Clinical Implications of the Cognitive Neuroscience Revolution

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A revolution in cognitive neuroscience is now transforming our understanding of the human mind. Bringing together Darwin’s theory of the evolution of species with Freud’s theory of the development of the mind, the data and theories it has generated would not surprise either theorist. Central to both theories is an appreciation of diversity and change and an understanding of the continuity between culture and nature. Post-Skinnerian psychology now not only embraces unconscious processes but accepts that most mental activity occurs out of conscious awareness. Post-psychiatric psychoanalysis now not only recognizes the clinical implications of psychological research but also embraces a future of collaborative endeavors.

This course explores the interrelationships between psychoanalysis and the psychological sciences, focusing particularly on neuroscience and cognitive science but also discussing aspects of social psychology, evolutionary psychology, learning theory, and developmental psychology. The clinical implications of contemporary psychological research will be our focus. Some of the issues we will discuss include: How is neuroscience relevant to psychoanalysis and psychotherapy? What do we connect (in the brain) when we make interpretive connections? In what ways does trauma change the brain and how can psychotherapy help deal with those changes? How does understanding a person’s biological temperament help us make more useful psychological interventions? What are the analogs between infant development and change in psychotherapy? Why are we so bad at telling truth from fiction? How can primate research help us better understand our human patients?


We will address the topics listed below. Each topic corresponds to a chapter or two in the text. We will also select from the optional readings which will be updated to reflect recent research.

Topics and readings (chapters refer to the text):

1. **Why Theory Matters (Class 1)**
   - Chapter 1 - Reading Minds
   - Chapter 2 - Rock, Paper, Scissors: It Pays to Have a Theory of Mind
   - Optional:
2. **Introduction to Neuroscience and the Basics of Brain Scans – fMRI and PET (Class 2-4)**

Chapter 3 - What the Brain Tells Us About the Mind


3. **Trauma: How Events Shape the Brain and the Mind (Class 5-7)**

Chapter 4 – Trauma: How Events Shape the Brain and the Mind


4. **Social Cognition: How We Know the Other (Class 8-9)**

Chapter 5 – Ways of Understanding


Optional:


5. The Problem of Deception (Class 10-11)

Chapter 7 – Look Me in the Eye


Optional:


6. **Bad Feelings: Contemporary Theories of Affect (Class 12-13)**

Chapter 6 – Bad Feelings


7. **Some Fallacies about Mental Illness and Medication (Class 14)**

Chapter 8 – Intimate Relationships


Optional:


8. **Selected additional topics (Class 15)**

Chapter 9 – Why We Don’t Know What We Know