

Seminar in Medical Sociology: Early Origins of Adult Health

Purdue University (SOC 67400)
Syllabus, Fall 2014

Course Description

This seminar examines the how early life experiences shape health status in adulthood and later life. Readings for this emerging area of inquiry are drawn principally from medical sociology, sociology of aging, and life course epidemiology.

Professor

Kenneth F. Ferraro, PhD	ferraro@purdue.edu	
Distinguished Professor of Sociology	Stone Hall 335	765-494-4707
Director, Center on Aging and the Life Course	Hanley Hall 310J	765-494-6388
		765-494-2180 (fax)

Office Hours

Monday, 10:30-11:30am in Hanley Hall; Thursday, 10:30-11:15am in Stone Hall. Except between 9.6.14 and 9.19.14, schedule appointments directly with Ann Howell (howelle@purdue.edu [765-494-9692]).

Class Meetings

Thursday 4:30-7:20pm in UNIV 201

Required Readings

Journal articles as outlined in syllabus are available electronically via Purdue Libraries. I may make a few of my articles available to you via BlackBoard. Most readings are listed alphabetically but may be discussed in any order.

Course Content and Educational Philosophy

My educational philosophy emphasizes *learning by doing* rather than just learning by absorbing lectures. Some assignments are structured in the classical “problem solving” pedagogical approach advanced by John Dewey. In addition, I invite students to help *structure* the course—this is *our* seminar, not my seminar. Please draw to our attention any campus speakers discussing related topics.

Course Requirements

General. All documents should be prepared with margins of at least 1” and fonts of at least 11. Include a “word count” at the end of each document identifying what is counted (e.g., title, text, references).

When due dates apply to course requirements, 25% point deductions transpire each weekday that an assignment is late.

Students are responsible to learn what plagiarism is and to not engage in it; plagiarism will result in a course grade of F and a report sent to the Dean of the Graduate School. To learn about plagiarism, see: <http://owl.english.purdue.edu/workshops/hypertext/ResearchW/plag.html> .

I prefer paper submission of documents. If this presents a hardship (e.g., travel, family duties), electronic submission is acceptable.

1. **Attendance and class participation:** Attendance will be assessed. If you are ill with an infectious disease, please do *not* attend class. The syllabus specifies the readings to be completed for each day's class. *This is a seminar*, and class discussion is vital to its success. Behavioral expectations for our class times focus on maintenance and leadership roles.

Maintenance roles:

1. Attendance.
2. Sharing reasoning processes.
3. Supporting and encouraging group discussion.
4. Backing up experiences, feelings, and "hunches" with theoretical references.
5. Acknowledging various viewpoints.
6. Utilizing practical experience to explain theoretical data.

Leadership roles:

1. Offering pertinent theoretical and/or empirical data related to assigned readings.
2. Taking risks based on scientific knowledge, accepting the possibility of failure.
3. Building on other's contributions with theoretical and/or empirical data.
4. Building on statement(s) by others to make broader generalizations.
5. Utilizing *optional* readings to enhance discussions.
6. Critiquing arguments or analyses presented by authors, classmates, or the instructor.
7. Bringing pertinent articles or books which may enhance discussion of seminar topics.
8. Posing questions to challenge or clarify a statement.

40 points possible.

2. **Discussion Facilitator:** Select a date to facilitate a class discussion (typically ½ of our weekly meeting). Feel free to be creative in this task. Order the readings as you find pedagogically optimal. 20 points possible.

3. **Comment and reply:** Some journals publish "commentary" which usually takes the form of critical assessments of published works. While there may be praise, the comments are more often critical in a serious but respectful tone. You are to write a comment and reply to be submitted no later than 4:00 pm the day *before* the assigned reading. There are two parts to this assignment.

Comment. First, select one full-length *empirical* article and critique it as though you were submitting commentary to the Editor. Select an article on our schedule that is to be discussed no later than October 30, 2014. There are a few brief articles that are **not** suited for this assignment. Select an article that is at least 4-5 pages. If uncertain, please see the instructor.

Prepare your comments to discuss what detracts from the scientific merit of the published paper. Attempt to be even-handed in your comments and cite appropriate references to justify your criticism. The comment should be no longer than 1,200 words plus references.

