

ANNOTATED BIBLIOGRAPHY

**“Bridging the Mind/Brain Gap:
Implications For Psychoanalytic Psychotherapy
In the 21st Century”**

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Baxter, L.R., Schwartz, J.M., Bergman, K.S., Szuba, M.P. et al. (1992), Caudate Glucose Metabolic Rate Changes with Both Drug and Behavioral Therapy for Obsessive-Compulsive Disorder. Arch Gen. Psychiatry 49: 681-689

In this landmark positron emission tomography (PET) study, Baxter and his colleagues demonstrated that Prozac and cognitive-behavior therapy were equally effective in reducing metabolic activity in the head of the caudate nucleus and that this reduction was correlated with symptomatic improvement. They postulated a “cortico-striato -thalamic worry loop” mediating OCD symptoms.

This article is important because it is the first time that a psychotherapy intervention was documented to downregulate a brain (subcortical!) structure.

Bleiberg, E., Fonagy, P. and Target, M. (1997), Child Psychoanalysis: Critical Overview and a Proposed Reconsideration. Child Adolesc. Psychiat. Clinics North Am. 6(1): 1-38

Bleiberg and colleagues contend that the central therapeutic feature of child psychoanalysis is to promote the child’s capacity to “mentalize,” rather than the attainment of self-insight.

Blinder, B. J., (1998), Contributions To Enlightening Our Understanding of the Neurobiological Basis of Mental Conflict. APA Commission on Psychotherapy in Psychiatry.

Forum on the Neuroanatomy of Psychotherapy. Presented at APA Annual Meeting, Toronto, June, 1998

Bownds, D. (1999) The Biology of Mind. Bethesda, MD: Fitzgerald Science Press. (Paperback, \$28.50)

Dr. Bownds, a visual perception researcher at the University of Wisconsin, addresses the question of how the mind works from a cognitive neuroscience perspective. This well-written, easily readable textbook for university undergraduates has just been published.

Cooper, A M. (1985), Will Neurobiology Influence Psychoanalysis? Amer. J. Psychiatry 142: 1395-1402

An early but important paper.

Damasio, A. R. (1994), Descartes’ Error: Emotion, Reason and the Human Brain. New York: Grosset Putnam

A neurologist looks at the brain and reaches many of the same conclusions that Freud did at the turn of the century. Damasio believes that rationality is underpinned by emotion and feeling and that reason does not exist as an autonomous system.

Davidson, R.J. and Sutton, S.K. (1995), Affective Neuroscience: The Emergence of a Discipline. Current Opinion in Neurobiology 5: 217-224

Technical but accessible review of brain mechanisms regulating emotion.

Davidson, R.J., Eckman, P., Saron, C.D., Serulis, J.A. et al. (1990), Approach-Withdrawal and Cerebral Asymmetry: Emotional Expression and Brain Physiology I J. Personality Soc. Psychol. 58:330-341

Edelman, G. M. (1992), Bright Air, Brilliant Fire: On the Matter of Mind. New York: Basic Books

A Nobel laureate's revolutionary vision of how the mind originates in the brain. Written from an evolutionary vantage point.

Edelman, G.M. and Tononi, G. (2000), A Universe of Consciousness: How Matter Becomes Imagination. New York: Basic Books

The authors attempt to explain how consciousness arises from a three pound lump of gelatinous tissue. They see consciousness emerging from the complexity of interacting neuronal groups in the brain through a process called "re-entry." Edelman and Tononi strongly challenge the computer metaphor for the brain comparing it instead to a tropical jungle in its biological richness, complexity and unpredictability.

Fosshage, J.L. (2000), The Organizing Function of Dreaming—A Contemporary Psychoanalytic Model. Psychoanal. Dialogues 10(1): 103-117

Fosshage stresses the adaptive function of dreaming: i.e., to develop, maintain and restore psychological organization and affect regulation.

Gabbard, G. O. (1992), Psychodynamic Psychiatry in the "Decade of the Brain." Am. J. Psychiat. 149: 991-998

Gabbard, G. O. (1994), Mind and Brain in Psychiatric Treatment. Bull. Menninger Clinic 58(4): 427-446

Gabbard argues that psychodynamic and neuroscience approaches are essentially compatible in their understanding of psychiatric disorders.

Gazzaniga, M.S. (1998), The Split Brain Revisited. Scientific American 279(5): 50-55

An update on what split brain (severed corpus callosum) preparations tell us about mind/brain relationships. Hemispheric lateralization is unique to homo sapiens: higher apes and monkeys do not demonstrate it. Left brain consciousness far exceeds that of the right hemisphere.

