Elisabeth Nemeth, Stefan W. Schmitz, and Thomas E. Uebel, eds., *Otto Neurath's Economics in Context* (Dordrecht: Springer, 2007), pp. x, 234, \$169.00. ISBN 978-1-4020-6904-8.

The second edition of Frederick Suppe's influential collection of essays, *The Structure of Scientific Theories*, carried an Afterword titled "Swan Song for Positivism" (Suppe 1977). The demise of positivism implied in the title brings to mind Mark

Twain's remark, on reading his own obituary, that "the report of my death is an exaggeration." It was not long after Suppe's book came out that English translations of the work of leading figures of the Vienna Circle began to appear. In 1991 the Vienna Circle Institute was established, and since then it has sponsored a variety of academic conferences and publishing projects dedicated to uncovering the history, and reassessing the scholarly contributions, of the circle and its various members. One of the Institute's projects was a yearbook, and the present volume is the 13th in the series. *Otto Neurath's Economics in Context* contains an introduction by the editors and eight papers on various aspects of Neurath's economic writings, many of them prepared for a conference sponsored by the Institute that was held in Vienna in fall 2005. (It also includes a number of book reviews, as well as a paper by Keith Lehrer on "Consensus in Art and Science," but these will not be further considered here.)

One of the great benefits of the new interest in the Vienna Circle has been a dehomogenization of its members' contributions. Perhaps the most notable beneficiary of this more refined historical treatment has been Otto Neurath, who has been rehabilitated as a fallibilist, anti-foundationalist, post-structuralist, and pluralist philosopher, one whose work could be interpreted as anticipating various later moves within philosophy (see Cartwright et al. 1996; but cf. Hacohen 2000, pp. 262–275 for some misgivings about the new interpretations). Neurath's insistence that philosophy must march hand in hand with social reform was also heralded by those who were dismayed by the later transformation of logical empiricism into. in the words of George Reisch, a "scrupulously nonpolitical project in applied logic and semantics," a movement away from social activism and toward the "icy slopes of logic" (Reisch 2005, p. xi; Reisch's book is one of those reviewed in the volume). Neurath was the social science representative of Vienna Circle, and he wrote enough about economics that a book collecting and translating a selection of those writings has appeared (Neurath 2004). The present volume might well be viewed as a companion, though it should be added that Neurath 2004 also contains a comprehensive 108-page introduction to Neurath's economics by Thomas Uebel.

As someone who has written about both positivism and Neurath's interactions with economists of the Austrian school, I approached my reviewing task with not inconsiderable anticipation. Neurath is typically remembered among historians of economic thought for his studies on "war economy," for his proposals for the full socialization of the economy—run by a "central office for measurement in kind"—and for his claim that in the new centrally planned economy money would no longer be necessary, that resource allocation decisions could be made according to statistical measures that would go beyond the sorts of monetary calculations that are used in market-based economies. It was these sorts of proposals that "provoked" the monetary theorist Ludwig von Mises to begin writing about socialism, thereby initiating the German-language socialist calculation debate. I was aware that in the rehabilitation of Neurath the philosopher the claim was frequently made that Neurath's subtle and complex philosophical thought had been misunderstood, for example by those who saw him as a proponent of physicalism, a philosophical stance that many have interpreted as quite distant from fallibilism and anti-foundationalism. Would the same be the case for his economic writings? Had Neurath also been misunderstood here? Or would Hacohen's (2000, p. 262) less sympathetic judgment concerning the rehabilitation of Neurath's philosophy—that "scholars have used ingenious but strained interpretations" to impose "coherence on an imaginative but unsystematic mind"—also apply to his economic writings?

