

COMMENTARY:

Progress and its Discontents: Data Scarcity and the Limits of Falsification in Strategic Management (Joseph Lampel and Zur Shapira)

Joseph T. Mahoney

Lampel and Shapira (1995) provide a thoughtful essay on the philosophy and sociology of science and connect these ideas to the development of strategic management. The paper is well researched, informative, and skillfully crafted. The essay should become a timely reference in strategic management.¹

Lampel and Shapira (1995) suggest that *evolutionary epistemology* is a powerful lens for understanding the development of scientific activity. Strategic management inquiry is governed by *variation, selection, and retention* among evolving research programs. The producer of research (like the producer of widgets) balances risks, resources, and potential returns, to put it economically. Competition among research programs, for visibility and prestige, take the form of: (1) a closely related set of questions; (2) the same content domain; and (3) a common pool of research methods.

The conceptual lens of evolutionary epistemology (Habermas, 1979; Radnitzky & Bartley, 1987; Weick, 1989) can be fruitful for understanding the research process. However, there are three areas where Lampel and Shapira (1995) need to make their ideas more clear.

First, while the reward structure receives substantial emphasis in their paper, the details of the reward structure are not delineated sufficiently. More

Advances in Strategic Management, Volume 12A, pages 151-153.

Copyright © 1995 by JAI Press Inc.

All rights of reproduction in any form reserved.

ISBN: 1-55938-981-8

specifically, the external environment's influence on the research process receives too little attention. For example, would a professor write a case analysis that was critical of A.H. Robins' handling of the Dalkon Shield crisis if that professor is on the faculty of the university that received a substantial endowment from the Robins' family?

Second, Lampel and Shapira (1995) tend to shift from prescriptive to descriptive analysis without sufficient guidance for the reader. This criticism should not be considered too harsh in a short essay that covers Popper (1965), Kuhn (1970), and Lakatos (1970).

Popper (1965) suggests that if one is to distinguish science from non-science a demarcation criterion is required. Popper's criterion of demarcation is *falsifiability*. Popper's (1965) methodology is *prescriptive*: Make statements that are refutable and try to refute them.²

Kuhn's (1970) work challenged all prescriptive approaches, including Popper's (1965). Kuhn (1970) emphasizes a description of science "as it is" rather than Popper's writings on science "as it should be."

Lakatos (1970) attempts to provide a concept of science that is both prescriptively warrantable and descriptively accurate. Lakatos describes a discipline as having both a "hard core" and a "protective belt." The "hard core" contains fundamental assumptions that are usually irrefutable (e.g., the assumption that consumers maximize utility in neoclassical microeconomics) but are not subject to question by those who work within the research program. The "protective belt" provides propositions that allow the process of testing and modification of a research program. The prescriptive part of Lakatos' (1970) theory is to evaluate whether a research program is progressive or degenerating. Progressive research programs generate novel facts, some of which are corroborated. Research programs can start out progressive, stagnate for a time, then become progressive again (e.g., Penrose's 1959 research program of the resource-based theory of the firm).

A close reading of Lampel and Shapira (1995) suggests an alignment with Lakatos' view of the science process. In fact, the call for more clarification of descriptive and prescriptive statements for Lampel and Shapira (1995) can also be made for Lakatos (1970).

The third area of clarification in Lampel and Shapira (1995) relates to the second area. It is not always clear whether Lampel and Shapira (1995) are discussing *logic-in-use* or a *reconstructed logic* of science, to use Kaplan's (1964) terms.³

In conclusion, Lampel and Shapira (1995) is a work of scholarship that improves our understanding of the research process. The breadth of topics covered in such a short essay leads to some ambiguities that require clarification but this was a small price to pay for the stimulating discussions on the philosophy and sociology of science. One can learn a lot reading Lampel and Shapira's (1995) paper, even a lot relevant to strategic management.

NOTES

1. For alternative views of methodology in strategic management, see Mahoney (1993), Montgomery, Wernerfelt and Balakrishnan (1989), and Seth and Zinkhan (1991).
2. Caldwell (1991) provides an insightful essay clarifying Popper. Harding (1976) examines whether Popper's demarcation criterion is workable. McCloskey (1983, 1994) takes issue with the science versus non-science distinction. McCloskey notes that: "Those ... who have strongly and self-consciously identified with the program of demarcating science from the rest of life have a hard time understanding what the rhetorical turn is about" (1994, p. 298).
3. Similarly, Evered and Louis (1981) refer to "inquiry from the inside" and "inquiry from the outside."

REFERENCES

- Caldwell, B. J. (1991, March). Clarifying popper. *Journal of Economic Literature*, 29, 1-33.
- Evered, R., & M. R. Louis (1981). Alternative perspectives in the organizational sciences: "Inquiry from the inside" and "Inquiry from the outside." *Academy of Management Review*, 6(3), 385-395.
- Habermas, J. (1979). *Communication and the evolution of society*. Boston: Beacon.
- Harding, S. (1976). *Can theories be refuted? Essays on the Duhem-Quine thesis*. Cambridge: Cambridge University Press.
- Kaplan, A. (1964). *The conduct of inquiry: Methodology for behavioral science*. San Francisco: Chandler.
- Kuhn, T. (1970). *The structure of scientific revolutions*, 2nd enlarged edition. Chicago, University of Chicago Press.
- Lakatos, I. (1970). Falsification and the methodology of scientific research programmes. In I. Lakatos, & A. Musgrave (Eds.), *Criticism and the growth of knowledge* (pp. 91-196), Cambridge: Cambridge University Press.
- Lampel, J., and Z. Shapira (1995). Progress and its discontents: Data scarcity and the limits of falsification in strategic management. In P. Shrivastva (Ed.), *Advances in strategic management*, (Vol. 12, pp. 113-150). Greenwich, CT: JAI Press Inc.
- Mahoney, J. T. (1993). Strategic management and determinism: Sustaining the conversation. *Journal of Management Studies*, 30 (1), 173-191.
- McCloskey, D. N. (1983, June). The rhetoric of economics. *Journal of Economic Literature*, 21, 481-517.
- McCloskey, D. N. (1994). *Knowledge and persuasion in economics*. Cambridge: Cambridge University Press.
- Montgomery, C. A., B. Wernerfelt, & S. Balakrishnan (1989). Strategy content and the research process: A critique and commentary. *Strategic Management Journal*, 10, 189-197.
- Penrose, Edith T. (1959). *The theory of the growth of the firm*. New York: John Wiley.
- Popper, K. R. (1965). *Conjectures and refutations*, 2nd edition. New York: Basic Books.
- Radnitzky, G., & W. W. Bartley (Eds.). (1987). *Evolutionary epistemology, rationality, and the sociology of knowledge*. La Salle, IL: Open Court.
- Seth, A., & G. Zinkhan (1991). Strategy and the research process: A comment. *Strategic Management Journal*, 12, 75-82.
- Weick, K. E. (1989). Theory construction as disciplined imagination. *Academy of Management Review*, 14(4), 516-531.