Reply. Second, imagine that you are the first author of the paper being critiqued. Prepare a brief pseudo-reply (no longer than 2 pages: about 700 words). Again, show respect for the person critiquing your work, but rebut or acknowledge their criticism of your work. 30 points possible.

4. **Research paper:** In two steps, students will develop a research paper that will be reviewed by fellow students and the professor. Papers previously or simultaneously submitted to other classes are ineligible for submission; **this is to be original work**. Co-authorship with faculty or fellow students is not acceptable. Ideas, models, and/or hypotheses developed *directly* in conjunction with your major professor are inappropriate for this paper. After the class ends, you are free to add co-authors.

a. **Step 1.** Research Question, Literature Table, and Bibliography -- Students should articulate a research question, draft a table to summarize the literature, and organize a bibliography for their paper. Write the first few paragraphs of the paper in which you frame the research question, identify why it is important, and the goal of your research paper. The narrative for Step 1 should not exceed two double-spaced pages (700 words). Submit no later than **Tuesday, October 9, 2014**. I will provide information on how to organize a literature review table.

b. **Step 2.** Complete Paper -- Students have two options for the final paper: (1) empirical report and (2) analytic review of the literature.

(1) Empirical report: Several data sets are available from the ICPSR. Perhaps you have a data set you are currently working with (e.g., dissertation data), from which an original research paper may be developed. Empirical reports are not to duplicate other research that you are doing. Empirical reports are the building blocks of science. Craft the paper to resemble an article for the journal to which it would be an appropriate submission.

(2) Analytic review of the literature: This is the typical "research paper" derived from library materials. Although it does not involve data analysis in the strictest use of the phrase, research papers should be analytic endeavors. Do not simply summarize research; rather, critique and analyze it, then synthesize and integrate from it in an attempt to *extend* the literature. For an exemplar of this type of paper, see Idler and Benyamini (1997) *Journal of Health and Social Behavior*.

A complete draft of the paper for student pre-review is due 11.13.14. Papers will be presented to the class at the end of the semester. Complete papers are due at 4:00pm on 12.16.14. Identify the target journal on the cover page of your manuscript.

5. **Peer review of student papers.** Each student will write brief reviews of drafts of two papers submitted on 11.13.14. Reviews are due 11.18.14. 20 points.

<u>Evaluation Method</u>	<u>Points Possible</u>	<u>Due Date</u>
1. Attendance & class participation	40	class meetings
2. Discussion facilitator	20	class meetings
3. Comment and reply (by 10.30.14)	30	1 day before class discussion
4. Research paper		
a. Purpose and Bibliography	10	10/9
c. Complete draft	0	11/13
b. Final paper	80	12/16 (4:00pm)
5. Peer review of student papers	<u>20</u>	11/13-11/18
Total	200	

I use the + / - grading system. The percent of total points needed for letter grades is as follows: A, 93-100; A-, 90-92; B+, 88-89; B, 83-87; B-, 80-82; C+, 78-79, etc.

Campus Emergencies: See: https://www.purdue.edu/emergency_preparedness/flipchart/index.html.

Schedule of Topics and Readings

August 28

Introduction

- Ben-Shlomo, Yoav and Diana Kuh. 2002. "A Life Course Approach to Chronic Disease Epidemiology: Conceptual Models, Empirical Challenges and Interdisciplinary Perspectives." *International Journal of Epidemiology* 31:285-293.
- Hamerman, David, and Linda P. Fried. 2013. "Formulating a Curriculum on Aging and Health for University Undergraduates." *Perspectives in Biology and Medicine* 56:316-325.
- Stowe, James D. and Teresa M. Cooney. 2014. "Examining Rowe and Kahn's Concept of Successful Aging: Importance of Taking a Life Course Perspective." *The Gerontologist* (advance access).
- Optional: Forrest, Christopher B. and Anne W. Riley. 2004. "Childhood Origins of Adult Health: A Basis for Life-Course Health Policy: A Plea for Policy Attention to the Way Child Health Problems Affect a Person's Entire Lifespan." *Health Affairs* 23(5):155-64.

