

The Microfoundations of Entrepreneurial Cognition Research: Toward an Integrative Approach

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Abstract

In this monograph, we adopt a microfoundations-type approach to understanding the present state of the field of entrepreneurial cognition research. The notion of microfoundations — which link micro concepts to macro concepts [Barney and Felin, 2013] — is increasingly being utilized to unbundle compound processes, and thereby to generate improved explanations in social science research. From its roots in psychology, we selectively review and trace the progress of the field of entrepreneurial cognition research over time, and we make a case for socially situated cognition as a new and useful framework in which the microfoundations of some of the emerging and more dynamic approaches to the study of entrepreneurs' thinking can be understood and organized. We also outline some productive directions for future entrepreneurial cognition research. We believe that the review of these earlier roots enables the reader to more fully appreciate how the development of social cognition research intertwines with other fields in influencing the current state of entrepreneurial cognition research.

1

Introduction

In this monograph, we adopt a microfoundations-type approach to understanding the present state of the field of entrepreneurial cognition research. The notion of microfoundations — which link micro concepts to macro concepts [Barney and Felin, 2013] — is increasingly being utilized to unbundle compound processes, and thereby to generate improved explanations in social science research. Helpfully, the use of microfoundations is increasing in prominence in both entrepreneurship and management research [Bryant, 2014, Gavetti, 2005, Helfat and Peteraf, Forthcoming]. For example, research on microfoundations in entrepreneurship has focused on entrepreneurial choice [Minniti and Bygrave, 1999], on the role of memory in the individual entrepreneur’s ability to adapt [Bryant, 2014], and on the focal role of entrepreneurship in sustained competitive advantage [Teece, 2007]. One criticism of some work on microfoundations is that researchers often tend to specifically equate microfoundations research with individuals-focused research, while ignoring interactions among those individuals, ignoring the context, and missing a meta-theory that takes into account these contextualized interactions [Barney and Felin, 2013]. We contend that with recent developments in the field, an examination of the

microfoundations of entrepreneurial cognition research can be seen as overcoming this limitation.

While the central research question in entrepreneurial cognition research has historically been: “How do entrepreneurs think?” [Mitchell et al., 2007, p. 3], more recent research has been developing explanations that are interactive and contextualized [Mitchell et al., 2014b, 2011b]. Specifically, using the socially situated approach, this research focuses on the idea that the thinking that underlies entrepreneurship is not static but is dynamic: situated within specific people acting within a variety of active environments with varying degrees of distribution of such thinking across minds and tools [Mitchell et al., 2014a]. Thus researchers are not only asking how entrepreneurs think but are also asking what this means for other individuals and organizations, and why this matters for value creation more generally. This socially situated approach to entrepreneurial cognition moves beyond an under-specified approach to the examination of microfoundations [Barney and Felin, 2013], to one that is better suited to the development of a richer theory of entrepreneurship [Mitchell, 2011]. In doing so, we move away from social cognition research that suffers from a ‘static-explanation problem’ — the equivalent of a theoretical ‘scrap book’ — toward research that offers more dynamic explanations — the equivalent of a theoretical ‘motion picture’ [Smith and Conrey, 2009].

In this monograph, we position entrepreneurial cognition research — the search for explanations for how entrepreneurs think — within a domain that embraces the transformation of social psychological explanations from static to dynamic accounts. We also combine the social/contextual elements and cognitive elements of entrepreneurship to better understand its microfoundations and offer the outlines to an integrative approach to entrepreneurial cognition research. In doing so, we do not mean to argue that this is the only lens through which to examine the thinking and doing that comprises entrepreneurship. We do, however, suggest that by seeking to better understand the thinking entrepreneur within a social situation, and with respect to her/his cognitions and motivations [see Fiske and Taylor, 1984], we will be better enabled to fit some of the micro-pieces into solving an entrepreneurship

puzzle that would otherwise remain at least partially unassembled. In order to provide the necessary background to our argument, we will first address the following questions about entrepreneurial cognition: when and how did research on entrepreneurial cognition study begin; what does it entail and imply for other research, and why does this matter?

In late 1980s and early 1990s, only a handful of researchers were interested in and working on socio-cognitive approaches to entrepreneurship, most of whom were unaware of the similar work being pursued by others. As this work began to coalesce, the definition of entrepreneurial cognition as: “*the knowledge structures that people use to make assessments, judgments or decisions involving opportunity evaluation and venture creation and growth*” emerged [Mitchell et al., 2002a, p. 97], and entrepreneurial cognition research itself began to take form as an important subfield of entrepreneurship research [cf. Ireland and Webb, 2007, Mitchell et al., 2002a, 2004, 2007].

As scholars have increasingly explored new explanatory possibilities, the number of topics addressed by entrepreneurial cognition research has grown, and many new avenues of research have been opened [Mitchell, 2011]. In particular, as we have noted above, entrepreneurial cognition researchers have adopted progressively more dynamic approaches to answer or to otherwise tackle a variety of aspects of understanding how entrepreneur’s think [cf. Mitchell et al., 2014a, 2011a]. Nevertheless, the early cognitive approaches to entrepreneurial cognition research that highlighted the idea that static psychological processes underlie entrepreneurial behavior [cf. Shaver and Scott, 1991] were some of the first to be utilized in entrepreneurial cognition research. Specifically, some past entrepreneurial cognition research has focused on the role of biases and heuristics [e.g., Busenitz and Barney, 1997, Simon et al., 2000], effectuation [e.g., Sarasvathy, 2001], entrepreneurial expertise [e.g., Mitchell, 1994, Mitchell et al., 2000, Sarasvathy et al., 1998], entrepreneurial intentions [Bird, 1988, 1992], perceptions [e.g., Gaglio and Katz, 2001], planned behavior [Krueger and Carsrud, 1993], and so on. While these approaches have broadened our understanding of entrepreneurial cognition, we believe

that there are still more opportunities for further developing the field by utilizing explanations that are less static and more dynamic. This belief echoes recent critical reviews of the field of entrepreneurial cognition research [see Grégoire et al., 2011, also Grégoire, 2014]. In particular, these reviews suggest that entrepreneurial cognition should be studied using dynamic and multi-level perspectives to explain additional variance in how entrepreneurs think and act.

Consistent with the call for more dynamic research approaches in both the study of entrepreneurial cognition and the study of microfoundations, a new integrative approach to entrepreneurial cognition research has emerged from the idea of socially situated cognition [Mitchell et al., 2011b]. Socially situated cognition research stems from the premise that cognition is (1) adaptive action-oriented, (2) embodied, (3) situated within and among specific individuals and environments, and (4) distributed across minds and tools [Smith and Semin, 2004]. As a result of conducting entrepreneurial cognition research based on this premise, we argue that it is possible to better and more comprehensively explain the dynamic nature of entrepreneurial thinking.

In this monograph, we therefore selectively review the progress of the field of entrepreneurial cognition research over time, and we make a case for socially situated cognition as a new and useful framework under which the microfoundations of some of the emerging and more dynamic approaches to the study of entrepreneurs' thinking can be understood and organized. We also outline some productive directions for future entrepreneurial cognition research. To assist with this process, Figure 1.1 provides a summary timeline of the transformation from relatively static conceptualizations in psychology toward more dynamic ones. Doing so allows us to understand the foundations of entrepreneurial cognition research, which thereby enables us to look forward toward potential future trends.

Thus, as a basis for this analysis, this monograph is divided into three sections. In the first section, we first review the precursor field of social cognition, and its historical development, to

