## **LECTURE:**

## **Empirical Neuroaesthetics and the** Brain's "default-mode" Network

#### Edward A. Vessel, PhD

Edward A. Vessel is a research scientist at Max-Planck-Institute for Empirical Aesthetic in Frankfurt, Germany. His main research areas are the neural basis of Aesthetic Experience, Visual Preferences, the Neurobiology of Information Foraging, as well as Brain Imaging Methods. Dr. Vessel and his research group explore network interactions during aesthetic experiences and aesthetic appreciation, studying the brain activities triggered by visual stimuli such as artwork, landscapes, architecture or dance.

https://www.aesthetics.mpg.de

### **Recent articles:**

- Belfi, A. M., Vessel, E. A., Brielmann, A., Isik, A. I., Chatterjee, A., Leder, H., Pelli, D. G., Starr, G. G. (2019). Dynamics of aesthetic experience are reflected in the default-mode network. NeuroImage, 188, 584-597.

- Vessel, E. A., Maurer, N., Denker, A. H., & Starr, G. G. (2018). Stronger shared taste for natural aesthetic domains than for artifacts of human culture. Cognition, 179, 121-131.



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**Research Workshop and Lecture Series** academic year 2019-2020

## THE ARTFULL BRAIN

Examined by The Biology of Mind, Neuroaesthetics, and Semeiotic

## Lecture

## Edward A. VESSEL

(Max Planck Institute, Germany) Empirical Neuroaesthetics and the Brain's "default-mode" Network

## October 28, 2019 | 10:00 a.m.

University Library, Room 307/309

## **Conference information and contact:**

Elize Bisanz, PhD. elize.bisanz@ttu.edu Kenneth L. Ketner, PhD. Kenneth.ketner@ttu.edu www.pragmaticism.net





The Institute for Studies in Pragmaticism is the first and oldest organized center for research on the life and works of American physicist, mathematician, logician and engineer Charles Sanders Peirce (1839-1914), one of the greatest interdisciplinary scientists in history. Founded during the 1971-72 academic year at Texas Tech by Charles S. Hardwick and Kenneth L. Ketner, its mission is to facilitate study of the life and works of Peirce and his continuing influence within interdisciplinary science.

#### www.pragmaticism.net

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#### Institute members:

Elize Bisanz, Scott Cunningham, Clyde Hendrick, Kenneth Laine Ketner, Thomas G. McLaughlin, Michael O'Boyle, Rhonda McDonnell, Karey Perkins.



### BACKGROUND

The field of Brain Studies has advanced to be a leading scientific area for current research. Consider The National Brain Initiative with participation from public federal government agencies, private industry, nonprofit organizations, foundations, colleges, and universities that have the common goal to understand the inner life of the "human mind." These groups also support and coordinate edge research across disciplines to prevent or cure brain disorders. These efforts testify to the urgency of understanding mind, and to the prevailing scientific goal of advancing study of the brain using interdisciplinary methods.



## THE ARTFULL BRAIN

The research conference targets two major fields of brain study from the interdisciplinary perspective of Semeiotic:

a) Neuroaesthetics, a field that pursues questions such as How knowledge of basic brain mechanisms might inform our understanding of aesthetic experiences? and How we might explore the neural processes-mostly experiences that include perception, interpretation, emotion, and action-underlying our appreciation and production of beautiful objects and artwork?

**b)** The second field is the widely discussed Biology of Mind, another emerging research activity across the disciplines of behavioral psychology, cognitive psychology, neuroscience, and molecular biology. It studies the structures of Mind, Brain, Feelings and Consciousness, the Cognitive Architecture of the mind, and the how and why of specific functions.

The convergence between Neuroaesthetics and Biology of Mind within the science of Semeiotic is the primary scientific motivation of the research workshop. A study by the Institute's Interdisciplinary Seminar on Peirce has distinguished between multiple forms of neural relations and connections where Semeiotic was implemented to identify their structural features. Results from the workshop will include targeting questions concerning how different scientific issues such as aesthetic perception or cognitive information processing can be combined for a better understanding of the brain.

## PROGRAM

## University Library | Room 307/309

#### 10:00 a.m. Lecture:

Empirical Neuroaesthetics and the Brain's "default-mode" Network Edward A. Vessel

## 12:00- 1:30 p.m. Lunch break

# 1:30 p.m. - 6:00 p.m. Workshop:

Semeiotic. Exploring Interdisciplinary Research

## Chair: Kenneth L. Ketner, PhD

With the participation of a panel of Institute members, and invited guests.

Semeiotic (developed by C. S. Peirce) is the interdisciplinary scientific theory for objective and experimental study of natural processes that are structured as dialogues. The aim of the workshop is to implement semeiotic as a testable hypothesis, an objective tool, and as a common method to bridge the gap between creative and cognitive processes as they develop from an initial idea to a representational form or model.

The workshop will explore possibilities for application of methodological principles formulated by Charles S. Peirce that might well lead to worthwhile insights into the biology of mind as well as to creative activities of the brain, and by doing so advance a further step towards the common goal of understanding the inner life of the "human mind".