Greenberg, R. and Pearlman, C.A. (1999), The Interpretation of Dreams: A Classic Revisited. Psychoanal. Dialogues 9(6): 749-765

Based on REM studies, the authors contend that dreaming serves an adaptive function of organizing emotionally significant information.

Hartman, E. (1999), Dreams Contextualize Emotion—A New Way of Understanding Dreams and Dream Symbolism. Psychoanal. Dialogues 9(5): 779-788

Hartman nicely describes the huge differences between focused, waking thought and dreaming. He also sees dreaming as essentially adaptive rather than defensive in nature.

Kalin, N.H. (1993), The Neurobiology of Fear. Scientific American 268: 94-107

Kalin and his colleagues examined opiate and benzodiazepine pathways in the prefrontal cortex, the amygdala and the hypothalamus in rhesus monkeys. Their results indicated that opiate-sensitive pathways in the brain control affiliative behaviors (such as “cooing” which restores closeness to mother) whereas the benzodiazepine-sensitive pathways control responses to immediate threats (such as freezing and barking).

Kandel, E. R. (1998), A New Intellectual Framework for Psychiatry. Am. J. Psychiatry 155(4): 457-469

Kandel, E. R. (1999), Biology and the Future of Psychoanalysis: A New Intellectual Framework for Psychiatry Revisited. Am. J. Psychiatry 156(4): 505-524

Kandel proposes a framework derived from current biological thinking about the relationship of mind to brain. He believes psychoanalysis will be enriched by neuroscience research.

Ledoux, J. (1996), The Emotional Brain: The Mysterious Underpinnings of Emotional Life. New York: Touchstone.

Very readable introductory text to the new field of affective neuroscience.

Lewis, J. M. (1998), For Better or Worse: Interpersonal Relationships and Individual Outcome, Am. J. Psychiatry 155(5): 582-589

Lewis discusses the relationship of intense affective bonds with significant others to individual psychological and physiological outcomes in this recent review article.

Maguire, E.A., Gadian, D.G., Johnsrude, I.S., Good, C.D. et al. (2000), Navigation-Related Structural Change in the Hippocampus of Taxi Drivers. Proc. Natl. Acad. Science 97(8): 4398-4403

The famous London Cabbie Study. The posterior hippocampus was much larger in taxi drivers, who have extensive navigational experience, than in controls. Strong evidence that life experience, even in adulthood, leads to structural brain changes.

Olds, D. And Cooper, A. N. (1997), Dialogue with Other Sciences: Opportunities for Mutual Gain. Int. J. Psycho-Anal. 78: 219-225

The dialogue is between psychoanalysis and neuroscience.

Ornstein, R. (1991), The Evolution of Human Consciousness: Of Darwin, Freud and Cranial Fire—The Origins of the Way We Think. New York: Prentice Hall

Written for the lay audience in a delightful, well illustrated style. Ornstein draws heavily from evolutionary science to explain the modularity of the human brain. An easy and very rewarding read.

Palley, R. (1997), I. How Brain Development is Shaped by Genetic and Environmental Factors. Int. J. Psycho. Anal. 78: 587-593

Palley R. (1997), II. How the Brain Actively Constructs Perceptions. Int. J. Psycho-Anal. 78: 1021-1030

Palley, R. (1997), Memory: Brain Systems that Link Past, Present and Future. Int. J. Psycho-Anal. 78: 1223-1234

Palley, R. (1998), Emotional Processing: The Mind-Body Connection. Int. J. Psycho-Anal. 79: 349-362

Palley, R. (1998), Bilaterality: Hemispheric Specialization and Integration. Int. J. Psycho-Anal. 79: 565-578

Palley, R. and Olds, D. (1998), Consciousness: A Neuroscience Perspective. Int. J. Psycho-Anal. 79: 979-989

Pally's six recent articles are an excellent, very readable introduction relating neuroscience to modern psychoanalytic concepts. Highly recommended!

Peterson, B. (1997), Neuroimaging. Child and Adolescent Psychiatric Clinics. 6(2), April.

This volume, edited by Dr. Peterson, is a state-of-the-art update of neuroimaging in child psychiatry.

Pinker, S. (1997), How the Mind Works. New York: Norton

In contrast to Edelman (who sees the brain as a complex, ever-changing jungle), Pinker views the brain/mind as a computational system.

Quartz, S. R. and Sejnowski, T. J. (1997), The Neural Basis of Cognitive Development: A Constructivist Manifesto. Behavioral and Brain Sciences 20: 537-596

The authors assert that the representational features of the cortex are built from the interaction between neural growth mechanisms and environmental input. This interaction is a flexible type of learning that minimizes the need for cortical "prespecification."