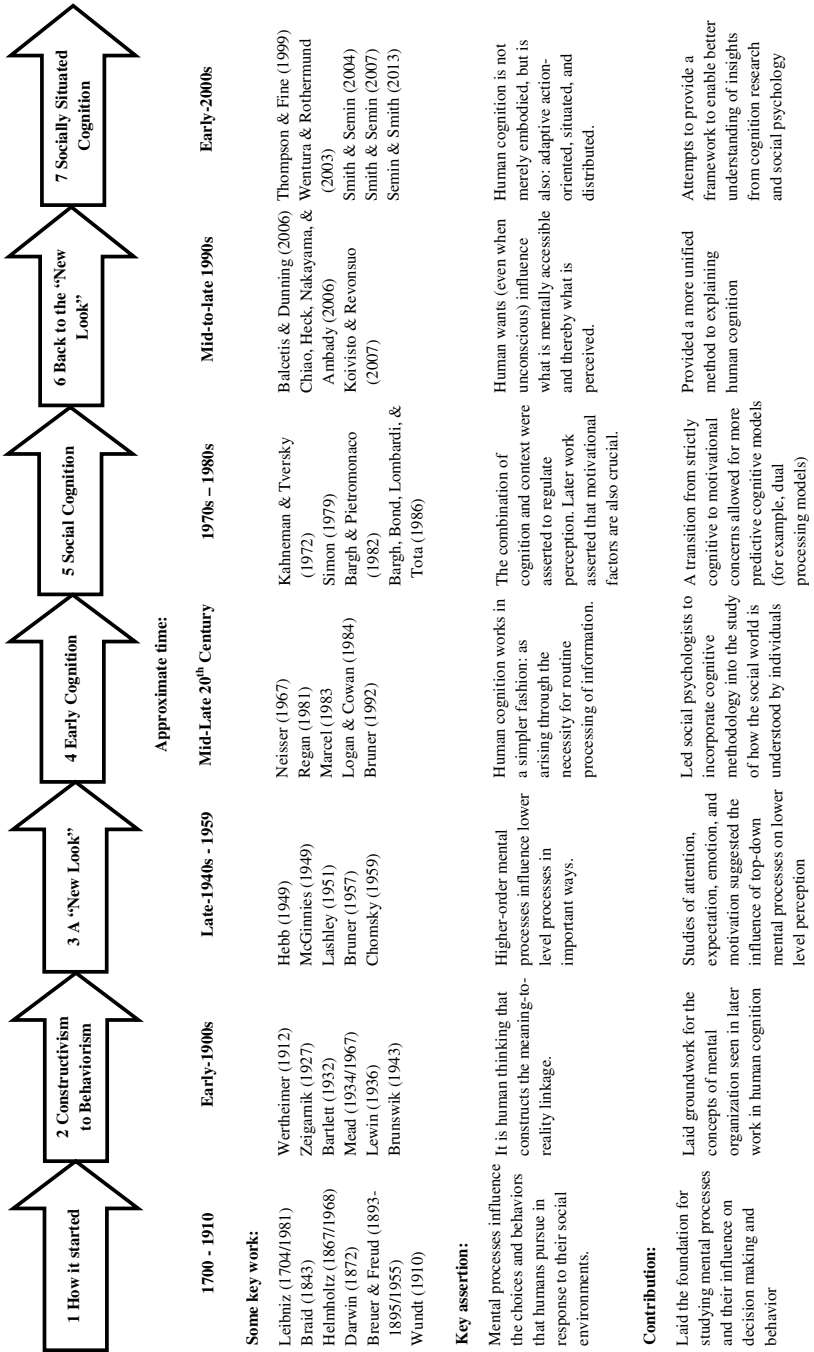


Figure 1.1: Toward a more dynamic view of social cognition: A summary.

explore how progression in this broader field serves as a conceptual footing for the more specialized, microfoundation-based examination of ‘entrepreneurial’ social cognition. In the second section, we also briefly review some of the relevant work in fields closely related to entrepreneurship and entrepreneurial thinking (for example, entrepreneurship in economic theory), and we discuss the work of scholars who provided earlier conceptualizations of the role human thought plays in economic aspects of entrepreneurship. We then selectively review the major theoretical approaches in the field of entrepreneurial cognition research, and trace the progress of the field over time. In the last section, we make a case for socially situated cognition as a new and useful framework under which the microfoundations of some of the emerging and more dynamic approaches to the study of entrepreneurs’ thinking can be understood and organized. We also outline some possible productive directions for future entrepreneurial cognition research. We therefore believe that the review of these earlier roots, which follows next, enables the reader to more fully appreciate how the development of social cognition research intertwines with other fields to influence the current state of entrepreneurial cognition research.

References

- J. K. Adams. Laboratory studies of behavior without awareness. *Psychological Bulletin*, 54(5):383–40, 1957.
- I. Ajzen. From intentions to actions: A theory of planned behavior. In J. Kuhl and J. Beckmann, editors, *Action control: From cognition to behavior*, pages 11–39, New York, NY, 1985. Springer-Verlag.
- I. Ajzen. The theory of planned behavior. *Organization Behavior and Human Decision Processes*, 50(2):179–211, 1991.
- F. H. Allport. *Social Psychology*. Riverside Press, Cambridge, MA, 1924.
- S. A. Alvarez and J. B. Barney. Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1(1–2):11–26, 2007.
- S. A. Alvarez and L. W. Busenitz. The entrepreneurship of resource-based theory. *Journal of Management*, 27(6):755–77, 2001.
- D. L. Ames and S. T. Fiske. Cultural neuroscience. *Asian Journal of Social Psychology*, 13(2):72–82, 2010.
- S. A. Andersen, G. B. Moskowitz, I. V. Blair, and B. A. Nosek. Automatic thought. In E.T. Higgins and A. Kruglanski, editors, *Social Psychology: Handbook of Basic Principles*, pages 138–175, New York, 2007. Guilford.
- S. E. Asch, H. Block, and M. Hertzman. Studies in the principles of judgments and attitudes: I. Two basic principles of judgment. *Journal of Psychology*, 5:219–251, 1938.

- T. Baker and R. E. Nelson. Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3):329–366, 2005.
- E. Balceris and D. Dunning. See what you want to see: Motivational influences on visual perception. *Journal of Personality and Social Psychology*, 91(4):612–662, 2006.
- S. D. Barbosa, M. W. Gerhardt, and J. R. Kickul. The role of cognitive style and risk preference on entrepreneurial self-efficacy and entrepreneurial intentions. *Journal of Leadership & Organizational Studies*, 13(4):86–104, 2007.
- J. A. Bargh and M. J. Ferguson. Beyond behaviorism: On the automaticity of higher mental processes. *Psychological Bulletin*, 126(6):925–994, 2000.
- J. A. Bargh and P. Pietromonaco. Automatic information processing and social perception: The influence of trait information presented outside of conscious awareness on impression formation. *Journal of Personality and Social Psychology*, 43(3):437–449, 1982.
- J. A. Bargh, R. N. Bond, W. J. Lombardi, and M. E. Tota. The additive nature of chronic and temporary sources of construct accessibility. *Journal of Personality and Social Psychology*, 50:869–879, 1986.
- J. B. Barney and T. Felin. What are microfoundations? *Academy of Management Perspectives*, 27(2):138–15, 2013.
- R. A. Baron. Cognitive mechanisms in entrepreneurship: Why and when entrepreneurs think differently than other people. *Journal of Business Venturing*, 13(4):275–294, 1998.
- R. A. Baron. Counterfactual thinking and venture formation: The potential effects of thinking about “what might have been”. *Journal of Business Venturing*, 15(1):79–91, 2000.
- R. A. Baron. The cognitive perspective: A valuable tool for answering entrepreneurship’s basic “why” questions. *Journal of Business Venturing*, 19(2):221–239, 2004.
- R. A. Baron. Opportunity recognition as pattern recognition: How entrepreneurs “connect the dots” to identify new business opportunities. *Academy of Management Perspectives*, 20(1):104–119, 2006.
- R. A. Baron. The role of affect in the entrepreneurial process. *Academy of Management Review*, 33(2):328–340, 2008.
- R. A. Baron and M. D. Ensley. Opportunity recognition as the detection of meaningful patterns: Evidence from comparisons of novice and experienced entrepreneurs. *Management Science*, 52(9):1331–1344, 2006.

- R. A. Baron and R. A. Henry. How entrepreneurs acquire the capacity to excel: Insight from research on expert performance. *Strategic Entrepreneurship Journal*, 4(1):49–65, 2010.
- F. C. Bartlett. *Remembering*. Cambridge University Press, Cambridge, UK, 1932.
- D. Baucus, M. Baucus, and R. K. Mitchell. Lessons from the neural foundation of entrepreneurial cognition: The case of emotion and motivation. In J. Robert Mitchell, Ronald K. Mitchell, and Brandon Randolph-Seng, editors, *Handbook of Entrepreneurial Cognition*, pages 254–315, London UK, 2014. Edward Elgar.
- N. Baudeau. *Premier Introduction à la Philosophie Économique*. P. Geuthner, Paris, 1910/1767.
- D. Berlew. The nature of entrepreneurs. In *Proceedings: Project ISEED (International Symposium on Entrepreneurship and Enterprise Development)*. Columbus, Ohio, 1975.
- C. B. Bingham. Oscillating improvisation: How entrepreneurial firms create success in foreign market entries over time. *Strategic Entrepreneurship Journal*, 3(4):321–345, 2009.
- C. B. Bingham, K. M. Eisenhardt, and N. R. Furr. What makes a process a capability? heuristics, strategy, and effective capture of opportunities. *Strategic Entrepreneurship Journal*, 1(1–2):27–47, 2007.
- A. Bird. *Philosophy of science*. McGill-Queen’s University Press, London, UK, 2006.
- B. Bird. Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3):442–453, 1988.
- B. J. Bird. The operation of intentions in time: The emergence of the new venture. *Entrepreneurship Theory and Practice*, 17:11–20, 1992.
- N. G. Boyd and G. S. Vozikis. The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18:63–63, 1994.
- J. Braid. *Neurypnology; or, the Rationale of Nervous Sleep; Considered in Relation with Animal Magnetism*. Churchill Press, London, UK, 1843.
- J. Breuer and S. Freud. Studies in hysteria. In J. Strachey, editor, *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, volume 2, London, 1955/1893–1895. Hogarth Press.

