

THE 10TH ARTHUR S. IBERALL MEMORIAL LIFE AND THE SCIENCES OF COMPLEXITY

DECEMBER 7, 2012 ☞ UNIVERSITY OF CONNECTICUT ☞ BOUSFIELD PSYCHOLOGY BUILDING, RM 160

This 10th memorial features a poetry performance at 3:00 by Dr. Thea Iberall (poet, playwright, and scientist) followed by a lecture at 4:00 by Michael T. Turvey (Distinguished Professor Emeritus, University of Connecticut).

CONTEXT: POETRY FOR SCIENTISTS

Thea Iberall

We live in a complex world that is getting more and more specialized. Should only scientists have thoughts on the 2nd law of thermodynamics? How can poets participate in a quest for wisdom and provide insights into human life against a backdrop of history and science? And how can scientists learn to appreciate the language of poetry when their thoughts are focused on their equations? People forget that Erasmus Darwin (grandfather of Charles Darwin) was a physician, inventor, and the leading poet of his day. He would intersperse his poems with essays, figures, and scientific theories. Today, Thea Iberall does the same, integrating the knowledge of science and history with the language of poetry.

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A THEORY OF PERCEPTION-ACTION FOR ALL ORGANISMS: WHAT KIND OF SCIENCE DOES IT ENTAIL?

Michael T. Turvey

I will highlight the argument that the requisite theory of perception-action should apply to all organisms, the 96 phyla that comprise the Five Kingdoms—Bacteria, Protocista, Fungi, Plantae, and Animalia. The major barrier to implementing such a theory is the traditional incommensurability of psychology, biology, and physics. The incommensurability encourages taking “loans of intelligence” to explain perception-action, invites a division of living things along the lines of human vs. nonhuman, and deters seeking explanation from first principles. A science founded on commensurability is required. I will discuss some of its challenges.



ARTHUR S. IBERALL DISTINGUISHED LECTURE SERIES

Dedicated to the exploration of connections between physical processes and their manifestations in nature, life, humankind, mind, and society. The series honors the physicist, **Arthur S. Iberall** (1918-2002), whose intellectual legacy includes homeo-kinetics, a method of applying the laws of thermodynamics to all self-organizing systems. His applied research contributed significantly to the development of the first space suit, the high-speed dental drill, stove surface burners, the fancy-stitch sewing machine, and the electric knife.



Thea Iberall is an award-winning poet, storyteller, ghostwriter, editor, playwright, and scientist. She has a Ph.D. in neuroscience (UMass) and an MA in writing (USC). She has been published in *The Southern California Anthology*, *Spillway*, *poeticdiversity*, and numerous other journals. She is the editor of *The Hummingbird Review*. In 2001, Thea began exploring how to combine her scientific training with her love of language and she developed a new art form called contextual poetry. Her first collection of contextual poetry is *The Sanctuary of Artemis: A Collection of Contextual Poems*.



M. T. Turvey ranks among the world's most accomplished research scientists in the field of psychology. He is widely known for his pioneering work in the ecological approach to perception (focusing on laws and principles at the scale of organisms and their environments) and in applying dynamical systems theory to the coordination and control of movement. Dr. Turvey has been the recipient of many awards and honors, including Guggenheim and Cattell Fellowships, the Early Career Award from the American Psychological Association (APA), Fellow of the Center for Advanced Study in the Behavioral Sciences, APA Distinguished Scientist Lecturer, Glushko-Samuelson Distinguished Cognitive Scientist Award, Honorary Doctorates from Vrije Universiteit (Amsterdam) and Florida Atlantic University, the Bernstein Prize in Motor Control, and the Lifetime Achievement Award from the Society of Experimental Psychologists.