Theories for the Study of Health's Early Origins

- Ferraro, Kenneth F., Tetyana Pylypiv Shippee, and Markus H. Schafer. 2009. "Cumulative Inequality Theory for Research on Aging and the Life Course." Pp. 413-433 in *Handbook of Theories of Aging*, Second Edition (edited by Vern L. Bengtson, Daphna Gans, Norella M. Putney, and Merrill Silverstein). New York: Springer Publishing.
- Hertzman, Clyde and Tom Boyce. 2010. "How Experience Gets Under the Skin to Create Gradients in Developmental Health." *Annual Review of Public Health* 31:329-47.
- O'Rand, Angela M. 1996. "The Precious and the Precocious: Understanding Cumulative Disadvantage and Cumulative Advantage over the Life Course." *The Gerontologist* 36:230-238.
- Pearlin, Leonard I. 2010. "The Life Course and the Stress Process: Some Conceptual Comparisons." *Journal of Gerontology: Social Sciences* 65: 207-215.
- Schafer, Markus H., Kenneth F. Ferraro, and Sarah A. Mustillo. 2011. "Children of Misfortune: Early Adversity and Cumulative Inequality in Perceived Life Trajectories" *American Journal of Sociology* 116:1053-1091.

September 4

No class. If available, please attend the following symposium sponsored by the Center on Aging and the Life Course.

September 5, 2014 Avenues to Optimal Longevity

8:00am-noon, Stewart 218 A-D

S. Jay Olshansky, Professor of Public Health, University of Illinois at Chicago

In Pursuit of the Longevity Dividend

Rafael de Cabo, Senior Investigator, National Institute on Aging

Dietary Interventions for Healthy Aging

September 11

The Barker Hypothesis

- Barker, David J. 1997. "Maternal Nutrition, Fetal Nutrition, and Disease in Later Life." *Nutrition* 13:807-813.
- Barker, David J. P., Johan G. Eriksson, T. Forsén, and Clive Osmond. 2002. "Fetal Origins of Adult Disease: Strength of Effects and Biological Basis." *International Journal of Epidemiology* 31:1235-1239.

Readings continued on next page.

- Eriksson, Johan G., Kent L. Thornburg, Clive Osmond, Eero Kajantie, and David J. P. Barker. 2010. "The Prenatal Origins of Lung Cancer. I. The Fetus." *American Journal of Human Biology* 22:508–511.
- Barker, David J. P., Kent L. Thornburg, Clive Osmond, Eero Kajantie, and Johan G. Eriksson. 2010. "The Prenatal Origins of Lung Cancer. II. The Placenta." *American Journal of Human Biology* 22:512–516.
- Optional: Worthman, Carol M. and Jennifer Kuzara. 2005. "Life History and the Early Origins of Health Differentials." *American Journal of Human Biology* 17:95-112.

Birth Weight and Infancy

- Conley, Dalton and Neil G. Bennett. 2000. "Is Biology Destiny? Birth Weight and Life Chances." *American Sociological Review* 65:458-467.
- Lawlor, Debbie A., George Davey Smith, Richard Mitchell, and Shah Ebrahim. 2006. "Adult Blood Pressure and Climate Conditions in Infancy: A Test of the Hypothesis that Dehydration in Infancy Is Associated with Higher Adult Blood Pressure." *American Journal of Epidemiology* 163:608–614.
- Sayer, Avan A, Holly E. Syddall, Helen J. Gilbody, Elaine M. Dennison and Cyrus Cooper. 2004. "Does Sarcopenia Originate in Early Life? Findings from the Hertfordshire Cohort Study." *Journal of Gerontology: Medical Sciences* 59A:930-934.
- McDade, Thomas W., Molly W. Metzger, Laura Chyu, Greg J. Duncan, Craig Garfield, and Emma K. Adam. 2014. "Long-Term Effects of Birth Weight and Breastfeeding Duration on Inflammation in Early Adulthood." *Proceedings of the Royal Society* 281:1-9.

September 18

Historical Influences on the Early Origins Thesis

- Bengtsson, Tommy and Göran Boström. 2009. "Do Conditions in Early Life Affect Old-age Mortality Directly and Indirectly? Evidence from 19th-Century Rural Sweden." *Social Science and Medicine* 68:1583-1589.
- Bruckner, Tim A. and Ralph A. Catalano. 2009. "Infant Mortality and Diminished Entelechy in Three European Countries." *Social Science & Medicine* 68:1617-1624.
- Roseboom, Tessa. J., Jan H. P. Van Der Meulen, Anita C. J. Ravelli, Clive Osmond, David J. P. Barker, and Otto P. Bleker. 2003. "Perceived Health of Adults after Prenatal Exposure to the Dutch Famine." *Paediatrics and Perinatal Epidemiology* 17(4):391-397.
- Wang, Yonghong, Xiaolin Wang, Yuhang Kong, John H. Zhang, and Qing Zeng. 2010. "The Great Chinese Famine Leads to Shorter and Overweight Females in Chongqing Chinese Population After 50 Years." *Obesity* 18:588–592.

