D.R., & Paris, S.G. (1988). Developmental and instructional analyses of children's metacognition and reading comprehension. *Journal of Educational Psychology*, 80, pp. 131–142.

- Carland, J.C., Carland, J.W., (1992). Managers, small business owners, entrepreneurs: the cognitive dimensions. *Journal of Business & Entrepreneurship*, 4 (2), pp. 55–66.
- Dweck, C.S. & Leggett, E.S. (1988). Asocial-cognitive approach to motivation and personality. *Psychological Review*, 95(2), pp. 256–273.
- Flavell, J., (1979). Metacognition and cognitive monitoring: a new area of cognitive-developmental inquiry. *American Psychologist*, 34 (10), pp. 906–911.
- Gaglio, C.M., Katz, J.A., (2001). The psychological basis of opportunity identification: entrepreneurial alertness. *Small Business Economics*, 16 (2), pp. 95–112.
- Guterman, E., (2002). Toward a dynamic assessment of reading: applying metacognitive awareness guiding to reading assessment tasks. *Journal of Research in Reading*, 25 (3), pp. 283–298.
- Haynie, J.M., Shepherd, D.A., (2009). A measure of adaptive cognition for entrepreneurship research. *Entrepreneurship Theory and Practice*, 33 (3), pp. 695–714.
- Haynie, J.M., Shepherd, D.A., Mosakowski, E. and Earley, P. C. (2010). A situated metacognitive model of the entrepreneurial mindset. *Journal of Business Venturing*, 25, pp. 217-229
- Hitt, M., Keats, B., DeMarie, S., (1998). Navigating in the new competitive landscape: Building strategic flexibility and competitive advantage in the 21st century. *Academy of Management Executive*, 12 (4), pp. 22–42.
- Ireland, R.D., Hitt, M.A., Sirmon, D.G., (2003). A model of strategic entrepreneurship: the construct and its dimensions. *Journal of Management*, 29, pp. 963–990.
- Jost, J.T., Kruglanski, A.W., Nelson, T.O., (1998). Social metacognition: an expansionist review. *Personality and Social Psychology Review*, 2 (2), pp. 137–154.
- Locke, E., Frederick, E., Lee, C., Bobko, P., (1984). Effect of self-efficacy, goals, and task strategies on task performance. *Journal of Applied Psychology*, 69 (2), pp. 241–251.
- Melot, A., (1998). The relationship between metacognitive knowledge and metacognitive experiences: acquisition and re-elaboration. *European Journal of Psychology of Education*, 13, pp. 75–89.
- Mevarech, Z.R., (1999). Effects of metacognitive training embedded in cooperative settings on mathematical problem-solving. *Journal of Educational Research*, 92 (4), pp. 195–205.
- Shepherd, D.A., Krueger, N., (2002). Cognition, entrepreneurship & teams: an intention-based perspective. *Entrepreneurship Theory & Practice* 27 (2), 167–185.
- Sperling, R. A., Howard, B. C., Staley, R., & DuBois, N. (2004). Metacognition and self-regulated learning constructs. *Educational Research and Evaluation*, 10(2), pp. 117-139.
- Swanson, H.L. (1990). Influence of metacognitive knowledge and aptitude on problem-solving. *Journal of Educational Psychology* 82, pp. 306–314.