CL 732, Disorder of Adulthood II:  
The relevance of neuroscience to clinical practice

Fall 2009

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Goals

1. To familiarize students with the emerging knowledge in the neurosciences;
2. To discuss the relevance of this body of knowledge for theories of development, psychopathology, and treatment; and
3. To delineate the major controversies this new paradigm raises.

Objectives

1. To examine the problems inherent in attempting to integrate two disparate disciplines;
2. To reconceptualized the nature and dynamics of some types of psychopathology;
3. To discuss the implications for treatment interventions
   The distinction between diseases of “brain” and “mind,” between “neurological” problems and “psychological” or “psychiatric” ones, is an unfortunate cultural inheritance that permeates society and medicine. It reflects a basic ignorance of the relation between brain and mind (Damasio, 1994, p. 40).

Assignments

Following a long tradition, at the beginning of each class, following the first one, members of the class will take turn summarizing the content and discussion of the previous class. This summary cannot be longer than 10 minutes. If the class has more than seven members, some of you may choose a partner with whom to share in the presentation.

Since this will be a difficult class for many of you, you may do one of the following to fulfill the written requirements for the course:

1. Submit your class notes, clearly written out and properly formatted, with comments on what has helped you and what you found difficult about every class.

2. Submit, by mid-term, a one page proposal of a topic on which you would like to write a 15 page paper. I will review the proposal and discuss it with you.

This paper is due on the last day of class for the semester, Saturday, January 26, 2010.

This bibliography is provided for reference and further study.
Course outline and reading list

Class 1. Introduction: The relevance of neuroscience to clinical practice

a. DSM & PDM


b. Freud’s project revisited


c. Kandel’s proposal


d. The Paradigm: A Neuropsychodynamic Perspective

   i. Evolutionary perspective


   ii. Systems approach


Development

Class 2. Of brains and selves: The making of minds

a. The Brain and its functions

   i. Brain development: Interaction between endowment
and environment

ii. Brain anatomy: The hemispheres, the four lobes, and the limbic system


iii. The neuron: neurotransmitters, neuronal networks, mirror neuron, Imitation, Theory of Mind, and empathy


b. The sense of self: The self as an embodied person

i. The sense of self cohesion: The context, social communication, Mindsharing, Theory of Mind, Emotional communication

ii. Coherent self-narratives: Personal and shared meanings, Central coherence, Relevance Theory


Siegel, D. J. (1999). The developing mind: Toward a neurobiology of interpersonal experience. NY: Guilford Press. [Very popular, very readable, and informative book]


Psychopathology: Disorders of the self

Class 3. Neurons, neurotransmitters, and neurobehavioral disorders

a. Depression and the neurotransmitter system, demoralization and
depletion states


b. Schizophrenia

Class 4. Hemispheric specialization and social communication

a. Left hemisphere: Language-based disorders, i.e., dyslexia


b. Right hemisphere: Disorders of social interaction: i.e., nonverbal learning disabilities


Class 5. The Frontal Lobe: Attention and self-regulation

a. ADHD and Executive Function Disorders: Inhibition and working memory


b. Attachment disorders: Mutual regulation, self regulation and the orbitofrontal regions

i. Secure attachments

ii. Insecure avoidant attachments

iii. Insecure ambivalent attachments

iv. Disorganized/disoriented attachments

Class 6. The Limbic System: Emotions, anxiety and the memory system

a. Theories of affect and the fear system


b. Panic disorders, Anxiety disorders, phobias, and the amygdala

c. Trauma: PTSD, Bereavement, and the memory system


d. The special case of OCD

The Treatment Process

Class 7. The human dialogue and rewiring the brain I

a. Mindsharing: Empathy and the provision of complementary functions

b. Definition of mindsharing

   i. Empathy

   ii. Complementary functions: Selfobject functions, regulatory functions, and adjunctive functions


c. The psychodynamics associated with brain-based dysfunctions.

d. Psychotherapy as a new form of learning: Implicit relational


Class 8. The human dialogue and rewiring the brain II

a. The transference/countertransference configuration and its three components:

   i. The concordant positions and responses:
   ii. The complementary positions and responses:

(1) Defining transference


(2) Differentiating transference from nontransference
(3) Explanation and interpretation: What is the mutative vehicle for change?
(4) Countertransference

b. The disjunctive positions and responses.