

IN THIS SECTION:

While nimbly leading us into deep waters of knowledge-theory and culture war, Walter Alexander also shows how to write about the serious stuff for other readers.

Dan Mackenzie values the gifts of Lisa Romero and explores with us her deep, practical approach to “sex education and the spirit.”

Poetry wants real emotion, and loss provides it. Jonathan Stedall shares how he became a poet after the death of his wife; the poems show both feeling and a lifetime of paying attention to life.

We're grateful to our reviewers, but we haven't space to review even a small fraction of what is coming available. “Book Notes” is a way of drawing attention to the important work of authors who are engaging humanity with consciousness.

Anthroposophy, Quantum Physics, & Holistic Medicine's Epistemology Crisis

Book Review: Peter Heusser, MD. *Anthroposophy and Science (An Introduction)*, Peter Lang GmbH, 2016 English edition, translated by Lynda Hepburn. Review first published in *Holistic Primary Care* (holisticprimarycare.net)

by Walter Alexander

Reviewer's note: The following article appeared in March 2017 in *Holistic Primary Care*, an online/print publication that goes to 100,000 physicians nationwide. For a freelance medical writer like myself, the constellation of tasks includes pitching story ideas over the phone to publication managing editors. You generally have a minute to three at best to convey why any particular story idea will grab their readers' attention and hold it. In this case, pitching a review of Peter Heusser's *Anthroposophy and Science (An Introduction)* represented a steep challenge. I knew that the editor was philosophically inclined to take the subject seriously, but I knew also that his readers, holistic practitioners scrambling to keep their practices viable in the face of hostile corporate forces, were likely to turn pale at the mere whisper of the word “epistemology.” So I put down my head and ran straight at it. The first few pages of the article outline the gist of the case I laid out. I am grateful to the editor for listening. It took more than three minutes.

The grave relevance of the themes in Heusser's book does not stop short at the doorstep of medical professionals. Everyone is affected when the prevailing scientific view of body-mind-health relations is permeated by materialism and treatment of disease takes place under the deep shadow of a monetized medical industry. My own book project, *Hearts and Minds: how we nearly lost them*, targets a larger audience and will show the interconnected threads that led us to a fully mechanical model of the physical heart and the brain/mind. It also describes emerging scientific evidence for a more nuanced, human-centered perspective on these core organs, exploring several anthroposophical themes in the process. Please visit my website (www.wawrite.com) and click on the *Hearts and Minds book project* tab for more details. —WA

Why would someone with a busy holistic practice pause to read a book with an arcane title such as *Anthroposophy and Science*, and pages overflowing with—get ready—*epistemology*? You'd first have to recognize that holistic medicine *has*

an epistemology problem. Which it does. And this is not an academic matter—it has very real, practical implications for practitioners and patients alike.

In its simplest definition, epistemology is concerned with the origins, nature, and limitations of knowledge. In short, it's about how we know what we think we know. When it comes to many facets of holistic medicine, this is not such a simple question.

The epistemology crisis came to light last November, when the Federal Trade Commission (FTC) announced plans to hold homeopathic products to the same standards of scientific evidence as other products (ie. pharmaceuticals) making similar claims.

The FTC contends that for the vast majority of OTC homeopaths, “the case for efficacy is based solely on traditional homeopathic theories [from the 1700s] and there are no valid studies using current scientific methods showing the product's efficacy.”

The latter clause echoes a statement on the National Center for Complementary and Integrative Health (NCCIH) website saying that there is little evidence to support homeopathy as an effective



tive treatment for any specific condition.

Neither the FTC nor the NCCIH mentions the 2011 Swiss Health Technology Assessment (HTA) report outlining 20 of 22 systematic reviews favoring homeopathy, and the 24 out of 29 studies showing strong evidence for effectiveness in treatment of upper respiratory tract infection and allergic reactions.

The Swiss HTA report specifically discredited an earlier disparaging report in *The Lancet* (Shang A, et al. *Lancet*. 2005; 366 (9487): 726-732), and concluded that homeopathy, as practiced in Switzerland, is effective, safe and cost-effective, and led the Swiss government to include homeopathy on the list of services covered by the Swiss statutory health insurance scheme after a five-year trial period that began in 2012.

If the NCCIH takes a dim view on homeopathy, it is only slightly more accepting of Ayurveda. The NCCIH's website includes the statement: "Do not use Ayurvedic medicine to replace conventional care." This might as well be generalized to most if not all Asian medical systems and practices (Chinese medicine, acupuncture, osteopathy, chiropractic, yoga, tai chi, chi-gong, etc).

These are the very things that NICCH is supposed to study. Since these forms of medicine generally involve non-patentable products and procedures, few other entities outside government institutions have the incentive or resources to undertake meaningful studies.

An Unreimbursed Netherworld

But, given the high price tag for trials, the anemic funding for institutes like NICCH, and a new administration that's not likely to prioritize research on unpatentable medical alternatives, these modalities will not likely get any serious research attention in the future, and will remain forever marginalized.

Practitioners of these modalities are then relegated to a weakly reimbursable netherworld at the margins of healthcare—tolerated but always at the whim of capricious, overzealous watchdogs.

Mainstream medicine has a particular animus toward homeopathy, largely because its purported mechanism seems implausible to a reductionist science that demands that all explanations of biological life—and ultimately of psychic life—be reduced to chemical reactions found in inert matter.

