

**Syllabus for  
Evolution, Psychopathology, and Health  
Psychology 450/650, section 11 (3 credit hours)**

**Instructor:** Geoffrey Miller, Assistant Professor of Psychology  
**Where:** Logan Hall 156, Psychology Department, UNM Main Campus  
**When:** Fridays 9:30 am to noon, August 29 – December 12  
(except for Oct 17 Fall Break and Nov 28 Thanksgiving Break)

**Overview**

This graduate seminar covers evolutionary and functionalist theories concerning specific mental illnesses, including the possible adaptive functions of some of their associated genetic risk factors, neurobiological bases, psychological manifestations, subjective experiences, and social implications.

The main topics in each successive week (after the initial week) will be:

1. Introduction to evolutionary psychopathology
2. History: Darwin & Freud
3. What is a mental illness? Harmful dysfunction and other definitions
4. Genetic variance underlying psychopathologies
5. Genetic covariance and comorbidity of psychopathologies
6. Depression
7. Psychoticism, bipolar, and creativity
8. Schizophrenia
9. Personality disorders and psychopathy
10. Eating disorders: Anorexia and obesity
11. Drug use and abuse
12. Placebo effects
13. Therapy implications

For each disorder, we will try to tease apart the ancestrally adaptive versus maladaptive aspects of the condition, and contrast how those aspects play out in ancestrally normal versus modern social environments. We will also consider practical implications of the theories and findings for diagnosis and treatment. The continuum between normal/adaptive and abnormal/pathological functioning will be emphasized, as will ways in which clinical psychological science can inform the study of normal human behavior, and vice-versa.

This course would be most appropriate for:

- graduate students in evolutionary, experimental, or clinical psychology,
- graduate students in biology or anthropology interested in mental health
- advanced undergraduates in psychology or allied biological or social sciences
- psychiatry students or residents
- any faculty interested in auditing the course

The course readings will require about 3 hours per week outside class, and will include recent journal papers and book chapters.

Grading will be based upon:

60%: one term paper, APA format, c. 5,000 words (20 pages double spaced): 20% for initial abstract and outline, 20% for rough draft, 20% for final draft, to be completed in successive months

40%: class participation and in-class critical analyses of readings  
no exams

### **What this course will not cover**

The field of evolutionary psychopathology barely existed ten years ago, but has now grown so large that no single-semester course can cover all relevant topics or papers. This course focuses on the core psychopathologies that are most common, most severe, most theoretically interesting, and/or best researched from an evolutionary perspective. We will not cover:

- Childhood psychopathologies or early-onset disorders
- Mental retardation, degenerative brain diseases, neurocognitive disorders
- Phobias, anxieties
- Post-traumatic stress
- Somatoform, factitious, or dissociative disorders
- Sexual dysfunctions or paraphilias
- Sleep disorders
- Alcohol or tobacco addiction

If you are very interested in researching any of these topics for your term paper, please talk with me about that possibility, and I can direct you to some relevant readings.

**Suggested prerequisites:** To take this course, you should know something about evolutionary principles and something about psychopathology:

Evolutionary principles –I expect you have taken an undergraduate or graduate course in evolutionary biology, animal behavior, biological anthropology, or evolutionary psychology, such as UNM’s biology 300 (evolution), bio 365 (evolution of human sexuality), bio 455 (animal behavior), bio 465 (sociobiology & evolutionary ecology), anthro 150 (evolution & human emergence), anthro 350 (human biology), anthro 357 (human origins), anthro 360 (human behavioral ecology), anthro 363 (primate social behavior), anthro 367 (human origins & human nature), anthro 368 (modern hunter-gatherers), and/or psychology 342 (evolution, brain, & behavior).

If you have not taken such prerequisites but are strongly interested in this course, please try to catch up by reading a textbook such as:

- David Buss (2003). *Evolutionary psychology: The new science of mind* (2<sup>nd</sup> Ed.). New York: Allyn & Bacon.
- Robert Boyd & Joan Silk (2002) *How humans evolved* (3<sup>rd</sup> Ed.). New York: Norton.