Before answering, a capsule summary of the volume might be helpful. The papers cover a considerable amount of territory, and though many are sympathetic to Neurath's overall project, not a few are critical of its details. Elisabeth Nemeth examines how Neurath and Joseph Schumpeter both borrowed from the analyses of the physicist and philosopher Ernst Mach, though with very different results. In his provocatively titled piece, "Otto Neurath as an Austrian Economist," Thomas Uebel argues that understanding the Austrian context in which Neurath developed his ideas helps to explain a variety of puzzles that surround the positions taken by the protagonists in the calculation debate. In addition to Mises' critique, Neurath's economic proposals also drew criticism from the left, and in his contribution Günther Chaloupek reprises the arguments of his socialist and Marxist antagonists. Neurath responded to some of Friedrich Havek's criticisms (in Havek [1942–44] 1952, pp. 78. 170) concerning physicalism and *in natura* calculation in a correspondence he started with Hayek in 1945. John O'Neill uses Neurath's half of the correspondence to reconstruct a position that he claims is more pluralistic than the "market monism" (p. 97) or "market fundamentalism" (p. 98), which he argues characterizes Havek's position. Peter Mooslechner gets the prize for the brayest contributor, having taken on the quixotic task of summarizing Neurath's contributions to monetary thought. Ortrud Lessmann compares Neurath's notion of "conditions of life" with Amartya Sen's concept of "functionings," both of which were introduced by their respective authors in an attempt to solve the problem of interpersonal comparisons of well-being. Nader Vossoughian traces the history of, and Neurath's connections with, the Museum of War Economy in Leipzig, a predecessor of the Museum of Society and Economy that Neurath established in Vienna in 1925. Finally, Günther Sandner contextualizes Neurath's views on the role of culture, noting its relationship with Austro-Marxist thought as well as with Neurath's own contention that Marxism constituted "empirical sociology."

What emerges from the various papers is that Otto Neurath's economic thought is indeed considerably more complex than has typically been rendered. In fact, it is often quite difficult to discern exactly what he thought. The authors offer a variety of reasons for why this is so. Though he started out as an academic economist, Neurath's academic career was ended in 1919 with his dismissal from the University of Heidelberg, following his trial for treason for his role as the socialization commissioner of the short-lived Bayarian Soviet Republic. His subsequent writings on economics did not engage those of other economists, but instead were linked to various political and cultural initiatives, as well as to his efforts to create a unified science. Thus though Neurath was apparently familiar with the monetary theory writings of people like Mises, Knut Wicksell, Schumpeter, and John Maynard Keynes, he chose to ignore them (hence my remarks above about the difficulty of the task taken on by Mooslechner). This neglect is perhaps understandable, given his rejection of the need for money to calculate relative scarcities. Much less forgivable is Neurath's failure to deal with the thought of A. C. Pigou, whose *The Economics of* Welfare was first published in 1920 and was evidently of direct relevance to his concerns about the efficacy of market calculations for human welfare. Matters are

made still worse for interpreters in that Neurath appears at times to have held different versions of certain doctrines: Uebel identifies, for example, three different versions of "in-kind calculability assumptions" (very weak, weak, and strong) that might be associated with his writings, and notes that he occasionally mixed them up with each other and also with the related notion of "economy in kind" (pp. 38–39). The end result is evident: Neurath's writings on economics are difficult to interpret. His work is more suggestive than systematic.

Though it is clear from all this that Neurath's work is more complex than he is often given credit for, it is less clear whether he contributed much in terms of economics. One person's "complex and suggestive" is, after all, another's "inconsistent and confused." Those who view him sympathetically are apt to point to his emphases on integrating social and ecological concerns with the purely economic, on searching for institutions that guarantee a higher quality of life for the community as a whole, on employing a plurality of methods in attacking a given social problem, and on the importance of group decision-making based on community-wide discussion. Those who view him less sympathetically might point out the unambiguous failures, and associated social costs, of national experiments with full socialization and with money-less economies, and the inconsistency between the pluralistic and inclusive rhetoric that Neurath often employed and the illiberal reality of what his concrete plans appear actually to entail.

The book provides plentiful examples on both sides. I must confess that, as a student of Hayek, I am among the skeptics. Two passages from Neurath's writings that are quoted by his expositors illustrate well some of my chief concerns. The first, cited by Uebel, is an extended disquisition about how a free market economy fails to value scarce resources appropriately, and his example is coal. Concerned that coal supplies would only last a few more decades (a common worry of his time, comparable perhaps to the "peak oil" projections one hears about today), Neurath lamented its "wasteful" use for powering locomotives and heating houses, which he blamed on the shortsighted decisions of profit-driven capitalist entrepreneurs (pp. 43–44). Uebel mentions this to show how Neurath's writings anticipate those of today's proponents of ecological economics. A critic though would simply point out how wrong Neurath was. We have not run out of coal. Coal-fired plans produce nearly 50% of U.S. electricity, as well as more than a third of world power, and recent estimates of reserves exceed those of both oil and natural gas. Indeed, current complaints from environmentalists are not that we are running out of coal, but that we are using too much of it. No matter how attractive and laudable one might find Neurath's writings on matters ecological, to have actually adjusted consumption according to his strictures would have entailed massive waste. When it comes to the matter of "exhaustible resources," neither he nor his interlocutors seem aware of the role of rising market prices, which encourage conservation of existing stockpiles, promote the search for new reserves, and make profitable the search for substitute goods, in addressing the problem.

