

## Evolutionary Psychology

www.epjournal.net – 2009. 7(1): 1-5

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### Original Article

#### Revisiting Thorstein Veblen's "Why is Economics not an Evolutionary Science?"

A Review of Michael Shermer, *The Mind of the Market: Compassionate Apes, Competitive Humans, and Other Tales from Evolutionary Economics*. Times Books, New York, 2008, 308 pp., US\$26.00, ISBN 978-0-8050-7832-9 (hardcover)

Gad Saad, Marketing Department, John Molson School of Business, Concordia University, Montreal, Quebec, Canada, H3G 1M8. Email: [gadsaad@jmsb.concordia.ca](mailto:gadsaad@jmsb.concordia.ca)

Michael Shermer has much to be proud of. He founded the Skeptics Society, which seeks to challenge supernatural and pseudoscientific dogma. He has written a host of successful trade books including *How We Believe*, *Why People Believe Weird Things*, *The Science of Good and Evil*, *The Borderlands of Science*, *Denying History*, and *Why Darwin Matters*. As such, he has been instrumental in popularizing the scientific method as a means of confronting a wide range of quackery. Of relevance to the current readership, he has also been instrumental in diffusing Darwinian theory to the masses. With those lofty accomplishments in mind, I regret having to report that *The Mind of the Market* is one of his weaker contributions.

I begin with some of the book's positive points. First, the social sciences in general and economics in particular have largely operated outside of biology. As such, to the extent that the current book addresses ways by which evolutionary theory and related biological formalisms might inform economics, it is a welcome addition to the growing literature that seeks to "Darwinize" the social sciences. Second, it is written in an engaging style, which is of particular import for the commercial viability of any trade book. Third, Shermer discusses some scientific findings that many academics might not otherwise know, pointing out, for example that a homologous left-right bias in emotional processing has been found across several species (p. 153). When considering coalitional thinking, Shermer discusses an intriguing finding wherein the pairing of nonsense words with in-group words were rated as higher than those paired with out-group words (p. 207). In other words, a nonsensical stimulus is favored if it is perceived as belonging to the in-group. Thirdly, he mentions the fact that monogamous species release a greater amount of oxytocin during copulation as compared to their polygamous counterparts (p. 182). Unfortunately, such haphazard albeit interesting tidbits do not assuage the fact that much of the book's content consists of tired old news, a point to which I return below.

*The Mind of the Market* has three important flaws, rendering it less effective than it might otherwise be:

1. It contains very little new information or novel substantive insights. In most instances, the topics addressed have been covered by countless other scholars. The great majority of trade books within this niche seek to link the relevant scientific findings to their instantiations in everyday life. My understanding is that the best-selling author Malcolm Gladwell is particularly adept at this. Rehashing findings from the scientific literature is not the optimal strategy for such a trade book. On a few occasions, Shermer does highlight specific phenomena using innovative examples: case in point, he refers to one of the subplots in *About Schmidt* starring Jack Nicholson (p. 137) when highlighting how children's charities seek to form personalized bonds between benefactors and prospective foster children. Ultimately, it is much easier to be altruistic to a non-kin child, who might otherwise be thousands of miles away, when a bond has been initiated. Similarly, when discussing the human capacity for cooperation and competition, Shermer demonstrates how these opposing possibilities can translate into radically different corporate cultures. Whereas Enron fostered a cutthroat competitive environment, Google was built on an ethos of cooperation. Finally, he provides a nice discussion of moral conflicts via his analysis of the main plot of *The Man Who Shot Liberty Valance* (pp. 167-170). I suspect that the book would have been substantially more effective had Shermer provided a greater number of such compelling examples.
2. Several literature streams that would have otherwise been germane to the book's central points were completely ignored. I fully realize that it is facile to identify topics that could have been covered in a given book but were overlooked. In most instances the author must make choices that delimit the scope of topics to be addressed. That said, some issues seem so conspicuous in their absence that it becomes difficult not to raise the issue. For example, a natural bridge between economics and evolution can be found in the way the definition of rationality has evolved over the past five decades or so: beginning, for example, with the classic normative form of rationality implied in *Homo economicus*, proceeding to bounded rationality as expounded by the Nobel laureate Herbert Simon, and finally to ecological rationality as developed by Gerd Gigerenzer, Peter M. Todd, and their colleagues at the Max Planck Institute for Human Development (cf. Gigerenzer, Todd, and the ABC Research Group, 1999). Notwithstanding one cited paper in the notes on p. 289 that has "ecological rationality" within its title, Shermer has otherwise ignored this natural bridge between economics and evolutionary theory.
3. The order in which topics were covered was largely disjointed. At times, it seems as though subjects were tackled in the order in which they popped into the author's head. Furthermore, some discussions were painfully long, such as the QWERTY "typing" example, as well as Shermer's fascination with the biking industry. His book would have been well served by some trenchant editing.