- P. Briñol and R. E. Petty. Overt head movements and persuasion: A self-validation analysis. *Journal of Personality and Social Psychology*, 84:1123–1139, 2003.
- B. Bridgeman. On the evolution of consciousness and language. *Psychology*, 3(15), 1992. URL <http://www.cogsci.ecs.soton.ac.uk/cgi/psyc/newpsy?3.15>.
- K. H. Brigham, J. O. De Castro, and D. A. Shepherd. A person-organization fit model of owner-managers' cognitive style and organizational demands. *Entrepreneurship Theory and Practice*, 31(1):29–51, 2007.
- R. H. Brockhaus. Risk taking propensity of entrepreneurs. *Academy of Management Journal*, 23(3):509–520, 1980.
- R. H. Brockhaus and W. R. Nord. An exploration of factors affecting the entrepreneurial decision: Personal characteristic vs. environmental conditions. In *Academy of Management Proceedings*, volume 1979, pages 364–368, August 1979. Academy of Management.
- R. H. S. Brockhaus and P. S. Horowitz. The psychology of the entrepreneur. In D. Sexton and R. Smilor, editors, *The Art and Science of Entrepreneurship*, volume 25–48, Cambridge, MA, 1986. Ballinger.
- J. Brockner, E. T. Higgins, and M. B. Low. Regulatory focus theory and the entrepreneurial process. *Journal of Business Venturing*, 19(2):203–220, 2004.
- J. S. Bruner. On perceptual readiness. *Psychological Review*, 64(2):123–152, 1957.
- J. S. Bruner. Another look at new look 1. *American Psychologist*, 47(6):780–783, 1992.
- E. Brunswik. Organismic achievement and environmental probability. *Psychological Review*, 50:255–272, 1943.
- C. Brush. Marketplace information scanning activities of new manufacturing ventures. *Journal of Small Business Management*, 30:41–54, 1992.
- W. L. Bryan and L. Harter. Studies on the telegraphic language: The acquisition of a hierarchy of habits. *Psychological Review*, 6(4):345–378, 1899.
- P. Bryant. Self-regulation and decision heuristics in entrepreneurial opportunity evaluation and exploitation. *Management Decision*, 45(4):732–748, 2007.
- P. T. Bryant. Imprinting by design: The microfoundations of entrepreneurial adaptation. *Entrepreneurship Theory and Practice*, 38(5):1081–1102, 2014.

- I. Bull and G. E. Willard. Towards a theory of entrepreneurship. *Journal of Business Venturing*, 8(3):183–195, 1993.
- L. W. Busenitz. *Cognitive Biases in Strategic Decision-making: Heuristics as a Differentiator between Managers in Large Organizations and Entrepreneurs*. Doctoral dissertation, Texas A&M University, 1992.
- L. W. Busenitz. Research on entrepreneurial alertness. *Journal of Small Business Management*, 34(4):35–44, 1996.
- L. W. Busenitz. Entrepreneurial risk and strategic decision making: It's a matter of perspective. *The Journal of Applied Behavioral Science*, 35(3): 325–340, 1999.
- L. W. Busenitz and J. D. Arthurs. Cognition and capabilities in entrepreneurial ventures. In J. R. Baum, M. Frese, and R. Baron, editors, *The Psychology of Entrepreneurship*, pages 309–330, Mahwah, NJ, 2007. Lawrence Erlbaum Associates.
- L. W. Busenitz and J. B. Barney. Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Journal of Business Venturing*, 12(1):9–30, 1997.
- L. W. Busenitz and C. M. Lau. A cross-cultural cognitive model of new venture creation. *Entrepreneurship Theory and Practice*, 20:25–40, 1996.
- J. Cacioppo and H. Zhou. Culture and the brain: Opportunities and obstacles. *Asian Journal of Social Psychology*, 13:59–71, 2010.
- R. Cantillon. *Essai sur la nature du commerce en general*. London, 1931/1755. Macmillan.
- M. S. Cardon. Is passion contagious? the transference of entrepreneurial passion to employees. *Human Resource Management Review*, 18(2):77–86, 2008.
- M. S. Cardon and C. E. Stevens. The discriminant validity of entrepreneurial passion. In *Academy of Management Proceedings*, volume 2009(1), pages 1–6, August 2009. Academy of Management.
- M. S. Cardon, C. Zietsma, P. Saporito, B. P. Matherne, and C. Davis. A tale of passion: New insights into entrepreneurship from a parenthood metaphor. *Journal of Business Venturing*, 20(1):23–45, 2005.
- M. S. Cardon, J. Wincent, J. Singh, and M. Drnovsek. The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3): 511–532, 2009.
- C. S. Carver and M. F. Scheier. *Attention and self-regulation: A control-theory Approach to human behavior*. Springer-Verlag, New York, 1981.

- S. Chaiken and Y. Trope, editors. *Dual-process Theories in Social Psychology*. Guilford Press, New York, NY, 1999.
- G. N. Chandler and E. Jansen. The founder's self-assessed competence and venture performance. *Journal of Business Venturing*, 7(3):223–236, 1992.
- G. N. Chandler, D. R. DeTienne, A. McKelvie, and T. V. Mumford. Causation and effectuation processes: A validation study. *Journal of Business Venturing*, 26(3):375–390, 2011.
- W. G. Chase and H. A. Simon. The mind's eye in chess. In W. G. Chase, editor, *Visual Information Processing*, pages 215–281, New York, 1973. Academic Press.
- C. C. Chen, P. G. Greene, and A. Crick. Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13(4):295–316, 1998.
- J. Y. Chiao, H. E. Heck, K. Nakayama, and N. Ambady. Priming race in biracial observers affects visual search for black and white faces. *Psychological Science*, 17(5):387–392, 2006.
- N. Chomsky. A review of BF skinner's verbal behavior. *Language*, 35(1):26–58, 1959.
- J. S. Clarke and J. P. Cornelissen. How language shapes thought: New vistas for entrepreneurship research. In J. Robert Mitchell, Ronald K. Mitchell, and Brandon Randolph-Seng, editors, *Handbook of Entrepreneurial Cognition*, pages 383–397, London UK, 2014. Edward Elgar.
- C. J. Collins, P. J. Hanges, and E. A. Locke. The relationship of achievement motivation to entrepreneurial behavior: A meta-analysis. *Human Performance*, 17(1):95–117, 2004.
- C. Comegys. Cognitive dissonance and entrepreneurial behavior. *Journal of Small Business Management*, 14(1):1–6, 1976.
- A. C. Cooper. Challenges in predicting new firm performance. *Journal of Business Venturing*, 8(3):241–253, 1993.
- A. C. Cooper, C. Y. Woo, and W. C. Dunkelberg. Entrepreneurs' perceived chances for success. *Journal of Business Venturing*, 3(2):97–108, 1988.
- A. C. Cooper, T. B. Folta, and C. Woo. Entrepreneurial information search. *Journal of Business Venturing*, 10(2):107–120, 1995.
- A. Corbett. Thinking big from the start: Entrepreneurial growth cognitions. In J. R. Mitchell, R. K. Mitchell, and B. Randolph-Seng, editors, *Handbook of Entrepreneurial Cognition*, pages 398–411, London UK, 2014. Edward Elgar.

- A. C. Corbett. Experiential learning within the process of opportunity identification and exploitation. *Entrepreneurship Theory and Practice*, 29(4): 473–491, 2005.
- A. C. Corbett. Learning asymmetries and the discovery of entrepreneurial opportunities. *Journal of Business Venturing*, 22(1):97–118, 2007.
- A. C. Corbett and K. M. Hmieleski. The conflicting cognitions of corporate entrepreneurs. *Entrepreneurship Theory and Practice*, 31(1):103–121, 2007.
- A. C. Corbett and J. S. McMullen. Perceiving and shaping new venture opportunities through mindful practice. In A. Zacharakis and R. Spinnelli, editors, *Process of entrepreneurship*, pages 43–64, Westport, CT, 2007. Praeger Publishers.
- A. C. Corbett, H. M. Neck, and D. R. DeTienne. How corporate entrepreneurs learn from fledgling innovation initiatives: Cognition and the development of a termination script. *Entrepreneurship Theory and Practice*, 31(6):829–852, 2007.
- J. Corman, B. Perles, and P. Vancini. Motivational factors influencing high-technology entrepreneurship. *Journal of Small Business Management*, 26(1):36–42, 1988.
- J. P. Cornelissen and J. S. Clarke. Imagining and rationalizing opportunities: Inductive reasoning and the creation and justification of new ventures. *Academy of Management Review*, 35(4):539–557, 2010.
- A. Costall. ‘introspectionism’ and the mythical origins of scientific psychology. *Consciousness and Cognition*, 15(4):634–654, 2006.
- C. H. Danhof. Observations on entrepreneurship in agriculture. *Change and the Entrepreneur*, pages 20–24, 1949.
- C. Darwin. *The Expression of Emotions in Man and Animals*. Oxford University Press (1998), Oxford, UK, 3rd edition, 1872.
- D. M. De Carolis, B. E. Litzky, and K. A. Eddleston. Why networks enhance the progress of new venture creation: The influence of social capital and cognition. *Entrepreneurship Theory and Practice*, 33(2):527–545, 2009.
- A. de Groot. *Thought and Choice and Chess*. Mouton, The Hague, 1946.
- E. de Mol, S. N. Khapova, and T. Elfring. Entrepreneurial team cognition: A review. *International Journal of Management Reviews*, 17(2):232–255, 2015.
- N. Dew, S. Read, S. D. Sarasvathy, and R. Wiltbank. Effectual versus predictive logics in entrepreneurial decision-making: Differences between experts and novices. *Journal of Business Venturing*, 24(4):287–309, 2009.

