Book Review

Published in *Small Business Economics*, Volume 14, No. 3, pp. 239–241, 2000.

Unfortunately, the name of the author of the Book Review was omitted. The name of the author should have read William J. Baumol.

The Allocation of Limited Entrepreneurial Attention, by Sharon Gifford, Boston: Kluwer Academic Publishers, 1998, pp. ix + 163.

Professor Gifford's book is a significant contribution to the recent revival of the theory of entrepreneurship. Indeed, it is a breakthrough in showing how the techniques of optimality analysis can be applied fruitfully to this elusive, if critically important, subject. That accomplishment seems particularly remarkable to this reviewer, since I have argued elsewhere that it is economic theorists' preoccupation with optimality that is to a considerable degree responsible for driving the entrepreneur from the microeconomic literature. I will return to this point later, arguing that Professor Gifford and I may both be right, because we are dealing with two separate issues confounded by a common term. More important here is the creative step this book represents in the checkered theory of entrepreneurship so well described in a recent essay by Mark Blaug.¹

The book takes as its foundation two of Israel Kirzner's invaluable observations: alertness to new opportunities as the entrepreneur's most potent weapon, and the limited supply of attention that is available to the entrepreneur that must somehow be divided up among the competing opportunities available for its use. Professor Gifford recognized the significant implication that here there is a scarce resource whose allocation may or may not prove to be efficient. This observation is extremely fruitful because of the acknowledged importance of the entrepreneur in the workings of the free market economy; because, despite its importance, it has never previously been able to fit comfortably into the structure of microtheory; because the observation immediately puts some powerful weapons into the author's hands; and because of

the illuminating results this avenue has enabled her to obtain.

The basic argument

In economics, as in other disciplines, one is fortunate when a particular model and method of analysis turns out to work for the investigation of a variety of issues. The author of this book is able to provide such a model and to demonstrate the width of its applications. The structure of the model follows in a way that is obvious in retrospect from her observation that entrepreneurial attention is a scarce resource whose allocation among alternative uses need not be optimal. This leads to her adoption of a more-or-less standard model of efficiency in resource allocation. Thus, the originality of this part of the work does not lie in the structure of the model but in the discovery that it can be used to study entrepreneurship, and the wide variety of uses she finds for the model.

The author defines ". . . the entrepreneurial function as *the perception of an opportunity for profit and the necessary decision making for, and acceptance of, responsibility for the outcome of, its exploitation.*" (p. 5, author's italics). In rough outline, the fundamental scenario is this opportunity-explorer, decision-maker faced with a multiplicity of project. Those projects fall into two categories: those projects to which she has already committed herself and those she is considering for adoption. Each of the projects already under way requires some of her time, and the more of her attention that she devotes to such a project the more profitable one can expect it to be. But it also takes time to examine a candidate new project or to decide which old projects should be discarded. The more time she devotes to the selection process the more profitable the projects that she ends up

choosing and retaining, and the more profitable new projects she will succeed in identifying and adopting. Thus, the fundamental conflict to which the analysis addresses itself is that between allocating entrepreneurial time to projects already undertaken and the allocation of the remainder to the search for promising new projects.

The analysis yields a variety of theorems, each of them of considerable interest. But there are two that are central. For clarity, envision that each project, once undertaken, has a different "proprietor" who holds all of its equity, with the entrepreneur having no financial investment in any of them. However, the entrepreneur receives compensation from each project whose amount is a function of that project's *ex post* profitability. Then, the first of the two main results of the analysis is that the entrepreneur will devote less attention to each ongoing project than the amount that would maximize the payoff to its proprietor. The reason is the incremental opportunity cost to the entrepreneur of additional attention to a project – a cost representing the forgone opportunity, during the time spent, to search for an additional lucrative project. This is interpreted by the author as a moral-hazard problem, or as a principal-agent problem, with the entrepreneur cast in the role of the project proprietor's agent. Thus, the outcome in this model is never optimal *for the proprietors*. In contrast, in the absence of any other impediments to economic efficiency, *the outcome is always optimal for society*. The reason, simply, is that the entrepreneur's attention is equally valuable to society and to herself. Hence, when she incurs an opportunity cost for herself, she incurs an equal opportunity cost for society. so maximization of her own gains from her activity automatically entails maximization of those for the community.

