



**Philipp Frank.** *The Humanistic Background of Science*. Edited by George A. Reisch and Adam Tamas Tuboly. Albany: State University of New York Press, 2021. xiv + 384 pp. \$33.95, paper, ISBN 978-1-4384-8552-2.

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Philipp Frank (1884–1966) was an accomplished physicist and one of the earliest interpreters of Einstein’s relativity theory, who in 1912 became Einstein’s successor to the chair of the Department of Physics in Prague. His role as a leading member of the Vienna Circle is perhaps less known. In any case it is safe to assert that as a philosopher of science he is virtually forgotten today.

The manuscript of *The Humanistic Background of Science* (HBS) was a project that Frank conceived around 1953 and finished in 1963 at the latest, but never published until now. The natural question arises whether publishing the manuscript of HBS as a book after such a long time is justified. Editors George A. Reisch and Ádám Tamás Tuboly are fully convinced that this is the case. As they candidly assert, their reason for publishing HBS is “to help revive Frank’s significance and to reconsider his roles in philosophy and history of science” (p. 1). More precisely, in their brilliant introduction they claim that HBS is an unjustly forgotten piece of a logical empiricist philosophy of science that does not fall prey to the well-known weaknesses of standard logical empiricist philosophy of science, such as its ahistorical and

formalist presentation of science. Indeed, they present Frank as “crusader for a scientific philosophy” that is relevant to the philosophy of science of our times (p. 1).

This amounts to a far-reaching reevaluation of Frank’s philosophical relevance. For some of Frank’s contemporaries, already in the 1950s his philosophy had an air of untimeliness. This is exemplified by the young Hilary Putnam’s review of Frank’s *Philosophy of Science* (1957), which may be considered as a precursor of HBS. Putnam wrote, “Professor Frank’s knowledge of the issues that *concern* philosophers of science and the reasons *why* they concern philosophers of science that is thirty years out of date.... Anyone who still thinks that the issue in philosophy of science is between ‘operational definition’ and ‘metaphysical interpretation’ might enjoy reading Frank’s book. Afterward, he should learn some *real* philosophy of science.”[1] As it seems, Frank was not very much impressed by Putnam’s harsh criticism. In HBS he took up many of the same issues that he had dealt with in the previous book in a very similar manner.

What concerns twenty-first-century philosophy of science certainly differs considerably

from what concerned Putnam's "real philosophy of science" of the 1950s. Be this as it may, according to the editors of HBS, what concerns philosophy of science of our time is surprisingly close to the issues dealt with in HBS. Indeed, Reisch and Tuboly propose to read Frank's HBS as a forerunner of a modern contemporary pragmatist philosophy of science.

HBS consists of two parts, each consisting of approximately 190 pages. The headings of many chapters reveal that Frank's philosophy of science considerably differed from standard logical empiricist philosophy of science: The reader finds chapters on "Science, Facts, and Values," "The Longing for a Humanization of Science," "Philosophy of Science and Political Ideology," and "Sociology of Science and the Search for a Democratic Metaphysics." The second part of HBS mainly deals with philosophical currents that Frank considered (often for rather idiosyncratic biographical reasons) as rivals for his own approach, namely, Neothomism as the official philosophical doctrine of the Roman Catholic Church and dialectical materialism as the official state philosophy of the Soviet Union. Even if today these issues appear dated, HBS may be taken as a rare opportunity for the reader to attend a discussion of Neothomistic philosophy of science and epistemology compared with dialectical materialism.

Subtle logical and conceptual distinctions have never been a stronghold of Frank's philosophy of science. This is certainly true for HBS. Here as elsewhere Frank was painting with a broad philosophical brush. This allowed him to construct close affinities between the philosophical currents of pragmatism and logical empiricism. For instance, in opposition to the orthodoxy of logical empiricism, for which metaphysics was meaningless, Frank claimed that the Vienna Circle shared the opinion of the pragmatists that metaphysics is meaningful—provided it is correctly interpreted: the salient point for him is that "metaphysical propositions about the physical universe

are actually meaningful propositions about human behavior. In other words, they are propositions of sociology" (p. 271). In sum, according to Frank, "The [Vienna] circle's 'scientific world conception' (*wissenschaftliche Weltauffassung*) agrees basically with [Auguste] Comte's positive philosophy, it agrees with the great Immanuel Kant" (p. 272). On the other hand, Frank's ecumenical stance was no obstacle to him making the explicitly anti-Carnapian assertion that our understanding of science cannot stop with logical and semantic analyses. As Frank emphasized, we must also adopt a pragmatist point of view that understands science as a human enterprise by which man tries to adapt himself to the external world. Even if one takes into account that HBS was not written for professional philosophers of science but intended to reach a wider readership, these sorts of sweeping claims (to be found quite often in HBS) are difficult to swallow. In particular, it is far from clear how Frank's self-described "pragmatist logical empiricism" is essentially equivalent with hard-boiled Carnapian nonpragmatist logical empiricism.

Not all authors who intended to steer a middle course between logical empiricism and pragmatism subscribed to the simplified versions of logical empiricism and pragmatism that characterize Frank's approach. An example is Frank's philosophical colleague and friend Ernest Nagel (treated in some detail in HBS). As far as maintaining rather plausible philosophical distinctions, Nagel's contextual naturalism scores much better than Frank's HBS. As Nagel pointed out in his Dewey Lectures of 1979, much of the animus of the then-new (historicist) orientation in the philosophy of science was rightly directed against some representatives of the "old (logical empiricist) philosophy of science" such as Carnap. These criticisms were, however, "nothing but caricatures of most of the older authors such as Peirce, Dewey, and even logical empiricists like Richard von Mises and Frank."<sup>[2]</sup> In other words, Nagel subscribed to distinctions that Frank in HBS (and

earlier works) preferred to play down in a rather cavalier manner for some reason or other.

Today, Rudolf Carnap's *Der Logische Aufbau der Welt* (1928), Pierre Duhem's *The Aim and Structure of a Physical Theory* (1906), or Ernst Cassirer's *Substance and Function* (1910) are accepted as classics of philosophy of science that deserve to be read by every philosopher of science despite the fact that the perspective of modern contemporary philosophy of science has changed fundamentally compared with that of these authors. It remains to be seen whether Frank's HBS will achieve a similar status.

The editors of HBS vigorously plead for Frank to be recognized as a precursor of a modern prag-

matist logical empiricist philosophy of science that overcomes the logical bias of Carnapian logical empiricism. Certainly, in this respect Reisch and Tuboly have performed a truly excellent job, even if I am not quite sure they will persuade the more skeptical readers. In any case, HBS deserves to be read by everybody who is interested in contemporary philosophy of science and its history.

#### Notes

[1]. Hilary Putnam, review of Philipp Frank's *Philosophy of Science*, *Science* 127 (1958): 750.

[2]. Ernest Nagel, *Teleology Revisited and Other Essays in the Philosophy and History of Science* (New York: Columbia University Press, 1979), 3.

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