- N. Dew, D. Grichnik, K. Mayer-Haug, S. Read, and J. Brinckmann. Situated entrepreneurial cognition. *International Journal of Management Reviews*, 17(2):143–164, 2015.
- A. S. Dewing. *The Financial Policy of Corporations*, volume 1. Ronald Press, 1920.
- A. Dijksterhuis and J. A. Bargh. The perception-behavior expressway: Automatic effects of social perception and social behavior. In M. Zanna, editor, *Advances in Experimental Social Psychology*, volume 30, pages 1–40, New York, 2001. Academic Press.
- D. Dimov. Beyond the single-person, single-insight attribution in understanding entrepreneurial opportunities. *Entrepreneurship Theory and Practice*, 31(5):713–731, 2007a.
- D. Dimov. From opportunity insight to opportunity intention: The importance of person-situation learning match. *Entrepreneurship Theory and Practice*, 31(4):561–583, 2007b.
- D. Dimov. Nascent entrepreneurs and venture emergence: Opportunity confidence, human capital, and early planning. *Journal of Management Studies*, 47:1123–1153, 2010.
- M. Drnovšek, A. Slavek, and M. S. Cardon. Cultural context, passion and self-efficacy: Do entrepreneurs operate on different ‘planets’? In J. Robert Mitchell, Ronald K. Mitchell, and Brandon Randolph-Seng, editors, *Handbook of Entrepreneurial Cognition*, pages 227–253, London UK, 2014. Edward Elgar.
- D. Dutta and S. Thornhill. The evolution of growth intentions: Toward a cognition-based model. *Journal of Business Venturing*, 23(3):307–332, 2008.
- P. C. Earley and S. Ang. *Cultural Intelligence: Individual Interactions Across Cultures*. Stanford University Press, Palo Alto, CA, 2003.
- K. Eisenhardt. Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, 32:543–576, 1989.
- K. M. Eisenhardt, N. R. Furr, and C. B. Bingham. Microfoundations of performance: Balancing efficiency and flexibility in dynamic environments. *Organization Science*, 21(6):1263–1273, 2010.
- C. Elias-Smith. Dynamics, control, and cognition. In Philip Robbins and Murat Aydede, editors, *The Cambridge Handbook of Situated Cognition*, pages 134–154, Cambridge, UK, 2009. Cambridge University Press.

- K. A. Ericsson. Preface. In K. Anders Ericsson, editor, *The Road to Excellence: The Acquisition of Expert Performance in the Arts and Sciences, Sports and Games*, pages vii–x, Mahwah, NJ, 1996. Lawrence Erlbaum Associates.
- K. A. Ericsson and N. Charness. Expert performance: Its structure and acquisition. *American Psychologist*, 49(8):725–747, 1994.
- K. A. Ericsson and H. A. Simon. *Protocol Analysis: Verbal Reports as Data*. MIT Press, Cambridge, MA, 1984.
- K. A. Ericsson, R. T. Krampe, and C. Tesch-Römer. The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, 100(3):363–406, 1993.
- C. W. Eriksen. Unconscious processes. In M. R. Jones, editor, *Nebraska Symposium on Motivation*, pages 169–227, Lincoln, 1958. University of Nebraska Press.
- G. H. Evans Jr. A century of entrepreneurship in the united states with emphasis upon large manufacturing concerns c. 1850–1957. *Explorations in Entrepreneurial History*, 10:90–103, 1957.
- O. Falck, S. Heblich, and E. Luedemann. Identity and entrepreneurship: Do school peers shape entrepreneurial intentions? *Small Business Economics*, 39(1):39–59, 2012.
- T. Felin and T. R. Zenger. Entrepreneurs as theorists: On the origins of collective beliefs and novel strategies. *Strategic Entrepreneurship Journal*, 3:127–146, 2009.
- J. O. Fiet. *The systematic search for entrepreneurial discoveries*. ABC-CLIO, 2002.
- A. Fishbach and M. J. Ferguson. The goal construct in social psychology. In E.T. Higgins and A. Kruglanski, editors, *Social Psychology: Handbook of Basic Principles*, pages 490–515, New York, 2007. Guilford.
- A. Fishbach and J. Y. Shah. Self-control in action: Implicit dispositions toward goals and away from temptations. *Journal of Personality and Social Psychology*, 90:820–832, 2006.
- S. T. Fiske and S. E. Taylor. *Social Cognition*. Addison-Wesley, Reading, MA, 1984.
- J. R. Fitzsimmons and E. J. Douglas. Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*, 26:431–440, 2011.

- M.-D. Foo, M. A. Uy, and R. A. Baron. How do feelings influence effort? an empirical study of entrepreneurs' affect and venture effort. *Journal of Applied Psychology*, 94(4):1086–1094, 2009.
- D. P. Forbes. Cognitive approaches to new venture creation. *International Journal of Management Reviews*, 1:415–439, 1999.
- D. P. Forbes. Are some entrepreneurs more overconfident than others? *Journal of Business Venturing*, 20(5):623–640, 2005.
- D. P. Forbes. The infrastructure of entrepreneurial learning. In J. Robert Mitchell, Ronald K. Mitchell, and Brandon Randolph-Seng, editors, *Handbook of Entrepreneurial Cognition*, pages 364–382, London UK, 2014. Edward Elgar.
- J. Förster, E. T. Higgins, and L. C. Idson. Approach and avoidance strength during goal attainment: Regulatory focus and the “goal looms larger” effect. *Journal of Personality and Social Psychology*, 75:1115–1131, 1998.
- M. Frese. The psychological actions and entrepreneurial success: An action theory approach. In J. R. Baum, M. Frese, and R. A. Baron, editors, *The Psychology of Entrepreneurship*, pages 151–188, Mahwah, NJ, 2007. Lawrence Erlbaum Associations.
- M. Frese. Toward a psychology of entrepreneurship — an action theory perspective. *Foundations and Trends in Entrepreneurship*, 5(6):437–496, 2009.
- M. Frese and D. Zapf. Action as the core of work psychology: A German approach. In H. C. Triandis, M. D. Dunnette, and L. M. Hough, editors, *Handbook of Industrial and Organizational Psychology*, volume 4, pages 271–340, Palo Alto, CA., 1994. Consulting Psychologists Press.
- M. Frese, J. Stewart, and B. Hannover. Goal orientation and planfulness: Action styles as personality concepts. *Journal of Personality and Social Psychology*, 52(6):1182–1194, 1987.
- R. S. Friedman and J. Förster. The effects of promotion and prevention cues on creativity. *Journal of Personality and Social Psychology*, 81:1001–1013, 2001.
- C. M. Gaglio. The role of mental simulations and counterfactual thinking in the opportunity identification process. *Entrepreneurship Theory and Practice*, 28(6):533–552, 2004.
- C. M. Gaglio and J. A. Katz. The psychological basis of opportunity identification: Entrepreneurial alertness. *Small Business Economics*, 16(2):95–111, 2001.
- H. Gardner. *Frames of Mind*. Basic Books, New York, 1983.

- H. Gardner. *The Mind's New Science: A History of the Cognitive Revolution*. Basic Books, New York, 1985.
- H. Gardner. *Creating Minds*. Basic Books, New York, 1993.
- W. Gartner, B. Bird, and J. Starr. Acting as if: Differentiating entrepreneurial from organizational behavior. *Entrepreneurship: Theory and Practice*, 16: 13–31, 1992.
- W. B. Gartner. 'Who is an entrepreneur?' is the wrong question. *Entrepreneurship Theory and Practice*, 13(4):47–68, 1989.
- R. Garud, S. Jain, and A. Kumaraswamy. Institutional entrepreneurship in the sponsorship of common technological standards: The case of sun microsystems and java. *Academy of Management Journal*, 45(1):196–214, 2002.
- E. J. Gatewood, K. G. Shaver, and W. B. Gartner. A longitudinal study of cognitive factors influencing start-up behaviors and success at venture creation. *Journal of Business Venturing*, 10(5):371–391, 1995.
- G. Gavetti. Cognition and hierarchy: Rethinking the microfoundations of capabilities' development. *Organization Science*, 16(6):599–617, 2005.
- R. W. J. Gibbs. *Embodiment and cognitive science*. Cambridge University Press, Cambridge, MA, 2006.
- M. Gielnik, M. Frese, A. Kahara-Kawuki, I. Katono, S. Kyejjusa, J. Munene, and T. Dlugosch. Action and action-regulation in entrepreneurship: Evaluating a student training for promoting entrepreneurship. *Academy of Management Learning & Education*, Forthcoming. published online before print October 3, 2013. DOI: 10.5465/amle.2012.0107.
- M. M. Gielnik, S. Barabas, M. Frese, R. Namatovu-Dawa, F. A. Scholz, J. R. Metzger, and T. Walter. A temporal analysis of how entrepreneurial goal intentions, positive fantasies, and action planning affect starting a new venture and when the effects wear off. *Journal of Business Venturing*, 29(6): 755–772, 2014.
- R. Glaser. Education and thinking. *American Psychologist*, 39:93–104, 1984.
- I. Goldiamond. Indicators of perception: I. Subliminal perception, subception, unconscious perception: An analysis in terms of psychophysical indicator methodology. *Psychological Bulletin*, 55(6):373–411, 1958.
- K. M. Goldstein and S. Blackman. *Cognitive Styles*. Wiley, New York, 1978.
- P. M. Gollwitzer and G. B. Moskowitz. Goal effects on action and cognition. In E. T. Higgins and A. W. Kruglanski, editors, *Social psychology: Handbook of basic principles*, pages 361–399, New York, 1996. Guilford Press.