Psychopathology –I expect you have taken an undergraduate or graduate course in abnormal psychology, such as UNM’s psychology courses 332 (abnormal behavior), 335L (clinical psychology lab), and/or 532 (psychopathology seminar). Other previous psychology courses that may be helpful would include: 105 (general psychology), 231 (human sexuality), 240 (brain & behavior), 331 (personality), 342 (evolution, brain, & behavior), and/or 434

(behavior therapies).

If you have not taken such prerequisites but are strongly interested in this course, please try to catch up by reading a book such as:

- Allen Frances & Ruth Ross, R. (2001). *DSM-IV-TR Case Studies: A clinical guide to differential diagnosis*. American Psychiatric Press.
- Theodore Millon, Paul H. Blaney, & Roger Davis (Eds.). (1999). *Oxford textbook of psychopathology*. New York: Oxford U. Press.

If you have any concerns about your preparedness for this course, please talk with the instructor about what you have taken and how well you did.

### **Instructors' contact details:**

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If you can't make office hours and you have a question, please call or email.

### **Course mechanics**

We will meet once a week for two and a half hours, 9:30 am to noon. I expect punctuality – allow plenty of time for parking! There will be a 10-15 minute break about half way through each meeting. I will try to end class a few minutes before noon so you have time to get to the Friday noon PAL lectures if you wish. If you have to miss a class for any reason, please let me know by email as soon as you know you'll be absent. Unexplained absences will reduce your grade.

### **Grading: depends on three kinds of work for this course**

**60% of grade: one term paper**, APA format, c. 5,000 words (20 pages double spaced), methodologically oriented, including a critical assessment of a research literature and an outline of a possible study. Extra credit will be given for submitting the paper for publication to a reputable journal (e.g. as a theoretical note, literature review, etc.). The term paper is due in three stages weighted equally:

**20% for initial abstract and outline due October 3**

**20% for rough draft due November 7**

**20% for final draft due December 12 (last day of class)**

**40%: class participation and comments on the readings**. I expect regular attendance, knowledge of assigned readings, active participation and intellectual engagement, and well-prepared presentations concerning the readings.

no exams

### **Details on the term paper**

The term paper determines 60% of your course grade. You can choose any

topic related to the course content and course readings. The final paper should be about 4,000 to 6,000 words, plus references. I care more about clarity, insight, research, and the flow of argument than about length per se.

Please plan to submit the rough draft and the final draft in standard APA (American Psychological Association) research paper format. This means computer-printed, double-spaced, single-sided, in 12 point Arial (preferably) or Times Roman font, with a proper title page, abstract, references, and page numbering. Consult the *APA Publication Manual* (4<sup>th</sup> Edition) for more details.

For graduate students, my goal is for you to produce a paper that you could turn around and submit to a decent journal as a review or commentary piece to improve your C.V., and that you would be proud to submit in an application for a post-doc, tenure-track job, or clinical internship.

You'll get extra credit if you actually submit the term paper for publication in a reputable journal. Please provide a copy of your submission cover letter.

To make sure that you are thinking, researching, and writing the paper on a good schedule throughout the semester, I require the following:

**1. October 3: Provisional Abstract/outline/bibliography due. A provisional topic statement/abstract (one paragraph), provisional outline of paper (about a page), and provisional bibliography.**

The bibliography should list about 10 to 20 references (not all from the syllabus here!), that you have actually read, with brief notes about their relevance to your paper. In the abstract, just let me know what you think you'll probably write about. If you change your mind, no problem, just tell me in an email later. But I want you to have some topic in mind by this date. Pick a topic that you feel passionate about – you'll have to live with it for several months! This topic statement/outline will determine 20% of the course grade. Late submissions will be penalized.

After you submit this outline and bibliography, come to our office hours at least once for my feedback. This is very important; I will try to make sure your paper looks viable and will try to give you some useful suggestions and references

**2. November 7: Rough draft due.**

This should be a full-length, APA format draft of your term paper – the sort of thing you would submit as your final draft in most other courses. After I get this rough draft, I will write comments and suggestions on it and return it to you as soon as I can. This should allow you to submit a really good final draft, and I hope it will help you improve your writing generally. This rough draft will determine 20% of the course grade. Late submissions will be penalized.