Applications

Having laid out the model and its logic in Chapter 3, Professor Gifford proceeds in the remainder of the book to show how widely it can be applied, to how great a variety of subjects. The chapter titles indicate this range: Chapter 4, "Innovation, Firm Size and Growth;" Chapter 5, "Career Choice;" Chapter 6, "Optimally Incomplete Contracts;" Chapter 7, "The Internalization of

Transactions;" Chapter 8, "The Role of the Venture Capitalist;" Chapter 9, "Independent Contractors." I shall indicate the contents of only two of these, as illustrations, leaving further exploration to the prospective reader.

The most obvious application is that to independent contractors. "... such as lawyers, builders and accountants, [who] often have numerous, long term customers who require a great deal of personal attention (p. 127)." The author's summary then shows very comprehensibly how this issue fits in with her analysis.

The model of limited entrepreneurial attentions is clearly applicable to this problem. As an independent contractor, the entrepreneur's problem of maintaining good relationships with current customers while also trying to attract new customers is an example of the problem of allocation of limited entrepreneurial attention. This is a case in which ... current customers [are served] while seeking out new customers only when there is time. The model implies that the entrepreneur allocates less attention to each customer than the customer desires. However, the model also implies that this allocation of attention is efficient.

The efficiency of the entrepreneur's optimal allocation of attention contradicts the implications of the principal-agent (P-A) model [in which] the agent's allocation of effort is inefficient ... The efficiency result does not arise in the (P-A) problem because each principal's problem is analyzed in isolation. (pp. 127, 134)

One last example, optimally incomplete contracts, will suggest the wide range of applications. Here, the entrepreneur is considered in his role as arranger of relationships with the firm's employees and with suppliers of the firm's intermediate goods. In formulating the contracts covering these transactions the entrepreneur can devote more attention to completeness of the contracts, leading to an increase in the contingencies they cover explicitly. In addition, the entrepreneur can choose to avoid the use of contracts to cover some of these transactions, acquiring the required resources from the market on terms set by market forces. Here, then, are some of the author's conclusions for this case:

"... the stronger the governance power of markets, the more complete are internal contracts. However, a high ability to direct internal contracts implies that they are less complete *ex ante* than long-term market contracts with the same contract writing technology, contrary to assumptions in the literature. ... In summary, the model of limited entrepreneurial attention implies that optimal internal contracts are incomplete and that the optimal completeness 1) decreases with the ability of the entrepreneur to direct

the contract in the future and 2) increases the ability to write new contracts. . . .the optimal frequency of direction of an internal contract decreases with contract completeness so that more complete contracts receive less frequent direction and so free the entrepreneur to spend more time writing new contracts. . ." (pp. 94–95).

On entrepreneurship and optimization

One surprising feature of Professor Gifford's accomplishment is her success in the use of conventional tools to analyze the entrepreneur's activities, when so many others have despaired of doing so. Of course, this is explained by the author's ability and insight. But there is also another side to the matter, the ambiguous connotation of the term "entrepreneur" and the choice she (quite defensibly) made in the concept she employed in her analysis.

The point is that the term has been used in two fundamentally different ways. In the one scenario, the entrepreneur is the organizer of a new enterprise, for which he makes all the important decisions. But the matters to which these decisions apply have orderly structures and the type of decision recurs over and over. In sum, here the entrepreneur seeks to do "what's oft been done, but ne'er so well before." Because such decisions have an orderly pattern one can hope to think of general ways to do them more efficiently and perhaps, even, with optimal efficiency. One can also hope to determine attributes of such an optimal course.

The second concept of the entrepreneur is that of the swashbuckling revolutionary, who never faces two similar decisions, who operates by intuition, hunch and daring, and who is respon-

sible for the most unexpected breakthroughs that are the engine of industrial revolutions.

The term is used in both ways, and both types of entrepreneur are important for growth. The first, representing the earliest and most usual interpretation of the term is, of course, the one that lends itself to formal analysis, such as Professor Gifford provides. She is fully justified in focusing on this version of the concept. But it must be understood that the activities of the second type of entrepreneur (who may also engage in the activities of the first) remain, at least so far, beyond the reach of formal analysis. There is much that theory can say about such individuals, as Schumpeter showed, and as my own work has sought to explore further. But there is good reason why these entrepreneurs have until now escaped optimization analysis.

Let me close by recommending unequivocally that anyone interested in the theory of the firm, or economic growth or the role of the entrepreneur read this valuable book. It offers important new insights, provides useful analytic tools and contributes materially to our understanding this important subject.

Note

- ¹ "The Concept of Entrepreneurship in the History of Economics," in M. Blaug. *Not Only an Economist: Recent Essays*, Harmondsworth: Edward Elgar, 1997.

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