Foreword to the first edition by Lester Lave

This is a book bursting with insights about the creative process in general and entrepreneurship in particular. Almost all of what is taught in entrepreneurship programs is the ‘cookbook’ of how to find financing, watch cash flow, and so on to get a small business started. There has been little research and what there has been tells us little about the central questions: How can the United States and other nations promote entrepreneurship? How can a large company find and promote entrepreneurs within its ranks rather than buying new, promising companies? How do we transform promising research into successful new companies? What education and training can help prospective entrepreneurs?

My background is economics, with assumptions about fixed known preferences, fixed known technologies, and rational search. The tools are powerful in finding optima, but almost completely irrelevant in understanding why people become entrepreneurs, which product or service they choose to produce, how they get started, process feedback, and organize their efforts and those of others. Some researchers have tried to find the personality traits that distinguish entrepreneurs, but had little success in answering the important questions.

Dr Sarasvathy takes a *process* approach to entrepreneurship. She describes past approaches to studying entrepreneurial activity and their limitations. She presents her ideas with a plethora of examples of successful entrepreneurial activity. Along the way, she gently punctures the basic assumptions of economics and other disciplines, e.g., that people have fixed utility (preference) functions and engage in rational search.

Dr Sarasvathy tells us that entrepreneurs, and others who create, face three types of uncertainty: (1) Knightian uncertainty (the probability distributions and even outcomes are unknown, making it impossible to calculate probabilities or expected consequences); (2) goal ambiguity (preferences are neither given nor well ordered); and (3) isotropy (it is not clear which elements of the environment to pay attention to and which to ignore). Someone thinking about creating the first overnight package delivery service or a restaurant with a new type of food faces these three types of uncertainty. She has insufficient data and information to know the number of likely customers or their willingness to pay for the service. The innovator doesn’t know what customers are looking

for or what they would be willing to pay; she probably doesn't even know her own preferences, apart from wanting the business to succeed. Asking prospective customers what they would like is about as useful as looking through their garbage cans to see what they didn't eat. People have very different conceptions and desires. What is important? Which ideas are most likely to lead to a successful business?

In taking verbal protocols while asking successful entrepreneurs to work through making a proposed business idea a success, Dr Sarasvathy discovered that all were 'effectuators' who limited their search and analysis in taking one step at a time. She distinguishes this approach from an analytic, maximizing approach:

Causal problems are problems of decision; effectual problems are problems of design. Causal logics help us choose; effectual logics help us construct. Causal strategies are useful when the future is predictable, goals are clear, and the environment is independent of our actions; effectual strategies are useful when the future is unpredictable, goals are unclear and the environment is driven by human action. The causal actor begins with an effect he wants to create and asks, 'What should I do to achieve this particular effect?' The effectuator begins with her means and asks, 'What can I do with these means?' And then again, 'What else can I do with them?'

I found each chapter, almost every page, gave me insights about the creative process. She presents these ideas better than I possibly can, and so I urge the reader to get started discovering the innovative way that Dr Sarasvathy characterizes the entrepreneurial function.

Before relinquishing my keyboard, I insert a personal note. The research for this book was begun when she was a graduate student at Carnegie Mellon. Even before her research was begun, she proved to be a person of formidable energy and drive, the precise archetype of an entrepreneur. She convinced Herbert Simon, various administrative officials, and me that we should advise her and set up a special interdisciplinary program to meet her career and research needs. Her vision was so clear and her arguments so persuasive that, like a successful entrepreneur, the world opened to her.

Herbert Simon described her ideas as excellent. I was bowled over by her originality and insights.

Were he still alive, Herbert Simon would be writing this foreword. He had a high regard for Professor Sarasvathy, a judgment not to be taken lightly. I cannot offer his clarity of vision, but I can commend this book to you and tell you that you will gain many insights within these pages.

Lester Lave