- D. Grégoire. Exploring the affective and cognitive dynamics of entrepreneurship across time and planes of influence. In J. R. Mitchell, R. K. Mitchell, and B. Randolph-Seng, editors, *Handbook of Entrepreneurial Cognition*, Northampton, MA, 2014. Edward Elgar.
- D. A. Grégoire and D. A. Shepherd. Technology-market combinations and the identification of entrepreneurial opportunities: An investigation of the opportunity-individual nexus. *Academy of Management Journal*, 55(4): 753–785, 2012.
- D. A. Grégoire, P. S. Barr, and D. A. Shepherd. Cognitive processes of opportunity recognition: The role of structural alignment. *Organization Science*, 21(2):413–431, 2010.
- D. A. Grégoire, A. C. Corbett, and J. S. McMullen. The cognitive perspective in entrepreneurship: An agenda for future research. *Journal of Management Studies*, 48(6):1443–1477, 2011.
- D. A. Grégoire, J. Cornelissen, D. Dimov, and E. van Burg. The mind in the middle: Taking stock of affect and cognition research in entrepreneurship. *International Journal of Management Reviews*, 17(2):125–142, 2015.
- E. L. Hansen and K. R. Allen. The creation corridor: Environmental load and pre-organization information-processing ability. *Entrepreneurship Theory and Practice*, 17:57–57, 1992.
- E. Hartman, C. Tower, and T. Sebor. Information sources and their relationship to organizational innovation in small businesses. *Journal of Small Business Management*, 23:37–47, 1994.
- F. A. Hayek, editor. *Individualism and Economic Order*. University of Chicago Press, 1948.
- J. M. Haynie, D. Shepherd, E. Mosakowski, and P. C. Earley. A situated metacognitive model of the entrepreneurial mindset. *Journal of Business Venturing*, 25(2):217–229, 2010.
- J. M. Haynie, D. A. Shepherd, and H. Patzelt. Cognitive adaptability and an entrepreneurial task: The role of metacognitive ability and feedback. *Entrepreneurship Theory and Practice*, 36(2):237–265, 2012.
- M. Haynie and D. A. Shepherd. A measure of adaptive cognition for entrepreneurship research. *Entrepreneurship Theory and Practice*, 33(3): 695–714, 2009.
- D. Hebb. *The Organization of Behavior: A Neuropsychological Theory*. Wiley, New York, 1949.
- R. F. Hébert and A. N. Link. In search of the meaning of entrepreneurship. *Small Business Economics*, 1(1):39–49, 1989.

- F. Heider. *The Psychology of Interpersonal Relations*. Wiley Press, New York, NY, 1958.
- C. E. Helfat and M. A. Peteraf. Managerial cognitive capabilities and the microfoundations of dynamic capabilities. *Strategic Management Journal*, Forthcoming.
- H. Helmholtz. Concerning the perceptions in general. In W. Warren and R. Warren, editors, *Helmholtz on Perception: Its Physiology and Development*, pages 171–203, New York, 1968/1867. Wiley.
- E. T. Higgins. Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94(3):319–340, 1987.
- E. T. Higgins. Promotion and prevention: Regulatory focus as a motivational principle. *Advances in Experimental Social Psychology*, 30:1–46, 1998.
- R. Hill and M. Levenhagen. Metaphors and mental models: Sensemaking and sensegiving in innovative and entrepreneurial activities. *Journal of Management*, 21:1057–1074, 1995.
- R. D. Hisrich and A. D. Jankowicz. Intuition in venture capital decisions: An exploratory study using a new technique. *Journal of Business Venturing*, 5(1):49–62, 1990.
- M. Hitt. The new frontier: Transformation of management for a new millennium. *Organization Dynamics*, 28(3):6–18, 2000.
- K. M. Hmieleski and R. A. Baron. Regulatory focus and new venture performance: A study of entrepreneurial opportunity exploitation under conditions of risk versus uncertainty. *Strategic Entrepreneurship Journal*, 2(4): 285–299, 2008.
- K. M. Hmieleski and A. C. Corbett. Proclivity for improvisation as a predictor of entrepreneurial intentions. *Journal of Small Business Management*, 41 (1):45–63, 2006.
- K. M. Hmieleski and A. C. Corbett. The contrasting interaction effects of improvisational behavior with entrepreneurial self-efficacy on new venture performance and entrepreneur work satisfaction. *Journal of Business Venturing*, 23(4):482–496, 2008.
- R. D. Ireland and J. W. Webb. A cross-disciplinary exploration of entrepreneurship research. *Journal of Management*, 33(6):891–927, 2007.
- D. M. Isaacowitz. Motivated gaze: The view from the gazer. *Current Directions in Psychological Science*, 15:68–72, 2006.
- W. James. *The Principles of Psychology*, volume 1. Dover, New York, 1950/1890.

- J. Jastrow. *The subconscious*. Houghton-Mifflin, Boston, MA, 1906.
- V. E. Jefferis, C. A. Loersch, and R. H. Fazio. Toward (and away from) the unknown: Evaluative conditioning of subliminally presented novel stimuli via motor behavior. Poster session presented at the 8th annual conference of the Society for Personality and Social Psychology, Memphis, TN, January 2007.
- M. Jenkins and G. Johnson. Entrepreneurial intentions and outcomes: A comparative causal mapping study. *Journal of Management Studies*, 34(6): 895–920, 1997.
- J. L. Johnson and R. Kuehn. The small business owner/manager's search for external information. *Journal of Small Business Management*, 25:53–60, 1987.
- D. Kahneman and A. Tversky. Subjective probability: A judgment of representativeness. *Cognitive Psychology*, 3:430–454, 1972.
- S. Kaish and B. Gilad. Characteristics of opportunities search of entrepreneurs versus executives: Sources, interests, general alertness. *Journal of Business Venturing*, 6(1):45–61, 1991.
- E. Kasperova and J. Kitching. Embodying entrepreneurial identity. *International Journal of Entrepreneurial Behaviour & Research*, 20(5):3–3, 2014.
- J. A. Katz. A psychosocial cognitive model of employment status choice. *Entrepreneurship Theory and Practice*, 17:29–37, 1992.
- K. S. Kendler and L. J. Eaves. Models for the joint effect of genotype and environment on liability to psychiatric illness. *The American Journal of Psychiatry*, 143:279–289, 1986.
- I. M. Kirzner. *Competition and Entrepreneurship*. University of Chicago press, 1973.
- I. M. Kirzner. Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*, pages 60–85, 1997.
- F. Knight. *Risk, Uncertainty and Profit*. Houghton Mifflin, New York, 1921.
- M. Koivisto and A. Revonsuo. How meaning shapes seeing. *Psychological Science*, 18(10):845–849, 2007.
- L. Kolvereid. Prediction of employment status choice intentions. Working Paper, Henley Management College, 1996.
- N. Krueger. The cognitive infrastructure of opportunity emergence. *Entrepreneurship Theory and Practice*, 24(3):5–23, 2000.

- N. Krueger and P. R. Dickson. How believing in ourselves increases risk taking: Perceived self-efficacy and opportunity recognition. *Decision Sciences*, 25 (3):385–400, 1994.
- N. Krueger, M. Reilly, and A. Carsrud. Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15:411–432, 2000.
- N. F. Krueger. The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship Theory and Practice*, 18(1):5–21, 1993.
- N. F. Krueger and D. V. Brazeal. Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory and Practice*, 18:91–91, 1994.
- N. F. Krueger and A. L. Carsrud. Entrepreneurial intentions: Applying the theory of planned behavior. *Entrepreneurship & Regional Development*, 5 (4):315–330, 1993.
- A. W. Kruglanski, J. Y. Shah, A. Fishbach, R. Friedman, and W. Y. Chun et al. A theory of goal systems. In M. Zanna, editor, *Advances in Experimental Social Psychology*, volume 34, pages 331–380, New York, 2002. Academic Press.
- R. K. Lamb. The entrepreneur and the community. *Men in Business*, pages 91–119, 1952.
- J. Lang, R. Calantone, and D. Gudmundson. Small firm information seeking as a response to environmental threats and opportunities. *Journal of Small Business Management*, 35:11–23, 1997.
- K. S. Lashley. The problem of serial order in behavior. In L. A. Jeffress, editor, *Cerebral Mechanisms in Behavior: The Hixon Symposium*, pages 112–146, New York, 1951. Wiley Press.
- J. Leddo and R. P. Abelson. The nature of explanations. In J. A. Galambos, R. P. Abelson, and J. B. Black, editors, *Knowledge Structures*, pages 103–122, Hillsdale NJ, 1986. Lawrence Erlbaum and Associates, Inc.
- G. W. Leibniz. *New Essays on Human Understanding*. Cambridge University Press, (P. Remnant and J. Benett Trans & Eds.) Cambridge, UK, 1981/1704.
- A. K.-y. Leung and D. Cohen. The soft embodiment of culture: Camera angles and motion through time and space. *Psychological Science*, 18:824–830, 2007.
- D. Levinthal and J. G. March. The myopia of learning. *Strategic Management Journal*, 14:95–112, 1993.