**3. December 12 (last day of class): Final draft due.**

This should be a highly polished document in correct format with no spelling or grammatical errors. It should represent the culmination of three months of research, thinking, and writing about a topic that passionately interests you. The final draft will determine 20% of your course grade. Late submissions will be penalized. I will try to grade final drafts by the last days of exams.

**Structure of the term paper: The ideal paper would include the following elements:**

Title page: a decent, descriptive, memorable title, and all other information required for APA format

Abstract page: a concise, punchy abstract that interests the reader in your paper

Introduction: Start with a bang. Pose the problem that interests you, and how you'll approach it. Say where you stand, and why the reader should care. Be specific and clear; mix the theoretical and methodological level of discourse with real-life examples and issues; know when to be funny and when to be serious.

Body of the paper: depending on what you're writing about, this could include a literature review, a series of arguments, an overview of relevant ideas and research from a related area or field, a series of methodological analyses, criticism, and suggestions, or anything that advances your points. If you include literature reviews, don't do generic overviews – review the literature with a purpose, critically, as it pertains to your topic.

Research proposal: ideally, towards the end of your paper, you could sketch out a new empirical way to resolve one or more of the issues you've raised in your paper. This could be a brief outline of an experiment, an observational method, a meta-analysis or re-analysis of existing data, or any other method you think would be appropriate. If your proposal is good and you're still around UNM next semester, we could go ahead and do the work and publish it!

Bibliography: Only include things you've read. If you haven't read them and have only seen them cited by others, then use the format (name, date; as cited in: name, date). If your bibliography includes good, relevant papers and books that I haven't seen before, I will be impressed.

**The assigned readings**

Readings for each week will be copied by the instructor and distributed at least a week ahead of time to each student.

I have tried very hard to find recent, theoretically interesting journal papers and book chapters.

The readings have been arranged week by week according to a combination of theoretical issues addressed, and specific disorders discussed. Most weeks, there are about 40 to 50 pages of actual reading to be done (not counting references sections of the papers.) This should take about three hours. My intention is for you to have a deep, focused exposure to the state of the art in evolutionary psychopathology. Some of the readings are harder than others; some weeks require more reading than other weeks.

Please do not take this course if you cannot commit an average of three hours a week to the readings. The major educational benefits of the course depend on you doing the readings on time; otherwise, the class discussions will mean very little to you. I expect all of each week's required readings to be completed well before class, so you have time to digest them, think about them, compare and contrast them, and prepare intelligent comments and questions about them. Last-minute reading on Tuesday night will not result in good comprehension or good in-class discussion.

**Preparing notes on the assigned readings for each class**

One week before each reading, I will ask for a student volunteer to prepare a one-page set of notes, comments, and questions concerning that reading.

Please bring enough copies of your one-page analysis to distribute to everyone else in the class. Assume that the other students have read the paper fairly attentively, and want to know what you think of it. This analysis will serve to initiate class discussion of that reading.

I expect each student to volunteer for several such reading analyses throughout the semester. The quality of these analyses will form a substantial portion of your class participation grade.

The one-page analyses should have your name at the top, the date, and the APA-format reference for each reading as the header for your comments on that reading. Use numbered lists to identify your specific notes, comments, and questions under each reading. Please make at least three or four substantive comments on each reading – not simply summarizing the reading’s main points, but offering some sort of critical analysis of the reading’s ideas, or comparison to other readings, etc.

**Key Dates and Course Schedule**

**Fall Semester key dates:**

- Classes begin: August 25, Monday
- Labor day holiday Sept 1, Monday
- Registration ends: Sept 5, Friday
- Last day to change grading options: Sept 19, Friday
- Last day to drop course w/o grade: Oct 3, Friday
- Fall Break holiday: Oct 16-17, Thursday, Friday
- Last day to withdraw from course: Nov 14, Friday
- Thanksgiving holiday: Nov 27-28, Thursday, Friday
- Last day of classes: Dec 12, Friday
- Final exams: Dec 15-19, Monday - Friday

**Course schedule: List of assignments, readings, and topics for each class**

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No assignments before the first class

1: Aug 29 Friday **Introduction to the course**

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Read before class:

- Nesse, R. M. (1999). Testing evolutionary hypotheses about mental disorders. In S. C. Stearns (Ed.), *Evolution in health and disease*, pp. 260-266. New York: Oxford U. Press. [7 pp]
- McGuire, M., & Troisi, A. (1998). Chapter 3: Evolutionary concepts important to psychiatry. *Darwinian psychiatry*, pp. 35-59.

