

Paolo Parrini, Wesley C. Salmon & Merrilee H. Salmon (eds.), *Logical Empiricism: Historical & Contemporary Perspectives*. Pittsburgh: University of Pittsburgh Press, 2003. ix + 396pp. 49.95 US\$. ISBN 0-8229-4194-5.

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This volume presents seventeen essays (not eleven, as the publisher inexplicably claims) by a diverse group of philosophers that arose out of a conference in Florence in 1999. As its title indicates, the focus of the conference was the contemporary significance of the topics, methods and innovations of the logical empiricists. This has led to a nicely balanced collection that combines careful historical study with an eye on current debates in the philosophy of science and mind.

After a brief introduction by Parrini and Wesley Salmon, we find four essays grouped together under the heading “Turning Points and Fundamental Controversies.” In “A Turning Point in Philosophy: Carnap-Cassirer-Heidegger”, Michael Friedman summarizes his *A Parting of the Ways* (Open Court, 2000) and focuses on the details of the relationship between Carnap and Cassirer after the latter’s break with neo-Kantianism. Friedman argues that the 1929 Davos debate between Cassirer and Heidegger on Kant, which Carnap attended, marks a crucial break in the history of philosophy. Both politically and philosophically, Cassirer’s Marburg neo-Kantianism occupied a middle group between the more extreme programs of Heidegger and Carnap. Thus Cassirer’s “astonishingly comprehensive body of philosophical work” (29) is presented as an unexplored attempt to fruitfully combine the scientific orientation of Carnap with Heidegger’s humanistic ambitions.

Gottfried Gabriel's "Carnap's 'Elimination of Metaphysics through Logical Analysis of Language': A Retrospective Consideration of the Relationship between Continental and Analytic Philosophy" approaches the analytic-continental divide somewhat differently by emphasizing the similarities between Carnap and Heidegger as well as the influence of Dilthey's life philosophy on both. Gabriel points to the shared rejection of traditional metaphysics and psychologism but claims that Carnap's preference for a scientific orientation led him to dismiss Heidegger's more poetic preoccupations. He may go too far in concluding, though, "that the difference between Continental and analytic philosophy is above all a matter of the style of thought that manifests [itself] in linguistic style" (38).

An earlier dispute between analytic and continental philosophers is the focus of Roberta Lanfredini's "Schlick and Husserl on the Essence of Knowledge". While for Schlick the qualitative aspects of our experience were something to be overcome in rigorous, scientific thinking, Husserl insisted that "authentic knowledge cannot do without a qualitative factor" (50). Siding largely with Husserl, Lanfredini notes the many inaccuracies in Schlick's criticisms of phenomenology and the resources that Husserl had to respond.

"Carnap vs. Gödel on Syntax and Tolerance" by S. Awodey and A. W. Carus rounds out part one, although their essay focuses on a dispute within the analytic tradition. They argue that Gödel's criticism of Carnap's approach to mathematics in *The Logical Syntax of Language* "contains a mistake" (57). The mistake was to augment the reasonable demand that any language that Carnap adopt for mathematics actually be consistent with the requirement that the language be *provably* consistent. The stronger requirement cannot be met, but Awodey and Carus claim that Carnap did not need to satisfy it.

Part two, “On the Origins and Development of the Vienna Circle”, opens with Thomas Uebel’s important essay “On the Austrian Roots of Logical Empiricism: The Case of the First Vienna Circle”. Building on the results of his *Vernunftkritik und Wissenschaft: Otto Neurath und der erste Wiener Kreis* (Springer, 2000), Uebel describes a distinctively Austrian orientation in the philosophy of science that predates World War I. He traces its formation from the influential high-school textbook by Alois Höfler (a student of Brentano and Meinong) through to the series of reviews by Hahn and Frank for the *Monatshefte für Mathematik und Physik*. Of particular interest is Uebel’s suggestion that the attitude towards Kant that Hahn, Frank and Neurath inherited was partly responsible for the later serious divisions in the ‘second’ Vienna Circle.