Crafting a Research Question and a Literature Review Table

- Optional: Idler, Ellen L. and Yael Benyamini. 1997. "Self-Rated Health and Mortality: A Review of Twenty-Seven Community Studies." *Journal of Health and Social Behavior* 38:21-37.

September 25

Life Course Perspective

- Elder, Glenn, H., Jr. 1998. "The Life Course as Developmental Theory." *Child Development* 69:1-12.
- Mayer, Karl Ulrich. 2009. "New Directions in Life Course Research." *Annual Review of Sociology* 35:413-433.
- Sampson, Robert J. and John H. Laub. 2005. "A Life-Course View of the Development of Crime." *Annals of the American Academy of Political and Social Science* 602:12-45.
- Shanahan, Michael J. 2000. "Pathways to Adulthood in Changing Societies: Variability and Mechanisms in Life Course Perspective." *Annual Review of Sociology* 26:667-692.
- Optional: Lynch, John and George D. Smith. 2005. "A Life Course Approach to Chronic Disease Epidemiology." *Annual Review of Public Health* 26:1-35.

Readings continued on next page.

A Matter of Life and Death

- Beebe-Dimmer, Jennifer, John W. Lynch, Gavin Turrell, Stephanie Lustgarten, Trivellore Raghunathan, and George A. Kaplan. 2004. "Childhood and Adult Socioeconomic Conditions and 31-Year Mortality Risk in Women." *American Journal of Epidemiology* 159:481-490.
- Kelly-Irving, Michelle, Benoit Lepage, Dominique Dedieu, Mel Bartley, David Blane, Pascale Grosclaude, Thierry Lang, and Cyrille Delpierre. 2013. "Adverse Childhood Experiences and Premature All-Cause Mortality." *European Journal of Epidemiology* 28:721-734.
- Pudrovska, Tetyana, and Benedicta Anikputa. 2014. "Early-Life Socioeconomic Status and Mortality in Later Life: An Integration of Four Life-Course Mechanisms." *Journal of Gerontology: Social Sciences*. 69:451-460.
- Smith, Ken R., Geraldine P. Mineau, Gilda Baribotti, and Richard Kerber. 2009. "Effects of Childhood and Middle-Adulthood Family Conditions on Later-Life Mortality: Evidence from the Utah Population Database, 1850-2002." *Social Science & Medicine* 68:1649-1658.

October 2

Childhood Health and Adult Health: Do the Sick Get Sicker?

- Blackwell, Debra L, Mark D. Hayward, and Eileen M. Crimmins. 2001. "Does Childhood Health Affect Chronic Morbidity in Later Life?" *Social Science & Medicine* 52:1269-1284.
- Dowd, Jennifer B., Anna Zajacova, and Allison Aiello. 2009. "Early Origins of Health Disparities: Burden of Infection, Health, and Socioeconomic Status in U.S. Children." *Social Science and Medicine* 68(4):699-707.
- Gagnon, Alain and Ryan Mazan. 2009. "Does Exposure to Infectious Diseases in Infancy Affect Old-Age Mortality? Evidence from a Pre-Industrial Population." *Social Science & Medicine* 68:1609-1616.
- Latham, Kenzie. 2014. "The "Long Arm" of Childhood Health: Linking Childhood Disability to Late Midlife Mental Health." *Research on Aging* : 0164027514522276.
- Optional: Preston, Samuel H., Mark E. Hill, and Greg L. Drenstedt. 1998. "Childhood Conditions That Predict Survival to Advanced Ages Among African-Americans." *Social Science and Medicine* 47:1231-1246.

