

DOCTORAL PROGRAMME

CREATIVITY IN STRATEGIC THINKING: MIND WANDERING, COMPLEXITY,
AND STRATEGIC OUTCOMES

By

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भारतीय प्रबंध संस्थान बेंगलूर
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*To O, who showed me the Path,
and
To Sh, who walks with me on that Path.*

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Some six years ago, when I applied for the Ph.D. program at IIMB, my statement of purpose said: “I want to bring a human element to strategy.” The seed embedded in that line later germinated and has grown into a plant. This growth – this progress – would not have been possible without the intellectually stimulating, nurturing, and caring environment that my committee chair and my committee provided to me. I’m deeply indebted to my committee chair, Prof Sai Yayavaram, and committee members, Prof Rejie George and Prof Prithwiraj Mukherjee.

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**Creativity in Strategic Thinking: Mind Wandering, Complexity, and
Strategic Outcomes**

TABLE OF CONTENTS

ABSTRACT	4
CHAPTER 1: INTRODUCTION.....	8
ESSAY 1: STRATEGIC THINKING AND CREATIVE PROCESSES IN COMPLEX ENVIRONMENTS	11
ESSAY 2: SIMULATION OF DYADIC CREATIVE SEARCH IN STRATEGIC THINKING	15
ESSAY 3: INDIVIDUAL CREATIVITY IN COMPLEX TASK ENVIRONMENTS	18
CONTRIBUTIONS TO MANAGEMENT RESEARCH	20
CHAPTER 2: STRATEGIC THINKING AND CREATIVE PROCESSES IN COMPLEX ENVIRONMENTS	22
INTRODUCTION	23
THEORETICAL BACKGROUND	25
<i>Defining Creativity</i>	25
<i>The Incubation Phase</i>	27
<i>Neuroscience Research</i>	28
<i>Mind Wandering in Organizations</i>	30
<i>Interdependence and Strategic Thinking</i>	33
<i>Techniques for Creativity other than Mind Wandering</i>	34
<i>The Canalization Process</i>	35
COMPUTATIONAL MODEL	38
<i>Simulating Strategy Search</i>	38
<i>Logic of Canalization</i>	43
<i>Creative-agent's Schema</i>	51
<i>Simulation Mechanics</i>	51
<i>Simulation Results</i>	53
DISCUSSION	62
<i>Managerial Implications</i>	63
<i>Contributions to Literature</i>	65
<i>Limitations, Future Research, and Conclusion</i>	66
CHAPTER 3: SIMULATION OF DYADIC CREATIVE SEARCH IN STRATEGIC THINKING	68
INTRODUCTION	69
LITERATURE REVIEW	70
<i>Evidence from the Practitioner World</i>	70
<i>Extant Research on Idea Generation in Teams</i>	72
<i>Idea Generation in Dyads</i>	73
MODELING CO-CREATION BY STRATEGIST-PAIRS.....	76
<i>Attention in Organizations</i>	76
<i>Mind Wandering and the Attention-Based View</i>	77
<i>Simulating Creative Search in dyadic interactions</i>	79
<i>Simulation Results</i>	85
DISCUSSION AND CONCLUSION	98
CHAPTER 4: INDIVIDUAL CREATIVITY IN COMPLEX TASK ENVIRONMENTS	101
INTRODUCTION	102
THEORETICAL BACKGROUND	102
<i>Experiments in Strategic Management Research</i>	103
<i>Context of New Product Development</i>	104
<i>Idea Generation</i>	104
A FRAMEWORK FOR STUDYING CREATIVITY IN NEW PRODUCT DEVELOPMENT	106

<i>Selection of Stimuli</i>	107
<i>Measuring Participant's Creativity Trait and Other Characteristics</i>	119
<i>Sequence within Experiment</i>	120
DATA COLLECTION AND ASSESSMENT OF GENERATED IDEAS	121
<i>Data Collection</i>	121
<i>Assessment of Ideas Generated by Participants</i>	124
RESULTS	126
<i>Pilot-1 Results</i>	127
<i>Pilot-2 Results</i>	131
<i>Further Steps and DAC Recommendations</i>	137
CHAPTER 5: CONCLUSION	139
<i>Limitations, Future Research, and Extensions</i>	143
REFERENCES	146
APPENDIX A	162
APPENDIX B	170

