

PT/CP 181 Somatic Factors: The Biology of Mind and Behavior Dr. Goodwin Fall 2014

This class will provide an introduction to our current understanding of the biological basis of human behavior, including its variations and its disorders.

Psychoanalytic understanding and psychoanalytic healing may both be enhanced by knowledge of the physical mechanisms by which mental functions such as perception, emotion, thinking, learning, and purposeful behavior interact with each other and with the body, and the various ways in which these interactions may promote either health or illness.

Learning Objectives:

1. To acquire a basic understanding of the nervous system, biological factors involved in behavior and behavioral disorders, and the range of behavioral capacities and processes in the human organism.
2. To gain a biological understanding of genetic (“nature”) and environmental (“nurture”) contributions to behavior.
3. To become acquainted with the biological perspective on mental health and mental illness, both to enable the intelligent analysis of biologically oriented mental health literature, and to facilitate constructive communication with mental health professionals in disciplines other than psychoanalysis.
4. To appreciate the nature and goals of biological forms of treatment, their effects and side effects (risks vs. benefits).

Course Requirements:

Attendance: Standard BGSP policy applies. Students missing more than two classes will not receive credit for the course. The instructor should be notified *in advance* of any absence.

Logs: A log is required to correspond to every class. Logs may contain any communications a student wishes to make to the instructor. An ideal log contains comments about class assignments, the class process, and the student’s feelings. A log should be written LEGIBLY, or typed, and submitted on a 5x8 index card or equivalent, or by Email to: mgoodwinpsyad@gmail.com

Class Preparation: Each week, students should submit in writing **(1) at least one thing they learned from the principal readings for that week, and (2) one question that they have from any of the readings.** What did you find that was new to you? Did anything surprise you? Did anything particularly interest, excite or inspire you? What would you like to know more about?

Presentations: Each student will prepare and deliver a 15-20 minute presentation on a relevant (pre-approved) topic of their choice. Details of this assignment will be discussed in class.

Examination: There will be a final take-home examination.

Grading: Students who complete all of the course requirements satisfactorily will receive a grade of “pass”.

Readings:

Textbook: Marc Solms and Oliver Turnbull, *The Brain and the Inner World: An Introduction to the Neuroscience of Subjective Experience*, Other Press, New York, 2002

Textbook: Neil Carlson, *Physiology of Behavior* (11th edition), Pearson, 2012

Both these texts can be bought through Amazon.com.
There is also 1 copy of each on reserve in the BGSP library.

Additional Readings include:

Helen Keller, *The Story of My Life*, Grosset and Dunlap, New York, 1904

Jill Bolte Taylor, *My Stroke of Insight*, Penguin, 2009

Students are encouraged to suggest relevant reading material from recent articles or books.
(Our current textbook was originally brought to my attention by a student in the course!)

CLASS TOPICS AND READINGS

1. September 2: Evolution, Adaptation, and the Wisdom of the Body

Carlson pp. 14-22

“10 Unsolved Mysteries of the Brain”, *Discover* magazine, August, 2007:
<http://discovermagazine.com/2007/aug/unsolved-brain-mysteries>

Babies and Dirt:
http://www.nytimes.com/2009/01/27/health/27brod.html?_r=1&em

2. September 16: Brain Anatomy and Physiology

Solms pp. 1-43 (optional: 45-78)

<http://www.psychologytoday.com/articles/201110/your-backup-brain>

3. September 23: Physiology of Homeostasis and Stress

Neurochemistry and Psychopharmacology

Carlson pp. 93-98, 103-110, 127-128, 601-613

Social Status and Stress:

<http://opinionator.blogs.nytimes.com/2013/07/27/status-and-stress/?src=recg>

4. September 30: Consciousness Sensory Awareness

Solms pp. 79-104

Blindsight PDF

Visual Imagination PDF

Echolocation PDF

5. October 14: Instincts and Feelings

Solms pp. 105-137

Loneliness PDF

Thinking Pink PDF

Disgust:

http://www.nytimes.com/2012/01/24/science/disgusts-evolutionary-role-is-irresistible-to-researchers.html?_r=1&hp

6. October 21: Learning and Memory

Solms pp. 139-180

Carlson pp. 598-601

Accuracy of Memory:

<http://discovermagazine.com/2009/jul-aug/03-how-much-of-your-memory-is-true>

7. October 28: Sleep and Dreaming

Solms pp. 181-216

Carlson pp. 288-304 (optional)

Dreams:

<http://www.newscientist.com/article/dn14959>

<http://www.psychologytoday.com/node/34792>

<http://www.psychologytoday.com/articles/200710/dreams-night-school>

8. November 4: Thinking and Language

Solms pp. 239-272

Taylor pp. 36-75
Helen Keller biography PDF
Keller pp. 21-24, 315-316
Taylor video:
[http://www.ted.com/talks/jill bolte taylor s powerful stroke of insight.html](http://www.ted.com/talks/jill_bolte_taylor_s_powerful_stroke_of_insight.html)

9. November 11: Reproduction and Sexuality

Solms pp. 217-239
Smell in mate selection:
<http://www.psychologytoday.com/articles/pto-20071228-000001.xml>
<http://www.psychologytoday.com/articles/201010/the-double-life-women>
<http://www.nytimes.com/2005/05/10/science/10smell.html?scp=1&sq=for%20gay%20men,%20an%20attraction%20to%20a%20different%20kind%20of%20scent&st=cse>
Effects of Testosterone:
http://www.nytimes.com/2011/09/13/health/research/13testosterone.html?_r=1&hp
<http://www.thisamericanlife.org/radio-archives/episode/220/testosterone> (Act 2)

10. November 18: Addictions

Carlson pp. 614-643
Various Addictions:
<http://online.wsj.com/article/SB113382650575214543-search.html?KEYWORDS=this+is+your+brain+at+he+mall&COLLECTION=wsjie/6month>
<http://www.economist.com/node/16056339>
<http://www.economist.com/node/18304258>
<http://nymag.com/news/features/70976/index2.html>

11. December 2: Psychiatric Disorders: Schizophrenia

Carlson pp. 552-568
Hearing Voices website: <http://www.hearingvoicesusa.org>

12. December 9: Psychiatric Disorders: Affective Disorder

Carlson pp.570-582

13. December 16: Anxiety Disorders

Carlson pp. 586-592

Final exams distributed

14. January 6: Autistic Spectrum, Attention Deficit/Hyperactivity Disorders

Carlson pp.593-601

Final exams due

15. January 20: The Talking Cure; Review

Solms pp. 273-289