George Reisch’s “On the *International Encyclopedia*, the Neurath-Carnap Disputes, and the Second World War” places the well known philosophical disputes between Neurath and Carnap in a broader intellectual and political context. Neurath sought to turn the Unity of Science movement and its *Encyclopedia* into an international social movement, and this clashed with Carnap’s more modest academic ambitions. Reisch relates how things came to a head when Carnap declined to edit Neurath’s 1944 “Foundations of the Social Sciences”. This led Neurath to accuse Carnap, in a letter from 1945 that was not sent, of having “many serious signs of a Platonic attitude” (103) that risked a slide from semantics to a kind of totalitarianism. Neurath’s death later in 1945 stopped this dispute from escalating further.

Part two ends with Gereon Wolters’ “C. G. Hempel: Pragmatic Empiricist”, a defense of Hempel against some standard criticisms. Wolters claims that by the mid-1960s Hempel had come to recognize that pragmatic factors were needed to complete his proposals on confirmation and explanation. This

pragmatic turn culminated in Hempel’s surprising endorsement of Neurath in a 1991 address in Konstanz: “it is important that we look at Neurath and then say that it is his ideas that despite their somewhat primitive form give us hints [as] to how the philosophy of science has to be developed further” (117).

Part three, “The Riddle of Wittgenstein”, contains only one essay: “The Methods of the *Tractatus*: Beyond Positivism and Metaphysics?” by David Stern. Stern masterfully sets out the history of *Tractatus* interpretation and argues that the lack of agreement is a sign that the text itself is not coherent. The more recent ‘therapeutic’ reading by Diamond and others is rejected based on Wittgenstein’s own doctrinal approach to the text at the time. But instead of using this information to argue for another standard interpretation, Stern focuses on the conflicting philosophical methods that Wittgenstein employed. The paper concludes with a comparison of these interpretations of the *Tractatus* with debates in sociology about the *Philosophical Investigations*.

Thomas Ryckman’s challenging “Two Roads from Kant: Cassirer, Reichenbach, and General Relativity” opens part four, “Philosophy of Physics”. He argues that it was in fact Cassirer who “produced a significantly more insightful appreciation of the epistemological innovation of the theory of general relativity” (187) when compared to Reichenbach. Thus, like Friedman, Ryckman sees Cassirer as an important option that has been overlooked in contemporary debates. But, breaking somewhat with Friedman, Ryckman bases his conclusion on an interpretation of general relativity theory that emphasizes the connections between the local symmetries of gauge field theories and general covariance. One is left eager for more details about how these later mathematical developments relate to Cassirer’s philosophy, and

fortunately Ryckman's *Reign of Relativity* (Oxford, forthcoming) will supply this and more.

In "Vienna Indeterminism II: From Exner's Synthesis to Frank and von Mises", Michael Stöltzner builds on his earlier work on Mach, Boltzmann and Exner in fleshing out a picture of a distinctively Viennese openness to indeterministic physical theories, long before quantum mechanics. Here he relates how Exner influenced Frank and von Mises. At the heart of this approach was Mach's functional conception of causal laws, which "made it viable to contemplate indeterminism at the most basic level of reality" (196). Opposed to this was the more traditional Kantian conception of causality, here identified with Planck, which equated causality with determinism. The frequentism of Frank and von Mises is thus skillfully traced to its Viennese origins. Like Uebel's work, Stöltzner's discoveries allow a more nuanced understanding of later debates within the broader logical empiricist movement.