Francis Crick, of double-helix fame, summed it up in 1994: "You... are in fact no more than the behaviors of a vast assembly of nerve cells and their associated mol-

ecules...you're nothing but a pack of neurons." (Francis Crick. *The Astonishing Hypothesis. The Scientific Search for the Soul*. Simon & Schuster Ltd. London)

This view is hardly "holistic"; it is "part-istic"—or as we call it, *reductionist*: a view of life as assembled from below up. More and more, the reductionist model is being contradicted from many quarters, from quantum physics to open systems biology. Those atoms, those bits of indivisible hard stuff, *ain't what they used to be*. Current physics tells us that the "building blocks" with extension¹ in space (protons, neutrons) turn out to be made of sub-particles (up-quarks and down-quarks) *without* extension in space. The Cartesian² world we all find so comfortable to imagine has been carried off in a flood beneath the bridge.

An October 2015 article by John Markoff in the *The New York Times* underscored this shift. The piece detailed a Delft University experiment providing "the strongest evidence yet" to support *the collapse of the wave function* and the notion that "matter does not take form until it is observed [or measured]."

Markoff goes on to say that particles can "exist simultaneously in two or more places. Once measured, however, they snap into a more classical reality, existing in only one place." Despite vast distances between them, two particles can be "entangled" in a manner such that they can instantaneously influence each other.

An Emergent World

The kickers here are twofold: first, our Cartesian world of sense is precipitated from an interconnected world of greater *but not yet manifest* possibility, and second, the precipitant is our own consciousness.

This represents a 180-degree turn away from Crick's "pack of neurons" picture. It suggests a choice: we can continue to assert a science that holds human understanding and consciousness to be an essentially irrelevant froth, an exudate of invisible molecular processes, or we can embrace a science that recognizes them as an evolving sense organ integral to the actual progress of the cosmos.

This latter choice doesn't abnegate the molecular processes, but it does expand the frame of our thinking to allow that causation may be rooted in something beyond the molecules. This is the threshold of holistic medicine's epistemological crisis, and it's where a seemingly esoteric book like Heusser's *Anthroposophy and Science* becomes relevant.

1 "Extension" here refers to occupying width, depth, and height. —Editor

2 René Descartes in the 1600s popularized the use of a two- or three-dimensional grid to map space, thus opening it to mathematical analysis.—Ed.

Heusser who is director of the Centre for Integrative Medicine at the University of Witten/Herdecke, Germany, is one of the world's leading scholars of anthroposophic medicine in its theoretical aspects as well as its clinical application.

In the book, Heusser clearly states that matter is not exactly “made up of parts.” Rather, the things we see as parts, when chemically combined, become “sublated” or submerged into a new whole. From this viewpoint, water is an emergent phenomenon that is *as elementary as hydrogen or oxygen*.

While hydrogen and oxygen are conditionally *necessary* for water, they are *not causal*, and once combined as water, they lose the individual qualities of hydrogen and oxygen. Moreover, the qualities and behaviors of water cannot be predicted from the qualities of oxygen and hydrogen taken by themselves.

“For every *quantum*,” Heusser writes, “there is a *quale*”—a perceived quality that is as essential as any part that is mathematically quantifiable. This aspect of *emergence of new entities that are as primary as the components associated with their arising* applies upward *from cell to tissue, from tissue to organ, from organ to organism and to individualized being*. At each level “all of these have their laws,” Dr. Heusser states. A medical science that works with these laws, he recognizes, needs rigor and discipline every bit as much as a science that restricts itself to the mathematical and statistical.

Dr. Heusser explores in detail the problems inherent to clinical trials of integrative modalities such as homeopathy. Truly treating the whole patient, he asserts, calls for a still objective but “cognition-based medicine” that encompasses the realities and subtleties of the individual patient as well as the elements revealed through an “evidence-based medicine.”

One of the unexpected and somewhat unwelcome children of post-quantum physics is the recognition that we, the world, and our cognition of it, are intimately and causally linked.

That is a lot to take in. In a sense it is a reversal of an intellectual and scientific movement that began in the 1600s with Francis Bacon's experimental inductive methods and the attempt to exclude subjectivity from science. This movement gained momentum with John Locke's emphasis on the primary sensory qualities of outer things. In short, the history of Western medical science has been governed by the belief that the quantitative is inherently more valid than the qualitative.

As Heusser clearly explains, modern physics is upending this long-standing invalidation of the qualitative. It urges medical science to take an evolutionary step and turn much more of its vast powers toward truly investigating “holism,” the reality of organisms, their identities, and their interrelated systems as they affect health, illness, and healing.

Anthroposophy and Science (An Introduction) surveys the development of the western understanding of knowledge as it has informed science and medicine.

Rudolf Steiner (1861-1925), anthroposophy's founder, was trained as a scientist, and allowed only qualified MDs into his medical courses. Steiner asked always for disciplined observation and verification. On that foundation, he wished medical professionals to expand their understanding and perceptual capacities, and as clinicians to adopt a holistic and more nuanced view of factors affecting health, illness, and healing.

Peter Heusser's narrative is thorough, clear, sometimes challenging, and often thrilling in its syntheses. As complementary/integrative practices step further out of the shadows, practitioners will be called upon increasingly to represent what they do in the face of both honest inquiry and fierce antagonism. *Anthroposophy and Science (An Introduction)* offers bedrock support.

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