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PHILIPP FRANK AT HARVARD UNIVERSITY: HIS WORK
AND HIS INFLUENCE

ABSTRACT. The physicist–philosopher Philipp Frank’s work and influence, especially during his last three decades, when he found a refuge and a position in America, deserve more discussion than has been the case so far. In what follows, I hope I may call him Philipp – having been first a graduate student in one of his courses at Harvard University, then his teaching assistant sharing his offices, then for many years his colleague and friend in the same Physics Department, and finally, doing research on his archival holdings kept at Harvard. I also should not hide my large personal debt to him, for without his recommendation in the 1950s to the Albert Einstein Estate, I would not have received its warm welcome and its permission, as the first one to do historical research in the treasure trove of unpublished letters and manuscripts, thus starting me on a major part of my career in the history of science.

Philipp’s work may be thought to have had a different main focus during each of these successive phases: while he was in his native city, Vienna, until 1912, in Prague to 1938, and finally in America to 1966. But one can also find throughout continuing developments of Philipp’s deeply motivating intellectual ambition. As we know from his partly autobiographical account, that ambition started in a seemingly accidental way, when around 1907, as a 23-year-old with his brand new physics doctorate, as he put it, “mostly from Boltzmann,” he began to meet in Vienna with other young men, including Hans Hahn and Otto Neurath, where they discussed a wide range of problems – in science, philosophy, politics, history and religion. A key event was reading and discussing Abel Rey’s new book, La Théorie de la Physique chez les Physiciens contemporains (1907). I shall return to this point, because in terms of intellectual history, reading Rey’s book at that time had important consequences.

While the philosophy of science was a strong interest of Philipp at that time, it still was for him on the sideline compared with his many publications on physics and mathematics. Between 1908 and 1912, while in Vienna, Philipp published 15 papers, most of
them solid ones on relativity theory, at a time when very few (e.g., Max von Laue and Paul Ehrenfest) had been major contributors in that field.

In Philipp’s second phase, the one in Prague, the mixture of his interests continued, but philosophy of science took more of the center stage as time went on. In the last phase, after his arrival in the United States, despite initial severe handicaps as we shall see, his work flourished almost extravagantly into a multitude of activities and organizations on behalf of his worldview, at a scale even more expansive than in the earlier decades. Thus I see my task to sketch briefly some of the underlying continuities in Philipp’s development, and the final achievements of his mature intellectual agenda.

1. ARRIVAL IN THE USA

Coming from Prague via a conference in England, Philipp arrived in the United States in October 1938, only two years after the Austrian government had forced the Vienna Circle to close. He came to give invited lectures at over 20 colleges and universities, a tour to last until late December 1938, after which (as he wrote in a letter of 19 August 1938) he would “be back in Prague for good.” Now in his mid-fifties, he was received in the U.S. as a distinguished and admired exemplar of the Central European intellectuals and scholars, like many who had already made the U.S. aware of those treasures. After all, Philipp was the Director of the Institute for Theoretical Physics at Prague University; he had been Einstein’s successor there since 1912, at Einstein’s own recommendation. As scientist-philosopher, Philipp was a link in the charismatic chain from Mach to Poincaré to Boltzmann; and not least, the Frank–Mises volumes on differential and integral equations had been for many years the text on the subject for physicists in the U.S.

Moreover, the earlier visits to the United States by Hermann Feigel and Moritz Schlick had prepared the ground for audiences there for Philipp’s philosophical message; and in any case many in America were already sympathetic to Philipp’s ideas, having their own, native series of distinguished positivists and pragmatists of various sorts, such as Johann Stallo, William James, C. S. Peirce, John Dewey, and P. W. Bridgman. Many American scientists and philosophers had also read Ernst Mach, in part because thanks to Paul Carus a large fraction of Mach’s work was published early in