Part five, "The Mind-Body Problem", contains Michael Heidelberger's "The Mind-Body Problem in the Origin of Logical Empiricism: Herbert Feigl and Psychophysical Parallelism" and Jaegwon Kim's "Logical Positivism and the Mind-Body Problem". Despite Heidelberger's criticisms of Kim's earlier work as reflecting a "widespread (mis)conception of logical empiricism" (233), in this volume Kim offers a careful and fairly sympathetic review of the work of Schlick, Carnap and Hempel on the mind-body problem. Kim even grants that he "was impressed by the metaphysical depth and sophistication in the positivist philosophers, especially Carnap" (277). Heidelberger reconnects Feigl's identity theory with the nineteenth century German-language tradition that stretches from Fechner, Lange and Riehl to Schlick and Carnap. In addition, he rather convincingly argues that these debates decisively shaped logical empiricism, e.g. in the rejection of explanation as a goal of science.

“Kinds of Probabilism” by Maria Carla Galavotti is the first of the three essays in part six, “Scientific Rationality”. She contrasts the varying approaches to probability by Reichenbach, Carnap and de Finetti, and argues that Reichenbach’s and Carnap’s views are more similar than it might initially appear. Showing some sympathy for subjectivism, Galavotti concludes that de Finetti and Ramsey laid the foundation for “an interpretation of probability in tune with a pragmatist and nonrealist epistemology” (298).

Martin Carrier’s “Smooth Lines of Confirmation Theory: Carnap, Hempel, and the Moderns” focuses on the roots of the ‘modern’ approaches to confirmation by Glymour and others in the earlier work of the logical empiricists. He insists that “Confirmation theory can be regarded as a thoroughly cumulative endeavor” (306) and supports this claim by showing how Glymour’s ‘bootstrap’ model arose out of the problems with Hempel’s account. ‘Cumulative’ here is given a rather weak reading, though, for as Carrier recognizes almost all of the central principles of Hempel’s proposal were rejected by Glymour.

In “Changing Conceptions of Rationality: From Logical Empiricism to Postpositivism”, Gürol Irzik defends both Carnap and Kuhn from the accusation that they are relativists. At the heart of his defense is an interpretation that allows Carnap to rationally prefer certain answers to external questions. This expanded conception of rationality is then linked to Kuhn’s post-*Structure* writings on fixed scientific values. In the end, though, Carnap’s conception of rationality fails because of his emotivist approach to value judgements.

The volume concludes with two essays on “Non-linguistic Empiricism”: Paolo Parrini’s “Reason and Perception: In Defense of a Nonlinguistic Version of Empiricism” and Wesley Salmon’s “Commit It Then to the Flames

...". Parrini argues that empiricism is best served by the naturalistic project of analyzing the psychological facts that underlie our ability to use language. This pre-linguistic focus is linked to Mary Hesse's network model of confirmation. Hesse assumes a primitive ability to recognize similarities in nature, and Parrini claims that this should be at the center of an empiricist epistemology.

Salmon reviews the Ayer-Church and Carnap-Kaplan disputes with the goal of determining a viable criterion of cognitive significance. These exchanges point the way to a non-linguistic and non-deductive form of empiricism that sees a weak form of verificationism as a kind of intellectual responsibility. Thus, Salmon concludes, "Empiricism is a viable philosophy that can stand on its own outside of the purely linguistic framework in which it was notoriously placed, as long as the critical role of nondemonstrative reasoning is clearly recognized" (386).

The wide range of topics, and the international makeup of the contributors, demonstrate the continuing appeal and importance of the writings of the logical empiricists. I was most struck by the attempts of contributors as varied as Friedman, Ryckman, Parrini and Salmon to show that contemporary philosophy has missed the best or most promising aspects of logical empiricism. The dangers of this approach are made manifest by the conflict between Salmon, who seems to model his non-linguistic empiricism on Reichenbach, and Friedman and Ryckman, who aim to discredit this very approach to science. As a historian, I worry that these debates about the value of a philosopher's work might become overly entangled with the question of what a philosopher actually thought. The current state of Frege and Wittgenstein scholarship remind us that it is, after all, difficult enough to come up with an adequate interpretation of a philosopher's writings and that

appeals to what we now ‘know’ about philosophy are not likely to help. My hope, then, is that historians of logical empiricism will continue their focus on the careful reconstruction of the context and views of real historical positions.