New York: Oxford U. Press. [34 pp]  
McGuire, M., & Troisi, A. (1998). Chapter 16: Key Points [summary of the book]. *Darwinian psychiatry*, pp. 275-281. New York: Oxford U. Press. [6 pp]

2: Sept 5 Friday **Basic evolutionary psychopathology**

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Read:

- Sulloway, F. J. (1979). Chapter 12: Freud as crypto-biologist: The politics of scientific independence. In *Freud, biologist of the mind: Beyond the psychoanalytic legend*, pp. 419-444. London: Fontana. [25 pp]
- Badcock, C. R. (1998). PsychoDarwinism: The new synthesis of Darwin and Freud. In C. Crawford & D. L. Krebs (Eds.), *Handbook of evolutionary psychology: Ideas, issues, and applications*, pp. 457-483. Mahwah, NJ: Lawrence Erlbaum Associates. [23 pp text]
- Nesse, R. M., & Lloyd, A. T. (1992). The evolution of psychodynamic mechanisms. In J. H. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*, pp. 601-624. New York: Oxford U. Press. [20 pp text]

3: Sept 12 Friday **History: Darwin & Freud**

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Read:

- Wakefield, J. C. (1992). The concept of mental disorder: On the boundary between biological facts and social values. *American Psychologist*, 47(3), 373-388. [14 pp text]
- Cosmides, L., & Tooby, J. (1999). Toward an evolutionary taxonomy of treatable conditions. *J. Abnormal Psychology*, 108(3), 453-464. [11 pp text]
- Clark, L. A., Watson, D., & Reynolds, S. (1995). Diagnosis and classification of psychopathology: Challenges to the current system and future directions. *Annual Review of Psychology*, 46, 121-153. [26 pp text]

4: Sept 19 Friday: **What is a mental disorder?**  
**Harmful dysfunction and other definitions**

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Read:

- Plomin, R., DeFries, J. C., McClearn, G. E., & McGuffin, P. (2001). Chapter 11: Psychopathology. In *Behavior genetics* (4<sup>th</sup> Ed.), pp. 204-233. New York: Worth Publishers. [29 pp]
- Bailey, J. M. (2000). How can psychological adaptations be heritable? In *The nature of intelligence* (Novartis

Symposium 233), pp. 171-184. New York: John Wiley.  
[14 pp]

Miller, G. F. (2000). Mental traits as fitness indicators: Expanding evolutionary psychology's adaptationism. In D. LeCroy & P. Moller (Eds.), *Evolutionary perspectives on human reproductive behavior. Proc. New York Acad. Sciences, 907*, 62-74. [13 pp]

For graduate students:

Plomin, R., & Crabbe, J. (2000). DNA. *Psychological Bulletin, 126*(6), 806-828.

5: Sept 26 Friday      **Genetic variance underlying psychopathologies**

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Read:

Vollebergh, W. A. M., Iedema, J., Bijl, R. V., de Graaf, R., Smit, F., & Ormel, J. (2001). The structure and stability of common mental disorders: The NEMESIS study. *Archives of General Psychiatry, 58*, 597-603. [6 pp]

Krueger, R. F., & Piasecki, T. M. (2002). Toward a dimensional and psychometrically-informed approach to conceptualizing psychopathology. *Behaviour Research and Therapy, 40*, 485-499. [12 pp text]

Houle, D. (2000). Is there a g factor for fitness? In *The nature of intelligence*. (Novartis Foundation Symposium 233), pp. 149-170. New York: John Wiley. [21 pp]

For graduate students:

McCrae, R. R., Jang, K. L., Livesley, W. J., Riemann, R., & Angleitner, A. (2001). Sources of structure: Genetic, environmental, and artifactual influences on the covariation of personality traits. *J. of Personality, 69*(4), 511-535. [22 pp text]