The second example involves an interactive exhibit that Neurath planned for the Museum of War Economy; his description of the exhibit is preserved in the minutes of a meeting of the Ministry of the Interior. A visitor to the exhibit would

... be sequestered under experimental conditions and will observe how he responds to specific raw stimuli. How these aptitude tests help identify the pool of automobile

drivers, telephone operators, etc. available for the war effort will be shown through statistical summaries; here one will be able to recognize how the introduction of aptitude tests helps save resources ... and will bring to light the rationalization of the economy, which is progressively unfolding and developing meaningful connections through normification and typification (p. 136).

To be sure, this proposal for directed labor based on performance of physical aptitude tests was intended to show how an economy during wartime might make the best use of its resources (though of course, even under those extreme circumstances, it is questionable about how well a worker who was simply placed by the government in a job that matched her aptitudes as determined by a physical test would actually perform). What is remarkable is that Neurath thought that it also provided a model for a peacetime economy, and that such a model could be proposed by someone who also lauded pluralism and open community-wide discussion of political–economic decisions. What comes across in all this is a person who had grandiose plans but who had not really thought through the fundamental issues.

Though the volume focuses on Neurath's thought in the context in which it developed, at least a few of the contributors remark on his legacy. Two ideas in particular are mentioned. The first relates to in-kind calculability. As against Neurath's early endorsement of "strong in-kind calculability" (which Neurath apparently held to in the 1919–1925 period), Thomas Uebel defends the "weak in-kind calculability" assumption that can be found in some of his later writings:

So whereas the strong in-kind calculability assumption says that alternative uses of production goods can be assessed as fully as is required for rational decision making by quantitative in-kind labour and production technology statistics—money calculation is not even necessary—the weak in-kind calculability assumption only claims the insufficiency of monetary calculation for all cases (p. 39).

Weak in-kind calculability, then, says that market-based calculations are not always sufficient for rational decision-making; or, as Uebel puts it, it "merely opposes its opposite, the ambitions of market fundamentalism (the idea that the market can solve all social coordination problems)" (p. 38). This view has apparently been linked to recent contributions to the field of "ecological economics" where it is used, in conjunction with a critique of the tools of neoclassical economics (e.g., the rationality assumption, the reduction of uncertainty to risk, marginal analysis, the focus on efficiency), to challenge the usefulness of techniques like cost–benefit analysis for valuing exhaustible resources or for evaluating various proposals to preserve the environment (e.g., Gowdy and Erickson 2005, p. 213).

The other idea is Neurath's frequent claim that he is a pluralist, which in the ecological economics literature is then linked to the principle that "value monism" be replaced by a "multi-criteria decision aid" technique (ibid.). In his piece in the volume, J. F. O'Neill argues that Neurath's views about institutional design, which he contrasts with Hayek's "market monism," makes him the more pluralistic of the two (p. 87).

While a review is not the place for a debate, I would make three points in response. First, it is regrettable that proponents of ecological economics focus their criticism almost exclusively on such things as cost-benefit analysis, and ignore alternative

market-oriented approaches that aim at improving the institutional environment: defining and enforcing property rights, for example, as a response to common resource problems.

Next, while it is evident that an approach that combines market with non-market mechanisms for resource allocation is by definition more "pluralist" than one that relies solely on markets, this strikes me as a curious and indeed rather limited sense of the term "pluralism." Surely one of the defining characteristics of a market system is that it allows for a plurality of individual values and of choices by consumers, firms, and workers when compared to other types of systems, be they traditional societies or the sort of planned society that Neurath envisioned: think, for example, of the range of job choices available to the worker in Neurath's museum demonstration compared to those who live in western democracies, then or now.

My final comment is in the form of a plea. There was a period when the word "positivist" had become a kind of slur, a word of disapprobation that critics would attach to an argument so as to dismiss it. Everyone was supposed to know what it meant, but no one defined it. Recent scholarship on the Vienna Circle has shown us that the scholars associated with positivism were variegated in their beliefs, and that it was time to move beyond the simple caricatures that pervaded the earlier literature. In the current volume, words like "market monism," "neo-liberalism," and "market fundamentalism" are frequently invoked as doctrines that contrast with Neurath's views. They are meant as slurs, are rarely defined, and are used to dismiss arguments: in short, they are used in the same way that people once used the word positivism. In the spirit of Neurath's "index of forbidden words," I ask that they be struck from the lexicon, so that more nuanced discussions and debates, ones that deal with actual positions rather than caricatures, may ensue.

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