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B. Hessen: System Thinking or Vulgar Sociology?  
*The Main Ideas of B. Hessen's Paper within the Context of Russian Philosophy*<sup>1</sup>

In his 1931 paper "The Social and Economic Roots of Newton's 'Principia'," Russian physicist and philosopher Boris Hessen gave voice to the Marxist point of view on the genesis of modern science. In spite of the fact that this point of view had been officially recognized in Hessen's home country, where Marxism had become a state ideology, the main ideas of his paper had very little, if any, influence on the development of Russian (Soviet) history and philosophy of science. In the Soviet Union, history and philosophy of science were developed mainly within an internalist framework. At first, Russian studies of science for the most part followed the methods of empirical sciences and, therefore, demonstrated a commitment to the methodology of positivism. Later, in the 1970s and 1980s, some of the studies gravitated toward the post-positivist approaches of T. Kuhn and A. Koyré. Most of these studies, however, considered technological, and socioeconomic factors to be of little relevance to the genesis of science. As a result, Hessen's ideas could find their place neither within the positivist nor within the post-positivist explanatory models used in Russian historical and philosophical studies of science. This only started to change at the beginning of the 1990s, in the post-Soviet era. Gradually, within a new intellectual climate, interest in Hessen's ideas began to grow.

The strange phenomenon that saw Hessen's ideas been almost totally ignored in his home country during Soviet times, while those ideas (and externalism as a whole) were having a wider effect on Western studies of science, has recently attracted both attention and discussion. Valentin Bazhanov explains this phenomenon by pointing to the Soviet political system that was repressive toward all dissenters. This system forced scholars in science studies to concentrate on solving narrowly factual, "technical" problems and avoid large-scale philosophical generalizations (aside from orthodox and empty clichés) that could provoke polemics and even more risky interpretations. Igor Kaufman also provides an explanation for the phenomenon, stating that Soviet scholars were isolated from the Western humanities and, consequently, from actual "disciplinary conflicts and revisionist debates" that Western studies of science have gone through.

However, these explanations are only half true. The question can also be formulated in internalist terms: what kind of ideas and concepts did the Soviet history and philosophy of science need in order to be receptive to Hessen's thesis?

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