
When Our Way of Knowing Matters

Rarely do you come across a book about science where the central focus is the process of knowing itself. Such is Peter Heusser's *Anthroposophy and Science* (Frankfurt: Peter Lang, 2016, 368 pages). Heusser is a professor of medicine at Witten/Herdecke University in Germany and head of its Institute for Integrative Medicine.

The book offers a careful, critical, and step-by-step look at how we come to know about the world through science. Heusser urges scientists and medical professionals to take seriously, as a fundamental part of science, the insights gained through such reflection. Often the fundamental questions of knowing are looked upon by scientists as part of "philosophy," and these questions are ignored in the day-to-day doing of science. But this is an illusion. Every scientific endeavor presupposes or embodies a way of knowing as well as ideas about the nature of reality and what it means to understand or explain something. You can't get away from the need for philosophical self-reflection, even if it is often ignored.

Heusser has immersed himself deeply in the understanding of scientific knowledge as it was practiced and described by Goethe in his scientific writings and then further elucidated by Rudolf Steiner. Steiner in turn developed a practice of scientific knowing that became the foundation for what he later called "spiritual science" or "anthroposophy." This is an empirical, experience-based approach that gives careful attention to forming

scientific ideas in close connection with the phenomena being observed. Heusser speaks of "objective empirical idealism."

On the one hand, Heusser wants to show the rigor, clarity, and fruitfulness of the Goethean-Steinerian approach. On the other hand, he considers at great length this approach within the context of contemporary science.

The book provides a rich picture of the variety of scientific views of the past hundred years and of the striving to understand the world in ever more adequate ways. For example, mainstream biology is still today dominated by the drive to reduce all life processes to molecular, cause-and-effect occurrences (see Steve Talbott's article in this issue of *In Context*). Heusser shows again and again the shortcomings of this perspective. These shortcomings reveal themselves both in the prevailing theoretical framework and in the plethora of actual phenomena that are being discovered every day in labs around the world. Inasmuch as researchers become more interested in the actual phenomena than in their theoretical biases, they begin to break through to ideas of life that are more faithful to the processes and organisms themselves. Then concepts such as "self-organization" or "autopoiesis" arise, which point to the agency-character of all life.

This book is challenging and not an easy read. You have to commit yourself to reading slowly and thinking along with the author. But the effort is worth it. *CH*