Institutions in Economics. By Malcolm Rutherford. New York: Cambridge University Press, 1994. xi, 225 pp.

The most significant difference between neoclassical economics in the period from 1870 to 1940 as compared to the period from 1940 to 1990 is the desire to illuminate institutional evolution in the first period and the requirement of eliminating institutions in the second to ensure the determinant solutions that equilibrium modeling demanded. Of course, the tension in the neoclassical project between illuminating institutional evolution and change and deriving determinant equilibrium solutions was evident from the beginning of the marginalist revolution. But, by the time Samuelson wrote *Foundations of Economic Analysis* (1947), the project of illumination was largely forgotten in favor of the rigor of exercises in comparative statics. Institutional writers, such as Thorstein Veblen, Thomas Commons, Wesley Mitchell, and Clarence E. Ayers, resisted this research path from the beginning—though it is a mistake to assume that they either reflected a unified voice or were alone in their critique. Austrian economists, for example, were as vocal in their criticism of the direction of neoclassical economics as were the institutionalists, and there were significant differences in the research programs of Veblen, on the one hand, and Commons, on the other. In the past few decades, one of the most significant developments within modern neoclassical economics has been the recognition of the intellectual bankruptcy of the institutionally antiseptic approach. New institutional economics has emerged to study the institutions of politics, law, firms, and so on to fill the void. But the project is filled with the same tension that existed in the period between 1870 and 1940. Institutional evolution and change can be illuminated, but such intellectual exercises risk the determinant solutions of equilibrium modeling. Thus, there is a constant pressure within new institutional economics to subsume all questions about institutions into the category of constraints.

Malcolm Rutherford's *Institutions in Economics* surveys one hundred plus years of literature on how to incorporate institutions into economic theory. This is the most subtle reading of this extensive literature yet produced and is an invaluable contribution to the history of economic thought and to contemporary economic theory. In fact, risking hyperbole, I would say that Rutherford's effort is perhaps the prime example we have of how the history of economic thought is essential for contemporary theorization and not just an intellectual pastime. By dissecting the literature on new institutional economics and demonstrating the weaknesses and strengths of that approach in comparison with the old institutional economics, the book directs the reader to the questions that must be raised if a viable research program in institutional economics (of whatever variety) is going to be forged as a viable alternative to the equilibrium economics of modern neoclassical theory.

Institutions in Economics is divided into seven tightly reasoned chapters covering topics from basic definitions to broad questions of formalism and anti-formalism; individualism and holism; rationality and rule following; evolution and design. The concluding chapter deals with the lingering conflicts and complementarities in the research programs of old and new institutionalism. Rutherford's subtle reading of authors as diverse as Thorstein Veblen and John Commons, Carl Menger and Friedrich von Hayek, James McGill Buchanan and Douglass C. North produces a definitive critique of the superficial reading that has tended to dominant history of thought texts. The old institutionalists, for example, are often accused of rejecting theory, but as Rutherford points out this view is mistaken. "What is true is the old institutionalists reject the more orthodox neoclassical forms of theory and model building as overly formal, abstract, and narrow. The methodological dispute here is less over theory versus description than over the appropriate degree of abstraction to be used in the analysis of a complex evolving system" (9). Rutherford is probably at his best in debunking superficial readings in his analysis of methodological individualism where he develops a theory of institutional individualism along the lines of that by Joseph Agassi in contrast to either the reductionist project of atomistic individualism or the collectivist conception of holism (see 27–50).

The close reading demonstrated in the chapter on individualism is repeated in Rutherford's treatment of rationality and rule following and in the evolution and design chapters as well. His intent is not to blur the distinctions between the old and the new institutionalism but rather to show how a sophisticated reading reveals the common problems that any research program attempting to deal seriously with institutions (including their historical imprint) must grapple with. As Rutherford points out, what usually separates the two approaches can be characterized by the following:

i. The role of formal theoretical modeling as opposed to less formal methods, including historical and "literary" approaches.
ii. The emphasis to be placed on the effect of social institutions on individual behavior as opposed to the effect of social institutions in molding individual behavior.
iii. The validity of rationalist explanations as opposed to those that place limits on the applicability of rationalist conceptions.
iv. The extent to which institutions are the result of spontaneous or invisible-hand processes as opposed to deliberate design.
v. The basis on which normative judgements can be made, and the appropriate role of government intervention in the economy. (174)

While a superficial reading would see old and new institutional economics lining up on opposite sides of each of these issues, Rutherford stresses that a closer examination "reveals a more complex picture" (174). And herein lies the great strength of *Institutions in Economics*—a willingness to admit the complexity of these issues, the ambiguities in the various research programs, the strengths and weaknesses, and the promise of a fruitful dialogue that transcends paradigmatic differences.

Institutions in Economics is an exemplary book along many dimensions. It is first-rate reading of an extensive literature on the problems of incorporating institutions within economic theory and, as such, is a work that should be of considerable interest not only to historians of economic thought but also to contemporary theorists. It is also a model of scholarly civility between divergent styles of thought. Rutherford has produced a well-written, well-balanced, comprehensive work. In short, *Institutions in Economics* is a first-rate contribution to the literature on historical perspectives on modern economics.

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Reference

Samuelson, Paul. 1947. *Foundations of Economic Analysis*. Cambridge: Harvard University Press.

Trust in Numbers: The Pursuit of Objectivity in Science and Public Life. By Theodore Porter. Princeton, N.J.: Princeton University Press, 1995. xiv, 310 pp. $24.95.

For a long time, one would encounter a nearly ubiquitous response tendered to the question, Why has number been so effective in science? It ran as follows: "Nature" is written in the language of numbers. This response, so seemingly transparent and yet so tautologically empty, has done yeoman service for rafts of Platonist mathematicians and unreflective physicists down through the ages, not to mention various economists who have stooped to defend the pervasiveness of quantification in economics. Both Gerard Debreu and Paul Samuelson have opted to repeat this canard in the last decade. However, as in so many other areas, it has not been historians of economic thought, but rather denizens of the new specialty of "science studies" who have sought to get past the vacuity of these sorts of "explanations," passing up the invitation to become the emperor's new dry cleaner. The work of such historians as Ken Alder, Lorraine Daston, and Kathryn Olesko have set a new standard in what is unashamedly the history of economic thought as much as it is the history of science; and here in Theodore Porter we have the summary statement of one of the most illustrious of this new breed, following up on his justly praised *Rise of Statistical Thinking*.

Porter's task in this book is to provide a social explanation of the move toward quantification in areas such as economics, actuarial science, medicine, the French *Corps des Ponts et Chaussees*, and the Army Corps of Engineers. His leitmotiv is that "much of what passes for scientific method is a contrivance of weak communities, partly in response to the vulnerability of science to pressures from outside" (12). Turning the conventional wisdom on its head, Porter thus suggests that if scientists were left to their own devices, they would rarely find themselves impelled to push outward the envelope of the numerical, and certainly not crave increased precision, because they generally would trust each other's reports. "Research done according to the standards of scientists is often not impersonal and lawlike enough to stand up to political and judicial scrutiny. Even the standards of mathematical proof have now been critically examined by a British court of law" (196). Hence, contrary to