- K. Lewin. *Principles of Topological Psychology*. McGraw Hill, (trans. F. Heider and G. M. Heider) New York, NY, 1936.
- M. Lieberman, R. Gaunt, D. T. Gilbert, and Y. Trope. Reflexion and reflection: A social cognitive neuroscience approach to attributional inference. In M. P. Zanna, editor, *Advances in Experimental Social Psychology*, volume 34, pages 199–249, New York, 2002. Academic Press.
- I. A. Litvak and C. J. Maule. *Canadian Entrepreneurship: A Study of Small Newly Established Firms*. Department of Industry, Trade, and Commerce, Ottawa, 1971.
- G. D. Logan and W. B. Cowan. On the ability to inhibit thought and action: A theory of an act of control. *Psychological Review*, 91(3):295–327, 1984.
- R. G. Lord and K. J. Maher. Alternative information processing models and their implications for theory, research, and practice. *Academy of Management Review*, 15(1):9–28, 1990.
- M. H. MacIver. Neuroethology: From morphological computation to planning. In Philip Robbins and Murat Aydede, editors, *The Cambridge Handbook of Situated Cognition*, pages 480–504, Cambridge, UK, 2009. Cambridge University Press.
- M. J. Manimala. Entrepreneurial heuristics: A comparison between high PL (pioneering-innovative) and low PI ventures. *Journal of Business Venturing*, 7(6):477–504, 1992.
- A. Marcel. Conscious and unconscious perception: Experiments on visual masking and word recognition. *Cognitive Psychology*, 15(2):197–237, 1983.
- J. G. March and Z. Shapira. Managerial perspectives on risk and risk taking. *Management Science*, 33(11):1404–1418, 1987.
- G. D. Markman and R. A. Baron. Person–entrepreneurship fit: Why some people are more successful as entrepreneurs than others. *Human Resource Management Review*, 13(2):281–301, 2003.
- A. M. McCarthy, F. D. Schoorman, and A. C. Cooper. Reinvestment decisions by entrepreneurs: Rational decision-making or escalation of commitment? *Journal of Business Venturing*, 8(1):9–24, 1993.
- D. C. McClelland. *The Achieving Society*. Simon and Schuster, 1961.
- D. C. McClelland. Need achievement and entrepreneurship: A longitudinal study. *Journal of Personality and Social Psychology*, 1:389–392, 1965.
- E. McGinnies. Emotionality and perceptual defense. *Psychological Review*, 56(5):244–251, 1949.

- R. G. McGrath. Falling forward: Real options reasoning and entrepreneurial failure. *Academy of Management Review*, 24(1):13–30, 1999.
- R. G. McGrath and I. C. MacMillan. More like each other than anyone else? a cross-cultural study of entrepreneurial perceptions. *Journal of Business Venturing*, 7(5):419–429, 1992.
- J. W. McGuire. *Theories of Business Behavior*. Prentice-Hall, Englewood Cliffs, NJ, 1964.
- J. S. McMullen and D. Dimov. Time and the entrepreneurial journey: The problems and promise of studying entrepreneurship as a process. *Journal of Management Studies*, 50(8):1481–1512, 2013.
- J. S. McMullen and D. A. Shepherd. Regulatory focus and entrepreneurial intention: Action bias in the recognition and evaluation of opportunities. In W. D. Bygrave et al., editor, *Frontiers of Entrepreneurship Research*, pages 61–73, Babson Park, MA, 2002. Babson College.
- J. S. McMullen and D. A. Shepherd. Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31(1):132–152, 2006.
- J. S. McMullen, M. S. Wood, and L. E. Palich. Entrepreneurial cognition and social cognitive neuroscience. In J. Robert Mitchell, Ronald K. Mitchell, and Brandon Randolph-Seng, editors, *Handbook of Entrepreneurial Cognition*, pages 316–363, London UK, 2014. Edward Elgar.
- G. H. Mead. *Mind, Self, and Society: From the Standpoint of a Social Behaviorist*. University of Chicago Press, Chicago, IL, 1934/1967.
- C. Menger. *Principles of Economics*. edited by J. Dingwall and translated by BF Hoselitz from the German edition of 1871, 1871/1981.
- P. M. Merikle and E. M. Reingold. Measuring unconscious perceptual processes. In R. F. Bornstein and T. S. Pittman, editors, *Perception Without Awareness: Cognitive, Clinical, and Social Perspectives*, pages 55–80, New York, 1992. Guilford Press.
- R. Millikan. Embedded rationality. In Philip Robbins and Murat Aydede, editors, *The Cambridge Handbook of Situated Cognition*, pages 171–182, Cambridge, UK, 2009. Cambridge University Press.
- M. Minniti and W. Bygrave. The microfoundations of entrepreneurship. *Entrepreneurship Theory and Practice*, 23(4):41–52, 1999.
- J. R. Mitchell and D. A. Shepherd. To thine own self be true: Images of self, images of opportunity, and entrepreneurial action. *Journal of Business Venturing*, 25(1):138–154, 2010.

- J. R. Mitchell and D. A. Shepherd. *Afraid of Opportunity: The Effects of Fear of Failure on Entrepreneurial Action*. Frontiers of Entrepreneurship Research, Wellesley, MA: Babson College, 2011.
- J. R. Mitchell and D. A. Shepherd. Capability development and decision incongruence in strategic opportunity pursuit. *Strategic Entrepreneurship Journal*, 6(4):355–381, 2012.
- J. R. Mitchell, P. N. Friga, and R. K. Mitchell. Untangling the intuition mess: Intuition as a construct in entrepreneurship research. *Entrepreneurship Theory and Practice*, 29(6):653–679, 2005.
- J. R. Mitchell, D. A. Shepherd, and M. P. Sharfman. Erratic strategic decisions: When and why managers are inconsistent in strategic decision making. *Strategic Management Journal*, 32(7):683–704, 2011a.
- J. R. Mitchell, R. K. Mitchell, B. T. Mitchell, and S. Alvarez. Opportunity creation, underlying conditions and economic exchange. In Andrew C. Corbett and Jerome A. Katz, editors, *Entrepreneurial Action (Advances in Entrepreneurship, Firm Emergence and Growth, Volume 14)*, pages 89–123. Emerald Group Publishing Limited, 2012.
- J. R. Mitchell, R. K. Mitchell, and B. Randolph-Seng, editors. *Handbook of Entrepreneurial Cognition*. Edward Elgar, 2014a.
- R. K. Mitchell. *The Composition, Classification, and Creation of New Venture Formation Expertise*. Doctoral dissertation, University of Utah, 1994.
- R. K. Mitchell. Oral history and expert scripts: Demystifying the entrepreneurial experience. *International Journal of Entrepreneurial Behaviour & Research*, 3(2):122–139, 1997.
- R. K. Mitchell. *Transaction Cognition Theory and High Performance Economic Results (First Edition). A Research Monograph Summarizing the Development of Transaction Cognition Theory at Multiple Levels of Analysis*. Victoria BC Canada: International Centre for Venture Expertise, 2001.
- R. K. Mitchell. A transaction cognition theory of global entrepreneurship. *Advances in Entrepreneurship, Firm Emergence and Growth*, 6:181–229, 2003.
- R. K. Mitchell. Tuning up the global value creation engine: The road to excellence in international entrepreneurship education. *Advances in Entrepreneurship, Firm Emergence and Growth*, 8:185–248, 2005.
- R. K. Mitchell. Increasing returns and the domain of entrepreneurship research. *Entrepreneurship Theory & Practice*, pages 35–36, 615–629, July 2011.

- R. K. Mitchell and S. A. Chesteen. Enhancing entrepreneurial expertise: Experiential pedagogy and the new venture expert script. *Simulation & Gaming*, 26(3):288–306, 1995.
- R. K. Mitchell, B. Smith, K. W. Seawright, and E. A. Morse. Cross-cultural cognitions and venture creation decisions. *Academy of Management Journal*, 43(5):974–993, 2000.
- R. K. Mitchell, L. W. Busenitz, T. Lant, P. P. McDougall, E. A. Morse, and B. Smith. Toward a theory of entrepreneurial cognition: Rethinking the people side of entrepreneurship research. *Entrepreneurship Theory and Practice*, 27(2):93–104, 2002a.
- R. K. Mitchell, J. B. Smith, E. A. Morse, K. W. Seawright, A. M. Peredo, and B. McKenzie. Are entrepreneurial cognitions universal? assessing entrepreneurial cognitions across cultures. *Entrepreneurship Theory and Practice*, 26(4):9–32, 2002b.
- R. K. Mitchell, L. Busenitz, T. Lant, P. P. McDougall, E. A. Morse, and B. Smith. The distinctive and inclusive domain of entrepreneurial cognition research. *Entrepreneurship Theory and Practice*, 28(6):505–518, 2004.
- R. K. Mitchell, L. Busenitz, B. Bird, C. M. Gaglio, J. S. McMullen, E. A. Morse, and J. B. Smith. The central question in entrepreneurial cognition research 2007. *Entrepreneurship Theory and Practice*, 31(1):1–27, 2007.
- R. K. Mitchell, J. R. Mitchell, and J. B. Smith. Inside opportunity formation: Enterprise failure, cognition, and the creation of opportunities. *Strategic Entrepreneurship Journal*, 2(3):225–242, 2008.
- R. K. Mitchell, B. T. Mitchell, and J. R. Mitchell. Entrepreneurial scripts and entrepreneurial expertise: The information processing perspective. In A. L. Carsrud and M. E. Brännback, editors, *Understanding the Entrepreneurial Mind*, pages 97–137, New York, 2009. Springer.
- R. K. Mitchell, B. Randolph-Seng, and J. R. Mitchell. Socially situated cognition: Imagining new opportunities for entrepreneurship research. *Academy of Management Review*, 36(4):774–776, 2011b.
- R. K. Mitchell, J. R. Mitchell, M. A. Zachary, and M. R. Ryan. Simulating socially-situated cognition in exchange creation. In J. Robert Mitchell, Ronald K. Mitchell, and Brandon Randolph-Seng, editors, *Handbook of Entrepreneurial Cognition*, pages 412–447, London UK, 2014b. Edward Elgar.
- S. Mohan-Neill. The influence of firm's age and size on its environmental scanning activities. *Journal of Small Business Management*, 33:10–21, 1995.