Adverse Childhood Experiences and Adult Health

- Felitti, Vincent J., Robert F. Anda, Dale Nordenberg, David F. Williamson, Alison M. Spitz, Valerie Edwards, Mary P. Koss, and James S. Marks. 1998. "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults." *American Journal of Preventive Medicine* 14(4), 245-258.
- Schafer, Markus H. and Kenneth F. Ferraro. 2012. "Childhood Misfortune as a Threat to Successful Aging: Avoiding Disease." *The Gerontologist* 52:111-120.
- Surtees, Paul G. and Nicholas W. J. Wainwright. 2007. "The Shackles of Misfortune: Social Adversity Assessment and Representation in a Chronic Disease Epidemiological Setting." *Social Science and Medicine* 64:95-111.
- Optional: Maestripieri, Dario. 2005. "Early Experience Affects the Intergenerational Transmission of Infant Abuse in Rhesus Monkeys." *Proceedings of the National Academy of Sciences* 102:9726-9729.

October 9 Step 1 of research paper due.

Adverse Childhood Experiences and Disease Risk

- Fuller-Thomson, Esme and Sarah Brennenstuhl. 2009. "Making a Link Between Childhood Physical Abuse and Cancer." *Cancer* 115:3341-50.
- Morton, Patricia M., Sarah A. Mustillo, and Kenneth F. Ferraro. 2014. "Does Childhood Misfortune Raise the Risk of Acute Myocardial Infarction in Adulthood?" *Social Science & Medicine* 104:133-141.

Readings continued on next page.

- Springer, Kristen W. 2009. "Childhood Physical Abuse and Midlife Physical Health: Testing a Multi-Pathway Life Course Model." *Social Science & Medicine* 69:138–46.
- Stein, Dan J, Kate Scott, Josep M. Haro Abad, Sergio Aguilar-Gaxiola, Jordi Alonso, Matthias Angermeyer, Koen Demeyttereare, Giovanni de Girolamo, Noboru Iwata, José Posada-Villa, Viviane Kovess, Carmen Lara, Johan Ormel, Ronald C. Kessler, and Michael Von Korff. 2010. "Early Childhood Adversity and Later Hypertension: Data from the World Mental Health Survey." *Annals of Clinical Psychiatry* 22:19-28.

Epistemology of Research on the Early Origins of Adult Health

- Hallqvist Johan, John Lynch, Mel Bartley, Thierry Lang and David Blane. 2004. "Can We Disentangle Life Course Processes of Accumulation, Critical Period and Social Mobility? An Analysis of Disadvantaged Socio-Economic Positions and Myocardial Infarction in the Stockholm Heart Epidemiology Program." *Social Science & Medicine* 58(8):1555-1562.
- Schilling, Elizabeth A., Robert H. Aseltine, Susan Gore. 2008. "The Impact of Cumulative Childhood Adversity on Young Adult Mental Health: Measures, Models, and Interpretations." *Social Science & Medicine* 66:1140-1151.
- Vuolo, Michael, Kenneth F. Ferraro, Patricia M. Morton, and Ting-Ying Yang. 2014. "Why Do Older People Change Their Ratings of Childhood Health?" *Demography* (in press).
- Optional: Freedman, Deborah, Arland Thornton, Donald Camburn, Duane Alwin, and Linda Young-DeMarco. 1988. "The Life History Calendar: A Technique for Collecting Retrospective Data." *Sociological Methodology* 18:37-68.

October 16

The Long View of SES and Health

- Case, Anne, and Christina Paxson. 2011. "The Long Reach of Childhood Health and Circumstance: Evidence from the Whitehall II Study." *The Economic Journal* 121:F183-F204.
- Elo, Irma T. 2009. "Social Class Differentials in Health and Mortality: Patterns and Explanations in Comparative Perspective." *Annual Review of Sociology* 35: 553-572.
- Schafer, Markus H., Lindsay R. Wilkinson, and Kenneth F. Ferraro. 2013. "Childhood (Mis)fortune, Educational Attainment, and Adult Health: Contingent Benefits of a College Degree?" *Social Forces* 91:1007-1034.
- Willson, Andrea E., Kim M. Shuey, and Glen H. Elder, Jr. 2007. "Cumulative Advantage Processes as Mechanisms of Inequality in Life Course Health." *American Journal of Sociology* 112:1886-1924.
- Optional: Hayward, Mark D. and Bridget K. Gorman. 2004. "The Long Arm of Childhood: The Influence of Early-Life Social Conditions on Men's Mortality." *Demography* 41:87-107.