6: Oct 3 Friday      **Genetic covariance and comorbidity**  
**Term paper: Abstract, outline, bibliography due**

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Read:

Nesse, R. (1998). Emotional disorders in evolutionary perspective. *British J. of Medical Psychology, 71*, 397-415. [16 pp text]

Watson, P. J., & Andrews, P. W. (2002). Toward a revised evolutionary adaptationist analysis of depression: The social navigation hypothesis. *J. of Affective Disorders, 72*, 1-14. [11 pp text]

Gilbert, P. (1992). Chapter 6: The evolution of social power and its role in depression. In *Depression: The evolution of powerlessness*, pp. 147-186. Hove, UK: Psychology Press. [40 pp]



For graduate students:

Hagen, E. H. (1999). The functions of postpartum depression.  
*Evolution and Human Behavior*, 20, 325-359.

7: Oct 10 Friday      **Depression**

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(no classes October 16 or 17: fall break)

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Read

Eysenck, H. J. (1995). Chapter 6: The nature of psychopathology:  
psychoticism. In *Genius: The natural history of creativity*,  
pp. 202-235. Cambridge, UK: Cambridge U. Press. [33 pp]

Simonton, D. K. (1999). Chapter 3: Variation. In *Origins of genius:  
Darwinian perspectives on creativity*, pp. 75-107. New  
York: Oxford U. Press. [32 pp]

Marinetti, F. T. (1909). The founding and manifesto of futurism.

For graduate students:

Jamison, K. R. (1993). Chapter 6: Genealogies of these high mortal  
miseries. In *Touched with fire: Manic-depressive illness  
and the artistic temperament*, pp. 191-237. New York:  
Free Press. [47 pp]

8: Oct 24 Friday      **Psychoticism, bipolar, and creativity**

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Read:

Torrey, E. F. (2001). Chapter 2: The inner world of madness: View  
from the inside. In *Surviving schizophrenia: A manual for  
families, consumers, and providers* (4<sup>th</sup> Ed.), p. 30-87.  
New York: HarperCollins. [57 pp text]

Crow, T. J. (1995). A Darwinian approach to the origins of  
psychosis. *British J. of Psychiatry*, 167, 12-25. [12 pp  
text]

Yeo, R. A., Gangestad, S. W., Edgar, C., & Thoma, R. (1999). The  
evolutionary genetic underpinnings of schizophrenia: The  
developmental instability model. *Schizophrenia Research*,  
39, 197-206. [9 pp text]

Shaner, A., Miller, G. F., & Mintz, J. (in press for *Schizophrenia  
Research*). Schizophrenia as one extreme of a sexually  
selected fitness indicator. [7 pp text]

For graduate students:

Petronis, A., Paterson, A. D., & Kennedy, J. L. (1999).  
Schizophrenia: An epigenetic puzzle? *Schizophrenia  
Bulletin*, 25(4), 639-655. [8 pp text]

9: Oct 31 Friday      **Schizophrenia**

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Read:

- McGuire, M., & Troisi, A. (1998). Chapter 9: Personality conditions. *Darwinian psychiatry*, pp. 179-200. New York: Oxford U. Press. [22 pp]
- Abeh, R. T., & De Pauw, K. W. (1999). An evolutionary hypothesis for obsessive-compulsive disorder: A psychological immune system? *Behavioural Neurology*, 11, 245-250. [6 pp]
- Mealey, L. (1995). The sociobiology of sociopathy: An integrated evolutionary model. *Behavioral and Brain Sciences*, 18, 523-541. [16 pp text]
- Wilson, D. S., Near, D., & Miller, R. R. (1996). Machiavellianism: A synthesis of the evolutionary and psychological literatures. *Psychological Bulletin*, 119(2), 285-299. [12 pp text]

For graduate students:

- McGuire, M. T., Fawzy, F. I., & Spar, J. E. (1994). Altruism and mental disorders. *Ethology and Sociobiology*, 15, 299-321.