- E. A. Morse and R. K. Mitchell. *The Venture Creation Process Casebook*. SAGE Publications, London, ON, Canada, 2005.
- E. A. Morse, S. W. Fowler, and T. B. Lawrence. The impact of virtual embeddedness on new venture survival: Overcoming the liabilities of newness. *Entrepreneurship Theory and Practice*, 31(2):139–159, 2007.
- U. Neisser. *Cognitive Psychology*. Appleton-Century-Crofts, New York, 1967.
- R. Neumann, J. Förster, and F. Strack. Motor compatibility: The bidirectional link between behavior and evaluation. In J. Musch and K. C. Klauer, editors, *The Psychology of Evaluation: Affective Processes in Cognition and Emotion*, pages 371–391, NJ, 2003. Erlbaum.
- S. L. Newbert, E. T. Tornikoski, and N. R. Quigley. Exploring the evolution of supporter networks in the creation of new organizations. *Journal of Business Venturing*, 28(2):281–298, 2013.
- N. Nicolaou, S. Shane, L. Cherkas, J. Hunkin, and T. D. Spector. Is the tendency to engage in entrepreneurship genetic? *Management Science*, 54(1):167–179, 2008a.
- N. Nicolaou, S. Shane, L. Cherkas, and T. D. Spector. The influence of sensation seeking in the heritability of entrepreneurship. *Strategic Entrepreneurship Journal*, 2(1):7–21, 2008b.
- R. E. Ornstein. *The Psychology of Consciousness*. Harcourt Brace, New York, 1977.
- C. E. Osgood. The nature and measurement of meaning. *Psychological Bulletin*, 49(3):197–237, 1952.
- L. E. Palich and D. R. Bagby. Using cognitive theory to explain entrepreneurial risk-taking: Challenging conventional wisdom. *Journal of Business Venturing*, 10(6):425–438, 1995.
- M. Palmer. The application of psychological testing to entrepreneurial potential. *California Management Review*, 13(3):32–38, 1971.
- R. J. Pech and A. Cameron. An entrepreneurial decision process model describing opportunity recognition. *European Journal of Innovation Management*, 9(1):61–78, 2006.
- J. T. Perry, G. N. Chandler, and G. Markova. Entrepreneurial effectuation: A review and suggestions for future research. *Entrepreneurship Theory and Practice*, 36(4):837–861, 2012.
- C. S. Pierce and J. Jastrow. On small differences in sensation. *Memoirs of the National Academy of Science*, 3:75–83, 1884.

- R. C. Pineda, L. D. Lerner, M. C. Miller, and S. J. Phillips. An investigation of factors affecting the information-search activities of small business managers. *Journal of Small Business Management*, 36(1):60–71, 1998.
- R. Plomin, J. C. DeFries, and J. C. Loehlin. Genotype-environment interaction and correlation in the analysis of human behavior. *Psychological Bulletin*, 84(2):309–322, 1977.
- B. Randolph-Seng, W. A. Williams Jr., and M. Hayek. Entrepreneurial self-regulation: Consciousness and cognition. In J. Robert Mitchell, Ronald K. Mitchell, and Brandon Randolph-Seng, editors, *Handbook of Entrepreneurial Cognition*, pages 132–153, London UK, 2014. Edward Elgar.
- A. Rauch and M. Frese. Let’s put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners’ personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4):353–385, 2007.
- S. Read, N. Dew, S. D. Sarasvathy, M. Song, and R. Wiltbank. Marketing under uncertainty: The logic of an effectual approach. *Journal of Marketing*, 73(3):1–18, 2009a.
- S. Read, M. Song, and W. Smit. A meta-analytic review of effectuation and venture performance. *Journal of Business Venturing*, 24(6):573–587, 2009b.
- J. E. Regan. Automaticity and learning: Effects of familiarity on name letters. *Journal of Experimental Psychology: Human Perception and Performance*, 7(1):180–195, 1981.
- A. R. Reuber and E. M. Fischer. Entrepreneurs’ experience, expertise, and the performance of technology-based firms. *IEEE Transactions on Engineering Management*, 41(4):365–374, 1994.
- P. Robbins and M. Aydede. A short primer on situated cognition. In Philip Robbins and Murat Aydede, editors, *The Cambridge Handbook of Situated Cognition*, pages 3–10, Cambridge, UK, 2009. Cambridge University Press.
- P. B. Robinson, D. V. Stimpson, J. C. Huefner, and H. K. Hunt. An attitude approach to the prediction of entrepreneurship. *Entrepreneurship Theory and Practice*, 15(4):13–31, 1991.
- M. J. Rosenberg. An analysis of affective-cognitive consistency. In I. Carl, M. Hovland, and J. Rosenberg, editors, *Attitude organization and change: An analysis of consistency among attitude components*, pages 15–64, New Haven, CT, 1960. Yale University Press.
- I. Royer. Why bad projects are so hard to kill. *Harvard Business Review*, 81(2):48–56, 2003.

- P. Rozin. The evolution of intelligence and access to the cognitive unconscious. *Progress in Psychobiology and Physiological Psychology*, 6:245–280, 1976.
- R. D. Rupert. *Cognitive Systems and the Extended Mind*. Oxford University Press, Oxford, 2009.
- L. J. Sanna, N. Schwartz, and E. M. Small. Accessibility experiences and the hindsight bias: I knew it all along verses it could never have happened. *Memory & Cognition*, 30:1288–1296, 2002.
- S. D. Sarasvathy. Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2):243–288, 2001.
- S. D. Sarasvathy. The questions we ask and the questions we care about: Reformulating some problems in entrepreneurship research. *Journal of Business Venturing*, 19(5):707–717, 2004.
- S. D. Sarasvathy. *Effectuation: Elements of Entrepreneurial Expertise*. Edward Elgar Publishing, 2008.
- S. D. Sarasvathy. The whole deal: Models, metaphors and mechanisms in entrepreneurial cognition. In J. Robert Mitchell, Ronald K. Mitchell, and Brandon Randolph-Seng, editors, *Handbook of Entrepreneurial Cognition*, pages 448–470, London UK, 2014. Edward Elgar.
- S. D. Sarasvathy, H. A. Simon, and L. Lave. Perceiving and managing business risks: Differences between entrepreneurs and bankers. *Journal of Economic Behavior & Organization*, 33:207–225, 1998.
- J. B. Say. *A Treatise on Political Economy*. Augustus M. Kelley, New York, 1971/1810.
- S. Schafer. Level of entrepreneurship and scanning source usage in very small businesses. *Entrepreneurship Theory and Practice*, 15:19–32, 1990.
- T. W. Schultz. The value of the ability to deal with disequilibria. *Journal of Economic Literature*, pages 827–846, 1975.
- K. W. Seawright, R. K. Mitchell, and J. B. Smith. Comparative entrepreneurial cognitions and lagging russian new venture formation: A tale of two countries. *Journal of Small Business Management*, 46(4):512–535, 2008.
- G. R. Semin and E. R. Smith. Socially situated cognition in perspective. *Social Cognition*, 31(2):125–146, 2013.
- D. L. Sexton and N. Bowman-Upton. Female and male entrepreneurs: Psychological characteristics and their role in gender-related discrimination. *Journal of Business Venturing*, 5(1):29–36, 1991.

- A. Shapero and L. Sokol. The social dimensions of entrepreneurship. In C. A. Kent, D. L. Sexton, and K. H. Vesper, editors, *Encyclopedia of Entrepreneurship*, pages 72–90, Englewood Cliffs, NJ, 1982. Prentice-Hall.
- K. G. Shaver and L. R. Scott. Person, process, and choice: The psychology of new venture creation. *Entrepreneurship Theory and Practice*, 16(2):23–45, 1991.
- D. A. Shepherd and M. S. Cardon. Negative emotional reactions to project failure and the self-compassion to learn from the experience. *Journal of Management Studies*, 46(6):923–949, 2009.
- D. A. Shepherd and D. R. DeTienne. Prior knowledge, potential financial reward, and opportunity identification. *Entrepreneurship Theory and Practice*, 29(1):91–112, 2005.
- D. A. Shepherd, J. S. McMullen, and P. D. Jennings. The formation of opportunity beliefs: Overcoming ignorance and reducing doubt. *Strategic Entrepreneurship Journal*, 1(1-2):75–95, 2007.
- M. Sherif. *The Psychology of Social Norms*. Harper Press, New York, NY, 1936.
- B. Sidis. *The Psychology of Suggestion*. D. Appleton and Company, New York, 1898.
- H. A. Simon. Rational choice and the structure of the environment. *Psychological Review*, 63(2):129–138, 1956.
- H. A. Simon. Rational decision making in business organizations. *American Economic Review*, 69(4):493–513, 1979.
- H. A. Simon. Invariants of human behavior. *Annual Review of Psychology*, 41(1):1–20, 1990.
- M. Simon and S. M. Houghton. The relationship among biases, misperceptions, and the introduction of pioneering products: Examining differences in venture decision contexts. *Entrepreneurship Theory and Practice*, 27(2):105–124, 2002.
- M. Simon, S. M. Houghton, and K. Aquino. Cognitive bias, risk perception, and venture formation: How individuals decide to start companies. *Journal of Business Venturing*, 15(2):113–134, 2000.
- B. F. Skinner. *The Behavior of Organisms: An Experimental Analysis*. Appleton-Century Press, Oxford, UK, 1938.
- L. R. Smeltzer, G. L. Fann, and V. N. Nikolaisen. Environmental scanning practices in small business. *Journal of Small Business Management*, 26(3):55–62, 1988.