SES and Health in Comparative Perspective

- Lawlor, Debbie A., G. David Batty, Susan M. B. Morton, Heather Clark, Sally Macintyre, and David A. Leon. 2005. "Childhood Socioeconomic Position, Educational Attainment, and Adult Cardiovascular Risk Factors: The Aberdeen Children of the 1950s Cohort Study." *American Journal of Public Health* 95:1245–1251.
- Palloni, Alberto, Carolina Milesi, Robert G. White, and Alyn Turner. 2009. "Early Childhood Health, Reproduction of Economic Inequalities and the Persistence of Health and Mortality Differentials." *Social Science & Medicine* 68:1574-1582.
- Stringhini, Silvia, Aline Dugravot, Mika Kivimäki, Martin Shipley, Marie Zins, Marcel Goldberg, Jane E Ferrie, and Archana Singh-Manoux. 2010. "Do Different Measures of Early Life Socioeconomic Circumstances Predict Adult Mortality? Evidence from the British Whitehall II and French GAZEL Studies." *Journal of Epidemiology and Community Health* 65:1097-1103.
- Yi, Zeng, Danan Gu, and Kenneth C. Land. 2007. "The Association of Childhood Socioeconomic Conditions with Healthy Longevity at the Oldest-Old Ages in China." *Demography* 44:497-518.

October 23

Adverse Childhood Experiences and Adult Lifestyle (Behavior)

- Cooper, Rachel, Gita D. Mishra, and Diana Kuh. 2011. "Physical Activity across Adulthood and Physical Performance in Midlife: findings from a British Birth Cohort." *American Journal of Preventive Medicine* 41:376-384.
- Dietz, Patricia M, Alison M. Spitz, Robert F. Anda, David F. Williamson, Pamela M. McMahon, John S. Santelli, Dale F. Nordenberg, Vincent J. Felitti, and Juliette S. Kendrick. 1999. "Unintended Pregnancy among Adult Women Exposed to Abuse or Household Dysfunction During Their Childhood." *Journal of the American Medical Association* 282(14), 1359-1364.
- Jefferis, Barbara J. M. H., Chris Power, Hilary Graham, and Orly Manor. 2004. "Effects of Childhood Socioeconomic Circumstances on Persistent Smoking." *American Journal of Public Health* 94(2), 279-285.
- Lloyd, Donald A. and R. Jay Turner. 2008. "Cumulative Lifetime Adversities and Alcohol Dependence in Adolescence and Young Adulthood." *Drug and Alcohol Dependence* 93:217-26.
- Optional: Kotch, Jonathan B., Terri Lewis, Jon M. Hussey, Diana English, Richard Thompson, Alan J. Litrownik, Desmond K. Runyan, Shrikant I. Bangdiwala, Benyamin Margolis, and Howard Dubowitz. 2008. "Importance of Early Neglect for Childhood Aggression." *Pediatrics* 121:725-731.

Early Origins of Obesity?

- Williamson, D. F., T. J. Thompson, R. F. Anda, W. H. Dietz and V. Felitti. 2002. "Body Weight and Obesity in Adults and Self-Reported Abuse in Childhood." *International Journal of Obesity* 26:1075–1082.
- Greenfield, Emily A. and Nadine F. Marks. 2009. "Violence from Parents in Childhood and Risk of Obesity in Adulthood: Using Food in Response to Stress as a Mediator of Risk." *Social Science & Medicine* 68:791-798.
- Richardson, A. S., W. H. Dietz, and P. Gordon-Larsen. 2013. "The Association between Childhood Sexual and Physical Abuse with Incident Adult Severe Obesity across 13 Years of the National Longitudinal Study of Adolescent Health." *Pediatric Obesity*.
- Optional: Ferraro, Kenneth F., Roland J. Thorpe, Jr., and Jody A. Wilkinson. 2003. "The Life Course of Severe Obesity: Does Childhood Overweight Matter?" *Journal of Gerontology: Social Sciences* 58B:S110-S119.

