

Book Review

Bart Nooteboom.

A Cognitive Theory of the Firm: Learning, Governance and Dynamic Capabilities.

Edward Elgar: Northampton, MA, USA

Reviewed by Howard A. Doughty

In the last half of the last paragraph of his *General Theory of Employment Interest and Money* (1936), John Maynard Keynes expressed a thought that alone might have made him more than a footnote in academic history. “Practical men,” he said, “who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority,” he continued “who hear voices in the air, are distilling their frenzy from some academic scribbler a few years back.” Keynes was nothing if not a believer in the power of ideas.

The temper of our times compels us to be more up-to-date. Given the tremendous difficulties we face as individuals and as members of organizations, nations and the world, it seems prudent not to await for the musings of defunct economists and antique academic scribblers to trickle down to the domain of decision-making. Even Keynes’ own writing, often cited but seldom read, may not be enough to get us out of the various holes we seem to have dug and into which we have subsequently deposited ourselves.

So worried are we about the present and the immediate future that we seem incapable of dispassionate observation and disinterested analyses of the early twenty-first century political economy; instead, we seek out for assistance to whatever fount of wisdom presents itself. Sometimes, our seeking brings hopeful messages.

Among the several academic disciplines and flourishing fields of research, cognitive science is attracting much of our attention. It has attractive graphics and high-tech design. MRIs, CAT-scans and PET-scans are all the rage in certain branches of applied medicine as well as in the theoretical study of the workings of the human brain. It is great fun to “map” areas of the brain associated with particular mental activities. It is of no small importance to learn of the phenomenon of neuroplasticity, the capacity of the brain to change not only its content (of course, we learn new things), but to redesign itself. When, for instance, a part of the brain is physically injured, other cells in other parts of the brain can take over the functions of the damaged cells. Such knowledge belies the mechanical notion of the brain being “hard-wired”; it is a living organ and, as such, contains no wires at all but living cells instead. Moreover, these cells carry on active work. They are not like file cabinets where memories are stored; they create memories as they go along. Thought and memory should be considered verbs rather than nouns.

With such notions (fluidly) in mind, people whose concern it is to run large organizations—both public and private—have become excited about the prospects that attention to neuroscience, evolutionary psychology and related areas of innovative scholarship and exploration. Unwittingly, perhaps, they are harkening back to organic models from John of Salisbury’s

Policraticus (1159) or, a little later, Bernard Mandeville's two volumes of *The Fable of the Bees* (1714 and 1732), wherein organic metaphors served as guides to understanding human political and social behaviour. Nonetheless, we do not seem to have time for the lessons of intellectual inquiry to filter down into practical living—not certainly when any practical man or madman in authority can easily access the latest academic scribbling on the Internet.

So it is that Bart Nooteboom has produced this book. It is admirable in its clarity and its acknowledgement of its own intellectual roots. The author pays appropriate respect to his forebears by acknowledging how thinkers from Spinoza down through G. H. Mead and Merleau-Ponty. Accepting modern psychology's repudiation of the Cartesian mind-body dichotomy, he moves on to present a constructivist account of what he calls decisional heuristics. Linking his approach to the work of psychologist Jean Piaget, economists Joseph A. Schumpeter and, most importantly, Edith Penrose whose book *The Theory of the Growth of the Firm* (1959) did much to bring economic analysis down from the study of corporations in the abstract to relations among flesh-and-blood human beings. She taught that the flexibility and capacity for innovation in large organizations was considerably more limited than some had imagined and that, indeed, there were apparent limits to dynamism and growth that arose directly from the internal relations among its "human resources." Nootebaum pays homage and then uses Penrose as a springboard to his own, more expansive, insights.

Nootebaum's chief task is to discover the sources of innovation, not in the conventional sense of maximally utilizing existing resources, but in the creation of new resources. The focus is neither on the rational managerial model of efficient exploitation of resources nor on the "external determinism of technology, markets and institutions" but on the interaction between them. It is here that evolutionary theory comes into play in terms of specific questions concerning how firms maintain stability, how they adapt to external conditions and to what degree firms exhibit Lamarckian evolutionary patterns (the capacity to pass on acquired knowledge and thus to guide their own evolution in a more conscious manner than the modification models offered by some versions of strict Darwinianism).

An important element in Nootebaum's study is the theory of meaning. Believing, as he does, that organizational cognitive focus—the capacity of its members to conceive and to communicate the shared meanings about their common activities—is crucial to the success of a firm, he continues on to develop the application of cognitive focus in the social relations of the firm. Nootebaum explicitly states that cognition "as a mental activity cannot apply to aggregates such as firms or organizations," but he also holds that individuals within them do engage in cognitive activity and that well-run firms can and do engage in the production and use of knowledge through the shared understandings of the people within them.

On occasion, the previously mentioned intellectual roots seem a little tangled. For instance, Nootebaum's association of F. A. Hayek and Gregory Bateson, at least insofar as their respective theories of learning are concerned, seems off the mark, as nicely explained in David Cayla's "Ex Post and Ex Ante Coordination: Principles of Coherence in Organizations and Markets" (*Journal of Economic Issues* 40:2 (June, 2006), pp. 325-332).

Such quibbles, however, need not distract from the overall force of the work. Nootebaum offers a cogent, coherent and generally convincing synthesis of evolutionary theory, social interactionism and psychology to produce a useful account of how organizations truly work, how they become ossified and how they maintain and expand adaptability—but always within describable and mostly predictable limits.

As should be plain by now, this is not an applied “how-to” book. It is an academic scribbling, in the very finest sense of the phrase. It provides no revealing case studies, no list of “Dos” and “Don’ts,” and it will demand something more of its readers than a quick glance in an airport waiting for a connecting flight to the next corporate summit.

If it is read thoroughly and thoughtfully, however, it will teach very valuable lessons. For those with a preternatural distaste for clear thinking at a level one step above the water cooler, Nootebaum does something extraordinary. He adheres to the cardinal rule of instruction:

- He tells you what he is going to tell you;
- He tells you; and
- He tells you he told you.

That is to say, on page 6 of the introduction he tells you what he is going to tell you in the form of twenty simple research questions, along with a reference to which chapter will explain and answer the questions, which range from “Why do organizations exist?” and “What determines the boundaries of organizations?” to “What, if any, are the limits to the growth of a firm?” and “What causes the stability of firms?”

In the following chapters, he tells you. That is, he explains his approach and then fully keeps his promise. His presentation is in the form of answers that are sequential, independent (or as independent as can be expected under the circumstances) and he provides both clear *and* sophisticated answers (the two are *not* mutually exclusive).

Then, in case you missed it, he tells you what he told you in (with one exception) single-paragraph answers to the original twenty questions.

People who want to cheat can, I suppose, go directly to the back of the book (pages 241-246) and get the answers; but, it will do no good, for there is no test to take. There is, however, the much greater benefit of appreciating—either as students or practitioners of public administration—some excellent applications of contemporary scholarship to the major public sector innovation issues of the day. And, if you are more interested in cognitive psychology or evolutionary theory than public sector innovation, this book stands out as an excellent application of constructivist, cognitive evolutionary theory to a field in which you may previously have had little interest. Either way, the journey will have been worthwhile for anyone wishing to take it.

About the Author

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