- A. Smith. *An Inquiry into the Nature and causes of the Wealth of Nations*. George Routledge and Sons, London, 1776.
- E. R. Smith and F. R. Conrey. The social context of cognition. In P. Robbins and M. Aydede, editors, *Cambridge Handbook of Situated Cognition*, pages 454–466, New York, 2009. Cambridge Press.
- E. R. Smith and G. R. Semin. Socially situated cognition: Cognition in its social context. In M. Zanna, editor, *Advances in Experimental Social Psychology*, volume 36, pages 53–117, New York, 2004. Academic Press.
- E. R. Smith and G. R. Semin. Situated social cognition. *Current Directions in Psychological Science*, 16(3):132–135, 2007.
- J. B. Smith, J. R. Mitchell, and R. K. Mitchell. Entrepreneurial scripts and the new transaction commitment mindset: Extending the expert information processing theory approach to entrepreneurial cognition research. *Entrepreneurship Theory and Practice*, 33(4):815–844, 2009.
- K. G. Smith, M. J. Gannon, C. Grimm, and T. R. Mitchell. Decision making behavior in smaller entrepreneurial and larger professionally managed firms. *Journal of Business Venturing*, 3(3):223–232, 1988.
- A. Solarz. Latency of instrumental responses as a function of compatibility with the meaning of eliciting verbal signs. *Journal of Experimental Psychology*, 59:239–245, 1960.
- L. Solomons and G. Stein. Normal motor automatism. *Psychological Review*, 3(5):495–512, 1896.
- P. Specht. Information sources used for strategic planning decisions in small firms. *Entrepreneurship Theory and Practice*, 11:21–34, 1987.
- A. J. Spivack, A. McKelvie, and J. M. Haynie. Habitual entrepreneurs: Possible cases of entrepreneurship addiction? *Journal of Business Venturing*, 29:651–667, 2014.
- W. H. Stewart Jr and P. L. Roth. Risk propensity differences between entrepreneurs and managers: A meta-analytic review. *Journal of Applied Psychology*, 86(1):145, 2001.
- J. Tang, K. M. Kacmar, and L. Busenitz. Entrepreneurial alertness in the pursuit of new opportunities. *Journal of Business Venturing*, 27(1):77–94, 2012.
- S. E. Taylor and S. T. Fiske. Point-of-view and perceptions of causality. *Journal of Personality and Social Psychology*, 32:439–445, 1975.
- S. E. Taylor and S. C. Thompson. Stalking the elusive “vividness” effect. *Psychological Review*, 89:155–181, 1982.

- D. J. Teece. Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13):1319–1350, 2007.
- E. P. Thompson, R. J. Roman, G. B. Moskowitz, S. Chaiken, and J. A. Bargh. Accuracy motivation attenuates covert priming: The systematic reprocessing of social information. *Journal of Personality and Social Psychology*, 66(3):479–489, 1994.
- L. Thompson and G. A. Fine. Socially shared cognition, affect, and behavior: A review and integration. *Personality and Social Psychology Review*, 3: 278–302, 1999.
- J. A. Timmons. The entrepreneurial team: An american dream or nightmare. *Journal of Small Business Management*, 13(4):33–38, 1975.
- B. W. Tuchman. *A Distant Mirror: The Calamitous 14th Century*. Ballantine, New York, 1978.
- A. Tversky and D. Kahneman. Judgment under uncertainty: Heuristics and biases. *Science, New Series*, 185(4157):1124–1131, 1974.
- B. Tversky. Spatial cognition: Embodied and situated. In P. Robbins and M. Aydede, editors, *The Cambridge Handbook of Situated Cognition*, pages 201–216, Cambridge, UK, 2009. Cambridge University Press.
- D. Ucbasaran, P. Westhead, and M. Wright. The extent and nature of opportunity identification by experienced entrepreneurs. *Journal of Business Venturing*, 24(2):99–111, 2009.
- D. Valliere. Towards a schematic theory of entrepreneurial alertness. *Journal of Business Venturing*, 28(3):430–442, 2013.
- T. van Gelder. What might cognition be, if not computation? *Journal of Philosophy*, 91(7):345–381, 1995.
- S. Venkataraman, S. D. Sarasvathy, N. Dew, and W. R. Forster. Reflections on the 2010 AMR decade award: Whither the promise? moving forward with entrepreneurship as a science of the artificial. *Academy of Management Review*, 37(1):21–33, 2012.
- V. Vincent. Decision making policies among Mexican-American small business entrepreneurs. *Journal of Small Business Management*, 34:1–13, 1996.
- L. von Mises. *Human Action*. Ludwig von Mises Institute, 1949.
- J. B. Watson. Psychology as the behaviorist views it. *Psychological Review*, 20(2):158–177, 1913.
- K. E. Weick. *The Social Psychology of Organizing*. McGraw Hill, New York, NY, second edition, 1979.

- F. Welter. Contextualizing entrepreneurship — conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, 35(1):165–184, 2011.
- D. Wentura and K. Rothermund. The “meddling-in” of affective information: A general model of automatic evaluation effects. In J. Musch and K. C. Klauer, editors, *The Psychology of Evaluation: Affective Processes in Cognition and Emotion*, pages 51–85, NJ, 2003. Erlbaum.
- M. Wertheimer. Über das denken der naturvolker: I. Zahlen und zahlgebilde [on the thinking of aboriginal peoples: I. numbers and numerical structures]. *Zeitschrift für Psychologie*, 60:321–378, 1912.
- G. P. West III. Collective cognition: When entrepreneurial teams, not individuals, make decisions. *Entrepreneurship Theory and Practice*, 31(1):77–102, 2007.
- R. E. White, S. Thornhill, and E. Hampson. Entrepreneurs and evolutionary biology: The relationship between testosterone and new venture creation. *Organizational Behavior and Human Decision Processes*, 100(1):21–34, 2006.
- R. E. White, S. Thornhill, and E. Hampson. A biosocial model of entrepreneurship: The combined effects of nurture and nature. *Journal of Organizational Behavior*, 28(4):451–466, 2007.
- L. L. Whyte. *The Unconscious Before Freud*. Basic Books, New York, 1960.
- M. S. Wood and McKelvie. Opportunity evaluation as future focused cognition: Identifying conceptual themes and empirical trends. *International Journal of Management Reviews*, 17(2):256–277, 2015.
- M. S. Wood and D. W. Williams. Opportunity evaluation as rule-based decision making. *Journal of Management Studies*, 51(4):573–602, 2014.
- M. S. Wood, D. W. Williams, and D. A. Grégoire. The road to riches? a model of the cognitive processes and inflection points underpinning entrepreneurial action. *Advances in Entrepreneurship, Firm Emergence and Growth*, 14:207–252, 2012.
- M. S. Wood, S. W. Bradley, and K. Artz. Roots, reasons, and resources: Situated optimism and firm growth in subsistence economies. *Journal of Business Research*, 68(1):127–136, 2015.
- M. Wright, S. Thompson, B. Chiplin, and K. Robbie. *Buy-ins and buy-outs: New strategies in corporate management*. Graham & Trotman, London, 1991.
- M. Wright, R. E. Hoskisson, L. W. Busenitz, and J. Dial. Entrepreneurial growth through privatization: The upside of management buyouts. *Academy of Management Review*, 25(3):591–601, 2000.

- W. M. Wundt. *Principles of Physiological Psychology*. S. Sonnenschein Press, (Trans. from the 5th German ed., 1902, by E. B. Titchener). London, UK, 1910.
- S. A. Zahra. Contextualizing theory building in entrepreneurship research. *Journal of Business Venturing*, 22(3):443–452, 2007.
- S. A. Zahra and M. Wright. Entrepreneurship's next act. *Academy of Management Perspectives*, 25(4):67–83, 2011.
- B. Zeigarnik. Das behalten erledigter und unerledigter handlungen [the retention of completed and uncompleted actions]. *Psychologische Forschung*, 9(1):1–8, 1927.
- Z. Zhang, M. J. Zyphur, J. Narayanan, R. D. Arvey, S. Chaturvedi, B. J. Avolio, . . . , and G. Larsson. The genetic basis of entrepreneurship: Effects of gender and personality. *Organizational Behavior and Human Decision Processes*, 110(2):93–107, 2009.
- H. Zhao and S. E. Seibert. The big five personality dimensions and entrepreneurial status: A meta-analytical review. *Journal of Applied Psychology*, 91(2):259, 2006.
- Y. Zheng and Y. Mai. A contextualized transactive memory system view on how founding teams respond to surprises: Evidence from china. *Strategic Entrepreneurship Journal*, 7(3):197–213, 2013.
- X. Zou, K. Tam, M. W. Morris, S. Lee, I. Y. Lau, and C. Chiu. Culture as common sense: Perceived consensus versus personal beliefs as mechanisms of cultural influence. *Journal of Personality and Social Psychology*, 97: 579–597, 2009.