Ramachandran, V.S., Levi, L. Stone, L., Rogers-Ramachandran, D. et al (1996), Illusion of Body Image: What They Reveal About Human Nature. In: The Mind-Brain Continuum, Cambridge, MA: MIT Press, pp. 29-60

Reiser, M. F. (1984), Mind, Brain, Body: Towards a Convergence of Psychoanalysis and Neurobiology, New York: Basic Books

Excellent review of the relationship between life experience, memory, defense mechanisms and neurohumoral/autonomic nervous system (physiochemical) responses. Readable too! Synthetic and thought-provoking.

Restak, R. (1995), Brainscapes. New York: Hyperion

An elementary and brief introduction “to what neuroscience has learned about the structure, function and abilities of the brain.” A good “starter” reading.

Schore, A. (1994), Affect, Regulation and the Origin of the Self: The Neurobiology of Emotional Development. Hillsdale, N. J.: Lawrence Erlbaum

Schore relates early attachment experience to the “soft wiring” of the brain in a scholarly and convincing fashion. .

Schore, A. N. (1997), A century After Freud’s Project: Is Rapprochement Between Psychoanalysis and Neurobiology at Hand? J. Am. Psychoanal. Assoc. 45(3): 807-840

Dr. Schore emphasizes the central role of regulatory structures and functions located in the orbital prefrontal area in relating neuroscience to psychoanalytic theory.

Schore, A.N. (1999), “Affect Regulation: A Fundamental Process of Psychobiological Development, Brain Organization, and Psychotherapy.” Presentation at the 46th Annual Meeting of the American Academy of Child and Adolescent Psychiatry, Chicago, IL

Schore contends that transference/countertransference reactions represent right hemisphere-to-right hemisphere communications of fast-acting, automatic, regulated and dysregulated emotional states between patient and therapist. He sees the therapist acting as an affect regulator of the patient’s dysregulated states. Negative transference reactions are encoded in unconscious working models of insecure attachment experience as a child and stored as implicit-procedural memory in the right brain, specifically the orbital frontal area.

Schwartz, J. M., Stoessel, P. W. Baxter, L. R., Martin, K.M. et al. (1996), Systematic Changes in Cerebral Glucose Metabolic Rate After Successful Behavior Modification Treatment of Obsessive-Compulsive Disorder. Arch. Gen. Psychiatry, 53(2): 109-113

This is a PET Scan replication of the 1992 report by Baxter et al which found that both Prozac and CBT normalized glucose metabolic activity in the head of the caudate nucleus in symptomatically improved OCD patients. In this study, the PET scan results of 9 OCD patients treated with CBT are reported, 6 of whom were responders and 3 of whom were nonresponders. The responders showed significant differences in bilateral caudate nucleus metabolic rates while the nonresponders did not.

Siegel, D. J. (1995), Memory, Trauma and Psychotherapy: A Cognitive Science View. J. Psychoth. Practice and Research, 4(2): 93-122

A classic article in which Siegel connects advances in cognitive science to our understanding of PTSD and other psychiatric phenomena.

Siegel, D. (1999). The Developing Mind. New York: Guilford

Siegel demonstrates the emergence of the human mind from the interface of interpersonal relationships and neurophysiological processes.

Tucker, G. J. (1998), Putting DSM-IV in Perspective. Am. J. Psychiatry 155(2): 159-161

Tucker describes some of the negative effects of DSM-IV, especially the loss of the patient's narrative and the contemporary tendency to treat the diagnosis, not the patient.

Valenstein, E. S. (1998), Blaming the Brain: The Truth About Drugs and Mental Health. New York: Free Press

Valenstein is the author of Great and Desperate Cures, a scathing critique of psychiatry in the Post-World War II lobotomy era. In Blaming the Brain, he turns his sharp wit to the premises of biological psychiatry and finds much to be dissatisfied with. This book may challenge how you conceptualize and treat mental illness. You may not agree with his conclusions but his contrarian viewpoint will make you think.

Vaughan, S.C. (1998), The Talking Cure: The Science Behind Psychotherapy. New York: Owl Books.

Written for both the lay and professional reader, Dr. Vaughan holds that the process of psychotherapy alters the way the brain's neurons are connected and effects permanent, positive changes in how we interact with the world. An excellent introduction as to how psychotherapy change processes are ultimately rooted in neurobiology.

Wade, N. (1998) The Science Times Book of the Brain. New York: The Lyons Press.

This book, edited by Nicholas Wade, is a collection of science articles published in the New York Times from 1992-1997. Most of the articles are 4-6 pages long. This is end-of-a-long-day or vacation reading. Fun and easy!

Zeanah, C. H. (1996), Beyond Insecurity: A Reconceptualization of Attachment Disorders of Infancy. J. Consult. Clinical Psychol. 64(1): 42-52

Dr. Zeanah critiques the DSM-IV approach to attachment disorders in the light of new developmental research.

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