10: Nov 7 Friday

**Personality disorders and psychopathy**  
**Term paper: rough draft due**

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Read:

- Fessler, D. M. T. (2002). Pseudoparadoxical impulsivity in restrictive anorexia nervosa: A consequence of the logic of scarcity. *International J. of Eating Disorders*, 31(4), 376-388. [10 pp text]
- Mealey, L. (2000). Anorexia: A 'losing' strategy? *Human Nature*, 11(1), 105-116. [6 pp text]
- Pinel, J. P. J., Assanand, S., & Lehman, D. R. (2000). Hunger, eating, and ill health. *American Psychologist*, 55(10), 1105-1116.
- Brown, P. J. (1991). Culture and the evolution of obesity. *Human Nature*, 2(1), 31-57. [22 pp text]

For graduate students:

- Abeh, R. T. (1998). The sexual competition hypothesis for eating disorders. *British J. of Medical Psychology*, 71(4), 525-547. [17 pp text]

11: Nov 14 Friday

**Eating disorders: Anorexia and obesity**

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Read:

- Leary, T. (1966). Programmed communication during experiences with DMT (Dimethyltryptamine). *Psychodelic Review*, 8, 83-95.

Nesse, R. M., & Berridgem K. C. (1997). Psychoactive drug use in evolutionary perspective. *Science*, 278, 63-66. [3 pp text]  
 Newlin, D. B. (2002). The self-perceived survival ability and reproductive fitness (SPFit) theory of substance use disorders. *Addiction*, 97, 427-445. [15 pp text]  
 Sullivan, R. J., & Hagen, E. H. (2002). Psychotropic substance-seeking: Evolutionary pathology or adaptation? *Addiction*, 97, 389-400. [9 pp text]

For graduate students:

Elphick, M. R., & Egertova, M. (2001). The neurobiology and evolution of cannabinoid signaling. *Philosophical Transactions of the Royal Society of London, B*, 356, 381-408. [23 pp text]

12: Nov 21 Friday      **Drug use and abuse**

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(no classes November 27 or 28: Thanksgiving holiday)

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Read:

Brown, W. A. (1998). The placebo effect. *Scientific American*, January, 68-73. [6 pp text]  
 Wall, P. D. (1993). Pain and the placebo response. In *Experimental and theoretical studies of consciousness* (Ciba Foundation Symposium 174), pp. 187-216. [30 pp text]  
 Evans, D. (2003). Chapter 5: Why? The evolutionary question. In *Placebo: The belief effect*, pp. 96-118. New York: HarperCollins.  
 Evans, D. (2003). Chapter 8: Psychotherapy: The purest placebo? In *Placebo: The belief effect*, pp. 164-180. New York: HarperCollins. [16 pp text]

13: Dec 5 Friday      **Placebo effects**

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Read:

McGuire, M., & Troisi, A. (1998). Chapter 15: Intervention strategies. In *Darwinian psychiatry*, pp. 253-272. New York: Oxford U. Press. [20 pp]  
 Glantz, K., & Pearce, J. (1989). Chapter 12: Towards an evolutionary psychotherapy. In *Exiles from Eden: Psychotherapy from an evolutionary perspective*, pp. 203-221. New York: Norton. [19 pp]  
 Kelly, A. E. (2000). Helping construct desirable identities: A self-presentational view of psychotherapy. *Psychological Bulletin*, 126(4), 475-494. [16 pp text]

For graduate students:

Wampold, B. E., Mondin, G. W., Moody, M., Stich, F., Benson, K., & Ahn, H. (1997). A meta-analysis of outcome studies comparing bona fide psychotherapies: Empirically, 'all must have prizes'. *Psychological Bulletin*, 122(3), 203-215. [12 pp text]

14: Dec 12 Friday     **Therapy implications**  
**Term paper: Final draft due**

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(Final exams Dec 15-19: No final exam in this course)