ABSTRACT

Understanding the mind of the strategist and the role of cognition has been viewed as essential to learning how strategies form under various circumstances. The extant literature investigating mental processes during strategizing has demonstrated the causal link between cognition and strategic outcomes and established cognition as a legitimate factor in strategic management (Kaplan, 2011). These mental processes shape what the strategists know, do, and experience. Some of the most important mental processes are those that deal with creativity, defined in the business context as the generation of novel and useful ideas. Business success and survival often need creativity in strategic thinking (Brandenburger, 2017). Relying purely on an analytical approach lacking creativity may lead to business failure and demise because such an approach leads to incremental changes that are insufficient in a complex world (IBM, 2010). Surprisingly, research in strategic management has paid inadequate attention to strategy formulation's creative aspects, and current strategic management theories lack sufficient psychological grounding (Powell, Lovallo, & Fox, 2011; Augier, Fang, & Rindova, 2018). Scholars and management thinkers have acknowledged strategic problem-solving as a complex task that can benefit from creative approaches. While past research has explored the interdependence facet of complexity (Gavetti & Levinthal, 2000; Gavetti, Levinthal, & Rivkin, 2005), our understanding of how interdependence influences creativity in strategic thinking is incomplete. In my dissertation, I seek to explore the role of creative cognition in strategy formulation and investigate the impact of creativity in strategic thinking under various conditions of interdependence.

Extant literature in strategic management has relied on Kauffman's (1993) NK landscape to model interdependence. My dissertation builds on this extant body of knowledge (Levinthal, 1997). Kauffman theorizes about adaptation and self-organization in species using the concept of canalization and models adaptive behavior based on Boolean Networks. Three

essays constitute my dissertation. The first two essays extend Kauffman's work, use computational simulation as the method, and introduce canalization to management literature as a model of creativity. In contrast, the third essay takes an empirical path to validate the theory using an experiment.

The first essay builds on the recent advances in the literature in cognitive psychology and neuroscience that have shown mind wandering as a legitimate mechanism of creativity (Dane, 2018; Smallwood & Schooler, 2015). In my first essay, I use Dane's (2018) theoretical conceptualization of mind wandering and borrow from the evolutionary biology literature to build a computational model of mind wandering. I use the NK landscape to represent the strategy formulation space, simulate varying levels of decision interdependence, and benchmark a creative strategist who uses mind wandering with a non-creative strategist who uses random variations of decision elements to explore the strategic decision space. The study finds that the creative strategist outperforms the non-creative strategist. Furthermore, the difference in performance is highest at the intermediate levels of interdependence. The findings suggest that creativity is most fruitful when the organizational environment is neither too simple nor too complex.

The second essay extends the first essay's theme in the direction of creativity in dyads while continuing the focus on the cognitive processes of strategic thinking. Historical accounts of organizations chronicle the presence of individuals working in pairs to steer their firm to success. Surprisingly, sparse management research exists on this vital organizational phenomenon despite its ubiquity (Rouse, 2020). Dyads, or two-member teams, involve intimate interactions, interpersonal relationships, and long-term partnerships which are crucial in offering a psychologically safe context for idea generation in organizations. In the second essay, I build a simulation model based on Rouse's (2020) theoretical arguments and investigate the influence of creativity in strategic thinking in dyads. The simulation study's

findings inform that the creative pair outperforms the single creative actor and the non-creative actor when the interaction within the dyad is unrestrained. For creative collaboration to flourish, it is vital to allow unfiltered expression of ideas, idea-focused evaluation, and a selective focus of attention on different dimensions of the problem.

The first two essays are conceptual, use computational modeling as the method, and contribute to theory building. The third essay pursues an empirical path using the experimental method to investigate individual creativity in complex tasks. The experiment evaluates the levels of interdependence where creativity in strategic thinking is most beneficial. I build a framework for studying creativity in new product development, use the experiment design to alter interdependence in strategic thinking tasks methodically and observe the effects of this variation on creativity outcomes. The experiment's results found modest support for the hypothesis on the interdependence levels where creativity is most beneficial in strategic thinking.

My dissertation contributes to our knowledge of the importance of creativity in strategic thinking (Schilling, 2018; Brandenburger, 2017) in several ways. First, the dissertation demonstrates that the pursuit of creativity is beneficial and identifies the boundary conditions where the differential rewards are the highest. Second, the dissertation contributes to the nascent literature on the creative collaboration of strategists who work in pairs (Rouse, 2020). Third, the dissertation illuminates the significance of play and experimentation in the organizational pursuit of intelligence (March, 1976, 2006). Overall, my dissertation contributes in novel and appealing ways to the strategy formulation literature and cuts new pathways of knowledge to uncharted territories in understanding strategy practice.

Keywords: Strategic Thinking, Creativity, Mind Wandering, Complexity, Interdependence,
NK Landscape, Canalization