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ERNST MACH, GEORGE SARTON, AND THE UNITY OF SCIENCE MOVEMENT – A CASE STUDY IN HISTORY AND PHILOSOPHY OF SCIENCE

During his study years in Ghent the young scientist George Sarton has read Ernst Mach's main books like *Mechanics*, *Popular Scientific Lectures*, and *Knowledge and Error* with a strong appreciation, which continued after his emigration to the US in 1915 till the end of his life. Both scholars shared the historical-genetic perspective in the sciences and preferred the evolutionary approach in the emerging interdisciplinary field of history and philosophy of science, accompanied by a similar skepticism towards academic philosophy. A common theoretical frame can be identified with the complex concepts of "positivism", "conventionalism", and "pragmatism" aiming at a unity of the sciences as a regulative principle and research program.

This idea was revived and further developed in the 1930s by the Vienna Circle of Logical Empiricism in exile after 1934. This enterprise was mainly organized by Otto Neurath, together with Rudolf Carnap, Philipp Frank, Charles Morris and others with six "International Congresses for the Unity of Science" (1935-41) and with the unfinished huge publication project *International Encyclopedia of Unified Science* since 1938 in the tradition of the French encyclopedists and European Enlightenment. Sarton was invited to contribute a monograph on the history of science, which did not work out because of his work load. But despite his commitments and own ambitious projects he supported the Unity of Science movement, both as a speaker at the 5th Congress in Harvard and as editor of *Isis*. In parallel, he met and corresponded with most of the proponents of the former Vienna Circle.

The talk will explore this hardly known communication between two related scientific movements and analyze their common fate as mainly incomplete and unfinished projects in the Cold War period. Finally, some reasons for their relative decline in the postmodern age are sketched.

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