**Suggestions for further readings that may be relevant to term papers, organized by topic.**

**Generally useful sources**

- Baron-Cohen, S. (Ed.), (1997). *The maladapted mind: Classic readings in evolutionary psychopathology*. Hove, UK: Psychology Press.
- Glantz, K., & Pearce, J. (1989). *Exiles from Eden: Psychotherapy from an evolutionary perspective*.
- Gilbert, P., & Andrews, B. (1998). *Shame: Interpersonal behavior, psychopathology, and culture*.
- Gilbert, P., & Bailey, K. G. (Eds.). (2000). *Genes on the couch: Explorations in evolutionary psychotherapy*.
- McGuire, M. T., & Troisi, A. (1998). *Darwinian psychiatry*.
- Nesse, R., & Williams, G. (1996). *Why we get sick: The new science of Darwinian medicine*. New York: Vintage.
- Rosenzweig, M. R., Breedlove, S. M., & Leiman, A. (2002). *Biological psychology: An introduction to behavioral, cognitive, and clinical neuroscience* (3<sup>rd</sup> Ed.). Sunderland, MA: Sinauer.
- Stearns, S. C. (Ed.). (1999). *Evolution in health and disease*. New York: Oxford U. Press.
- Stevens, A., & Price, J. (2000). *Evolutionary psychiatry: A new beginning* (2<sup>nd</sup> Ed.).
- Sulloway, F. J. (1979). *Freud, biologist of the mind: Beyond the psychoanalytic legend*. New York: Fontana.
- Torrey, E. F. (2001). *Surviving schizophrenia: A manual for families, consumers, and providers* (4<sup>th</sup> Ed.). New York: Quill/HarperCollins.
- Trevathan, W., McKenna, J. J., & Smith, E. O. (Eds.). (1999). *Evolutionary medicine*. New York: Oxford U. Press.

**Background readings on evolutionary psychology**

- Alcock, J. (2001). *Animal behavior*. (7<sup>th</sup> Ed.). Sunderland, MA: Sinauer.
- Buss, D. (2003). *Evolutionary psychology*. Allyn & Bacon.
- Miller, G. (2000). *The mating mind*. New York: Doubleday.
- Pinker, S. (1999). *How the mind works*. New York: Norton.

Pinker, S. (2003). *The blank slate*. New York: Penguin.

### **Introductory material on evolutionary psychopathology**

- Abeh, R. T. (2000). Psychiatry and Darwinism: Time to reconsider? *British Journal of Psychiatry*, *177*, 1-3.
- Andreason, N. C. (2001). *Brave new brain: Conquering mental illness in the era of the genome*. New York: Oxford U. Press.
- Boaz, N. T. (2002). *Evolving health: The origins of illness and how the modern world is making us sick*. New York: John Wiley.
- Brune, M. (2002). Toward an integration of interpersonal and biological processes: Evolutionary psychiatry as an empirically testable framework for psychiatric research. *Psychiatry: Interpersonal & Biological Processes*, *65*(1), 48-57.
- Burnham, T., & Phelan, J. (2000). *Mean genes: From sex to money to food: Taming our primal instincts*. New York: Perseus.
- Buss, D. M., Haselton, M. G., Shackelford, T. K., Bleske, A. L., & Wakefield, J. C. (1998). Adaptations, exaptations, and spandrels. *American Psychologist*, *53*(5), 533-548.
- Crawford, C. (1998). Environments and adaptations: Then and now. In C. Crawford & D. L. Krebs (Eds.), *Handbook of evolutionary psychology: Ideas, issues, and applications*, pp. 275-302. Mahwah, NJ: Lawrence Erlbaum Associates.
- Gaulin, S. J. C., & McBurney, D. H. (2001). Chapter 14: Abnormal psychology. In *Psychology: An evolutionary approach*, pp. 297-312. Upper Saddle River, NJ: Prentice-Hall.
- Gilbert, P. (1998). Evolutionary psychopathology: Why isn't the mind designed better than it is? *British Journal of Medical Psychology*, *71*(4) (Special Issue: Evolutionary approaches to psychopathology), 353-374.
- Millon, T. (1991). Normality: What may we learn from evolutionary theory? In D. Offer & M. Sabshin (Eds.), *The diversity of normal behavior: Further contributions to normatology*, pp. 356-404.
- Nesse, R. M. (1984). An evolutionary perspective on psychiatry. *Comprehensive Psychiatry*, *25*(6), 575-580.
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