Instructor: Joye Weisel-Barth

This seminar will introduce some contemporary work in neuroscience with the goal of exploring the question “What, if anything, do neuroscience concepts contribute to psychoanalysis?” Do modern theories, including those of Solms, Ramachandran, Kandel, Schore, Palombo, Watkins, Decety, Cacioppo, and more, have anything to offer us as clinicians? Is the reductionism implicit in neurobiological theories fundamentally at odds with the experiential foundations of self psychology, intersubjective theory, and contemporary relational ideas? In short, how do thoughtful people think about the relationship or bridge between psychoanalysis and neuroscience?

The course mirrors the one that John Watkins teaches. It borrows heavily from his broad knowledge and expertise in the field of neuroscience. I will provide some introductory material and then focus on several key concepts: empathy, memory, the self, and affective regulatory functions all from the perspective of brain science. Because the field is so vast, this reading (and watching) list is voluminous. Of course, I hope that you read everything, but do as much as you can.

Objectives:

1. Review historical and contemporary theories bridging psychoanalysis and neuroscience.

2. Review case studies from the published literature and as presented by seminar participants that encompass issues that span both neurobiology and psychoanalysis.

3. Provide a conceptual framework for examining the relevance of psychoanalysis for the treatment of individuals traditionally managed within a neurological or medical framework.

Before the Course Begins:

1) Find and study some good maps of the brain—lots are available online—that include the general anatomy, functional areas, and the specific regions that constitute the emotional and associative brain.

2) Watch some of the wonderful, pertinent online videos that feature preeminent figures in neuroscience and cognitive science. My favorites are V.S. Ramachandran on Brain Functions and Mirror Neurons (2 separate videos) on Ted Talks; Antonio Damasio on Consciousness also on Ted Talks; Mark Solms “What is the mind?” on Vimeo; Gerald Edelman “From Brain Dynamics to Consciousness” on Youtube in which he presents his Theory of Neuronal Group Selection; Eric Kandel “Mapping Memory in the Brain”(1-6) also on Youtube; The Charlie Rose Brain Series, Seasons one and two. And there are lots more that
browsing will reveal (kiss your free time goodbye!).

**Week 1 Introduction: Strategies for Bridging Psychoanalysis and Neuroscience**


Watkins, J. M. (in press). On Aphasia, the Danger Situation, and Contemporary Efforts to Link Psychoanalysis and Neuroscience

Chapter 2: In Watkins, J. M. *Psychoanalysis and the New Sciences of the Brain*


**Week 2: Introduction to Selected Neuroscience Concepts I: The neuron, neurotransmitters, neuronal networks, mirror neuron, and Theory of Mind**


**Week 3: Introduction to Selected Neuroscience Concepts II: Memory**


CO: Roberts.

**Week 4: Solms’ Neuropsychoanalysis: Freud’s Mind and Luria’s Brain**


**Week 5: Schore’s Regulation Theory**


**Week 6: New Neuroscience Applications for Psychoanalysis-Development and Social NeuroscienceGerald Ele**