October 30

Under-the-Skin Mechanisms: Allostatic Load and Telomere Length

- Geronimus, Arline T., Margaret Hicken, Danya Keene, and John Bound. 2006. "'Weathering' and Age Patterns of Allostatic Load Scores Among Blacks and Whites in the United States." *American Journal of Public Health* 96:826–833.
- Gruenewald, Tara L., Arun S. Karlamangla, Perry Hu, Sharon Stein-Merkin, Carolyn Crandall, Brandon Koretz, and Teresa E. Seeman. 2012. "History of Socioeconomic Disadvantage and Allostatic Load in Later Life." *Social Science & Medicine* 74:75-83.
- Kananen, Laura, Ida Surakka, Sami Pirkola, Jaana Suvisaari, Jouko Lönnqvist, Leena Peltonen, Samuli Ripatti, and Iiris Hovatta. 2010. "Childhood Adversities Are Associated with Shorter Telomere Length at Adult Age Both in Individuals with An Anxiety Disorder and Controls." *PloS one* 5:e10826.
- Seeman, Teresa, Elissa Epel, Tara Gruenewald, Arun Karlamangla, and Bruce S. McEwen. 2009. "Socio-Economic Differentials in Peripheral Biology: Cumulative Allostatic Load." *Annals of the New York Academy of Sciences* 1186:223-239.

Readings continued on next page.

Under-the-Skin Mechanisms: Inflammation

Danese, Andrea, Carmine M. Pariante, Avshalom Caspi, Alan Taylor, and Richie Poulton. 2007.

"Childhood Maltreatment Predicts Adult Inflammation in a Life-Course Study." *Proceedings of the National Academy of Sciences* 104, no. 4 (2007): 1319-1324.

Packard, Chris J., Vladimir Bezlyak, Jennifer S. McLean, G. David Batty, Ian Ford, Harry Burns ... Carol Tannahill. 2011. "Early Life Socioeconomic Adversity is Associated in Adult Life with Chronic Inflammation, Carotid Atherosclerosis, Poorer Lung Function and Decreased Cognitive Performance: A Cross-Sectional, Population-Based Study." *BMC Public Health* 11:42.

Optional: Finch, Caleb E. and Eileen M. Crimmins. 2004. "Inflammatory Exposure and Historical Changes in Human Life-Spans." *Science* 305(5691):1736-1739.

November 6

No class (Annual meeting of the Gerontological Society of America)

November 13 First draft of research papers due; describe review process

Links between Childhood Stressors, Adult Coping, and Social Ties

Kong, Jooyoung, and Sara M. Moorman. 2013. "Caring for My Abuser: Childhood Maltreatment and Caregiver Depression." *The Gerontologist* (advance access).

Miller, Gregory E. Edith Chen, and Karen J. Parker. 2011. "Psychological Stress in Childhood and Susceptibility to the Chronic Diseases of Aging: Moving Toward a Model of Behavioral and Biological Mechanisms." *Psychological Bulletin* 137:959-97.

Savla, J. Tina, Karen A. Roberto, Ana L. Jaramillo-Sierra, Laura Eubanks Gambrel, Hassan Karimi, and L. Michelle Butner. 2013. "Childhood Abuse Affects Emotional Closeness with Family in Mid-and Later Life." *Child Abuse & Neglect* 37:388-399.

Stress Resolution and Resilience

Benson, Janel E. 2014. "Reevaluating the "Subjective Weathering" Hypothesis: Subjective Aging, Coping Resources, and the Stress Process." *Journal of Health and Social Behavior* 55:73-90.

Seery, Mark D., E. Alison Holman, and Roxane Cohen Silver. 2010. "Whatever Does Not Kill Us: Cumulative Lifetime Adversity, Vulnerability, and Resilience." *Journal of Personality and Social Psychology* 99:1025-1041.

November 20 Reviews returned to authors

Holland, P, L. Berney, D. Blane, G. D. Smith, D. J. Gunnell, and S. M. Montgomery. 2000. "Life Course Accumulation of Disadvantage: Childhood Health and Hazard Exposure During Adulthood." *Social Science & Medicine* 50(9):1285-1295.

Taylor, Shelly E. 2010. "Mechanisms Linking Early Life Stress to Adult Health Outcomes." *Proceedings of the National Academy of Science USA* 107:8507-8512.

Note: Additional Readings/Topics to be determined

November 27 – Thanksgiving break (no class)

December 4 Student Presentations

December 11 Student Presentations

December 16 Final Research Paper Due (noon)