Rather than providing a chapter-by-chapter synopsis of the book, I shall summarize

its three main objectives using Shermer's incisive quotes. He states (p. 4, italics in original) that he hopes to demonstrate:

1. *How the market has a mind of its own*—that is, how economies evolved from hunter-gathering to consumer-trading.
2. *How minds operate in markets*—that is, how the human brain evolved to operate in a hunter-gatherer economy but must function in a consumer-trader economy.
3. *How minds and markets are moral*—that is, how moral emotions evolved to enable us to cooperate and how this capacity facilitates fair and free trade.

Regarding the first objective, Shermer provides numerous analogies and/or links between economic systems and evolutionary processes including: (1) that some individuals argue that a top-down designer exists both in nature and in economics; (2) the fact that the invisible hand of the market is akin to natural selection; (3) that product evolution can be construed as a Darwinian process; (4) that path dependencies exist both in nature and in economics; (5) the parallel processes inherent to biological and cultural evolution; (6) that both nature and economics are emergent self-organizing systems. The problem is that most of these points have been made by countless other scholars so there is little novelty to speak of here. For example, when discussing new products, Shermer provides a discussion of continuous versus discontinuous innovations (p. 61), a distinction that has been addressed in the new product development literature for well over three decades. Similarly, the distinction between cultural and biological evolution has been central to the work of Robert Boyd and Peter Richerson also for close to thirty years (cf. Richerson and Boyd, 2005).

In tackling the second objective, the same problem arises; namely, Shermer covers issues that have already been addressed by innumerable scholars. For example, game theorists have published endless papers on Pareto optimality, evolutionary stable strategies, and the benefits of the tit-for-tat strategy when playing the repeated interactions version of the Prisoner's Dilemma. As such, Shermer has not contributed any new insights to the discourse. To provide a second example, the long discussion of behavioral decision theory (BDT) is tired and redundant, as so many others have already described it in great detail. That *Homo economicus* does not exist other than in the deep recesses of some economists' minds is hardly news! Furthermore, to the extent that Shermer's book is supposedly rooted in an evolutionary framework, his discussion of BDT does not incorporate many evolutionary insights (but see p. 102 for an evolutionary-based discussion of discounting, which is quite insightful). An evolutionarily savvy audience would likely be unsatisfied with the mere cataloging of violations of rational choice. On this point, Haselton and Nettle (2006) demonstrated the evolutionary roots of a wide range of cognitive biases that arise within the BDT research stream whereas Wang (1996) applied a domain-specific perspective in his exploration of framing effects. Shermer appears to be unaware of their work.

Shermer presents endless fMRI examples, some of them quite interesting (e.g., Paul Zak's work on trust via an exploration of oxytocin), but not germane to the book's *raison d'être* in that they are not observed through an evolutionary lens. Generally speaking, the fMRI material was covered from a domain-general perspective. As far as evolutionary

psychologists are concerned, "shopping modules" (p. 111) and "choice-making modules" (p. 238) do not exist in consumers' brains. I suspect that most evolutionary psychologists would also construe Read Montague's computational neuroscience approach (p. 228) as overtly based on domain-general theorizing. The reality is that several evolutionary behavioral scientists have demonstrated the relevance of evolutionary psychology to cognitive neuroscience in general (cf. Platek, Keenan, and Shackelford, 2007) and in business-related disciplines in particular (see Garcia and Saad, 2008, for a review of such works).

Consumers are at the center of any economic system. Hence, at first I was delighted to read that Shermer wished to discuss "how minds operate in the markets" (objective 2 above). Notwithstanding his tackling of the BDT and fMRI literatures, he has ignored a tremendous amount of relevant research that has been conducted over the past fifteen years specifically at the nexus of consumption and evolutionary theory. Whereas I regret to engage in self-promotion, I have spent more than a decade combining evolutionary psychology and related Darwinian principles with the study of consumption, culminating in my book, *The Evolutionary Bases of Consumption* (Saad, 2007). Several other evolutionary psychologists have also been working recently along these lines, including Vidas Griskevicius, Jill Sundie, Geoffrey Miller, and Siegfried Dewitte. The economist Robert H. Frank has written several books with tinges of evolutionary-based theorizing. In addition, Geoffrey M. Hodgson and Thorbjørn Knudsen have published numerous papers at the intersection of evolution and economics, several of these in the *Journal of Evolutionary Economics*. Yet Shermer ignores all of these highly relevant works.

Much of the discussion regarding the third objective, the demonstration that both human minds and markets are moral, is equally old news, some of which Shermer has already covered quite extensively and ably in his earlier writings. Included here are discussions of our evolved morality, meat sharing (and related cooperative behaviors), reciprocal altruism, cheater detection including the Wason selection task, costly signaling, primate politics, tribalism and xenophobia, the evolutionary roots of Theory of Mind, as well as the evolutionary bases of good and evil. Also, notwithstanding the evolutionary twist that Shermer provides, going over the Zimbardo and Milgram experiments is, frankly, old news indeed.

I conclude with a few observations about Shermer's apparent ideological bent in support of free markets. I see no problems with an author expressing his worldview, especially when writing to a mass readership. That said, I would be interested to know Shermer's position regarding the recent financial crisis, with its corresponding \$700 billion bailout. It would appear that free markets are not guarantors of a *reliable banking system* (see p. 179)! Nor was I particularly moved by his endorsement of so-called libertarian paternalism. In my opinion, it smells of the old "economics of information" approach to social marketing. The argument goes that if individuals engage in behaviors that yield deleterious consequences, it must be because they did not know any better. Provide them with the relevant information to make "optimal" choices, and they will desist from irrational behaviors. Hence, in my opinion, libertarian paternalism remains a rather condescending ideology in that it assumes that individuals should be granted all necessary freedoms, albeit big poppa government should look over its "children" as we are otherwise too stupid to make informed decisions. This patronizing premise is precisely the reason that most public service announcements are structured around the provision of information

(e.g., "Unsafe sex leads to sexually transmitted diseases," "A sedentary life with poor dietary choices results in obesity," "Exposure to the sun can result in melanoma"). The reality is that individuals engage in such behaviors knowing full well the consequences of their actions (see Saad, 2007, chapter 6 for Darwinian explanations of dark side consumption).

Returning to Shermer's support of free markets, it is interesting to note that toward the end of the book, he proclaims (p. 259), "There is nothing natural about a free economy, and there is nothing inevitable about human groups evolving toward a free market." This reminds me of the quote attributed to E. O. Wilson wherein he remarked about communism/Marxism: "Great idea. Wrong species." Finally, in hailing the benefits of democracies, Shermer states (p. 251), "One of the prime triggers of between-group violence is competition for scarce resources." I would add: yes, over *women*, as much intergroup activity in our evolutionary history revolved around either the violent usurping of women from other groups, or the trading of women between groups via the use of interconnected marriages.

To recapitulate, Shermer's book is valuable in highlighting the links between evolutionary theory and economics to a mass audience. That said, it contains few novel insights and is somewhat incomplete in covering the relevant literature streams at the nexus of economics and the various Darwinian frameworks.

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